

CHAPTER II

LITERATURE REVIEW

This chapter will discuss the concepts related to the variables used in this study, namely Propensity for Regret, Propensity for Overconfidence, Income Level, Stock Ownership and Financial Risk Tolerance.

2.1 Main Theory and Main Journal

The main theory underlying this research is the Prospect Theory (Kahneman and Tversky, 1979). Prospect Theory is a theory about the psychology behind a decision, which is generally applied in behavioral economics and behavioral finance. This theory proposes that people will make decisions based on possible gain or loss depending on their specific current situation (their personal reference point), and not based on absolute rules.

This study is based on a research journal titled Propensity Toward Financial Risk Tolerance: An Analysis Using Behavioural Factors (Rahman, 2019), which uses the Structural Equation Modeling method. The findings from this study indicate that propensity for regret, propensity for trust, happiness in life, propensity to attribute success to luck and propensity for overconfidence have a significant influence on FRT while propensity for social interaction does not. The results also provide support for the moderating effects of religiosity in the proposed research model.

2.2 Propensity for Regret

According to Sim *et al.* (2020), regret is the feeling a situation would have been better if it happened differently. While Zeelenberg (2018) states that regret is

the emotion experienced when looking back at decisions that went wrong. Hatak and Snellman (2017) stated that regretful thinking (also known as anticipated regret) is a cognitive stance attributed to the occurrence or non-occurrence of something. Regret relates to the decision to take action or not to take action, for example; we could regret our decision to switch from stock A to stock B (take action) if in the future we realize that it would have been better if we keep stock A, but we could also regret our decision to keep stock A (take no action), if in the future we realize that it would be better if we traded stock A for stock C (Statman, 2015). Pan and Statman (2012) stated that propensity for regret is important for all financial advisors even if it is not related to risk tolerance, because all financial decisions, from the decision to buy one stock to the decision to sell all shares, opens the door to regret.

2.3 Propensity for Overconfidence

Lee and Hanna (2021) defines overconfidence as excessive levels of self-efficacy, and defines financial knowledge overconfidence as the overrating of self-efficacy in the understanding of cognitively complex financial concepts compared to one's and other's actual abilities. Overconfidence could also be defined as a condition where a person overestimates the completeness of their knowledge, the precision of the private information they have, or their interpretation of the truth (Arifin and Soleha, 2019). While Harvey *et al.* (2018) stated that financial overconfidence is defined as the condition where subjective financial knowledge exceeds objective financial knowledge. According to Durand *et al.* (2013), overconfidence is characterized by the individual's belief that the accuracy of their predictions or estimates is greater than the actual guarantee. In their research, Pan and Statman (2012) state that investors overconfident may underestimate risk, creating a bias that makes them have a higher risk tolerance measure. Meanwhile, Rosa (2011) states that propensity for overconfidence is an individual's tendency to

overestimate the likelihood of a favorable outcome occurring, and this bias will be more pronounced when the individual has some control over the likelihood of the event occurring. Loebiantoro *et al.* (2021) have also found that behavioural biases are involved in investors' investment decision making process, creating irrationalities, and overconfidence is one of many behavioural biases.

2.4 Income Level

Based on the Great Indonesian Dictionary (Kamus Besar Bahasa Indonesia), income is defined as the result of work (efforts and so on). The Management Dictionary defines income as money received by individuals, companies, and other organizations in the form of wages, salaries, rent, interest, commissions, fees, and profits. The Central Bureau of Statistics (Badan Pusat Statistik; 2021) defines income as a reward received in the form of money or goods, which is paid by the company/office/employer. In-kind rewards are valued at local prices. This research will use The Central Bureau of Statistics' (Badan Pusat Statistik, 2015) income classification, which splits Indonesian resident's income into 5 categories:

1. Income Level 1: Average monthly income \leq Rp 1,800,000
2. Income Level 2: Average monthly income between Rp 1,800,001 - Rp 3,000,000
3. Income Level 3: Average monthly income between Rp 3,000,001 - Rp 4,800,000
4. Income Level 4: Average monthly income between Rp 4,800,001 - Rp 7,200,000
5. Income Level 5: Average monthly income $>$ Rp 7,200,000

2.5 Stock Ownership

The Indonesia Stock Exchange (Bursa Efek Indonesia) defines stocks as proof of equity participation in a company, or proof of ownership of a company.

According to Muhammad and Rahim (2019), stocks or shares are certificates of proof of ownership or participation in a company's equity. While Siregar and Nurmala (2018) stated that stocks are a form of security which have a claim on a company's revenue and assets. Darmadji and Fakhruddin (2012) state that shares are a sign of participation or ownership of a person or entity in a company or limited liability company. Putra *et al.* (2013) stated that by owning shares of a company, investors have rights to the company's income and wealth, meaning that when the company's performance and wealth increase, the share price can increase, therefore, shares are an investment instrument.

2.6 Financial Risk Tolerance

Financial risk tolerance is defined as the maximum amount of volatility one is willing to accept when making a financial decision (Sivaramakrishnan and Srivastava, 2017). While others had defined financial risk tolerance as the maximum level of uncertainty that can be accepted by individuals when making a financial decision (Lucarelli and Brighetti, 2011; Carr, 2014). According to Jung *et al.* (2018), risk tolerance is the degree to which an individual is willing to tolerate risk in order to achieve a greater expected return. Rabbani *et al.* (2018) states that risk tolerance is the maximum level of uncertainty that can be accepted by someone when making financial decisions. Financial risk tolerance is an important concept for a financial planner when recommending financial products, and knowing financial risk tolerance a client's will help a financial planner in determining the risk and return parameters of an investment portfolio (Rabbani *et al.*, 2018).

2.7 Research Hypotheses

Based on concepts that have been described by previous studies above, the author would like to establish the research hypotheses as follows:

2.7.1 The effect of Propensity for Regret on Financial Risk Tolerance

In his research, Rahman (2019) found that individuals with high propensity for regret have a higher financial risk tolerance (FRT). Cindelia (2021) and Rahman *et al.* (2019) also found that propensity for regret has a significant impact on financial risk tolerance. Based on these findings, the author proposes the following hypothesis:

H1: Propensity for Regret has an effect on Financial Risk Tolerance.

2.7.2 The effect of Propensity for Overconfidence on Financial Risk Tolerance

Cindelia (2021) found that propensity for overconfidence has a significant impact on financial risk tolerance. Rahman (2019) found that respondents with high levels of propensity for overconfidence (POC) have high levels of FRT, because they tend to overestimate the accuracy of their knowledge or abilities. This finding is in agreement with Wijaya (2021), which also states that overconfidence has a positive impact on financial risk tolerance. Based on the findings from the previous research above, the author proposes the following hypothesis:

H2: Propensity for Overconfidence has an effect on Financial Risk Tolerance.

2.7.3 The effect of Income Level on Financial Risk Tolerance

Several studies have found that income level has a positive effect on FRT, because it is assumed that individuals with higher income levels can

more easily accept losses resulting from risky investments (Hanna *et al.*, 2018; Shah *et al.*, 2020). Laurinaityte (2018) also found that income correlates positively with financial risk tolerance. Based on the findings from the previous research above, the author proposes the following hypothesis:

H3: Income Level has an effect on Financial Risk Tolerance.

2.7.4 The effect of Stock Ownership on Financial Risk Tolerance

Ameriks *et al.* (2020) and Shin and Kim (2018) found that there is a positive relationship between the percentage of stock ownership in a portfolio and individual FRT. Shin and Kim (2018) assume this is because stocks are considered a riskier financial asset, so people who have a higher financial risk tolerance tend to be more daring in holding stocks with a larger percentage in their portfolio. Laurinaityte (2018) found that stock ownership rates are much higher among European households that are willing to take financial risks. Gilliam *et al.* (2010) also found that respondents who invest more than half of their wealth in stocks have a higher level of risk tolerance. Based on the findings from the previous research above, the author proposes the following hypothesis:

H4: Stock Ownership has an effect on Financial Risk Tolerance.

2.8 Research Model

Based on the explanation of the concept and development of research hypotheses above, the following is the research model used for this research:

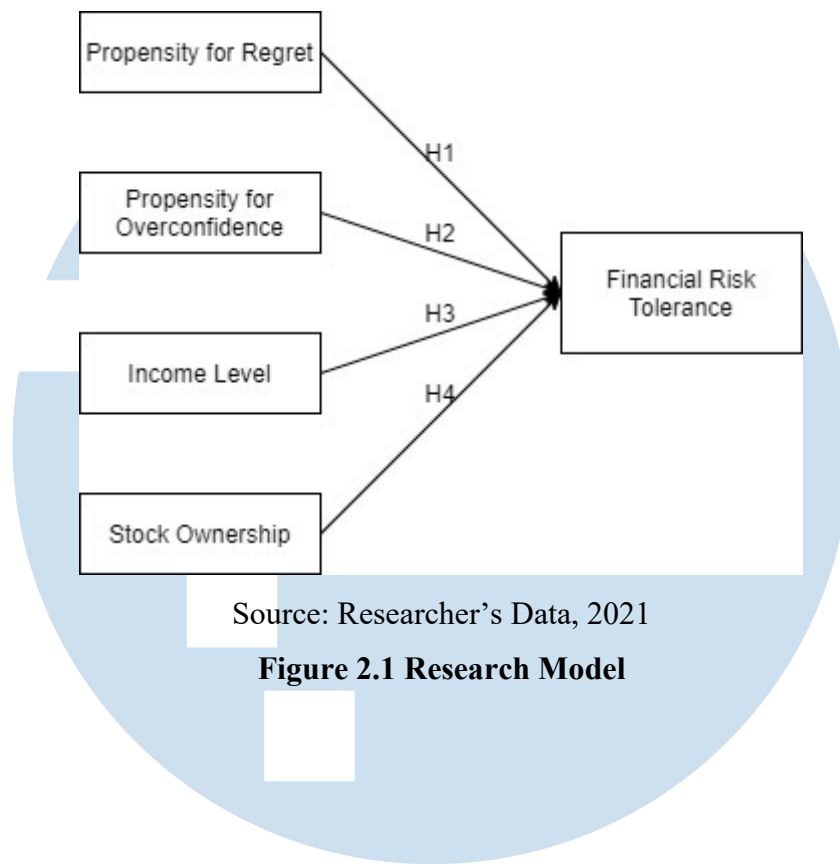


Figure 2.1 Research Model