ARTICLE

Check for updates

INVESTMENT DECISION-MAKING UNDER COVID-19 PANDEMIC PRESSURE BASED ON DEMOGRAPHIC VARIABLES

Mohammad Tomi Adi SURYA, Sri Utami ADY*

Management Study Program, Faculty of Economics and Business, University Dr. Soetomo, Indonesia.
**Corresponding author (sri.utami@unitomo.ac.id)*

PUBLISHED: 26/09/2022 Accepted: 19/09/2022 Submitted: 25/08/2022

CITE THIS PAPER:

Surya, Mohammad T. A.; Ady, Sri U. (2022). "Investment Decision-Making under Covid-19 Pandemic Pressure Based on Demographic Variables" *Journal of World Economy: Transformations & Transitions (JOWETT)* 2(04):18. DOI: https://doi.org/10.52459/jowett24180922

ABSTRACT

The covid-19 Pandemic has made many people work from home to have much time to trade in the capital market. Through the "Yuk Nabung Saham" program, Indonesia Stock Exchange (IDX) tries to introduce the capital market to young investors through a partnership with the university. This study aimed to analyze the effect of demographic variables (age, gender, and experience) on investment decision-making through risk perceptions and risk attitudes in the Indonesia Stock Exchange under the Covid-19 pandemic pressure. Used SEM-PLS analysis with Mediation effects, 160 Surabaya's Investors as respondents analyzed. This study showed that age, gender, and experience affect investment decision-making through risk perception and risk attitude. In the Covid-19 pandemic, market conditions were very dynamic and erratic, resulting in investors' perceptions and risk attitudes changing, thus changing their behaviour to become more speculative and reactive to take advantage of the market. Students' respondents were currently young investors who may not yet have mature financial capabilities, so they had behaviour with a high psychological bias. But in the next ten years, these investors would have grown into professional investors who strengthened the Indonesia Stock Exchange.

KEYWORDS

Investment decision-making; demographic variables; risk perception; risk attitude, COVID-19, Indonesia.

JOWETT 2022, 2(04), 18; https://doi.org/10.52459/jowett24180922

1. INTRODUCTION

At the beginning of 2020, there was a Covid-19 pandemic outbreak that hit the world. This pandemic has had an impact on all sectors, especially the economy. One reflection of the Covid-19 pandemic effects is visible in capital markets worldwide, including Indonesia. The Indonesian capital market is more volatile and uncertain than a developing market.

The widespread financial spread of the Covid-19 pandemic has become a negative sentiment affecting the global market. That caused investors to exit the domestic financial market, primarily stocks and government securities (SBN). According to data from Johns Hopkins University, the virus spread from Wuhan, China, until March 27, 2020, had infected more than 531 thousand people in 175 countries (Sidik, 2020).

The Financial Service Authority (FSA) noted that from early March 2020 to March 24, 2020, investors were leaving the stock market, and SBN amounted to Rp.6.11 trillion Rp. 98.28 trillion, respectively. The total funds that came out of the Indonesian capital market reached Rp. 104.39 trillion. Under these conditions, the stock market weakened significantly by 27.79% Month to date or 37.49% Year to date to 3,937.6, followed by a weakening in the SBN market with average yields rising by 118.8 bps Month to date or 95bps year to date. This weakening caused investors who feared the coronavirus, which impacted the performance of listed companies in Indonesia.

The impact of the Covid-19 pandemic occurred in almost all countries, including Indonesia. The Indonesian economy is one of the largest in Southeast Asia and can develop in the current era. The capital market's uncertain condition should every individual to have sufficient knowledge to manage their financial resources and wealth to survive. However, many investors in Indonesia are still influenced by foreign investors, causing the Composite Stock Price Index (CSPI) to drop due to foreign and local investors' sales of shares. Investments lead to speculation, where many investors turn to day traders to take advantage of uncertain market conditions.

Ady (2021) showed that the decision to invest in the capital market was tricky because it involves risk and uncertainty. The behaviour of these investors also influences investment decision-making. The actions of these investors often showed irrational behaviour by making decisions based on unreasonable assessments (Ady, 2015); (Jannah & Ady, 2017); (Nuroniyah et al., 2018)(Ady, 2018); (Ady et al., 2020). Nosi'c & Weber (2010) found that investor behaviour in decision-making influenced the subjective attitude they have towards risk. In this case, the personal factors influencing investment decisions are risk perception and risk attitude.

Perception is the definition of building and interpreting motor sensory impressions to give meaning to the environment (Robbins et al., 2008). Risk perception can be socially shaped. Williamson & Weyman (2005) suggest that risk perception results from various factors based on differences in decision-making regarding the possibility of a loss. According to Ady (2015), the factors affecting investor decision-making were perception, attitude, intention, and experience. It can say that perceptions and risk attitudes can influence investment decision-making. Due to various conditions, including the Covid-19 pandemic, drastic market changes have caused investors' risk perception and risk attitudes.

Risk perception will influence investors in dealing with a chance. The risk attitudes show whether the investor is more courageous or avoids when faced with a threat. Risk attitudes can influence investment decisions making investors. Harris et al. (2006) revealed that individual risk attitudes were fundamental to understanding risk and were good predictors of investment behaviour and choices.

Demographic factors are estimated to influence risk perceptions and risk attitudes. Demographic characteristics in this study are gender, age, and experience. In the last five years, some research has shown that women's dominance has begun to increase stock trading, and even investment decision-making done by online trading (Ady, 2015). Jayathilake (2013) showed that men and women have different behaviours in dealing with risks.

Experience also determines decision-making. If an investor has more experience than his partner, he will be careful to invest. Sometimes, making a decision uses intuition, where intuitive decision-making is a subconscious process created from experience. Alanko (2009); Ady et al. (2013) explained that experience had the most significant explanatory power on risk tolerance. The more experienced an investor was, the greater the risk's patience or awareness.

On the other hand, age is also often associated with a direct influence on risk-averse behaviour. Research linking age and risk perceptions and risk attitudes has shown mixed results. The general opinion regarding risk-averse behaviour was that the older a person was, the more likely he would avoid risk (Amaefula et al., 2012); (Kaufman et al., 2010). Besides, the risk aversion behaviour will decrease as age increases. In other words, the older the individual will prefer the risk. Rolison et al. (2014) showed that risk-taking behaviour decreases with increasing age in older men, but not for women, raising young to middle-aged people.

JOWETT 2022, 2(04), 18; https://doi.org/10.52459/jowett24180922

The differences in research results allow for more extensive research in this study. The research urgency is gripping because of the Covid-19 pandemic conditions as a background that causes many young investors transactions to experience based on panic buying or selling. This research focuses on young Surabaya investors' behaviour as the effect. Using two intervening variables of risk perception and risk attitudes can prove Ajzen's planning behaviour theory (Ajzen, 2005), especially for financial behaviour among young investors in Surabaya. This study has three objectives. First, examine the influence of age, gender, and experience on risk perceptions and attitudes. Second, examine the effect of risk perceptions and risk attitudes on investment decision-making on the Indonesia Stock Exchange (IDX). The third is to investigate the influence of age, gender, and experience on investment decision-making through risk perception on risk attitudes.

The novelty of this research is finding the influence of demographic variables (age, gender, experience) on investment decision-making through risk perception and risk attitudes for young Surabaya investors during the Covid-19 Pandemic.

1.1.Relationship of Risk Perception, Risk Attitude, and Investment Decisions

The essential things in investing decisions are return and risk. Because understanding the relationship between the expected return and the risk is a unidirectional or simultaneous relationship. The greater the expected profit, the greater the chance faced. To minimize risk, it is necessary to understand rationally and carefully in the decision-making process (Pratiwi, 2015).

The risk describes all financial investment types based on expected return and actual return variability. The concept of risk perception means the way investors perceive the risk of financial assets based on their understanding and experience. Perception of risk is an essential factor that affects investors' investment decisions (Sindhu & Kumar, 2014).

Financial risk tolerance was a concept with two significant differences (Roszkowski & Davey, 2010); (Venter & Michayluk, 2012). Another definition of financial risk tolerance was a relatively stable behaviour that didn't change significantly (Gerrans et al., 2015; Roszkowski & Davey, 2010; Venter & Michayluk, 2012). The first finding was that personal characteristics and situational factors influenced financial risk tolerance (Yao et al., 2003); (Hoffmann et al., 2013). More importantly, based on their findings, Roszkowski & Davey (2010); Venter & Michayluk (2012) combine the two different views on financial risk tolerance discussed above by adding that (1) Financial risk tolerance is a personal behaviour in general but can change over time and (2) Changes in financial risk tolerance were caused by external factors.

Ady et al. (2013) showed that deciding to invest in the capital market was complex because it involves risk and uncertainty. Therefore, investors' investment decisions must be rational and follow investment management theory and the investor's investment objectives. However, research in behavioural finance showed a very determining psychological role in investors' investment decisions, besides risks and returns. (Hagstrom, 2010) showed that psychology affects 60% of investors' investment decision-making and 40% of rationale.

1.2.Demographic Factors in Investor Decision Making

Demographic factors play an essential role in determining investment decisions—the influence of demographic factors considered in any decision-making. Investment decisions often involve more than one individual in the investment analysis process. Individuals with different knowledge, skills, and experiences applied throughout the investment process, from planning and monitoring to coordinating investment plans (Pratiwi, 2015).

Demographic factors are factors that a person has and are a differentiator between one individual and another. In this case, demographic variables include employment status, marital status, income, type of work, age, gender, work experience, and education level (Aminatuzzahra, 2014). Bairagi & Chakraborty (2018) said that investors' risk perception is influenced by several factors that could lead to poor investment decision-making, such as differences in personality between men and women and even age differences.

Some research related to demographic factors on risk attitudes, perceptions, and investment decisions were age and risk tolerance. There were controversial findings related to age and risk tolerance for financial risk. Many studies indicated risk tolerance increases with age (Grable, 2000); (Kourtidis et al., 2011); (Wang & Hanna, 1997). However, several other researchers reported that younger respondents had a higher risk tolerance than older respondents (Selcuk et al., 2010); (Grable et al., 2004). Embrey & Fox (1997); Estes & Hosseini (2010); Ady (2015); Bairagi & Chakraborty (2018); Ady (2018); Ady & Hidayat (2019) found that age didn't have a significant effect on investors' risk perceptions when making investment decisions. However, in contrast (Charness & Gneezy, 2011); (Onsomu, 2015); (Lutfi, 2011); (Maheshwari & Mittal, 2017) found that there was a significant relationship between age and investment decision-making.

Gender and risk tolerance. Research that links gender to decision-making conducted by Bashir et al. (2013); Embrey & Fox (1997); Olsen & Cox (2001) showed that there was no significant relationship between gender and decision-making. However, in contrast, Schubert et al. (1999); and

JOWETT 2022, 2(04), 18; https://doi.org/10.52459/jowett24180922

Dwyer et al. (2002) showed that women were lower in risk-taking than men, and the risk tendency of men and women in financial choices was highly dependent on the decision-making framework. The majority of studies report that men had a higher risk tolerance than women (Grable, 2000); (Selcuk et al., 2010); (Anbar & Eker, 2010). One explanation for this gender difference was women's role as mothers because she prefers a stable income with a small amount to a significant, uncertain income. He et al. (2007) also found that women were estimated to choose wins and losses differently than men. And it was more important for women to avoid defeat than men. The role of gender in this risk perception can also be different due to cultural differences. Maxfield et al. (2010), Fellner & Maciejovsky (2007), and Lo et al. (2005) also reported that the higher a person's risk aversion level was negatively related to trading frequency, where women's trading activity was lower than men's. It showed an indicator that women were more risk-averse than men. That was different from the findings of Ady et al. (2013); Ady (2015); Ady (2018), which showed that women prefer risk to men by choosing to be day trading that conducts daily transactions with high frequency.

The relationship between experience and risk perception also shows differences in research results. Investors with more extended experience tend to have a lower risk perception than novice investors who are still careful in taking risks. In line with Septyanto & Adhikara (2014), Andriani Samsuri et al. (2019), and Amaefula et al. (2012) showed that the level of experience regarding stock market operations had an essential role in accepting risks to investment decision-making. In contrast (Estes & Hosseini, 2010) showed that experience didn't significantly affect investment decision-making.

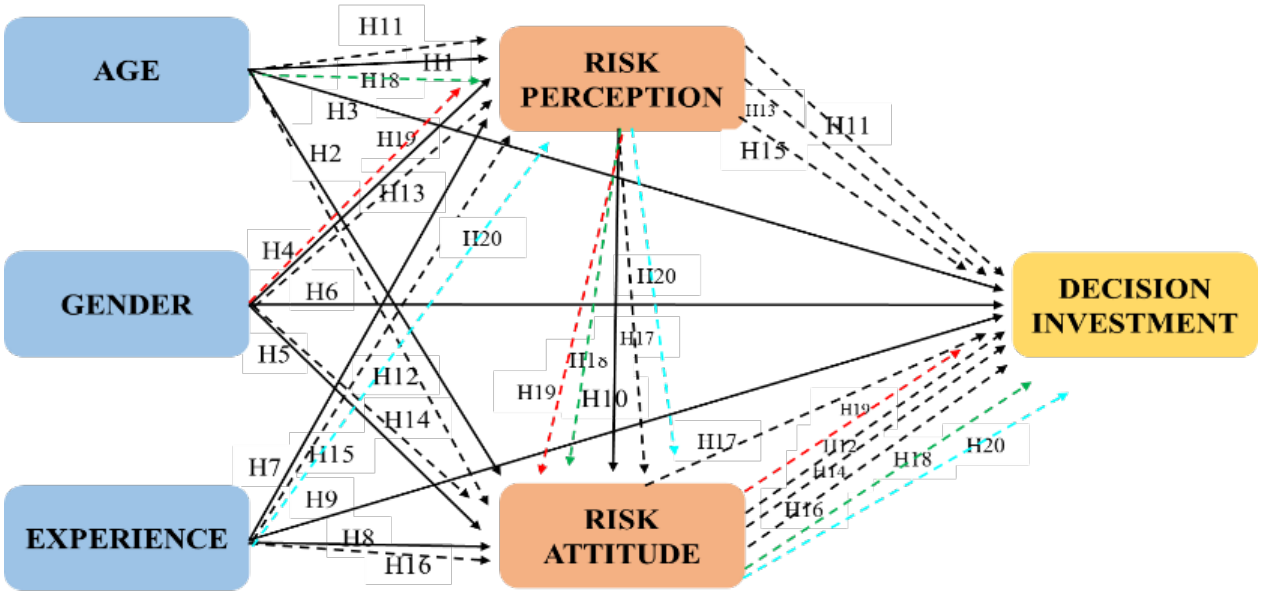
1.3.Risk Perceptions and Risk Attitude toward Decision Making

Perception is how individuals organize and interpret motor sensory impressions to give meaning to the environment (Robbins et al., 2008). Risk perception is socially shaped. The results of Williamson & Weyman (2005) suggest that risk perception results from various factors that were the basis of differences in decision-making regarding the possibility of a loss. Ady (2015) showed that risk perceptions affect risk attitudes and risk attitudes affect decision-making.

Risk perceptions will influence investors in dealing with risk. The risk attitude shows whether the investor is more courageous or avoids when faced with a threat. Risk attitudes can influence investors in investment decisions making. Harris et al. (2006) revealed that individual risk attitudes were essential in understanding risk-related behaviour and decisions and were good predictors of risk-

related behaviour and choices. However, Ady & Hidayat (2019) showed that risk tolerance didn't affect decision-making.

1.4.Conceptual Framework



The formula of the hypothesis in this study is as follows:

H1: Age has a significant effect on risk perception.

H2: Age has a significant effect on risk attitudes.

H3: Age has a significant effect on investment decisions.

H4: Gender has a significant effect on risk perception.

H5: Gender has a significant effect on risk attitudes.

H6: Gender has a significant effect on investment decisions.

H7: Experience has a significant effect on risk perception.

H8: Experience has a significant effect on risk attitudes.

H9: Experience has a significant effect on investment decisions.

H10: Risk perception has a significant effect on risk attitudes.

H11: Age has a significant effect on investment decision-making through risk perception

H12: Age has a significant effect on investment decision-making through risk attitude

H13: Gender has a significant effect on investment decision-making through risk perception

H14: Gender has a significant effect on investment decision-making through risk attitude

JOWETT 2022, 2(04), 18; https://doi.org/10.52459/jowett24180922

H15: Experience has a significant effect on investment decision-making through risk perception

H16: Experience has a significant effect on investment decision-making through risk attitude

H17: Risk perception has a significant on investment decisions through risk attitude

H18: Age has a significant effect on investment decision-making through risk perception and risk attitude

H19: Gender has a significant effect on investment decision-making through risk perception and risk attitude

H20: Experience has a significant effect on investment decision-making through risk perception and risk attitude

2. RESEARCH METHOD

This research is an explanatory study. According to Malhotra (2009), descriptive analysis is the show to explain a causal approach to finding evidence of a causal relationship through the influence of the research variables and testing the formulated hypothesis. The method used in this research is a survey method with a quantitative approach to explain the relationship between age, gender, and experience towards investment decisions making through risk perception and risk attitude. The analysis technique used SEM-PLS analysis with Mediation effects.

The unit analysis is an individual investor. The population in this study is Surabaya's investors. The reason for taking the city of Surabaya as the population is because Surabaya is the largest city in East Java. Most of the investors in East Java come from Surabaya. According to Sugiyono (2016), the sample is part of this population's number and characteristics. If the population is large, and the researcher can't take all of the people because of limited funds, time, and energy, the researcher can use a sample taken from that population. The sampling method used the Slovin formula to determine the research sample.

The data was collected using a questionnaire conducted online to 160 respondents. 160 questionnaires can be processed and analyzed. Methodologically, this number has reached the requirements for quantitative analysis. Roscoe (1975) provides guidelines for determining the number of samples more significant than 30 and less than 500. We can see the profile of the respondents in Table 1.

Table 1. Profile of Respondents

Profile	Highest Percentage	Percent %
Gender	Male	52,50
Age	17-27 years	47,50
Profession	Student	37,42
How long have you been an investor in the capital market	3-6 years	39,13
Monthly Income	3-7 million	33,75

Source: Primary data (2020)

3. RESULTS AND DISCUSSION

3.1. Outer Model Testing Results

3.1.1. *Convergent Validity Test*

The convergent validity value is the loading factor value on the latent variable with its indicators. The expected value exceeds > 0.5, as the minimum limit of the factor loading value.

Table 2. Convergent Validity

Variable	X1	X2	X3	M1	M2	Y
X1.1	0,532					
X1.2	0,567					
X1.3	0,715					
X2.1		0,563				
X2.2		0,723				
X2.3		0,645				
X3.1			0,710			
X3.2			0,756			
X3.3			0,732			
M1				1,000		
M2					1,000	
Y1.1						0,653
Y1.2						0,745

Source: Primary data (2020)

From the data processing results with SEM PLS, shown in Table 2, all indicators of all variables have a loading value greater than 0.50, which means that they have a high level of convergent validity.

JOWETT 2022, 2(04), 18; https://doi.org/10.52459/jowett24180922

3.1.2. Discriminant Validity Test

Table 3 shows *Discriminant Validity Test*. The expected AVE value exceeds > 0.5. The Average Variance Extracted (AVE) method for each constructor latent variable can be seen to evaluate the discriminant validity. The model has better discriminant validity if AVE's square root for each construct is greater than > 0.5.

Table 3. Average Variance Extracted (AVE)

Construct	Average Variance Extracted (AVE)
Age (X1)	1,000
Gender (X2)	1,000
Experience (X3)	0,910
Risk Perception (M1)	1,000
Risk Attitude (M2)	1,000
Investment Decision (Y)	0,564

Source: Data processing with PLS (2020)

3.1.3. Composite Reliability Test

Data that has composite reliability > 0.7 has high reliability. The outer model is not the only measure for assessing convergent validity and discriminant validity. We can also do it by looking at the construct reliability or latent variables measured by looking at the indicator block's composite reliability value measuring the construct. The output results of PLS for composite reliability values show in the following Table 4:

Table 4. Composite Reliability Value

Construct	Composite Reliability Value
Age (X1)	1,000
Gender (X2)	1,000
Experience (X3)	0,953
Risk Perception (M1)	1,000
Risk Attitude (M2)	1,000
Investment Decision (Y)	0,846

Source: Data processing with PLS (2020)

3.1.4. Cronbach Alpha Test

The reliability test is the strength of Cronbach's alpha. The expected values exceed > 0.6 for all constructs. The outer model is not only measured by assessing the convergent validity and discriminant validity. We can also do it by looking at the construct reliability or latent variables measured by the Cronbach alpha value of the indicator block measuring the construct. The construct is reliable if the Cronbach alpha value is more than 0.60. The Cronbach's alpha value is provided in Table 5.

Table 5. Cronbach Alpha Value

Construct	Composite Reliability Value
Age (X1)	1,000
Gender (X2)	1,000
Experience (X3)	0,902
Risk Perception (M1)	1,000
Risk Attitude (M2)	1,000
Investment Decision (Y)	0,734

Source: Data processing with PLS (2020)

3.2.Inner Model Test Results

3.2.1. *R^2 or R-Square Analysis Test*

The value R^2 indicates the level of determination of the exogenous variable on its endogenous. The greater the value, the better the level of resolution.

Table 6. Value of R-Square

Construct	R-Square
Risk Perception (M1)	0,335
Risk Attitude (M2)	0,495
Investment Decision (Y)	0,128

Source: Data processing with PLS (2020)

The calculation results of R^2 for each endogenous latent variable in Table 6 show that the value of R^2 of M1 and Y constructs is the weak category (0.335 and 0.128). In contrast, the M2 construct is the Moderate category (0.495).

JOWETT 2022, 2(04), 18; https://doi.org/10.52459/jowett24180922

3.2.2. Q^2 Analysis Test

The value of Q^2 structural model testing is done by looking at the value of Q^2 (predictive relevance). To calculate Q^2 the formula can be used:

$$Q^2 = 1 - (1 - R_1^2) (1 - R_2^2) (1 - R_3^2)$$
$$Q^2 = 1 - (1\text{-}0{,}104) (1\text{-}0{,}130) (1\text{-}0{,}100)$$
$$Q^2 = 1 - (0{,}896) (0{,}870) (0{,}900)$$
$$Q^2 = 1 - 0{,}701568$$
$$Q^2 = 0{,}298432$$

The results of the calculation of Q^2 show that the value of $Q^2$is 0.298432. According to Ghozali (2014), the value of Q^2 can measure how well the model and its parameter estimates generate the observed value. A Q^2 value greater than 0 indicates that the model is good enough, while a Q^2 value less than 0 means that the model has less predictive relevance. In this research model, the construct or endogenous latent variable has a value of Q^2 that is more excellent than 0 so that the predictions made by the model are considered relevant.

3.3.Evaluation of Direct Effects

Table 7 shows the result of the hypothesis test follows is as follows:

Table 7. Hypothesis Test

Hypothesis	T-Statistics	T-Table	P-Value	Hypothesis Status (t-test)
X1 → M1	1.190	<1.655	0.117	Rejected
X1 → M2	3.741	>1.655	0.000	Accepted
X1 → Y	1.512	<1.655	0.065	Rejected
X2 → M1	2.262	>1.655	0.012	Accepted
X2 → M2	1.761	>1.655	0.039	Accepted
X2 → Y	2.023	>1.655	0.022	Accepted
X3 → M1	3.703	>1.655	0.000	Accepted
X3 → M2	2.394	>1.655	0.008	Accepted
X3 → Y	2.516	>1.655	0.006	Accepted
M1 → M2	1.857	>1.655	0.032	Accepted
M1→ Y	3.799	>1.655	0.000	Accepted
M2 → Y	1.083	<1.655	0.140	Rejected

Source: Data processing with PLS (2020)

Based on table 7:

1. Age to Risk Perception, the effect of age on risk perception is not significant because based on the P-value of 0.117, which is greater than 0.05, and based on the value of t-statistics <t-table, namely 1.190 <1.655, thus rejecting the hypothesis.
2. Age to Risk Attitude, age on risk attitudes is significant because based on the P-value of 0,000, which is smaller than 0.05, and based on the value of t-statistics> t-table, namely 3,741> 1,655 so that it accepts the hypothesis.
3. Age to Decision Investment, the effect of age on risk attitudes is not significant because based on the P-value of 0.065, which is greater than 0.05, and based on t-statistics <t-table, namely 1.512 <1.655, thus rejecting the hypothesis.
4. Gender to Risk Perception, the effect of gender on risk perceptions is significant because based on the P-value of 0.012, which is smaller than 0.05, and based on t-statistics> t-table, namely, 2.262> 1.655, accepting the hypothesis.
5. Gender to Risk Attitude, the influence of gender on risk attitudes is significant because based on the P-value of 0.039, which is smaller than 0.05, and based on the value of t-statistics> t-table, namely 1.761> 1.655 so that it accepts the hypothesis.
6. Gender to Investment Decision, the effect of gender on investment decisions is significant because based on the P-value of 0.022, which is smaller than 0.05, and based on the value of t-statistics> t-table, namely 2.023> 1.655, it accepts the hypothesis.
7. Experience to Risk Perception, the effect of experience on risk perceptions is significantly based on the P-value of 0.000, more diminutive than 0.05. Accepting the hypothesis is based on the value of t-statistics> t-table, namely 3.703> 1.655.
8. Experience to Risk Attitude, the effect of experience on risk attitudes is significant because based on the P-value of 0.008, which is smaller than 0.05 and based on t-statistics> t-table, namely 2.394> 1.655, we accept the hypothesis.
9. Experience to Decision Investment*:* The effect of experience on investment decisions is significant because it is based on the P-value of 0.006, which is smaller than 0.05, and based on t-statistics> t-table, namely 2.516> 1.655 so that it accepts the hypothesis.
10. Risk Perception to Risk Attitude*,* the effect of risk perception on risk attitudes is significant because based on the P-value of 0.032, which is smaller than 0.05, and based on t-statistics> t-table, namely 1.857> 1.655, so accepts the hypothesis.

JOWETT 2022, 2(04), 18; https://doi.org/10.52459/jowett24180922

11. Risk Perception to Decision Investment, the effect of risk perception on investment decisions is significant because based on the P-value of 0,000, which is smaller than 0.05 and based on t-statistics> t-table, namely 3,799> 1.655, accepts the hypothesis.
12. Risk Attitude to Decision Investment, the effect of risk attitudes on investment decisions is not significant because based on the P-value of 0.140, which is more than 0.05, and based on t-statistics <t-table, namely 1.083 <1.655, thus rejecting the hypothesis.

3.4.Evaluation of Indirect Effects

Table 8 shows the evaluation of Indirect Effect based on data processing with PLS:

Table 8. Indirect Effect

Notation (axb)	Indirect Effect (T-Statistics axb)	Direct Effect (c)	Mediation Effect Status
(X1 to M1)(M1 to Y) (1.190)(3.799)	4.521 (Significant)	(X1 to Y) (1.512) (Not Significant)	Indirect Only (Full Mediation)
(X2 to M1)(M1 to Y) (2.262)(3.799)	8.593 (Significant)	(X2 to Y) (2.023) (Significant)	Direct and Indirect
(X3 ke M1)(M1 ke Y) (3.703)(3.799)	14.07 (Significant)	(X3 to Y) (2.516) (Significant)	Dirrect and Indirect
(X1 ke M2)(M2 ke Y) (3.741)(1.083)	4.052 (Significant)	(X1 to Y) (1.512) (Not Significant)	Indirect Only (Full Mediation)
(X2 to M2)(M2 to Y) (1.761)(1.083)	1.907 (Significant)	(X2 to Y) (2.023) (Significant)	Direct and Indirect
(X3 ke M2)(M2 ke Y) (2.394)(1.083)	2.593 (Significant)	(X3 to Y) (2.516) (Significant)	Dirrect and Indirect
(M1 to M2)(M2 to Y) (1.857)(1.083)	2.011 (Significant)	(M1 to Y) (3.799) (Significant)	Direct and Indirect
(X1 to M1)(M1 to M2)(M2 to Y) (1.190)(1.857)(1.083)	2.393 (Significant)	(X1 to Y) (1.512) (Not Significant)	Indirect Only (Full Mediation)
(X2 to M1)(M1 to M2)(M2 to Y) (2.262)(1.857)(1.083)	4.549 (Significant)	(X2 to Y) (2.023) (Significant)	Direct and Indirect
(X3 to M1)(M1 to M2)(M2 to Y) (3.703)(1.857)(1.083)	7.447 (Significant)	(X3 to Y) (2.516) (Significant)	Direct and Indirect

Source: Data processing with PLS (2020)

Surya, Mohammad T. A.; Ady, Sri U. (2022). "Investment Decision-Making under Covid-19 Pandemic Pressure Based on Demographic Variables" Journal of World Economy: Transformations & Transitions (JOWETT) 2(04):18. DOI: https://doi.org/10.52459/jowett24180922

According to Table 8 we can see that:

The Effect of Age on Investment Decisions through Risk Perceptions - the direct effect of age on an investment decision does not significantly affect it. Still, the indirect impact on risk perception toward investment decisions has a significant impact. It means that risk perceptions can mediate the impact of age on investment decisions. Age can only influence investment decisions through risk perception (full mediation).

The Effect of Gender on Investment Decisions through Risk Perceptions - the influence of gender on investment decisions, both directly and indirectly, has a significant impact on risk perception. Risk perceptions can mediate and influence gender on investment decisions (direct and indirect).

The Effect of Experience on Investment Decisions through Risk Perceptions - the effect of experience on investment decisions, either directly or indirectly, by perceived risk has a significant impact. It means that risk perceptions can mediate and influence experience on investment decisions (direct and indirect).

The Effect of Age on Investment Decisions through Risk Attitude - the direct effect of age on investment decisions is insignificant. Still, the indirect impact on investment decisions through a risk attitude is significant. It means that the risk attitude can mediate the effect of age on investment decisions (full mediation).

The Effect of Gender on Investment Decisions through Risk Attitude - we know that the influence of gender on investment decisions, either directly or indirectly, is through a significant risk attitude. Risk attitudes can mediate and influence gender on investment decisions (direct and indirect).

The Effect of Experience on Investment Decisions through Risk Attitude - the effect of experience on investment decisions, either directly or indirectly, is the impact of significant risk attitudes. It means that risk attitudes can mediate and influence experience on investment decisions (direct and indirect).

The Effect of Risk Perception on Investment Decisions through Risk Attitude - risk perception on investment decisions, either directly or indirectly, has a significant effect through risk attitudes. It means that risk attitudes can mediate and impact risk perception on investment decisions (direct and indirect).

JOWETT 2022, 2(04), 18; https://doi.org/10.52459/jowett24180922

The Effect of Age on Investment Decisions through Risk Perception and Risk Attitude - the direct effect of age on investment decisions is not significant. Still, the indirect impact of age on investment decisions has a substantial impact on risk Attitude and risk perceptions. It means that risk perceptions and attitudes can mediate the impact of age on investment decisions. Age can only influence investment decisions through risk perceptions and attitude (full mediation).

The Effect of Gender on Investment Decisions through Risk Perception and Risk Attitude - the influence of gender on investment decisions, either directly or indirectly, is significant through risk perception and attitudes. It means that risk perceptions and attitudes can mediate and affect the influence of gender on investment decisions (direct and indirect).

The Effect of Experience on Investment Decisions through Risk Perception and Risk Attitude - the effect of experience on investment decisions, either directly or indirectly, is significant through risk perception and risk attitudes. It means that risk perceptions and attitudes can mediate the impact of experience on investment decisions (direct and indirect).

3.5. Discussion

3.5.1. *The Effect of Age on Investment Decisions through Perceptions of Risk*

There is no significant direct effect between age and investment decisions because a person's age does not determine his investment decision without risk perception. The risk perception itself influences by various factors such as education (Obamuyi, 2013; Fachrudin & Fachrudin, 2016), experience (Slovic, 2000; Williamson & Weyman, 2005; Sindhu & Kumar, 2014), personality (Cohen et al., 2007; Aren & Canikli, 2019) and knowledge (Williamson & Weyman, 2005). This study follows Estes & Hosseini (2010) and Bairagi & Chakraborty (2018), who found that age didn't significantly affect investors' risk perceptions in decision-making.

However, it is different from Onsomu (2015) and Maheshwari & Mittal (2017), who found a significant relationship between age and decision-making. Likewise, Lutfi (2011) showed that investors' age positively correlates with investment decision-making. (Arora & Kumari, 2015) showed that the elderly people were more reluctant to lose and regretful than the younger ones. The reason was that the elderly people have less time to recover from losses and do not have enough income to save for retirement and are less likely to take on investment risks.

The indirect effect of age on investment decisions through perceived risk is significant because a person's decision-making is based on the risk perception for the investment itself. The higher the

Surya, Mohammad T. A.; Ady, Sri U. (2022). "Investment Decision-Making under Covid-19 Pandemic Pressure Based on Demographic Variables" Journal of World Economy: Transformations & Transitions (JOWETT) 2(04):18. DOI: https://doi.org/10.52459/jowett24180922

knowledge, education, and experience of investors, the better investors perceive risks to minimize lousy investment decision-making. Likewise, the character of the investor itself will affect the risk perception.

This study's results were followed by Amaefula et al. (2012), who found that age significantly affected risk perception. The older the individual was, the more likely he would react to the identified risks. In other words, risk-liking behaviour would increase. Likewise, Bellante & Green (2004); Chang et al. (2004); Rolison et al. (2012) showed that the older a person was, the more he would avoid the risks, and tend to be more conservative, both in assessing and responding to threats. (Arora & Kumari, 2015) showed that the effect of age on risk-taking was achieved through investor behaviour bias (avoiding regret). So, the elderly were less likely to lose money and were less likely to bear investment risks than younger ones.

These research results contradict Bairagi & Chakraborty (2018); Kanagasabai and Aggarwal (2020), who found that age didn't significantly affect investors' risk perception in decision making. Likewise, Hibbert et al. (2008) showed that single women didn't have a higher risk of aversion than men.

3.5.2. The Effect of Gender on Investment Decisions through Perceptions of Risk

The significant direct influence between gender and investment decisions means that gender differences affect investment decisions, meaning that men and women perceive risk differently. The research results of Schubert et al. (1999) showed that the risk tendency of men and women in financial choices depends on the decision-making framework. Also, the research results of Dwyer et al. (2002) showed that women were lower in taking risks than men in the most significant and risky investment decisions making.

However, these research results contradicted Bairagi & Chakraborty (2018), who found that gender had no significant influence on investors' risk perception. Also, Bashir et al. (2013) showed no significant difference in responses between men and women in decision-making. Likewise, Embrey & Fox (1997) showed that gender was not essential for investment decision-making.

The influence of gender on investment decisions through perceived risk is significant. This research indicates that risk perceptions strengthen the impact of gender on investment decision-making. It means that gender differences lead to risk perceptions that different investment decisions between men and women. This study's results are consistent with Olsen & Cox (2001), which found

JOWETT 2022, 2(04), 18; https://doi.org/10.52459/jowett24180922

that women were more risk-averse than men. Embrey & Fox (1997) also showed that women preferred inheritance and work and had higher net assets and risky investments. Likewise, Schubert et al. (1999) showed that the risk tendency (gender) appears in abstract risk. Men had a greater chance of getting benefits, while women were more prone to losses. (Dwyer et al., 2002); and (Hibbert et al., 2008) showed that women were more risk-averse than men.

3.5.3. The Effect of Experience on Investment Decisions through Perceptions of Risk

The significant direct effect between experience and investment decisions means that investors who have a lot of experience can more easily consider factors in investment decisions making and are more careful in investment decisions making to achieve maximum returns and avoid losses.

This result was consistent with Septyanto & Adhikara (2014) and Pak & Mahmood (2015), who showed that adequate experience in the stock market significantly affected decision-making. Likewise, Andriani Samsuri et al. (2019) showed that experience positively impacts investment decision-making. However, in contrast, Estes & Hosseini (2010) showed that experience didn't significantly affect investment decisions.

The effect of experience on investment decisions through perceived risk is significant. This research indicates that risk perception can moderate the impact of experience on investment decisions. That shows that an investor's experience influences investment decision-making through risk perception. This research follows Sindhu & Kumar (2014), which showed that the risk perception of an investor had a significant effect on investment decisions making. Veld & Veld-Merkoulova (2008) showed that most investors secretly use more than one risk measure in investment decision-making, including variance, semi-variance, and shortfall. Semi-variance most often reflects investors' risk perceptions. Still, it is different from Bairagi & Chakraborty (2018), which showed no significant difference in risk perception toward investment decision-making.

3.5.4. The Effect of Age on Investment Decisions through a Risk Attitude

Age has no significant direct effect on investment decisions because an investor's age does not determine his investment without being aware of the risk attitude. This result followed Estes & Hosseini (2010) and Bairagi & Chakraborty (2018), which showed that age didn't significantly affect investment decision-making.

However, the results of this research were different from Onsomu's (2015), which showed that there was a significant relationship between age and decision-making. Also, Lutfi (2011) also showed that investors' age positively correlated with investment decision-making. Likewise, Maheshwari & Mittal (2017) showed that age affects investment decision-making.

The effect of age on investment decisions through risk attitudes is significant. This research indicates that the risk attitude can moderate the impact of the relationship between age on investment decisions. The older a person is, the more someone is, and the more they like and respond to risk. This research, followed by Bellante & Green (2004), Chang et al. (2004), Rolison et al. (2012), and Amaefula et al. (2012), showed a significant effect on risk. The older, the more conservative they tended to respond to the threat. Also, Arora & Kumari (2015) showed that age had a significant effect on decision-making. So, the elderly were less likely to be loss-averse and less likely to bear investment risk than younger ones. Likewise, Hibbert et al. (2008) showed that the age of women, singles didn't have a higher risk aversion than men.

3.5.5. The Influence of Gender on Investment Decisions through Risk Attitudes

The significant direct influence of gender on investment decisions means that gender differences affect investment decisions, meaning that gender responds to risk differently. Female investors are still too afraid to make careful decisions because all factors are considered in their investment decisions.

This research followed Schubert et al. (1999), who showed that the risk tendency of men and women to take risks depends on the decision-making framework. Also, Dwyer et al. (2002), Ady (2015); Ady (2018); Ady & Hidayat (2019) showed that women take lower risks than men in investment decisions making. However, this contradicts Embrey & Fox (1997), which showed that gender was not an essential determinant of investment decision-making. Also, Bashir et al. (2013) and Bairagi & Chakraborty (2018) showed no significant relationship between gender and decision-making.

The influence of gender on investment decisions through risk attitudes is significant. This research indicates that risk attitudes can moderate the impact of gender on investment decision-making. This result followed Charness & Gneezy (2011), which showed that women have less risk of investing and are more likely to avoid risk than men. Also, Arora & Kumari (2015) showed that gender affects risk-taking in an investment decision, with women showing more reluctance and more regret than men. Likewise, Schubert et al. (1999) and Byrnes et al. (1999) showed that women generally didn't make a

JOWETT 2022, 2(04), 18; https://doi.org/10.52459/jowett24180922

risky investment choices as men, but this was not by Bashir et al. (2013), which indicated that there was no significant relationship between gender and investment decision making.

3.5.6. The Effect of Experience on Investment Decisions through a Risk Attitude

The direct influence of experience on investment decisions shows that the length of time an investor has invested affects determining the factors that must consider before making a decision. This result followed Pak & Mahmood (2015), which showed that an investor's adequate experience in investing had a significant effect on decision-making. Also, Septyanto & Adhikara (2014) and Andriani Samsuri et al. (2019) showed that experience positively affects investment decision-making. However, it differed from Estes & Hosseini (2010), which showed that experience didn't significantly affect investment decision-making.

The effect of experience on investment decisions through risk attitudes is significant. This research indicates that the risk attitude can moderate the impact of experience on investment decisions. That shows that many experiences influence an investor to make an investment decision by carefully considering all factors and responding to risk in investment decisions making. The results of this research were by Amaefula et al. (2012), who showed that experience was an essential factor in addressing risk. Also, Pak & Mahmood (2015) showed that adequate experience in investing significantly affected decision-making, but different from Bairagi & Chakraborty (2018), which indicated no significant difference in risk attitudes towards investment decision-making.

3.5.7. The Influence of Risk Perception on Investment Decisions through a Risk Attitude

There is a significant direct effect of risk perception on investment decisions. When a person invests, they determine his investment decision based on the perceived risk. Risk perception is a source of communication that can have implications and prepare investors for risk based on psychological factors (Rana et al., 2011). This result followed Nur Aini & Lutfi (2019), which showed that risk perception had a significant and negative effect on investment decision-making. Likewise, Farayibi (2015) showed that risk perception determined the level of investment decision-making.

The effect of risk perception on investment decisions through risk attitudes is significant. That suggests that the risk attitude can moderate the relationship between risk perception and investment decisions. When a person invests, they determine his investment decision based on the risk perception. This result followed Sitkin & Pablo (1992) and Sitkin & Weingart (1995), who showed that risk

Surya, Mohammad T. A.; Ady, Sri U. (2022). "Investment Decision-Making under Covid-19 Pandemic Pressure Based on Demographic Variables" Journal of World Economy: Transformations & Transitions (JOWETT) 2(04):18. DOI: https://doi.org/10.52459/jowett24180922

attitude was an essential mediator in decision-making. Schubert et al. (1999) found that female investors showed more prejudice than facts in making investment decisions than men. Likewise, Sindhu & Kumar (2014) showed that investors' risk perception significantly affected investment decision-making. Still, it is different from Septyanto & Adhikara (2014) and Nur Aini & Lutfi (2019), which showed that risk perceptions negatively impact investment decision-making.

3.5.8. The Effect of Age on Investment Decisions through Risk Perception and Risk Attitude

Age has no significant direct effect on investment decisions because a person's age does not determine their investment decisions and makes investment decisions without risk perceptions and attitudes. Perception of risk itself is influenced by various factors such as education (Obamuyi, 2013; Fachrudin & Fachrudin, 2016), experience (Slovic, 2000; Williamson & Weyman, 2005; Sindhu & Kumar, 2014), personality (Cohen et al., 2007; Aren & Canikli, 2019) and knowledge (Williamson & Weyman, 2005).

The results of this study are followed by Estes & Hosseini (2010) and Bairagi & Chakraborty (2018). They found that age didn't significantly affect investors' risk perceptions in decision-making. However, it contradicts Lutfi (2011), Arora & Kumari (2015), Onsomu (2015), and Maheshwari & Mittal (2017), who found that there was a significant relationship between age and decision-making.

The indirect effect of age on investment decisions through risk perception and risk attitudes is significant. That is because a person's decision-making at the time of investing is based on risk perception and attitude. As a person gets older, it affects investors' risk perceptions and attitudes.

This study's results are followed by Sitkin & Pablo (1992) and Sitkin & Weingart (1995), which showed that risk perception and risk attitude were essential mediators in decision-making. Also, Hibbert et al. (2008) and Kanagasabai and Aggarwal (2020) showed that age didn't significantly affect investors' risk perception in decision-making.

However, Amaefula et al. (2012) and Arora & Kumari (2015) found that age significantly affected the risks. Likewise, Bellante & Green (2004); Chang et al. (2004); Rolison et al. (2012) showed that the older a person was, the more he would avoid the risks and tend to be more conservative, both in assessing and responding risks.

JOWETT 2022, 2(04), 18; https://doi.org/10.52459/jowett24180922

3.5.9. Gender Influence on Investment Decisions through Risk Perception and Risk Attitudes

The significant direct influence between gender and investment decisions means that gender differences affect investment decisions. It means that men and women perceive and respond to risk differently. The results of this study are followed by Schubert et al. (1999), which showed that the risk tendency of men and women in investment choices depends on the decision-making framework. Also, the research results of Dwyer et al. (2002) showed that women were lower in taking risks than men in the most significant and risky investment decisions making.

However, it differed from Embrey & Fox (1997), which showed that gender was not an essential determinant of investment decision-making. Also, Bashir et al. (2013) indicated no significant difference in responses between men and women in decision-making. Likewise, Bairagi & Chakraborty (2018) found that gender had no significant effect on investors' risk perceptions when investment decisions were made.

The influence of gender on investment decisions through risk perception and risk attitudes is significant. This research indicates that risk perceptions and risk attitudes can moderate the effect of the relationship between gender and investment decisions. It means that gender differences lead to different perceptions and risk attitudes when investment decisions differ between men and women.

This result followed Embrey & Fox (1997); Olsen & Cox (2001), who found that women were more risk-averse than men. Likewise, Dwyer et al. (2002) and Hibbert et al. (2008) showed that women were more risk-averse than men.

3.5.10. The Effect of Experience on Investment Decisions through Risk Perception and Risk Attitude

The significance of the direct influence between experience and investment decisions shows that an investor who has experience in investing determines the factors of investment decision-making.

This research followed Pak & Mahmood (2015), which showed that an investor's adequate experience in investing had a significant effect on decision making. Also, Septyanto & Adhikara (2014) and Andriani Samsuri et al. (2019) showed that experience positively affects investment decision-making.

The effect of experience on investment decisions through risk attitudes is significant. This research indicates that the risk attitude can moderate the impact of experience on investment decisions. An investor's experience will affect his investment decision-making without carefully considering the risk. This research followed Sitkin & Pablo (1992) and Sitkin & Weingart (1995), which showed that risk perception and risk attitude were essential mediators in decision-making. Also, Amaefula et al. (2012), Ady et al. (2013); Ady (2015); Ady (2018) showed that experience was an essential factor in addressing risk. Likewise, Pak & Mahmood (2015) showed that adequate investing experience significantly affected decision-making. Still, it differed from Bairagi and Chakraborty (2018), which indicated no significant impact of risk perception on investment decision-making.

4. CONCLUSION, LIMITATIONS, AND SUGGESTIONS

4.1. Conclusion

This study provides empirical evidence regarding the influence of age, gender, and experience on risk perceptions and attitudes in the Indonesia Stock Exchange (IDX) investment decisions. This study used a sample of 160 respondents who are registered as capital market investors in East Java, Indonesia. This study indicates that age, gender, and experience influence investment decision-making through risk perception and attitude.

In the Covid-19 pandemic conditions, risk perceptions can influence investors' behaviour in making investment decisions. Market conditions that are very dynamic and erratic have resulted in investors' risk perceptions and risk attitudes changing, making their behaviour more speculative to take advantage of market dynamism.

Young Investors targeted by IDX through the “Yuk Nabung Saham" program are currently young investors who have not yet mature financial capabilities, so they have a high psychological bias. But in the next ten years, they will have grown into a professional investor who strengthens the Indonesia Stock Exchange.

4.2. Limitation and suggestions

Although the researcher has tried to develop this research, there are still limitations that need revision in further study. Some securities do not support researchers asking for investor data, so the

sample is tiny. Likewise, obstacles in data collection are not accessible because the conditions of the Covid-19 pandemic require Large-Scale Social Restrictions.

Based on the research results, we consider several suggestions for investors: (1) Making experiences a learning process to improve perceptions and risk attitudes. (2) Avoid panic buying or selling when the market crash.

For further research, use a more developed model to provide a better picture and additional factors that influence investors' actions to invest or add other variables that give better results.

FUNDING: The authors did not receive any external funding.

CONFLICT OF INTEREST: The authors declare no conflict of interest

REFERENCES

Ady, S. U. (2015). Manajemen Psikologi dalam Investasi Saham: Kajian Fenomenologi dalam Sentuhan Behavioral Finance (M. Bendatu (ed.); 1st ed.). Andi. http://repository.unitomo.ac.id/231/

Ady, S. U. (2018). The Cognitive and Psychological Bias in Investment Decision-Making Behavior: (Evidence From Indonesian Investor's Behavior). Journal of Economics and Behavioral Studies, 10(1), 86–100. https://doi.org/10.22610/jebs.v10i1(J).2092

Ady, S. U. (2021). The Effect of World Oil Prices, Gold Prices, and Other Energy Prices on The Indonesian Mining Sector with Exchange Rate of Indonesian Rupiah as The Moderating Effect. International Journal of Energy Economics and Policy, 11(5), 369–376. http://hdl.handle.net/11159/7851

Ady, S. U., & Hidayat, A. (2019). Do Young Surabaya's Investors Make Rational Investment Decisions ? International Journal of Scientific & Technology Research, 8(07), 319–322. http://repository.unitomo.ac.id/id/eprint/1880

Ady, S. U., Sudarma, M., Salim, U., & Aisyah, S. (2013). Psychology's Factors of Stock Buying and Selling Behavior in Indonesia Stock Exchange (Phenomenology Study of Investor Behavior in

Surabaya). IOSR Journal of Business and Management, 7(3), 11–22. https://doi.org/10.9790/487X-0731122

Ady, S. U., Tyas, A. M., Farida, I., & Gunawan, A. W. (2020). Immediate and Expected Emotions toward Stock Returns through Overconfidence and Cognitive Dissonance: The Study of Indonesian Investor Behavior. PalArch's Journal of Archaeology of Egypt/Egyptology, 17(3), 1140–1165. https://archives.palarch.nl/index.php/jae/article/view/238

Ajzen, I. (2005). Attitudes, Personality, and Behavior, Edisi Kedua. Open University Press.

Alanko, E. (2009). What Drives Investors ' Risk Appetite - Empirical Evidence from Private Finnish Investors 2007-2008 [Helsinki School of Economics (HSE)]. https://aaltodoc.aalto.fi/handle/123456789/249

Amaefula, C., Austin Okezie, C., & Mejeha, R. (2012). Risk Attitude and Insurance: A Causal Analysis. American Journal of Economics, 2(3), 26–32. https://doi.org/10.5923/j.economics.20120203.01

Aminatuzzahra. (2014). Persepsi Pengaruh Pengetahuan Keuangan, Sikap Keuangan, Sosial Demografi Terhadap Perilaku Keuangan Dalam Pengambilan Keputusan Investasi Individu (Studiekasus Pada Mahasiswa Magister Manajemana Universitas Diponegoro). Jurnal Bisnis Strategi, 23(2), 70–96. https://repofeb.undip.ac.id/7382/

Anbar, A., & Eker, M. (2010). An Empirical Investigation for Determining the Relation Between Personal Financial Risk Tolerance and Demographic Characteristic. Ege Academic Review, 10(2), 503–522. https://dergipark.org.tr/en/pub/eab/issue/39877/473204

Andriani Samsuri, Fitri Ismiyanti, & I Made Narsa. (2019). Effects of Risk Tolerance and Financial Literacy to Investment Intentions. International Journal of Innovation, Creativity and Change, 10(9), 40–54. https://www.ijicc.net/images/vol10iss9/10904_Samsuri_2019_E_R.pdf

Aren, S., & Canikli, S. (2019). Effect of Financial Literacy and Risk Perception On Individual Investors' Investment Choices. July 2018, 800–809. https://doi.org/10.15405/epsbs.2019.01.02.68

Arora, M., & Kumari, S. (2015). Risk Taking in Financial Decisions as a Function of Age, Gender: Mediating Role of Loss Aversion and Regret. International Journal of Applied Psychology, 5(4), 83–89. DOI:

Bairagi, P., & Chakraborty, A. (2018). Effect Of Gender, Age and Income On Investors' Risk Perception In Investment Decision: A Survey Study. IUJ Journal of Management, 6(2), 2–7. https://dx.doi.org/10.2139/ssrn.3843470

Bashir, T., Rasheed, U., Raftar, S., Fatima, S., & Maqsood, M. (2013). Impact of Behavioral Biases on Investors Decision Making: Male Vs Female. IOSR Journal of Business and Management, 10(3), 60–68. https://doi.org/10.9790/487x-1036068

Bellante, D., & Green, C. A. (2004). Relative risk aversion among the elderly. 13, 269–281. https://doi.org/10.1016/j.rfe.2003.09.010

Byrnes, J. P., Miller, D. C., & Schafer, W. D. (1999). Gender Differences in Risk Taking: A Meta-Analysis. Psychological Bulletin, 125(3), 367–383. https://doi.org/10.1037/0033-2909.125.3.367

Chang, C.-C., DeVaney, S. A., & Chiremba, S. T. (2004). Determinants of Subjective and Objective Risk Tolerance. Journal of Personal Finance, 3(3), 53–67. Click here to access it.

Charness, G., & Gneezy, U. (2011). Strong Evidence for Gender Differences in Investment. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.648735

Cohen, M., Etner, J., & Jeleva, M. (2007). Dynamic decision making when risk perception depends on past experience. Theory and Decision, 64(2–3), 173–192. https://doi.org/10.1007/s11238-007-9061-3

Dwyer, P. D., Gilkeson, J. H., & List, J. A. (2002). Gender Differences in Revealed Risk Taking: Evidence from Mutual Fund Investors. Economics Letters, 76(2), 151–158. https://doi.org/10.1016/S0165-1765(02)00045-9

Embrey, L. L., & Fox, J. J. (1997). Gender Differences in the Investment Decision-Making Process. Journal of Financial Counseling and Planning, 8(2), 33–40. Click here to access it.

Estes, R., & Hosseini, J. (2010). The Gender gap on Wall Street: An Empirical Analysis of Confidence in Investment Decision Making. Journal of Psychology: Interdisciplinary and Applied, 122(6), 577–590. https://doi.org/10.1080/00223980.1988.9915532

Fachrudin, K. R., & Fachrudin, K. A. (2016). The Influence Of Education And Experience Toward Investment Decision With Moderated By Financial Literacy. Polish Journal of Management Studies, 14(2), 51–60. https://doi.org/10.17512/pjms.2016.14.2.05

Farayibi, A. O. (2015). The Impact of Risk on Investment Decision in Nigeria. Research Journal of Finance and Accounting, 6(23), 52–59. Click here to access it.

Surya, Mohammad T. A.; Ady, Sri U. (2022). "Investment Decision-Making under Covid-19 Pandemic Pressure Based on Demographic Variables" Journal of World Economy: Transformations & Transitions (JOWETT) 2(04):18. DOI: https://doi.org/10.52459/jowett24180922

Fellner, G., & Maciejovsky, B. (2007). Risk Attitude and Market Behavior: Evidence from Experimental Asset Markets. Journal of Economic Psychology, 28(3), 338–350. https://doi.org/10.1016/j.joep.2007.01.006

Gerrans, P., Faff, R., & Hartnett, N. (2015). Individual Financial Risk Tolerance and The Global Financial Crisis. Accounting and Finance, 55(1), 165–185. https://doi.org/10.1111/acfi.12053

Ghozali, I. (2014). Structural Equation Modeling, Metode Alternatif dengan Partial Least Square (PLS) (Edisi 4). Badan Penerbit Universitas Diponegoro.

Grable, J. (2000). Financial Risk Tolerance and Additional Factors That Affect Risk Taking in Everyday Money Matters. Entomologia Experimentalis et Applicata, 103(3), 239–248. https://link.springer.com/article/10.1023/A:1022994314982

Grable, J., Lytton, R., & O'Neill, B. (2004). Projection Bias and Financial Risk Tolerance. Journal of Behavioral Finance, 5(3), 142–147. https://doi.org/10.1207/s15427579jpfm0503_2

Hagstrom, R. G. (2010). The Warren Buffett Portfolio: Membedah Keunggulan Strategi Investasi Fokus. (1st ed.). Daras Books.

Harris, C. R., Jenkins, M., & Glaser, D. (2006). Gender Differences in Risk Assessment: Why do Women Take Fewer Risks than Men? Judgment and Decision Making, 1(1), 48–63. http://www.albacharia.ma/xmlui/bitstream/handle/123456789/31957/jdm06016.pdf

He, X., Inman, J. J., & Mittal, V. (2007). Gender Jeopardy in Financial Risk Taking. Journal of Marketing Research, 45(4), 414–424. https://doi.org/10.1509/jmkr.45.4.414

Hibbert, A. M., Lawrence, E., & Prakash, A. (2008). Are Women more Risk-Averse than Men? June 2014, 1–56. https://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.500.1334

Hoffmann, A. O. I., Post, T., & Pennings, J. M. E. (2013). Individual Investor Perceptions and Behavior During the Financial Crisis. Journal of Banking and Finance, 37(1), 60–74. https://doi.org/10.1016/j.jbankfin.2012.08.007

Jannah, W., & Ady, S. U. (2017). Analisis Fundamental, Suku Bunga, Dan Overconfidence Terhadap Pengambilan Keputusan Investasi Pada Investor Di Surabaya. Ekspektra: Jurnal Bisnis Dan Manajemen, 1(2), 138–155. http://repository.unitomo.ac.id/657/

Jayathilake, P. M. B. (2013). Gender Effects On Risk Perception And Risk Behavior Of Entrepreneurs At Smes In Sri Lanka. Asia Pacific Journal of Marketing & Management Review, 2(2), 1–11. Click here to access it.

Kanagasabai, B. and Aggarwal, V. (2020). The Mediating Role of Risk Tolerance in the Relationship between Financial Literacy and Investment Performance. Colombo Business Journal, 14(4), 112–131. http://doi.org/10.4038/cbj.v11i1.58

Kaufman, Hughes, J. T. L., & Riccio, C. A. (2010). Handbook of education, training, and supervision of school psychologists in school and community, volume II. Taylor and Francis Group.

Kourtidis, D., Šević, Ž., & Chatzoglou, P. (2011). Investors' Trading Activity: A Behavioural Perspective and Empirical Results. Journal of Socio-Economics, 40(5), 548–557. https://doi.org/10.1016/j.socec.2011.04.008

Lo, A. W., Repin, D. V., Steenbarger, B. N., Laibson, D., Hirshleifer, D., & McCabe, K. (2005). Fear and Greed in Financial Markets: A Clinical Study of Day-Traders. American Economic Review, 95(2), 352–359. https://doi.org/10.1257/000282805774670095

Lutfi. (2011). The Relationship Between Demographic Factors and Investment Decision in Surabaya. Journal of Economics, Business, and Accountancy | Ventura, 13(3), 213–224. https://journal.perbanas.ac.id/index.php/jebav/article/view/13

Maheshwari, S., & Mittal, D. M. (2017). Effect of Age on Financial Decisions. IJARIIE, 3(6), 1445–1454. Click here to access it.

Malhotra, N. K. (2009). Riset Pemasaran PendekatanTerapan (Jilid 1). PT Index.

Maxfield, S., Shapiro, M., Gupta, V., & Hass, S. (2010). Gender and Risk: Women, Risk Taking and Risk Aversion. Gender in Management, 25(7), 586–604. https://doi.org/10.1108/17542411011081383

Nosi'c, A., & Weber, M. (2010). How riskily do i invest? The role of risk attitudes, risk perceptions, and overconfidence. Decision Analysis, 7(3), 282–301. https://doi.org/10.1287/deca.1100.0178

Nur Aini, N. S., & Lutfi, L. (2019). The Influence of Risk Perception, Risk Tolerance, Overconfidence, and Loss Aversion towards Investment Decision Making. Journal of Economics, Business & Accountancy Ventura, 21(3), 401. https://doi.org/10.14414/jebav.v21i3.1663

Nuroniyah, R., Ady, S. U., & Sugiyanto. (2018). Market Anomalies of LQ 45 Companies Stock Return Listed on the Indonesia Stock Exchange. Ekspektra: Jurnal Bisnis Dan Manajemen, 2(2), 103–120. http://dx.doi.org/10.25139/ekt.v2i2.414

Obamuyi, T. M. (2013). Factors Influencing Investment Decisions in Capital Market: a Study of Individual Investors in Nigeria. Organizations and Markets in Emerging Economies, 4(1), 141–161. https://doi.org/10.15388/omee.2013.4.1.14263

Olsen, R. A., & Cox, C. M. (2001). The Influence of Gender on the Perception and Response to Investment Risk. The Journal of Psychology and Financial Markets, 2(1), 29–36. https://doi.org/10.1207/S15327760JPFM0201_3

Onsomu, Z. N. (2015). Effect of Age on Investor Decisions. International Journal of Innovative Research & Development, 4(12), 120–123. http://www.internationaljournalcorner.com/index.php/ijird_ojs/article/view/135955

Pak, O., & Mahmood, M. (2015). Impact of Personality on Risk Tolerance and Investment Decisions: A Study on Potential Investors of Kazakhstan. International Journal of Commerce and Management, 25(4), 370–384. https://doi.org/10.1108/IJCoMA-01-2013-0002

Pratiwi, I. (2015). Pengaruh Faktor Demografi Terhadap Jenis Investasi Dan Perilaku Investor Pasar Modal Surabaya. http://jurnalmahasiswa.stiesia.ac.id/index.php/jirm/article/view/3448

Rana, H. M., Murtaza, S., Noor, F., & Inam-u-din. (2011). Effects of Demographic Factors on Risky Decision-Making Behavior. European Journal of Social Sciences, 1(26), 69–76. https://www.europeanjournalofsocialsciences.com/

Robbins, Stephen, P., & Judge, T. A. (2008). Perilaku Organisasi Edisi ke-12. Salemba Empat.

Rolison, J. J., Hanoch, Y., & Wood, S. (2012). Risky Decision Making in Younger and Older Adults : The Role of Leaming. 27(I), 129–140. https://doi.org/10.1037/a0024689

Rolison, J. J., Hanoch, Y., Wood, S., & Liu, P. J. (2014). Risk-taking differences across the adult life span: A question of age and domain. Journals of Gerontology - Series B Psychological Sciences and Social Sciences, 69(6), 870–880. https://doi.org/10.1093/geronb/gbt081

Roscoe, J. T. (1975). Fundamental research statistics for the behavioural sciences. (2nd ed.). Holt Rinehart & Winston.

Roszkowski, M. J., & Davey, G. (2010). Risk Perception and Risk Tolerance Changes Attributable to the 2008 Economic Crisis. Journal of Financial Service Professionals, June, 42–53. Click here to access it.

Schubert, R., Brown, M., Gysler, M., & Brachinger, H. W. (1999). Financial Decision-Making: Are Women Really More Risk-Averse? American Economic Review, 89(2), 381–385. https://doi.org/10.1257/aer.89.2.381

Selcuk, E., Zayas, V., & Hazan, C. (2010). Beyond Satisfaction: The Role of Attachment in Marital Functioning. Journal of Family Theory & Review, 2(4), 258–279. https://doi.org/10.1111/j.1756-2589.2010.00061.x

Septyanto, Dihin, Adhikara, Arrozi MF. (2014). Individual investors behavior in decision making on securities investment in Indonesia Stock Exchange (ISE) Journal of Economics, Business, & Accountancy, V.17 No.2. http://dx.doi.org/10.14414/jebav.v17i2.302

Sidik, S. (2020). Selama Maret, Asing Tarik Dana dari Pasar Modal RI Rp 104 T. Indonesia, CNBC. https://www.cnbcindonesia.com/market/20200327094728-17-147851/selama-maret-asing-tarik-dana-dari-pasar-modal-ri-rp-104-t

Sindhu, K., & Kumar, S. R. (2014). Influence of Risk Perception of Investors on Investment Decisions. Journal of Finance and Accounting, 2(2), 15–25. http://jfbmnet.com/journals/jfbm/Vol_2_No_2_June_2014/2.pdf

Sitkin, S. B., & Pablo, A. L. (1992). Reconceptualizing the Determinants of Risk Behavior. The Academy of Management Review, 17(1), 9–38. https://doi.org/10.2307/258646

Sitkin, S. B., & Weingart, L. R. (1995). Determinants of Risky Decision-Making Behavior. Academy of Management Journal, 38(6), 1573–1592. https://doi.org/10.5465/256844

Slovic, P. (2000). The Perception of Risk. Earthscan.

Sugiyono. (2016). Metode Penelitian Kuantitatif, Kualitatif dan R&D. PT Alfabet.

Veld, C., & Veld-Merkoulova, Y. V. (2008). The Risk Perceptions of Individual Investors. Journal of Economic Psychology, 29(2), 226–252. https://doi.org/10.1016/j.joep.2007.07.001

Venter, G. Van de, & Michayluk, D. (2012). A Longitudinal Study of Financial Risk Tolerance. Society, 3(January), 464. https://doi.org/10.1016/j.joep.2012.03.001

VOA. (2020). Pasar Saham Rebound Setelah Aksi Jual Terkait Virus Corona. VOA Indonesia. https://www.voaindonesia.com/a/pasar-saham-rebound-setelah-aksi-jual-terkait-virus-corona/5322509.html

Wang, H., & Hanna, S. (1997). Does Risk Tolerance Decrease with Age? Journal of Financial Counseling and Planning, 8(2), 27–32. https://dx.doi.org/10.2139/ssrn.95489

Surya, Mohammad T. A.; Ady, Sri U. (2022). "Investment Decision-Making under Covid-19 Pandemic Pressure Based on Demographic Variables" Journal of World Economy: Transformations & Transitions (JOWETT) 2(04):18. DOI: https://doi.org/10.52459/jowett24180922

Williamson, J., & Weyman, A. (2005). Review of the Public Perception of Risk, and Stakeholder Engagement. Health and Safety Laboratory, 47. https://www.hse.gov.uk/Research/hsl_pdf/2005/hsl0516.pdf

Yao, R., Hanna, S. D., & Lindamood, S. (2003). Patterns of Financial Risk Tolerance: 1983 – 2001. 0932, 147–173. Click here to access it.