CHAPTER 2

LITERATURE REVIEW

2.1 Theory and Previous Research

2.1.1 Prospect Theory

The study of decision-making under risk has been a focus of social research for many centuries. This enduring scientific interest has led to the development of a substantial body of theoretical and experimental work on decision-making in risky situations. Prospect Theory (PT) considers the influence of heuristics and the limitations of human cognition, which often lead to biases and deviations from normative decision-making (Gisbert-Pérez et al., 2022). This theory highlights how individuals rely on mental shortcuts when processing information and making choices, resulting in systematic errors and irrational behaviour. These cognitive biases, such as loss aversion, framing effects, and overconfidence, cause people's decisions to diverge from the predictions of traditional rational models. Prospect Theory (PT) is a descriptive framework that focuses on how people actually make decisions, rather than prescribing how they should theoretically make them(Gisbert-Pérez et al., 2022). It aims to capture the real-world behaviors and thought processes that individuals exhibit when faced with choices under uncertainty.

Prospect theory can be defined as theory that defines how human beings decide in risky conditions. It can be applied in behavioural economics how investors choose their investment strategies by considering the risk also.

2.1.2 Financial Behaviour

Financial behaviour already been an interesting topic by a lot of researchers. The terms of behavioural finance were explained by a lot of academicians before. Behavioral finance is the study of how psychological factors influences financial decision-making(Raymond A. Mason School of Business, 2023). Individuals frequently make financial choices driven by their emotions rather than employing rationality(Veni & Kandregula, 2020). Almansour argues that, behavioural finance is a field within finance that investigates the impact of psychological elements on making financial decisions, uncovers a notable drawback in conventional finance models (Almansour et al., 2023). Suriani Seri argues in her books that the study of financial conduct is a recently developed discipline that seeks to integrate theories from behavioral and cognitive psychology with traditional economics and finance. Its objective is to elucidate the reasons behind individuals' irrational financial choices (Suriani, 2022).

Guzavicius, Vilke, and Barkauskas even further define that financial behavior is a combination of psychology and economics, aimed at revealing the fundamental motivations behind logical decisions pertaining to expenditure, investment, loans, and savings (Guzavicius et al., 2014). Yuningsih explain that the incorporation of psychology and sociology into the study of human behavior is due to the fact that humans are social animals that engage with their environment, hence influencing their behaviour (Yuningsih, 2020). Hersh Shefrin, an economics professor at Santa Clara University, has undertaken study on the phenomenon of financial behavior. She explains that the connection between psychological factors and financial behaviour, as well as the efficacy of various investor categories, determines financial behaviour(Hersh Shefrin, 2001).

From all the previous theories about financial behaviour, financial behaviour can be described as a theory that combines two different concepts, economics, and psychology to analyse the behaviour of a human logical decisions about financial decisions.

2.1.3 Risk Perception

Risk perception is one of aspects that is very important in financial behaviour topics. Cox and Rich explain that risk perception is determined by the potential outcomes and the level of ambiguity around the potential gains or losses resulting from a transaction(Cox & Rich, 1964). Perception is the process of evaluating the degree of risk, typically based on comprehension of the circumstance, where there exists a justification for the actual state of affairs (Ramu & Saimanideep, 2021). Research indicates that risk perception is mostly influenced by natural risk perceptions, rather than technical indicators of risk such as beta, standard deviation, or differentiation (Roszkowski & Davey, 2010). Human conduct is heavily impacted by the sense of danger, especially when making decisions in situations where there is a lot of uncertainty (Ramu & Saimanideep, 2021).

Risk perception refers to individuals' assessment of potential future consequences that may arise if they or others choose to pursue a particular course of action (Hoorens, 2020). While risks can encompass both good and unpleasant results, the phrase is primarily used to refer to unwanted consequences such as health and safety concerns or natural and man-made disasters (Hoorens, 2020).

From all the previous theories about risk perception, it can be described as an individual's personal judgment or opinion of the probability and seriousness of potential dangers linked to a certain circumstance, activity, or choice. It encompasses cognitive processes, emotional reactions, and personal convictions that shape individuals' perception and understanding of dangers.

2.1.4 Risk Tolerance

Not only risk perception that is important in financial behaviour topics but also risk tolerance. Risk tolerance is a commonly used word in the field of personal financial planning that describes an investor's mindset or disposition towards taking risks (Baruah & Parikh, 2018). Grable in his book explain that financial risk tolerance refers to an individual's readiness to assume risks when making financial choices related to savings and investments (Grable et al., 2008). Despite its previous lack of attention, risk tolerance is now being recognized as a crucial subject in financial planning (Baruah & Parikh, 2018). Also, Ramu and Saimanideep explain that when referring to investments, risk tolerance refers not only to the degree to which an individual is ready to accept the risks that are associated with those investments, but it also refers to the manner in which an individual reacts and behaves in respect to those risks (Ramu & Saimanideep, 2021).

From all the previous theories about risk tolerance, risk tolerance refers to the capacity and willingness of an individual or organisation to endure or embrace unpredictability, instability, and potential detriments in order to attain particular aims or objectives. Risk tolerance refers to an individual's or organization's willingness to take risks and their ability to handle any potential bad consequences that may result from such risks.

2.2 Previous Research

Topics related to risk perception, risk tolerance, and investment decisions, already been studied before by researchers. For examples Analysing the Effect of Financial Risk Perception, Risk Tolerance on Investment Behaviour: An Empirical Analysis (Ramu & Saimanideep, 2021), Impact of Risk Tolerance and Demographic Factors on Financial Investment Decision (Baruah & Parikh, 2018). Behavioral finance factors and investment decisions: A mediating role of risk perception (Almansour et al., 2023), Comparison of Risk Tolerance and Investment Decisions of Participation Bank Customers and Conventional Bank Customers (Selçuk et al., 2022), structural equation model of financial risk tolerance in South Africa (Ferreira & Dickason-Koekemoer, 2020).

Also this topics were studied in Indonesia by previous researchers such as Persepsi Risiko dan Lingkungan Sosial terhadap Minat Investasi di Pasar Modal Dimoderasi dengan Media Sosial (Kumala et al., 2023), Financial Literacy, Risk Perception,and Investment Preferences: A Study on Millennials in Jakarta (Wisnu Putra & Eurelia Wayan, 2023), The impact of overconfidence and herding bias on stock investment decisions mediated by risk perception (Arie Wibowo et al., 2023), Do Emotions Influence the Investment Decisions of Generation Z Surabaya Investors in the Covid-19 Pandemic Era? Does Financial Risk Tolerance Play a Moderating Role? (Sutejo et al., 2023), Pengaruh Financial Literacy dan Risk Perception terhadap Keputusan Investasi Generasi Millennial Kota Padang (Ekonomi et al., 2020).

Table 2.1 Previous Research

No	Authors (years): Title	Research Objective	Type of Research	Relevant Findings	Similarity	Difference
1	M Ramu, Dr CH Hymavathi, Mr. A SaiManideep (2021): *Analysing the Effect of Financial Risk Perception, Risk Tolerance on Investment Behaviour: An Empirical Analysis*	This study investigates the connection among risk perception, risk tolerance, and investment behavior through inferential statistical analysis, drawing conclusions based on the results obtained.	Quantitative research, 217 samples, non-probabilistic snowball sampling method, simple linear regression analysis, SPSS	The findings are risk perception have a significant impact on investor risk tolerance, risk tolerance have a significant impact on investor behaviour, and risk perception have insignificantly effect on investor behaviour.	The variables inside the paper are the same. There are risk perception, risk tolerance, and investment behaviour.	The study focused on specific areas in India. The writer's object of study focused only for students of Universitas Atmajaya Yogyakarta.
2	Mitali Baruah, Abhishek Kiritkumar Parikh (2018): *Impact of Risk Tolerance and Demographic*	This study elaborate and investigates the impact of risk tolerances and demographic variables jointly on level of investment of investors, which can be used for	Quantitative research, 320 samples, Convenience sampling method, multinomial	FRT, CRT, and SRT were found significantly related to investment decision and the demographic variables are not significant factors that impact the investment decision.	Risk tolerance variables in this paper which are FRT, CRT, and SRT determine investment decision among investors	The study also use demogrraphic variables as a determinant of investment decision among investors and this study were held in India.

	Factors on Financial Investment Decision	designing a strategy or investment product to offer to the investors with different levels of financial risk tolerance and different demographic profiles.	regression analysis, SPSS			
3	Bashar Yaser Almansour, Sabri Elkrghli and Ammar Yaser Almansour (2023): *Behavioral finance factors and investment decisions: A mediating role of risk perception*	This study seeks to analyze how behavioral finance factors influence investment decisions within the Saudi equity markets, with a focus on the mediating role of risk perception.	Quantitative research, 134 samples, structural equation modeling (SEM)	The findings indicate that herding behavior, the disposition effect, and a bias towards blue-chip stocks significantly and positively influence risk perception. Overconfidence, on the other hand, shows a significant positive impact solely on investment decision-making, without affecting risk perception. Moreover, there is a significant positive correlation between risk perception and investment decision-making	The study mainly talks about behavioral finance and include risk perception as a mediator.	The study objects are investors and it's only in Saudi Equity Markets. The study only focused on 4 behavioral finance factors and it's impact on risk perception and investment decision.
4	Mervan SELÇUK, Salih ÜLEV, Hüseyin BURGAZOĞLU	This study explores the framework of financial risk tolerance and risk perceptions among	Quantitative research, 1718 samples, t-test and ANOVA.	The findings indicate that customers of conventional banks exhibit a higher average in both general risk	It considered risk tolerance as a important variables that determine	The difference is that the subject of the research is only for customer who registered as a

	(2022): *Comparison of Risk Tolerance and Investment Decisions of Participation Bank Customers and Conventional Bank Customers*	customers of both participation and conventional banks.		tolerance and financial risk tolerance.	investment decision among investors.	conventional bank clients.
5	Suné Ferreira and Zandri Dickason-Koekemoer (2020): *A structural equation model of financial risk tolerance in South Africa*	In this research article, the focus was on demographics and life satisfaction, examining how risk-taking behavior and perception across various life domains impact risk tolerance.	Quantitative research, 1065 sample, SPSS and AMOS, Structural Equation Modelling (SEM).	Age and gender were identified as significant factors affecting investor risk tolerance. The research revealed a negative correlation between age and risk tolerance, suggesting that risk tolerance tends to decrease as individuals age. Additionally, life satisfaction was found to be a significant predictor of investor risk tolerance.	It's investigating how risk tolerance is important for financial investment.	The difference is the research were conducted in South Africa and risk tolerance here as a dependent variable.
6	Khovifa Nur Kumala, Lintang	The purpose of this research is to examine	Quantitative research, 140	The research results demonstrate that risk	This research tries to calculate and try to find	The difference is that there are other variables

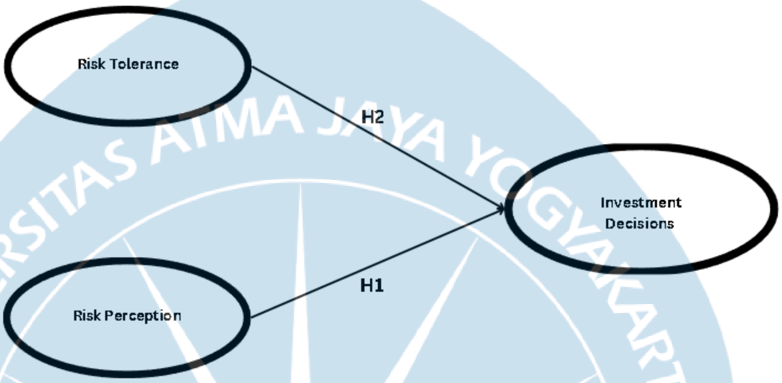
	Venusita (2023) : *Persepsi Risiko dan Lingkungan Sosial terhadap Minat Investasi di Pasar Modal Dimoderasi dengan Media Sosial*.	the influence of risk perception and social environment on investment interest moderated by social media.	samples, using purposive sampling, Smart PLS.	perception, social environment, and social media have a significant and positive impact on students' investment interest. However, social media cannot act as a moderating variable between the relationship of risk perception and students' investment interest.	how risk perception can have an positive impact on students' investment behaviour.	such as social environment, social media which in the research paper were calculated also.
7	Aziz Wisnu Putra, Maria Eurelia Wayan (2023): *Financial Literacy, Risk Perception, and Investment Preferences: A Study on Millennials in Jakarta*	The objective of this study is to investigate the impact of financial literacy and risk perception on investment preferences among millennials.	Quantitative research, 148 samples, SPSS	The results of this study suggest that millennials residing in the five municipalities of Jakarta exhibit a considerable degree of financial literacy and risk perception. Their top investment preference is in stocks.	This research tries to find how risk perception can determine investors investment decision.	There is another variable in this research such as financial literacy and also the subject of the research is on millenials.
8	Muchammad Arie Wibowo,	This study investigates how overconfidence	Quantitative research, purposive	The findings from this study suggest that the presence of	This research try to find how risk perception can	This study also investigates how

	Nur Khusniyah Indrawati, Siti Aisjah (2023): *The impact of overconfidence and herding bias on stock investment decisions mediated by risk perception*	bias, herding bias, and risk perception influence decisions related to stock investments.	sampling, 110 samples, SEM-PLS.	overconfidence bias and herding bias among investors can diminish the quality of their investment decisions.	impact investment decisions.	overconfidence bias and herding bias can give impact into investment decision. This paper also limits the choice of investments only on stock investment.
9	Bertha Silvia Sutejo, Sumiati, Risna Wijayanti, Candra Fajri Ananda (2023): *Do Emotions Influence the Investment Decisions of Generation Z Surabaya Investors in the Covid-19 Pandemic Era? Does Financial Risk*	This study aimed to explore how positive and negative emotions influence investment decisions amid the Covid-19 pandemic. Additionally, it sought to examine risk tolerance as an intervening variable between basic emotions and investment decisions.	Quantitative research, 180 samples, Using SEM and AMOS.	Moreover, the study found that the influence of negative emotions on investment decisions does not appear to be statistically significant.	This research try to find the factors that can impact investment decisions and also use financial risk tolerance.	The difference is that financial risk tolerance plays role as a mediator and this research was done in Surabaya.

	Tolerance Play a Moderating Role?					
10	Yola Yolanda, Abel Tasman (2020): *Pengaruh Financial Literacy dan Risk Perception terhadap Keputusan Investasi Generasi Millennial Kota Padang*	This study aims to examine how financial literacy and risk perception impact the investment decisions of the millennial generation in Padang City.	Comparative casual research, using primary data and secondary data, 96 samples of data, SPSS.	The findings of this study suggest that both financial literacy and risk perception have a notable and positive impact on the investment decisions made by the millennial generation in Padang City.	This research investigates how risk perception have an impact on investment decisions.	In this paper, financial literacy also considered as a variable and this research was done in Padang City.

2.3 Research Framework

Picture 2. 1 Proposed Research Model



Source: Calculated by the writer

2.4 Hypothesis Development

2.4.1 Risk Perception and Investment Decisions

Cox and Rich explain that risk perception is determined by the potential outcomes and the level of ambiguity (Cox & Rich, 1964), so it also can impact risk tolerance of a person. Also Grabble explain that risk tolerance is the readiness of a person to accept risk in case of investment (Grable et al., 2008). So, it can be hypothesized that:

H1: Risk Perception has a negative impact on Investment Decisions.

2.4.2 Risk Tolerance and Investment Decisions

Ramu, Saimanideep, and Grable have the same view how risk tolerance can impact investor's investment behaviour. They explain that in the case of finance, especially in investment, risk tolerance is the capacity of a person to accept the risk of an investment (Grable et al., 2008);(Ramu & Saimanideep, 2021). If the person can not accept the risk of an investment, then their behaviour would be different. So it can be hypothesized that:

H2: Risk Tolerance has a negative impact on Investment Decisions.