CHAPTER II
LITERATURE REVIEW

2.1 Theoretical Framework

2.1.1 Financial Literacy

According to Financial Service Authority (2021), Financial literacy is a set of procedures or endeavors intended to improve customers and the general citizenry's comprehension, motivation, and skill in managing their finances. Kamakia, et al (2017) identified financial literacy as the comprehension and perception of financial notions and potential consequences, as well as the skills, motivation, and self-confidence required to make efficient financial decisions to optimize one's financial situation and economic participation. Financial literacy is defined as the competency to comprehend how money functions in modern civilization, including the way one manages and invests wealth (Abdeldayem, 2016). Coşkun, et al (2016) stated that financial literacy is an important aspect when making investment decisions. People with adequate financial literacy will make better financial decisions, including investment decisions. Financial literacy influences more than just the way a person manages finances and handles financial challenges, but also a person's capacity to implement personal financial decisions such as investments, financial risk aversion, saving, borrowing, and lifestyle factors (Dewi et al., 2020).

According to Bongomin, et al (2016), there are four important indicators in measuring financial literacy, which include:

a. Knowledge, which typically refers to an individual’s understanding of financial products and their instruments;
b. Skill, which refers to the ability to comprehend the benefits and carry out simple financial calculations;
c. Attitude, which demonstrates one's ability to make the right decisions and implement effective measures; and
d. Behavior, which is associated with an individual’s efforts and objectives of budgeting.

This indicator is also aligned with Hung, et al (2009), Lusardi, et al (2013), Xiao, et al (2014), and Khan, et al (2017) who stated financial literacy is constituted of knowledge, skills, and attitudes that affect an individual's financial behavior. In this research case, financial literacy indicators will be focused on knowledge and skill.

According to Lusardi & Mitchell (2007), financial literacy refers to the comprehension an individual possesses regarding financial intermediaries such as savings, insurance, investments, and other financial instruments. Dewi, et al. (2020) explained that individuals' financial knowledge indicates their ability to comprehend financial issues. This is determined by evaluating their fundamental financial comprehension in contexts such as compound interest, inflation, deposits, the time value of money, diversification, interest rates, debt, and assets. To be precise, financial knowledge is the fundamental basis of financial literacy, and it assists people to make decisions and develop stable financial behaviors.

Financial skills refer to an individual's capabilities to avoid becoming deeply engaged in financial problems when making choices regarding to finances (Priyadharshini, 2017). An insufficiency of fundamental financial skills in the budgeting process, as well as an incapability to comprehend loans and investment instruments or other financial derivatives, that can result in personal financial challenges. Financial skills relate to how an individual apply accounting to organize or record their personal finance to avoid financial problems ahead. This refers to how individuals can make their finances more effective and efficient by keeping a journal for their financial records and preparing financial reports (Prasmul, 2020).

In conclusion, in every possible interpretation, financial literacy is referred to an individual's capacity to articulate the comprehension and awareness of financial concepts and consequences, along with the capacity for avoiding financial problems, attitudes, and behavior that are necessary for productive financial decisions, including investments, financial risk aversion, saving, borrowing, and lifestyle factors.

2.1.2 Financial Behavior

Financial behavior can be described as any individual behavior related to money management, including cash, credit, saving, and investment behaviors (Xiao, 2008). Financial behavior refers to the way an individual treats, manages and uses their money resources. Robb & Woodyard (2011) state that Individuals who engage in accountable financial behavior tend to be highly adept at handling their finances, which includes devising a budget, slowly starting to invest, and fulfilling their financial obligations when they're due. Financial behavior can be interpreted as how an individual's behavior on their financial management.

According to Putri & Kartini (2017), There are nine personal financial behaviors, the first five of which were classified as implementing behaviors and the remaining four as planning behaviors. Nababan & Sadalia (2012) stated that the indicators of financial behavior in an individual's daily activities are:

a. Timely payment of obligations;
b. creating expense and expenditure funding levels;
c. recording expenses and expenditures (daily, monthly, etc.);
d. allocating funds for unforeseen circumstances;
e. Saving on a regular basis; and
f. prices comparison before purchasing a product.

Woodyard (2013) specified that every individual's financial behavior is represented in their attitudes and behavior, both positive and negative. Positive financial behavior takes into account cash management, emergency savings, credit management, and long-term preparations such as retirement plans, risk management through insurance, and estate preparation. Being an impulsive spender, relying on employee pension plans, and avoiding financial education and discussions are all examples of negative financial behavior.

Priyadharshini (2017) stated that financial attitude refers specifically to values and beliefs toward diversified personal finance concepts. These beliefs and values result in more self-control, long-term thinking, perseverance, and a greater ability to address financial difficulties. Perceiving the importance of saving money, establishing financial objectives, being attentive when dealing with financial difficulties, and devising strategies to manage levels of risk and return on investment perspective (Diacon & Ennew, 2001). These are a few cases of how financial attitude represented financial behavior. The financial behavior concept considers different types of investors' perspectives on the potential dangers associated with investment decisions, where investors tend to be more cautious in executing investment decisions and have a greater tendency to be risk-averse (Nugraheni et al., 2021). In conclusion, financial behavior is defined as an individual behavior related to money management, including cash, credit, saving, and investment behaviors. Every financial behavior of an individual is represented by their attitude and behavior toward financial problems in order to achieve great financial decisions, including investment decisions.

2.1.3 Investment Decisions

Investment is defined as postponing present consumption in order to use it for efficient production for a specific time span (Hartono, 2009). The investment process generally consists of five steps which include identifying investment goals, updating portfolio efficiency, assessing portfolio effectiveness, performing an evaluation, and developing an investment portfolio (Halim, 2005). The investment itself necessarily involves the right decision, as each decision has an impact on the outcome. According to Madaan & Singh (2019), an approach made on two or more alternative capital placements with the goal of making a profit in the coming years is referred to as an investment decision.

Wulandari & Iramani (2014) stated that an investment decision is a strategy or action taken to invest time and resources in one or more assets, or the method by which an individual can redistribute wealth into investment categories that will provide future benefits. According to Mahastanti (2011a), There are two aspects that influence an individual's investment decision. First and foremost, is the significance of which choices can optimize wealth financially and behavioral engagement in an investment decision based on investor psychological aspects. Putri & Hamidi (2019) provided several attributes for evaluating investment decisions, including:

a. Return, which refers to an investment income;
b. Risk, where high potential returns come with greater risks (high risk, high return principle); and
c. The time value of money, or determining the duration of an investment stretch of time, is important because it affects how much reward and risks an investor could perhaps handle.

Investment decisions are based on the expected rate of return, the level of risk, and their connection (Sorongan, 2022). In order to make investment decisions, investors need investment information, which is a critical component in making investment decisions.

2.1.4 Generation Groups

Table 2.1
Generational Behavioral Characteristics of Different Age-Groups

Factors	X Generation	Y Generation	Z Generation
View	Self-centered and medium-term	Egotistical, short-term thinking	There is no sense of commitment; feel satisfied with what you have and live in the present
Relationship	Networks, both personal and virtual	Networking is primarily virtual	Virtual and superficial
Aim	Secure position in several environments	Rivalry for leader position	Live for the present
Self-Realization	Rapid promotion	Immediate	Its necessity is questioned

IT	Uses with confidence	Part of its everyday life	Intuitive
Values	Hard work, openness, respect for heterogeneity, curiosity, and practicality	Flexibility, mobility, a broad but shallow knowledge base, and success Priority are given to orientation, creativity, and information freedom.	Live in the moment, react quickly to everything, be an initiator, be daring, and have quick access to information and content.
Other Possible Characteristics	Rule-following, materialistic, fair-playing, less respect for hierarchy, a sense of relativism, and the urge to prove themselves	The desire for independence, disrespect for tradition, the pursuit of new forms of knowledge, inverse socialization, arrogance, home office and a part-time work, interim management, undervaluation of soft skills and EQ	Differing points of view, happiness, enjoyment, divided attention, lack of consequential thinking, no drive to make sense of things, work and entertainment boundaries overlapping, feeling at home everywhere

Source: Bencsik & Machova, 2016

Bencsik, et al. (2016) implies that there are six different generation categories which include veteran generation, baby boomer generation, X generation, Y generation, Z generation, and Alfa generation. Generation Z, often known as the iGeneration or internet generation, is the most recent generation to enter the employment field. Generation Z shares some characteristics with Generation Y, but Generation Z is capable of performing all activities simultaneously (Putra, 2016). They have grown up in an unstable and complex environment, which influences their perspective on job, studies, and the world. They have different workplace expectations, are career-oriented, and are a generation of ambitious, technically-capable, and competent professionals who speak multiple language at a high level (Bencsik et al., 2016).

Generation Z was born in an era of convenient accessibility to financial entities and was associated with external influences like globalization, outsourcing, investment, and the advancement of digital technology (Utami & Sitanggang, 2021). Luntungan, et al. (2014) also mentioned that globalization has substantially influenced and shaped the personalities, behaviors, and characteristics of Generation Z. Anitha & Aruna (2016) and Zemke, et al (2000) stated that Gen Z exhibits characteristics among many others such as creativity, being technologically knowledgeable, enthusiasm, goal clarity, cheerful demeanor, courageous action, perseverance, and multitasking while emphasizing their presence, loving uniqueness, necessitating guidance and encouragement, and demonstrating a need to be in social environments.

Utami & Sitanggang (2021) stated that in view of the fact that generation Z was the initial generation to grow up with computer and internet access, understanding the financial industry and incorporating it into their lives is easier and faster for them. Gen Z is accustomed to internet data and has higher digital financial expectations, such as spending analytics. These more sophisticated expectations and ambitions will influence how Gen Z manages their money and plans for the future (Morgan, 2022). Considering that generation Z covers the majority of approximately 59.08% of the 9.78 million Single Investor identification (SID) in Indonesia per September 2022, Lusardi & Mitchell (2007) stated that they will not only experience an increased intricacy in financial products, services, and industries in the future, but they will also be more vulnerable to financial risks. Despite the fact that 59% of Indonesian Gen Z own some form of investment, just one in six (16%) understands the importance of personal finance management and how to invest effectively.

2.1.5 Mental Accounting Theory

Mental accounting theory is a definition that describes the way an individual executes the accounting process, which can be observed by analyzing one's own behavior patterns or surmising social norms (Silaya & Persulessy, 2018). Thaler (1999) mentioned that mental accounting refers to the psychological procedures individuals and households utilized to arrange, assess, and maintain records of financial activities. Mental accounting is involved with the manner in which to handle and assess circumstances that involve more than one potential outgrowth, particularly how to integrate the potential outcomes (Silaya & Persulessy, 2018). Individuals use mental accounting to determine different utility levels for every diversified wealth account, which influences their financial decisions.

Rezaei, et al (2013) stated that there are 3 main components of mental accounting theory, which include:

1. The benefit of transactions,

   Since the accounting system provides the suggestions required to undertake previous and corresponding cost-benefit evaluations, transaction benefit is related to how outcomes are perceived and engaged, as well as how alternatives are selected and analyzed.

2. Categorization procedure

   This entails allocating different transactions to different accounts. The forms and implementation of funding sources are classified in both real and mental accounting systems. Accommodation, daily necessities, and other expenses are categorized. Flows (normal earnings and payouts) and equities (available cash, home equity, retirement benefits, and so on) are also types of spending funds.

3. Option framing

   It refers to the repetitive review of transactions, as well as a consistent balance sheet can be created daily, weekly, or annually, and may be specified crudely or extensively.

Tversky & Kahneman (1981) stated that Mental accounting emphasizes the form of individual financial decisions, whereas Shefrin & Thaler (1988) addressed how knowledge and comprehension of finance are affected by mental accounting.

2.1.6 Prospect Theory

Prospect theory stated that when an individual incorporates vague psychological and behavioral aspects into conscious decisions, the individual does not necessarily behave by the theory's guidelines (Pradikasari & Isbanah, 2018). Under conditions in which people exhibit risk-aversion behavior in the event of gains and risk-taking behavior in the event of losses; this behavior is outlined by prospect theory (Kahneman & Tversky, 1979).

Financial behavior plays an important role in investment decisions. The investor does not invariably act in accordance with the preconceptions established based on perceived notions and interpretations of the information acquired (Mahastanti, 2011b). Prospect theory examines how individuals frequently make and evaluate decisions in risky and uncertain circumstances. According to Manurung (2012), Individuals who invest utilize not only assessments of the potentials of their investment products, but psychological factors also serve a significant part in affecting decision-making.

2.2 Empirical Studies

Aryadi (2022) who conducted research on the impact of financial literacy towards generation Z's investment decisions in Bandung found out that financial literacy with the indicators of behavior, skills, knowledge, and attitudes affect generation Z's investment decisions. This is also in line with the result of research that was conducted by Utami & Sitanggang (2021) which shows financial literacy significantly influences the investment decisions of generation Z in Jakarta. These researches conducted in major cities where generation Z has a better access to financial institutions and financial information that might provide a privilege on investment opportunities. Sorongan (2022) who conducted research to see how financial behavior, attitudes, and literacy affect student investment decisions found out that student investment decisions are heavily influenced by financial behavior and attitude. Financial literacy has a big impact on student investing decisions, as it can assist and expand understanding in managing finances or making investment decisions. On the other hand, financial literacy cannot moderate financial behavior or financial attitudes toward investment decisions.

Meanwhile, Arianti (2018) who conducted research on the influence of financial literacy, financial behavior, and income on investment decisions of 100 university students in University of Pamulang found out that financial literacy has no significant effect on investment decisions based on the evidence of the T-Test, while financial and income behavior have a significant effect on investment decisions. The other previous research used as the basis for this research is shown in the following table:

Table 2.2
Empirical Studies

No.	Author	Relationship to Current Thesis	Research Methods	Variables			Study Results
				Independent	Dependent	Additional	
1	Mochammad Rizaldy Insan Baihaqqy, Disman, Nugraha, Maya Sari, and Sugiyanto Ikhsan (2020)	Viewpoint in research background	Descriptive and verification approach through validity test and reliability test on the survey questionnaires.	Financial Literacy	Investment Decisions		Financial literacy is known to have a significant nfluence on investment decisions with a magnitude of effect of 2.1%
2	Alfina Raita Putri Aryadi	perspectives on the	Linear regression	Financial Literacy	Investment		Financial literacy

	(2022)	conceptual framework, research methods, and questionnaire design	with SPSS software		Decisions		affected people's investment decisions
3	Novia Utami and Marsiana Luciana Sitanggang (2021)	Perspective on literature review, questionnaire design, and overall research methods	Structural Equation Model regression - Lisrel statistical software	Financial Literacy	Investment Decisions		Financial literacy significantly influenced the investment decisions of Gen Z in Jakarta.
4	Linzzy Pratami Putri, Irma Christiana, Umi Kalsum, Widya, and Meyyara Justianti (2021)	Viewpoint in research background and additional literature	Simple linear regression	Financial Literacy	Investment Decisions		There was a significant influence of financial literacy on investment decisions.
5	Rizky Eko Harry Saputro and Diyan Lestari (2019)	Background and literature review, as well as an overview of the research theory used in the thesis	T-test, multiple linear regression analysis.	financial Literacy and Risk Perception	Investment Decisions		The financial literacy variable has a significant effect on investment decisions, the risk perception variable has a significant effect on investment decision
6	Baiq Fitri Arianti (2018)	Background and literature review	Descriptive statistical analysis, data	Financial Literacy, Financial	Investment Decisi		Financial literacy has no

		especially on financial behavior variables	quality test, classical assumption test, multiple linear regression test, F test, t-test, and coefficient of determination with SPSS	Behavior, and Income	ons		significant effect on investment decisions, while financial and income behavior have a significant effect on investment decisions
7	Nataliana Bebasari & Anis Istikomah (2020)	The relationship between independent variables and hypothesis development.	Validity, reliability, structural model testing, and hypothesis testing. The outer model test uses a convergent validity test, discriminant validity test, composite reliability test, and Cronbach's Alpha test.	Investment Motivation, Financial Behavior, and Financial Literacy	Invest ment Decisi ons		This study indicates a positive and significant effect of investment motivation, financial literacy, and financial behavior on investment decisions
8	Salomo Michihiro Simanjuntak, A. A. Gede Rama Cahyaningrat, Dewa Made Adi Pranayanata Kusuma, I Nyoman Jyobala Wijaya Kanela,	Literature review, especially on financial behavior and investment decisions	Structural Equation Model Partial Least Square (SEM-PLS) method.	Investment Experience and Financial Literacy	Invest ment Decisi ons	Mediating variable: Financial Behavior	Investment experience influences investment decisions indirectly through financial behavior. Thus, financial literacy also influences investment decisions

	Leiviano Aaron Susanto, and Farida Komalasari (2022)						indirectly through financial behavior.
9	Fangky Antoneus Sorongan (2022)	The relationship between variables especially financial behavior	Structural Equation Model Partial Least Square (SEM-PLS) method using smartPLS software.	Financial Behavior and Financial Attitude	Investment Decisions	Moderating Variable: Financial Literacy	Financial behavior, financial attitudes, and financial literacy all have a major impact on investment decisions. However, financial literacy cannot regulate investment decisions made by students in South Jakarta.
10	Ni Nyoman Alit Nugraheni, Pius Bumi Kellen, and Petrus Emanuel de Rozari (2021)	The results provide a new viewpoint to research in different region.	Multiple linear regression analysis.	Financial Behavior, Macroeconomics, and Financial Literacy	Investment Decisions	Moderating Variable: Covid19 Pandemic	Partially or simultaneously independent variables affect the dependent variable in the form of investment decisions positively and significantly. Only financial

							literacy does not have a significant influence on investment decisions

Source: Primary data processed, 2022

The majority of the study that served as the foundation for this thesis presents distinct perspectives due to different variables and sociodemographic areas used to gather their data. Despite using different regions to collect their data, Aryadi (2022), Bebasari & Istikomah (2020), Sorongan (2022), and Utami & Sitanggang (2021) produced the same results where financial literacy and financial behavior significantly affect investment decisions of generation Z. On this account, the researcher conducted a study using the same variables as prior studies but with different sociodemographic areas and variable indicators.

2.3 Conceptual Framework and Hypothesis

2.3.1 Conceptual Framework

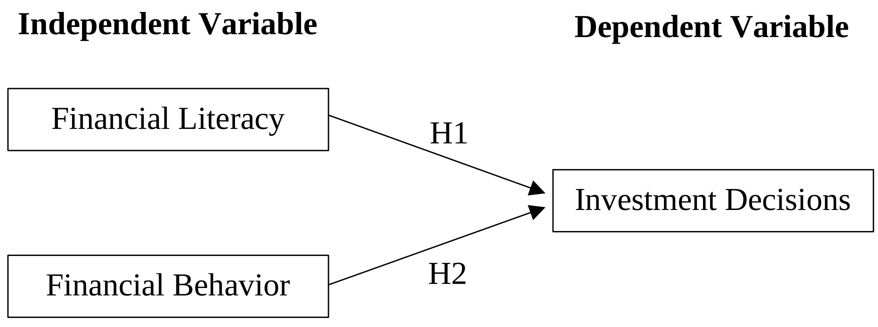

Figure 2.1
Conceptual Framework
Source: Modified Model from Aryadi (2022)

2.3.2 Hypothesis

2.3.2.1 The Relationship of Financial Literacy and Investment Decisions

Financial literacy is defined as the capacity to comprehend how money functions in modern society, as well as how an individual manages and invests their money (Abdeldayem, 2016). Coşkun, et al (2016) stated that financial literacy is an important aspect when making investment decisions. People with adequate financial literacy will make better financial decisions, including investment decisions. When an individual plans to invest, they are required to have sufficient financial knowledge or financial literacy to ensure that their financial decisions have a clear direction. Saputro & Lestari (2019) stated that financial literacy becomes inseparable in a person's life because it is useful in making financial decisions, one of which is investment decisions.

Previous research conducted by Baihaqqy, et al (2020) has shown that financial literacy had a considerable influence on investment decisions, with an effect magnitude of 2.1%. Putri, et al (2021), Aryadi (2022), and Utami & Sitanggang (2021) also found out that financial literacy significantly influences investment decisions in generation Z on different regions, including Bandung, Sumatera Utara, and Jakarta. Based on the aforementioned researches, the researcher has developed the hypothesis as stated below:

H1: There is a significant influence of financial literacy on investment decisions.

2.3.2.2 The Relationship of Financial Behavior and Investment Decisions

Financial behavior can be described as any individual behavior related to money management, including cash, credit, saving, and investment behaviors (Xiao, 2008). Individuals will impact their financial decisions, including investment decisions by determining different utility levels for each diversified wealth account. Every financial behavior of an individual is represented by their attitude and behavior toward financial problems in order to achieve great financial decisions, including investment decisions. Financial behavior plays an important role in investment decisions. According to Manurung (2012), individuals who invest not only utilize assessments of the prospects of their investment products, but psychological factors also serve a significant part in affecting decision-making.

Previous research conducted by Bebasari & Istikomah (2020) has shown that financial behavior has a positive impact on investment decisions in Pelita Bangsa University students, in which student behavior that leads to a thinking pattern of future financial solutions is the key to success in investing, beginning with establishing a savings account, the decision to purchase basic necessities, and delaying purchases for luxury items. This result is in line with the research conducted by Arianti (2018) and Nugraheni, et al (2021) where they found out that financial behavior has a significant impact on individuals' investment decisions. Therefore, based on the aforementioned researches, the researcher has developed the hypothesis as stated below:

H2: There is a significant influence of financial behavior on investment decisions.