

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter gives information about empirical review of previous literature. It also, includes the implementation of theories and determining how the independent variable effects the independent variables. This chapter also explains the proposed conceptual framework that use for performing this investigation as well as the hypotheses established during the study.

#### **2.2 Historical Literature Review**

##### **2.2.1 History of Investment in Cryptocurrency**

In 1983, American cryptographer David Chaum used cryptographic electronic money called e-cash. Then, in 1995, he implemented it via Digicash, an early form of cryptographic electronic payment that required the user's software to pull a note from a bank and designate a specific encrypted key before it could be sent to a recipient. This makes digital currencies untraceable to any issuing bank, government, or third party.

In 1998, Wei Dai published a description of b-money, which he characterized as a distributed electronic cash system. Shortly thereafter, Nick Szabo described bit gold. Like bitcoin and other cryptocurrencies that would follow it, bit gold is described as an electronic currency system that requires users to complete a proof of work function with a solution that is cryptographically aggregated and published. A reusable proof-of-work currency system was later created by Hal Finney following the work of Dai and Szabo.

In 2008 Satoshi Nakamoto developed cryptocurrency. Then the following year this digital money began to operate in the community and was named Bitcoin. The way Bitcoin works is quite unique, this money uses a peer-to-peer network as a transaction medium used by the wearer. To use Bitcoin, users must have a wallet (digital wallet) that functions to process transactions

into encrypted data which are known as blocks. Then the wallet will send the block to the peer-to-peer network for processing. Well, here later a number of computers will decode this block and process the transaction. This process is referred to as mining and each transaction that is successfully processed will be rewarded in the form of a number of Bitcoins. So one way to get cryptocurrency is by mining. However, the mining process is not easy, it requires high enough computer specifications to decode transactions and of course it takes quite a long time.

### **2.2.2 Development of Investment Cryptocurrency in Indonesia**

Cryptocurrency, which is on the rise, is experiencing positive developments judging from commodity trading and crypto asset investment. Last year in February 2021, the number of crypto investors reached 4.2 million people. This number is only slightly different from capital market investors who are at 4.5 million people. This figure continues to rise over time. In October 2021, there was a spike of up to two times the previous figure. If in February there were only 4.2 million crypto investors, in October 2021 the number of investors would reach 9.5 million people. This data is based on the Commodity Futures Trading Regulatory Agency. From the list of Indonesian cryptocurrency the most widely known are bitcoin and Ethereum. These two cryptocurrency are the most widely used by the people of Indonesia, because there are many examples of people who have benefited a lot from these two currencies. Every trade must be taxed. Cryptocurrency are no exception, which can bring benefits to lucky people, taxes will still be applied. With the rapid development of cryptocurrency in Indonesia, one of the tax proposals for crypto assets is 0.05%.

This proposal was given by one of the crypto associations in Indonesia to Bappeti in May 2021. It is intended that crypto assets owned by the Indonesian people, in the future can be protected by the state, and officially recognized. Without recognition and protection from the state, crypto assets that should exist could simply evaporate without making a profit. It's even worse if crypto

assets are considered illegal because of the proposal of one organization, then this can harm many people who become crypto investors. There are regulations and laws to regulate crypto assets in Indonesia. This regulation was issued by Bappeti, one of which regulates types of cryptocurrencies in Indonesia. In Bappeti regulation number 7 of 2020, crypto assets that can be traded in Indonesia include bitcoin, Ethereum, compounds, chainlinks, sythetix, tether, and manyother types. Everything registered with Bappeti is considered official and recognized asassets owned by investors. Furthermore, there are also other Bappeti regulations governing the technical implementation of crypto physical assets on futures exchange. Overall, there are 229 officially registered crypto assets at Bappeti, and are officially traded throughout Indonesia.

Based on Bappebti data, the demographics of crypto asset customers in Indonesia in 2022 will be dominated by the younger generation in the age range of 18-24 years (28.2%) and 25-30 years (28.5%). For the professional group of students (23.5%), they are one of the most dominant in terms of crypto asset investors in the country. The average demographic of crypto asset transaction values in 2022 also shows 64.6%, many of whom transact under IDR 500,000. And the highest transaction of more than IDR 100 million is only around 4.1%.

## **2.3 Theory of Study**

### **2.3.1 Theory of Finance Behavior**

According to Sujata & Jaya (2017), behavioral finance is concerned with investors' psychology and its impact in financial decision making. We know that humans have emotions that impact their decisions. Such judgements are frequently inefficient and illogical, and they can result in stock market disasters (Sujata & Jaya., 2017)

According to Dew & Xiao (2011), financial behaviour application is categorised into four categories:

#### **1. Consumption**

Consumption is the expenditure of money on various goods and services. A person's financial behaviour may be noticed by his consumption activities,

such as what he buys and why he buys it.

## 2. Cash-flow management

Cash flow is the primary indication of financial health since it measures a person's capacity to pay all of his costs. Good cash flow management is a balancing act between cash inflows and outflows. Cash flow management may be assessed by whether or not a person pays bills on time, keeps records or proof, and creates financial budgets and plans for the future.

## 3. Saving and Investment

Savings are defined as the share of income that is not spent during a given time period. Because no one knows what will happen in the future, money should be preserved in case of unanticipated catastrophes. Investment is the allocation or investment of present resources with the intention of gaining future advantages.

## 4. Credit management

Credit management, often known as debt management, is the capacity of a person to take advantage of debt in order to avoid loss or bankruptcy; in other words, to utilise money to improve one's well-being

## **2.4 Independent Variable**

### **2.4.1 Financial Literacy**

Financial literacy is an individual's comprehension of financial ideas and individual knowledge of personal financial facts required as a foundation for effective financial management and decision-making. Finance literacy encompasses banking and savings accounts, life and home health insurance, credit usage, taxes, and investments. Financial literacy may also be learned from a variety of sources, including official education, such as high school or college programmes, seminars and training sessions outside of school, and informal sources, such as parents, friends, and the workplace (Herdjiono and Damanik, 2016).

The dimensions of financial literacy considered in this study include general knowledge of finance and financial management, as well as

knowledge of saves and investments. Measured by indicators connected to the following statements: knowledge is highly essential for managing money, excellent financial knowledge may also produce a healthy economy, investment is a possibility for long-term income, and investing in stocks promises significant gains. Financial literacy is defined as the capacity to make sound financial decisions, discuss money and financial matters without embarrassment, prepare for the future, and respond intelligently to life events that impact daily financial decisions, including economic events in general. A person with a high level of financial literacy will seek out hazardous opportunities and make wise investment judgements (Samsuri et al., 2019 as cited in Thomas and Florentina, 2023). When a person possesses a set of skills and talents that allow them to use current resources to achieve their goals, they are said to be financially literate. Financial literacy improves the quality of financial services and adds to a country's economic growth and development. Individuals must acquire financial literacy to manage their personal finances as economic complexity, individual requirements, and financial products increase. According to Lusardi and Mitchell, quoted from Salisa, having good financial literacy will prevent people from making bad financial decisions because it means they understand various investment instruments and can manage investments wisely (Salisa, 2020). Individuals with low financial literacy will cause a lack of financial knowledge in their lives, which can allow the risk of financial fraud to arise and a person's low ability to use their finances so that there will be ineffectiveness in managing their finances.

#### **2.4.2 Trust**

Trust is a person's willingness to put themselves in a vulnerable position in hopes of a good outcome or good behavior (Kaur and Rampersad, 2018). Trust in cryptocurrencies may be built by having faith in the technology that underpins the currency and having a high degree of responsibility among important market participants. In a fiat society, people typically trust the

system since banks and payment processors are regulated and enforced to maintain a high level of security. Even if a security breach happens, the parties involved will be held responsible, and fiat currency users will be compensated. But, in the case of cryptocurrency, which are completely decentralised, the value is transferred straight from payment to payee.

The blockchain is incredibly safe since it publicly records every transaction ever made. The cryptocurrency system is safe in terms of technology, but there have been several instances of hacking and fraud. According to Deem (2015), the issue of bitcoin trust resides with the gatekeepers between cryptocurrency and their conventional fiat relationships. Cryptocurrency-related firms that operate as interfaces with fiat currencies, such as exchanges and payment processors, are usually unregulated. This is the spot where occur reported hacks, causing mistrust in the system and extreme volatility of cryptocurrencies. This mistrust comes out of the lack of accountability of these generally anonymous cryptocurrency-related businesses. When fiat cash is taken from a bank, its security is strengthened. As a result, when a cryptocurrency exchange is compromised, the response should be to increase exchange security. National authorities should establish organisational and behavioral norms to improve the security of the bitcoin business and enhance trust in cryptocurrency. The behavioral intention in the context of investing in cryptocurrencies with a high level of risk certainly cannot be separated from the variable of trust in the application of technology. Trust is very important when it comes to the investment world. Financial technology applications that can maintain public trust will get a high level of use. The advantage when someone trusts in using cryptocurrency as an investment tool is because of the security of the transaction system and the transparency provided by cryptocurrency. In addition, investing in cryptocurrencies has no guarantees, so if cryptocurrency disappear from circulation and are no longer used by the public, their value will also disappear (Hasani, 2022).

### **2.4.3 Awareness**

Awareness is a condition when a person is aware of an innovation and formulates a general perception, so that awareness is a variable that affects the stages of forming attitudes and behavioral intentions. When someone is fully acquainted with a financial application, it will affect their actions. Investors often accept giving up present value when making investments in exchange for uncertain future rewards. Several choices may need to be made in this regard, including the kind of instrument to use, the amount to spend, the best time to invest, etc. Conventional financial theory presupposes that investors must make rational investment decisions, whereas behavioral finance presupposes that investors essentially depart from making rational judgements (Sewwandi, 2015).

When one considers investing as a way of saving, it is easy to confuse saves with investment. This influences people's propensity to invest less, among other things (Lokhande, M. A., 2015). According to Alex Wang (2011), Young people's decisions to invest in particular financial instruments are significantly influenced by factors including awareness, money, and abilities. The literature makes one thing quite clear if assets are correctly handled and the appropriate tools for investing are chosen and kept under close watch, they may provide returns for investors. Also, in order to achieve this return or profit, investing actions must be motivated by emotions and other influencing elements. According to Mendoza-Tello et al., (2018), awareness on usefulness is the most important aspect in deciding to utilize cryptocurrencies for digital payments. Shahzad et al., (2018) emphasized that being conscious on the benefits and simplicity of use have a big impact on people to decide if they will use cryptocurrencies. Increasing investment awareness and culture is one of the efforts to minimize the negative impacts of technology and help people to take advantage of the positive impacts of technological progress through investment activities

## **2.5 Dependent Variable**

### **2.5.1 Behavioral Intention to Invest in Cryptocurrency**

According to Prapatchon (2022), the word "intention to use" refers to a user's desire to utilise technology in the future. The majority of technology research takes done in an organisational context, with the main aims of adopting the technology based on its efficacy, efficiency, and usefulness. When researching the urge to utilise technology in everyday life, both non-utilitarian and utilitarian incentives for utilisation must be reinforced with a technological viewpoint (Nysveen et al., 2005 as cited in Prapatchon et al., 2022). In the case of cryptocurrencies like bitcoin, research reveal that perceived utility is the most important factor in deciding whether or not to utilise them for electronic payments (Mendozatello et al., as cited in Prapatchon et al., 2022). According to Shahzad et al (2018), in the Chinese acceptance survey, perceived usefulness and perceived ease of use had a substantial influence on the intention to use bitcoins. There are many factors that influence a person's behavioral intention to invest in cryptocurrency, for example, ease of use, data security, government regulations, and social influence. it is these factors that can influence an individual's intention to invest in cryptocurrency.

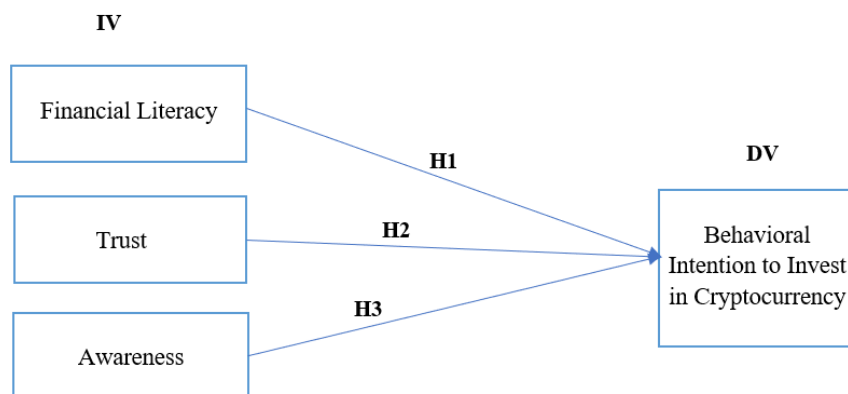
According to Saha and Theingi (2009) quality and satisfaction influence behavioral intention for word of mouth, feedback, and repurchase intention. According to Sari (2020) benefits and ease of use will shape behavioral intention, and if it is associated with the context of using technology, users will use it sustainably if the technology is well accepted. Behavioral intention to use bitcoin cryptocurrency is influenced by performance expectancy, social influence, and facilitating conditions, and the will to adopt bitcoin increases if there are convenience factors and growth potential as an investment tool. Ronald and Amelia (2016) argue that perceived usefulness, personal innovativeness, and social influence affect behavioral intention. The reasons for individual to invest in cryptocurrency are due to the advantages provided by cryptocurrency such as ease of transaction. Crypto assets can be accessed anywhere and anytime. Unlimited time and location limits. While online on the internet, individuals can



transact cryptocurrency. Individuals can very easily access the cryptocurrency market. On the other hand, cryptocurrency are prone to fraud. Investing in crypto that the creators don't recognize is what causes fraud. In an ecosystem without third parties, crypto assets can be misused as a venue for money laundering or even crime.

## 2.6 Conceptual Framework

This research will begin obtained from previous research, books, and other sources. So, based on the theories that have been obtained by researchers, it can be concluded that the behavioral intention to invest in cryptocurrency can be directly influenced by financial literacy, trust, and awareness. So that the relationship between the variables of this study can be described as follows:



**Figure 2.1 Conceptual Framework**

Figure 2.1 illustrates that financial literacy, trust, and awareness has an impact on behavioral intention to invest in cryptocurrency.

## 2.7 Hypthoses Development

### 2.7.1 Relationship Between Financial Literacy and Behavioral Intention to Invest in Cryptocurrency

Financial literacy may be defined as the understanding, analysis, management, and communication of personal financial problems (Rahayu et al., 2022 as cited in Thomas and Florentina, 2023). The foregoing argument may be used to derive the link between financial literacy and the desire to invest, since a person with a high level of financial literacy will be motivated to invest.

Individuals who seek to invest in very hazardous crypto assets must consequently be financially literate.

The research conducted by Thomas and Florentina (2023) revealed that trust influences the intention to invest in cryptocurrency. Based on this description, the following hypothesis is formulated:

**H<sub>1</sub>:** Financial Literacy has significant relationship on Behavioral Intention to Invest in Cryptocurrency.

### **2.7.2 Relationship Between Trust and Behavioral Intention to Invest in Cryptocurrency**

The research conducted by Thomas and Florentina (2023) revealed that trust influences the intention to invest in cryptocurrency. The results indicate that the more a person believes in cryptocurrencies, the more likely they are to invest in cryptocurrencies. Based on this description, the following hypothesis is formulated:

**H<sub>2</sub>:** Trust has significant relationship on Behavioral Intention to Invest in Cryptocurrency.

### **2.7.3 Relationship Between Awareness and Behavioral Intention to Invest in Cryptocurrency**

The research conducted by and Rana (2023) revealed that trust influences the intention to use in cryptocurrency. the results indicate that the growth in technological awareness is seen to be significant and to have a favourable impact on attitude. Based on this description, the following hypothesis is formulated:

**H<sub>3</sub>:** Awareness has significant relationship on Behavioral Intention to Invest in Cryptocurrency.

## **2.8 Summary**

This chapter discussed about the literature review, conceptual framework, research hypothesis and underpinning theory will be used this study. The literature review has recognized that these three variables are factors that

influence behavioral intention to invest in cryptocurrencies. Previous research has also shown that three variables are closely linked to cryptocurrency. In order to improve the content validity of the research, each variables is analysed using a number of different items, and all of the items are adopted from previously published mater. This chapter serves as direction for data examination in the next chapter