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How Demographics and General Economic Mood Affect Investor Risk Tolerance?

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Abstract

Investment decisions made by investors are strongly influenced by their risk tolerance. Individual risk tolerance will influence their asset allocation decision. This paper used primary data to examine the factors influencing investor risk tolerance. Two factors considered in this study are demographics and general economic mood. Demographic characteristics include gender, occupation, age, marital status, income, and education. General economic mood is people's perceptions about the prospects for a country's economy at present and in the future. Using convenience sampling, we distributed questionnaires to investors in the Indonesia Stock Exchange and senior students. The total number of data used in this research is 200 respondents. This research found that the general economic mood, gender, and occupation positively impact investor risk tolerance. In contrast, our research found the negative impact of education and average monthly income on investors' risk tolerance. Further, age and marital status do not affect the investor's risk tolerance. This finding is important for financial planners to advise on personal investment decisions.

Keywords: general economic mood, income, marital status, occupation, risk tolerance

JEL Classification: D90, G40

1. Introduction

Risk preferences are one of the main determinants of economic behavior. Cooper & Kaplanis (1994) have found that investor risk aversion has encouraged the home bias phenomenon. They found that the home bias in equity portfolios is caused by investors trying to hedge inflation risk only if investors have very high-risk tolerance levels and domestic inflation negatively influences equity returns. The home bias cannot be explained by either inflation hedging or direct observable costs of international investment unless investors have low levels of risk aversion. In other words, an investor's risk tolerance affects the home bias phenomenon.

Decamps & Lovo (2006) demonstrated that differences in investors' risk aversion can generate herd behavior in stock markets where they trade assets sequentially. An investor engages in herd behavior when he imitates the actions of other investors. When there is herd behavior, investors' decisions depend not on their private information but on other investors' past actions. Therefore, in the presence of herding, investors' actions do not disclose any private information on market fundamentals, and consequently, the social learning process stops. Herding behavior makes the market less efficient, preventing investors from learning the market fundamentals.

Research by Cooper & Kaplanis (1994) and Decamps & Lovo (2006) illustrate that risk preferences significantly influence investment decision-making. In economic theory, risk preference is assumed to be a stable personal characteristic. However, some studies have found evidence of variation in attitudes and risk. Considerable variation in risk preferences is often found in data sets over time (Chuang & Schechter, 2015; Mata et al., 2018)

In much literature, risk preference is often used interchangeably with risk tolerance. Financial risk tolerance refers to the degree to which investors are willing to invest, recognizing that an investment may lose value or yield less than its anticipated return. In other words, risk tolerance measures how much we can sacrifice when the economy or return goes down.

Determinants of risk tolerance of individual investors are of great interest in a growing area of finance known as behavioral finance. Individuals show changes in risk attitudes related to changes in personal economic circumstances or demographics (e.g., Andersen et al., 2008; Cho et al., 2018; Jung & Treibich, 2015) and changes in the macroeconomic environment (e.g., Bucciol & Miniaci, 2018; Sahm, 2012). Several empirical studies have also been conducted in financial planning to identify the determinants of individual financial risk tolerance due to their tremendous influence on financial investment decisions (e.g., Kannadhasan, 2015). However, research on the effect of investor sentiment about economic conditions on risk tolerance is still minimal. This research examines the influence of demographic characteristics and investor perceptions about the future economic outlook on risk tolerance.

Yao & Curl (2011) have investigated the changes in risk tolerance levels over time in response to stock market returns. They found that risk tolerance tends to increase when market returns increase and decrease when market returns decrease. Market returns indicate market perceptions of future economic changes. In contrast to Yao & Curl (2011), our research directly tests the influence of investor sentiment on economic conditions (after this, referred to as general economic mood) on risk tolerance. General economic mood more directly measures investor's sentiment concern with the future economic condition, while market or stock return is just one-factor affecting investor's sentiment.

Santacruz (2009) has conducted time-series research to investigate the impact of general economic mood on investor risk tolerance. He found that Australian investors are not affected by general economic mood. Santacruz (2009) used the consumer sentiment index (CSI) to measure general economic mood. This study is different from Santacruz (2009) in two aspects: first, this research measures general economic mood directly by asking respondents about their future economic

perception and attitude towards risk. This research tries to improve Santacruz's methodology by using different instrument tools to measure general economic mood and risk tolerance. Secondly, this research uses a cross-section method instead of time series.

2. Literature Review

2.1. Risk Tolerance

Hertwig et al. (2019) stated that risk tolerance is used interchangeably with 'risk preference,' 'risk attitude,' or 'risk sensitivity.' In psychology, risk preferences are a representation of personal characteristics. In economics and finance, risk preference usually refers to the tendency to choose an action that involves a higher variance in potential monetary outcomes compared to another option with a lower variance of outcomes (but the same expected value).

Financial risk tolerance is "the extent to which a person chooses to take risks by experiencing less favorable financial outcomes in pursuit of more favorable financial outcomes" (Davey, 2002). Grable (2000) has defined financial risk tolerance as "the maximum amount of uncertainty that someone is willing to accept when making a financial decision." Risk tolerance is inversely related to risk aversion (Faff et al., 2008). That is, individuals who are more (less) risk averse will have a lower (higher) tolerance for financial risk.

Risk tolerance, a person's attitude toward accepting risk, is an important concept that has implications for financial planners, investment managers, and fund managers. Risk tolerance is one factor that may determine the appropriate composition of assets in a portfolio, which is optimal in terms of risk and return relative to the needs of the individual. Knowing an investor's risk tolerance is important because it is the foundation for constructing a personal investment portfolio. Differences in risk tolerance may influence investment decision-making, whether to invest in fixed-income instruments versus equities or growth versus value stocks in a particular portfolio.

Conservative investors have the lowest risk tolerance since they choose not to squander any money or to lose very little. They prefer to invest in securities that assure rates of return, such as money market accounts, CDs, and bonds, with little exposure to stocks. Moderate investors can manage some risks; they either have a lot of time before they need the money or have plenty of assets to compensate for the losses. Aggressive investors can manage the most risk. They often have high net worth and can invest in various sectors such as real estate investment trusts, unit investment trusts, stocks, and derivatives.

Assessment of investor risk profile is a highly influential factor in constructing an investment portfolio (Hallahan et al., 2004). Attitude towards risk (risk tolerance) is a psychological characteristic that is not directly observable. In general, investors' behavior with low-risk tolerance will be different from the high level of risk tolerance. Investors with aggressive risk tolerance levels will be more accepting of the risks of investment, like the first act, despite the lack of information held and more responsible when compared to investors with low or moderate risk tolerance.

2.2. General Economic Mood

General economic mood measures the general population's perception of recent and future economic outlook, a broader measurement than market performance (Santacruz, 2009). General economic mood measures the level of public (investor) expectations regarding future economic conditions. Some studies use the consumer sentiment index (ICS) to measure their expectations of macroeconomic conditions or the business cycle (e.g., Amromin & Sharpe, 2014; Sahm, 2012). ICS is society's subjective evaluation of

current economic developments and their expectations of future economic prospects. This index is the main ingredient in businesses that continue to grow in predicting the economy's future and economic prospects (Kellstedt et al., 2015).

Projections on future economic conditions will create an optimistic or pessimistic attitude among economic actors. The psychology literature defines dispositional optimism as "the expectation that one's outcomes will generally be positive." It reports evidence that "when optimistic people think into the future, they can produce more explicit mental pictures of positive events than pessimistic people (Carver & Scheier, 2014).

Dohmen et al. (2023) said that the level of optimism predicts whether people tend to focus on positive or negative outcomes from risky decisions. Optimistic people focus on good outcomes, whereas pessimists focus on bad outcomes from a risk. The tendency to focus on good or bad risk outcomes influences self-reported risk willingness and actual risk-taking behavior. In terms of memory in data processing, optimistic people spend more time observing high lottery outcomes and taking more risks, while pessimistic people do the opposite. Additionally, optimistic people tend to remember more clearly a scenario in which they experienced a positive outcome than a scenario in which they experienced a negative one.

Optimistic investors tend to be more willing to take risks than pessimistic investors. Amromin & Sharpe (2014) found that perceived risk in long-term stock returns was negatively related to expected economic conditions but not to perceptions of current conditions. Dohmen et al. (2023) also show that the tendency to focus on positive or negative aspects of risk also influences actual risk-taking behavior.

Using different measures of risk attitudes from the Dutch Household Survey, Bucciol & Miniaci (2018) find that individuals are generally more willing to take risks in periods of economic growth and less so in periods of recession. Dohmen et al. (2016) investigated the impact of economic development on risk-taking willingness in Ukraine and Germany. They found a significant positive correlation between regional GDP growth rates and willingness to take risks in both countries. Meanwhile, using the Consumer Sentiment Index, Sahm (2012) found that economic conditions were positively related to risk tolerance.

> H_1 : There is a positive relationship between general economic mood and risk tolerance.

2.3. Demographic Characteristics

Apart from general economic mood, this research also includes control variables in the form of demographic characteristics that influence risk tolerance, namely gender, age, marital status, education, occupation, and income. Demographic factors have a multidimensional effect on individuals' routine lives and specific impacts while making decisions, especially for those concerned about financial resources. Hallahan et al. (2004) found a significant relationship between demographic characteristics and risk tolerance.

Women and men have different risk appetites because men and women are biologically and psychologically different, which can influence their risk preferences. Sapienza et al. (2009) showed that differences in testosterone levels contribute to differences in risk-taking. A large body of academic research shows that women are more risk-averse than men, either in general situations (Hersch, 1996; Pacula, 1997) or in financial situations (Jianakoplos & Bernasek, 1998; Levin et al., 1988; Sundén & Surrete, 1998).

Bajtelsmit & Bernasek (1996) have documented that investment behavior differs between women and men. Wealth, income, and employment differences may cause differential portfolio allocation between

women and men. The 2023 infographic from the Central Bureau of Statistics (Indonesia) shows that the average wage for male workers is higher than for women.

Employment disparity between women and men makes the welfare gap wider. On average, women earn lower wages than men for the same occupation. Similarly, for the same occupation, the salary for men is more than for women. Based on these differences, women tend to keep their money in safety instruments to keep their wealth. In other words, women will spend more carefully and choose more conservative investments.

> H_2 : Men are more risk-tolerant than women.

The life-cycle risk aversion hypothesis asserts that an investor's risk aversion increases with age. Bakshi & Chen (1994) explained that people facing remaining lifetimes become more uncertain when life expectancy increases. In that condition, risk aversion will increase with age.

Lewellen et al. (1977) found that the investor's age is the most powerful influence on the allocation decision. Many researchers support that young people are less risk-averse than older people in the same task context (Aase, 2009; Ahmad et al., 2011). When individuals get older, they rebalance their portfolios in favor of fixed-income securities at the expense of common stock (Bodie & Crane, 1997). As people age, they face a shorter investment horizon for receiving investment returns. Unlike older investors, young investors can adjust their current consumption downward and use some leisure time to compensate for losses in their portfolios by working harder. Younger investors also have more time to recover any lost value in an investment.

> H_3 : There is a negative relationship between age and risk tolerance.

For two reasons, investment managers consider marital status (i.e., married, never married, divorced, separated, and widowed) to be an effective factor in distinguishing among levels of investor risk tolerance. First, it is assumed that single individuals have less to lose by accepting greater risk than married individuals, who often have responsibilities for themselves and their dependents. Second, it is assumed that married individuals are more susceptible to social risk, defined as the potential loss of esteem in the eyes of colleagues and peers if an investment choice leads to an increased risk of loss (Roszkowski et al., 1989).

The basic premise of this study is that household financial planning decisions are the outcome of bargaining between married couples. Spouses may differ in bargaining power and their preferences over various financial choices, and these differences may be gender-based. Riley & Russon (1995) found that married persons, divorced and widowed persons have lower risk tolerance than single persons.

> H_4 : Married investors will be less risk tolerant than single investors.

Occupation refers to the principal activity in which someone engages for pay. Investment managers have assumed that self-employment status automatically leads to higher levels of risk-taking and that, other things being equal, self-employed individuals will typically choose riskier investments and accept increased investment volatility as compared to people who work for others on a straight salary (Grable & Lytton, 1998).

Some investment managers said they could use higher-ranking occupational status (e.g., business executive, attorney, etc.) to differentiate between levels of investor risk tolerances (Roszkowski et al., 1989). For example, it has long been believed that self-employed individuals, salespersons, and people employed by private firms rather than public employers tend to be more risk-tolerant.

> H_6 : Occupation has a different effect on risk tolerance

The risks borne by individuals depend on their financial situation (Malkiel, 1996). Higher-income levels will encourage greater risk tolerance because greater wealth increases access to more investment resources while serving as a cushion against unpredictability in financial markets.

Income is supposed to have a positive relationship with the preferred level of risk. Upper-income persons and millionaires tend to take greater risks than lower-income individuals. Investment managers have concluded that increasing income levels are associated with access to more immediate resources (O'Neill, 1996), leading some to conclude that increased income levels lead to increased risk tolerance.

> H_7 :   Individuals with higher incomes have higher risk tolerance.

Investors' educational level as a measure of individual earning power is one of the determinants of risk tolerance. Higher education increases an individual's capacity to evaluate risks inherent to the investment process. With higher education, investors could evaluate the trade-off between risk and return more precisely and carefully; they know investment strategy better than lower education. This variable should thus be expected to have a positive relationship with risk tolerance.

Christiansen et al. (2006) find that investors with higher education invest a larger fraction of assets in stocks and bonds. These findings lend further support to a proposition made in several studies, which state that "the level of education is also of importance for whether or not an investor participates in the bond and stock market. More well-educated individuals are more likely to be financial investors", (e.g. (Guiso et al., 2003; Haliassos & Bertaut, 1995; Mankiw & Zeldes, 1991). Further, (Haliassos & Bertaut, 1995) determined that education was an important factor in overcoming the barriers to stockholding, which included an initial risk of loss associated with equities. They also found that those who have not attended college were significantly less likely to hold stocks than those with at least a college degree.

> H_5 :   There is a positive relationship between education and risk tolerance.

3. Research Method

3.1. Data and Sample

This study used primary data by distributing questionnaires to test the hypothesis. The respondents of this study are Indonesian investors and students who have taken courses in investment management and have been following the National Competition Capital Markets. We used convenience sampling, a method adopted by researchers where they collect market research data from a conveniently available pool of respondents. In this method, anyone who met the researcher can be used as a respondent if it matches the sample criterion. The total sample used in this research is 200 respondents.

3.2. Variables

The dependent variable in the models is risk tolerance. We measure risk tolerance by using 20 questions representing investor's general risk, investment risk, risk comfort & experience, and speculative risk. This research uses an instrument developed by Grable & Lytton (1998) to measure risk tolerance. The higher the risk tolerance value indicates the participant is more courageous in taking risks. Conversely, if the risk tolerance value is low, it indicates the participant is more risk averse.

General Economic Mood was measured using five questions representing family finance expectations, income expectations, level business conditions, and national business conditions. This variable was measured using an instrument developed by (Dominitz & Manski, 2004). The fifth question asked to measure the general economic mood is:

Q1. Now, turning to business conditions in the country as a whole--do you think that during the next 12 months, we'll have good times financially, or bad times, or what?

Q2. Now, looking ahead--do you think that a year from now, you (and your family living there) will be better off financially, or worse off, or just about the same as now?

Q3. How about a year from now? Do you expect that business conditions in Indonesia will be better or worse than they are at present, or just about the same?

Q4. During the next 12 months, do you expect your (family) income to be higher or lower than during the past year?

Q5. Generally, do you think now is a good or bad time for people to buy major household items?

These five questions are then used as an index by the following formula:

$$GEM = \frac{Q1 + Q2 + Q3 + Q4 + Q5}{6.7558} + n$$

n is a constant value of 2. The higher GEM value indicates that participants are more optimistic about future economic conditions.

Gender variable was measured by dummy variable: 1 for male and 0 for female. Five categories classified age that is:

a) 17-20 years old = score: 1
b) 21-30 years old = score: 2
c) 31-40 years old = score: 3
d) 41-50 years old = score: 4
e) > 50 years old = score: 5

Marital status was measured by dummy variable 1 for married and 0 for unmarried (single). Education is the level of formal education completed by an individual. Education classification as follows:

a) High school = score: 1
b) Bachelor's degree = score: 2
c) Undergraduate degree = score: 3
d) Postgraduate degree = score: 4

This research classifies occupation into five categories: student (unemployment), public services officers, private employees, entrepreneurs (self-employed), pensionary, and housewives. Income was classified as follows:

a) Under IDR 2.000.000 /month = score: 1
b) IDR 2.000.001 – IDR 4.000.000/month = score: 2
c) IDR 4.000.001 – IDR 6.000.000/month = score: 3
d) IDR 6.000.001– IDR 8.000.000/month = score: 4
e) More than IDR 8.000.000/month = score: 5

3.3. Model

This study used multiple regression analysis to test the hypothesis. The model that is used to examine the effect of general economic mood and demographic factors on risk tolerance is:

$$RT = \alpha + \beta_1 GEM + \beta_2 RT\_Sex + \beta_3 RT\_Age + \beta_4 RT\_MS + \beta_5 RT\_Occ_2 + \beta_6 RT\_Occ_3 + \beta_7 RT\_Occ_4 + \beta_8 RT\_Occ_5 + \beta_9 RT\_Occ_6 + \beta_{10} RT\_Earn + \beta_{11} RT\_Edu + \varepsilon$$

Where:

RT	:	risk tolerance
GEM	:	general economic mood
RT_Sex	:	gender
RT_Age	:	respondent's age
RT_MS	:	marital status of the respondent
RT_Occ_2	:	dummy variable of occupation, 1 for public services officer, otherwise 0
RT_Occ_3	:	dummy variable of occupation, 1 for private employee, otherwise 0
RT_Occ_4	:	dummy variable of occupation, 1 for entrepreneurs, otherwise 0
RT_Occ_5	:	dummy variable of occupation, 1 for pensionary, otherwise 0
RT_Occ_5	:	dummy variable of occupation, 1 for housewife, otherwise 0
RT_Earn	:	grade of average income in a month
RT_Edu	:	education level of respondents
ε	:	error term

4. Result and Discussion

4.1. Descriptive Analysis

Table 1 presents the descriptive statistics of demography factors used in this research. Table 1 revealed that the proportion of males (56%) is higher than females (44%). Most (75%) of our respondents were 17—30 years old, and most were still unmarried (single person). It reflects that this study's object is classified as young investors.

Student—that representative for unemployment—was ranked highest in the occupation category and is followed by private employees as much as 26%. The respondents' Income classification shows that most investors have an income of up to IDR 4,000,000. This income distribution may differ if the respondents have a home base in Jakarta. This average income level reflects the wealth level of the investor. In this research, most respondents can be classified as middle-class investors.

Table 1 also shows that 75% of respondents have completed or are studying in university (undergraduate degree). This result may be biased, as individuals who didn't complete some form/level of education may be inclined not to answer.

After classifying our respondents based on their response to the risk tolerance instrument, it shows that 90% of respondents have a moderate risk profile, 1% are included in an aggressive category, and 9% are classified as having low-risk tolerance. This classification is based on the criterion as follow:

    a) If the total score is 0—39, the investor's category is low-risk tolerance
    b) If the total score is 40—67, the investor's category is moderate risk tolerance
    c) If the total score is 680—110, the investor's category is high-risk tolerance.

Table 1. Descriptive Statistics of Demography Factors

Demographic Factors	Number	Proportion
Gender		
Male	112	56%
Female	88	44%
Age		
17—20th	2	1%
21—30th	148	74%
31—40th	23	12%
41—50th	21	11%
> 50th	6	3%
Marital Status		
Married	58	29%
Single	142	71%
Occupation		
Student	80	40%
Public Services Officer	18	9%
Private Employee	52	26%
Enterpreneur	47	24%
Pensionary	3	2%
Housewife	0	0%
Income		
≤ IDR 2.000.000,00	83	42%
IDR 2.000.001—4.000.000,00	52	26%
IDR 4.000.001—6.000.000,00	25	13%
IDR 6.000.001—8.000.000,00	19	10%
≥ IDR 8.000.001	21	11%
Education		
High School	25	13%
Bachelor Degree	11	6%
Undergraduate Degree	150	75%
Postgraduate Degree	14	7%

4.2. Effect of General Economic Mood and Demography to Risk Tolerance

The Ordinary Least Squares regression analysis was used to examine the influence of the independent variables on risk tolerance. Table 2 shows the ordinary least square (OLS) estimates of the factors contributing to the financial risk tolerance of individuals.

Table 2. Test of Hypothesis

Variables Symbols	Variables Name	Hipotesis	Coefficient	Sig.	Conclusion
Constant			1,896	0,000	
GEM	General economic mood	+	0.083	0,008*	H1 supported
RT_Sex	Gender	+	0,139	0,000*	H2 supported
RT_Age	Age	−	0,029	0,362	H3 rejected
RT_MS	Marital Status	+	0,023	0,602	H4 rejected
RT_Occ2	Public service officers	n.a	0,296	0,000*	H6 supported
RT_Occ3	Private employees	n.a	0,109	0,074**	H6 supported
RT_Occ4	Enterpreneurs	n.a	0,301	0,000*	H6 supported
RT_Occ5	Pensionary	n.a	0,243	0,177	H6 rejected
RT_Earn	Income	+	−0,048	0,009*	H7 rejected
RT_Edu	Education	+	−0,096	0,000*	H8 rejected
	Constant = 2,031	F = 7,248			
	Adj. R Square = 0,239	Sig. = 0,000			
	R Square = 0,277	N = 200			
	R = 0,526				

Note: * is significant at 5% and ** at 10%. Term n.a. means not applicable.

This study found that the general economic mood and gender positively affect risk tolerance, while income and education negatively influence risk tolerance. The study found no significant age and marital status effects on risk tolerance.

Our results support Yao & Curl (2011), who found that risk tolerance tends to increase when the market returns increase and decrease when the market returns decrease. Our research found that a positive general economic mood makes investors more risk-tolerant. Individuals who change their risk tolerance this way will likely invest in stocks when prices are high and sell when prices are low.

In more detail, we found that the male has a higher risk tolerance than the female. Male has a 13.9% risk tolerance higher than female. The effect of occupation on risk tolerance is quite varied. Overall, entrepreneurs (self-employed people) have the highest risk tolerance. Public service officers and private employees occupied the next rank of risk tolerance. This result is consistent with the work characteristics of entrepreneurs with higher risk and income than the others. Interestingly, this research found that public service officers have more risk tolerance than private employees. Public service officers have received a passive and fixed income regularly, so they would have bet their income to invest in more risky securities than private employees.

We found that age did not affect risk tolerance. It could be due to the distribution of our research data, which is more at a young age, and very few respondents over 50 years old. As a result, variations in risk tolerance cannot be captured in the analysis.

Marital status did not affect risk tolerance. The results are consistent with the research findings of Haliassos & Bertaut (1995), who found that marital status has little impact on investment decisions. It is caused by the patriarchal principle that Indonesian people adopt. On average, gender predominates in

the household when the investor is married. Males are considered the backbone of a family and must make a decision quickly and accurately. So, they tend to decide individually without negotiating with their wife to shorten the time and take an arbitrage profit. On the other hand, women are now more financially independent and make financial decisions based on their beliefs. Therefore, there are no differences between married and unmarried investors regarding investment decisions and their risk tolerance.

This study found that average monthly income negatively affects risk tolerance. It indicates that the greater the monthly income investors earn, the more risk-averse they are. This finding could be because consumer behavior is quite high in Indonesia, so the income received does not encourage increasing asset allocation in risky securities. According to Asian Development Bank data in 2007, 63.5% of Indonesia's GDP comes from consumption. It means that the consumption allocation is greater than for investment.

In contrast to previous studies (e.g., Ahmad et al., 2011; Gilliam et al., 2010; Hallahan et al., 2004), which found a positive relationship between education level and risk tolerance, our research found that the higher the participant's education level, the more risk-averse they are. It could be due to investors' awareness that the market is not only driven by corporate fundamentals. Herding behavior has made the capital market more uncertain, so it is difficult to predict expected returns accurately.

This study failed to find the effect of age on risk tolerance. It could be due to the non-linear relationship between age and risk tolerance (Hallahan et al., 2004). Future studies need to test each classification based on age and investigate the non-linear relationship between age and risk tolerance. These results are also identical to Sung & Hanna (1996), who found no effect of age on subjective risk tolerance.

5. Conclusion

This research examines the effect of general economic mood and demography factors on risk tolerance. We found that general economic mood has a significant impact on risk tolerance. If investors feel confident that economic conditions will improve, their risk tolerance tends to increase. Therefore, a positive general economic mood encourages investors to be more aggressive. This research implies that investor's risk tolerance will change in response to changes in general economic mood.

This study provides evidence that various demographic factors affect investors' risk tolerance. This study incorporates the effect of gender, age, education, occupation, marital status, and monthly income on investor's risk tolerance. Our research showed that males are more risk-takers than females. Instead, this study found a negative effect of monthly income and education on risk tolerance. The negative impact of income and education may be attributed to high uncertainty in the Indonesian capital market and consumption behavior.

The interesting finding from this research is the differential effect of occupation on risk tolerance. This study found that self-employed people have the highest risk tolerance. Public services officers have higher risk tolerance than private employees. In terms of age and marital status, this research failed to find their effect on risk tolerance. Further research suggested testing these variables in a nonlinearity model and making an interaction model between gender and marriage. Marital status may be explored in some sub-status, for example, divorce, married, single, etc.

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