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Thomas Galang Prasetyo,
Universitas Multimedia Nusantara, Indonesia
https://orcid.org/0009-0002-1560-8302

Florentina Kurniasari,
Doctor of Economics, Associate Professor,
Universitas Multimedia Nusantara, Indonesia
https://orcid.org/0000-0001-5528-247X

THE INFLUENCE OF SUBJECTIVE NORMS, FINANCIAL LITERACY, TRUST, AND GOVERNMENT REGULATION ON BEHAVIORAL INTENTION TO INVEST IN CRYPTOCURRENCY

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Abstract. *Despite the fact that cryptocurrency is regarded as a highrisk speculative cryptocurrencies, the growth in the number of cryptocurrency owners in Indonesia continues to grow every year. The low level of financial literacy and the trust factor in crypto investment are the reasons why the government is worried about the increasing number of crypto investors. The study will provide an explanation for the rise in cryptocurrency investment based on the following variables: subjective norms, financial literacy, trust, and governmental regulation. Gender is utilized as a moderating variable to analyze the difference in cryptocurrencies investment between men and women. This study used a quantitative methodology, the data were collected using a questionnaire survey of respondents who were at least 17 years old, and had invested in non-cryptocurrencies. Financial literacy and trust were discovered to have an impact on the forming of investment intentions in cryptocurrency. Women are known to have higher trust than men in investing in cryptocurrencies. This research is expected to provide input to the Indonesian government in developing strategies to establish a safer environment for investors and to minimize the amount of risk associated with cryptocurrency investment.*

Keywords: *crypto assets; Theory of Planned Behavior; financial literacy; trust; government regulation.*

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Introduction

Cryptocurrency is a new technological disruption in the financial sector that is currently attracting worldwide attention. Cryptocurrency is a series of cryptographic codes that can be stored, transferred and used as a means of payment using blockchain technology, namely a digital distributed ledger to record every transaction and store data continuously (Norisnita & Indrianti, 2022). Over 320 million people have used cryptocurrencies between 2009, the year Bitcoin first appeared, and 2022 (TripleA, 2022). Cryptocurrency as a digital currency can be used to replace fiat currency as a means of payment. According to letter number S-302/M.EKON/09/2018 from the Coordinating Minister for the Economy, cryptocurrency is not accepted as payment in Indonesia and is instead only treated as a commodity asset that can be traded in a futures exchange under the control of the Commodity Futures Trading Regulatory Agency (Bappebti). Commodities assets are investments with a high risk but have the potential for earning considerable revenue in a short

period of time. Cryptocurrencies also go against Law Number 7 of 2011's Article 1 Points (1) and (2), which specifies that only the rupiah is recognized as the official currency and legal tender in Indonesia. According to Bank Indonesia, using cryptocurrency as a way to exchange fiat money and using it as payment can cause a country's currency to become unstable. Based on this explanation, it can be concluded that cryptocurrency cannot be used as a means of payment, but it can be used as a choice of crypto assets in Indonesia.

According to data from the Ministry of Finance, the number of Indonesians who own cryptocurrencies is growing year on year (Putri, 2022). It is known that, as of June 2022, the number of cryptocurrencies owners in Indonesia has surpassed 15.1 million, surpassing the 9.1 million stock investors (Ramli, 2022). The number of cryptocurrencies continues to grow in comparison to the previous two years, reaching 4 million in 2020 and 11.2 million in 2021 (Putri, 2022). As a result of this rapid growth, Indonesia was ranked fifth in Southeast Asia, following Thailand, Vietnam, Singapore, and the Philippines, as the country with the most cryptocurrencies owners in 2021 (Chainalysis, 2022; Trinugraheni, 2022).

Even though it has been recognized that cryptocurrency is a commodity asset by law, the government has persisted in advising the public not to invest in it. According to letter No. 20/4DKom, the government is taking this action because it fears that cryptocurrencies will be used to launder money or finance terrorism because of their high volatility and dependence on supply and demand According to letter No. 20/4DKom, the government's reason for doing this is that cryptocurrency values fluctuate greatly because they are based on supply and demand, do not have underlying assets that underlie prices and also trade values are very volatile so that they are vulnerable to inflation and are feared to become a means of money laundering or terrorism financing. Other risks associated with this investment include the absence of third-party authorities to regulate and supervise transactions, the anonymity of users in transactions, which is feared to increase the crime rate, the fact that it is not yet immune to hacking threats, the lack of a refund system if the transfer is incorrect, and the difficulty in harmonizing regulations that apply to regulate crypto investments (Pham et al., 2021; Purwati, 2019).

Because of the numerous risks associated with investing in cryptocurrencies, the government believes that the Indonesian people are currently inadequate to adopt the presence of this new tech. This statement is based on the fact that financial literacy in Indonesia is still considered low (Pratomo, 2022). According to the findings of an OJK, it is stated that the financial literacy level of the Indonesian people in 2022 is 49.68% (OJK, 2022). The OJK believes that the current percentage of financial literacy of the Indonesian population is still low, so they are not ready for the presence of cryptocurrency, even though there was an increase of 38.03% compared to 2019 (Pratomo, 2022). OJK discovered in their study that there were still a lot of people who did not know how to handle their own finances and did not comprehend the features of various available investment products (Pratomo, 2022). Prior studies discovered that a person's financial literacy influences whether or not they will invest (Samsuri et al., 2019). The government is concerned about the rapid growth of cryptocurrency asset owners in Indonesia because, despite the fact that financial literacy remains low, the number of cryptocurrency owners continues to rise, considering that this type of investment asset requires advanced financial knowledge.

Aside from financial literacy, the government is concerned about two aspects of the growing public intention to invest in cryptocurrencies: how people's trust is formed and whether or not their intention to invest is influenced by other people. Trust is an important factor in the introduction of a technological disruption, in this case crypto (Koroma et al., 2022). Trust can be defined as one's readiness to place oneself in a vulnerable position by expecting favorable outcomes in the future (Kaur & Rampersad, 2018a). Trust is very important in extending user involvement to continue using the technology (Alaeddin & Altounjy, 2018). As a new type of investment asset, the government is questioning how public trust is formed so people want to invest in cryptocurrency. According to several studies, current cryptocurrencies owners' trust is influenced by the sense of security and guarantees provided by service providers, precisely crypto exchanges (Tang et al., 2021; A. Wijaya et al., 2021). This research, however, needs to look into it further.

According to Delfabbro et al. (2021), the effect of FOMO (fear of missing out) can influence a person's behavioral intentions; people who have FOMO are usually driven to engage in a behavior that has no clear basis. Delfabbro et al. (2021) explained that FOMO stems not only from oneself but also from the testimonials of others. People will flock to invest in the same coins after seeing others make large profits from their crypto investments, for example. However, if the value of the coin deteriorates and falls in price, they will suffer a significant loss (Delfabbro et al., 2021). The government is concerned that individuals with FOMO who are encouraged to invest by others are to blame for Indonesia's explosive growth in cryptocurrency asset owners.

Based on this explanation, the researcher found several research gaps. To begin, cryptocurrency investment is known to be high risk, so good financial knowledge is required. According to Jureviciene and Jermakova (as cited by Samsuri et al., 2019), someone who lacks sufficient financial knowledge will not want to invest. People with low financial literacy should avoid investing in high-risk assets like cryptocurrency, but researchers have discovered that the number of crypto investors is growing each year. Second, previous research indicates that someone is willing to invest in cryptocurrency not because of the cryptocurrency's blockchain system, but because they believe in crypto exchanges (Tang et al., 2021; A. Wijaya et al., 2021). There must be evidence of the factors that lead someone to trust in cryptocurrency investing. Third, researchers believe it is necessary to conduct research on the impact of the social influence on a person's intention to invest, because there are indications of FOMO of becoming wealthy quickly through cryptocurrency investment. Not only that, but government regulatory factors must be considered, as the law governing cryptocurrency investment in Indonesia has been passed, regardless of whether it affects their intentions.

Based on the research gaps found, research regarding the factors that cause behavioral intention to invest in cryptocurrencies in the context of Indonesia needs to be carried out. The novelty in this study is to combine the factors of subjective norms in the Theory of Planned Behavior with other factors such as financial literacy, trust and government regulations which were carried out separately in previous studies. This study will also use gender as a moderator between the four previously mentioned factors on behavioral intentions. The goal of this study is to explain what factors contribute to the emergence of behavioral intentions to invest in cryptocurrencies, resulting in an increase in the number of crypto investors, as well as to serve as a source of information and input for the government in developing laws governing crypto asset investment in Indonesia.

Literature Review

2.1. Cryptocurrencies

Crypto assets come in a variety of forms, including cryptocurrencies, stable coins, and NFTs. Cryptocurrencies can be used as a medium of exchange, an investment, or to gain access to goods and services. In this study, the crypto asset referred to by the researcher is cryptocurrency. According to Harwick, as cited by Rice, cryptocurrencies are virtual assets that can be used as digital currency and can be exchanged by transferring assets and other forms of financial instruments (Rice, 2019). According to DuPont (as cited by Pham et al., 2021) cryptocurrency can operate using a technology known as block chain. Cryptocurrency is not controlled by the government or the banking system of financial institutions (Park & Park, 2019). Based on this definition, cryptocurrency is an encrypted virtual asset that operates using block chain technology without being controlled by specific authorities and can be used as a means of payment or investment.

In Indonesia, cryptocurrency is regarded as a digital asset with material properties rather than a currency used for payment (F. N. A. Wijaya, 2019). Wijaya explained cryptocurrency as a digital asset based on the law of objects and as a digital asset in his research. He stated that some characteristics of cryptocurrencies are in line with Indonesia's current law of goods. According to Wijaya, every object and right that can be subject to property rights falls under the definition of "material" as stated in Article 499 of the Civil Code (F. N. A. Wijaya, 2019). Wijaya explained that

objects are divided into several groups, one of which is tangible goods and intangible goods, then transferable goods and untransferable goods. The nature of cryptocurrencies that can be transferred digitally makes cryptocurrencies referred to as transferable goods, in accordance with the material law article 505 of the Civil Code. Then, cryptocurrency in the form of electronic data makes cryptocurrency an intangible good, according to material law article 503 of the Civil Code, which states that intangible goods are objects that cannot be seen in shape but have value. Cryptocurrencies can be both transferable and intangible, as well as proprietary. According to paragraph 2 of Article 22 of the Government Regulation on the Implementation of Electronic Systems and Transactions (PP PSTE), electronic information or documents that can be transferred must explain mastery and ownership. Cryptocurrencies have a different unique code for each address to show ownership, but it cannot explain the owner's name, address, or domicile. These codes denote that the asset is subject to goods rights. Wijaya also stated that cryptocurrency is a digital asset because it is a physical object contained in an electronic system that has value and can be owned or controlled by legal entities or individuals. Franco also stated that digital assets are objects whose ownership is digitally recorded and controlled directly by the owner (Franco, 2015).

Cryptocurrency is used not only as a digital currency, but also as an investment by classifying it as a commodity asset due to its high risk speculative assets and potential for very high profits in a short period of time. Based on this explanation, cryptocurrency can be defined as an intangible commodity that can be traded and has a legal basis for use in digital transactions.

2.2. Investment Theory

In general, financial investment can be defined as putting money aside to buy financial products with the expectation of making large profits within a certain period. An investment is a commitment to postpone or sacrifice funds or resources currently owned in order to obtain future profits (Hasani, 2022; Huda & Hambali, 2020; Laopodis, 2020). The financial products in financial investment can be cryptocurrencies, stocks, equity, gold, etc. Profit in financial investment is the change in price that occurs from the purchase price and the selling price in the future. When investing, risk occurs when the selling price does not exceed the initial price (Mardhiyah, 2017). A person will not experience decent profit if the risk of the investment they chooses is not high, as there is a one-way and linear relationship between risk and income expectations (Mardhiyah, 2017).

2.3. Theory of Planned Behavior

Theory of Planned Behavior is a theory that attempts to predict and comprehend the factors that drive behavior that are not under the control or choice of the individual. According to Ajzen (as cited by Yadav & Pathak, 2017), three factors influence people's behavior: attitudes, subjective norms, and perceptions of behavioral control. Attitudes influence behavior because beliefs about the outcomes are the foundation for engaging in certain behaviors (Syarkani & Tristanto, 2022; Tseng et al., 2022). Subjective norms influence behavior because perceived group pressure influences certain behaviors (Khan et al., 2019; Tseng et al., 2022). Perceived behavioral control influences behavior because of beliefs about the existence of factors that facilitate or inhibit a behavior, making it easy or difficult to perform (Ajzen, 2020). Although this theory is frequently used to predict behavior, Zhang (2018) and Anggraini (2021) argue that it has a flaw, namely its limited scope because it only focuses on individual rational behavior without incorporating human emotions, which usually influence human behavior .

The researcher makes reference to the study by Huong et al., which found that only subjective norms had an impact on the formation of intention to invest in cryptocurrencies (Huong et al., 2021). The opinions of the appropriate key individuals can influence investor intentions to invest in cryptocurrencies, according to Huong et al (2021). The influence of crypto experts' and influencers' opinions on social media, as well as the influence of FOMO has inclined people to invest in cryptocurrencies.

2.4. Financial Literacy

Financial literacy is defined as the extent to which a person understands the main concepts of finance so that he has the confidence to manage personal finances appropriately, making short-

term financial decisions as well as long-term financial planning (Zhao & Zhang, 2021). Financial literacy is also defined as the ability to use financial resource management knowledge and skills to achieve long-term financial stability (Jariyapan et al., 2022). According to Zhao and Zhang (2021), financial literacy has two dimensions: objective financial knowledge and subjective financial knowledge. Subjective financial knowledge refers to an individual's belief in how much they know about finance, whereas objective finance refers to an individual's understanding of financial concepts, principles, and instruments. According to Lusardi and Mitchell (2020) having good financial literacy will prevent people from making poor financial decisions because it means they understand various types of investment instruments and can manage investments wisely.

In Indonesia, crypto assets are a new investment instrument. Before selecting cryptocurrency as their preferred investment asset, sufficient financial literacy is undoubtedly required.

2.5. Trust

According to Kethineni and Yao (as cited by Koroma et al., 2022), trust is believed to have a significant role in the disruption of existing technology. According to Tang et al. (2021), trust is critical in the early stages of introducing technology. Mendoza et al. (2018) explained that when someone lacks trust, they will have doubts about using it. Trust is defined as the willingness to put oneself in a vulnerable position in the expectation of favorable outcomes or positive future behavior characteristics (Kaur & Rampersad, 2018b). Trust is a sense of security and guarantees that service providers can provide to increase behavior in using technology, in this case, exchanges that provide buying and selling crypto assets (Tang et al., 2021). If someone feels confident after using new tech-nology for the first time, they can expand their involvement to continue using the technology (Alaeddin & Altounjy, 2018). According to other research, it is critical to build trust-based relationships in order to increase the number of investors in crypto assets (Rekabder et al., 2021). According to Soedarto (as cited by Miraz et al., 2022) and Ku-Mahamud et al. (2019), trust is an important factor in behavioral intention (Rekabder et al., 2021).

When investing in cryptocurrencies, cryptographic methods available in the crypto ecosystem can ensure transaction confidentiality and security while also making transactions anonymous (Mendoza-tello et al., 2018). Users are forced to trust the block chain system during the transaction process when investing in cryptocurrencies , which Beck et al. (2016) refer to as a trust-free investment. This is clearly distinct from other investments, so the trust factor in this investment warrants further investigation.

2.6. Government Regulation

According to Irma et al. (2021), there are five reasons why cryptocurrencies in Indonesia require strict regulation and supervision. First, there is the payment system and rupiah currency management. If cryptocurrencies are used as a means of payment, this is in violation of Law No. 7 of 2011, which states that the Indonesian state currency is the rupiah and must be issued by the government. Second, there is the risk of outflow of capital that could affect the domestic economy and could affect Bank Indonesia's monetary policy. Third is the risk of financial system stability in cryptocurrencies transactions. Crypto cannot be used as currency because of its unstable value. Fourth, is the risk of violations of Anti-Money Laundering and Prevention of the Financing of Terrorism (APU-PPT). The central government is concerned about the anonymity of cryptocurrency transactions be-cause it appears to support money laundering, fraud, and even terrorism financing. Fifthly, there is a risk of violating consumer and personal data protection due to the lack of an authority overseeing the buying and selling of cryptocurrencies (Perkins, 2020). Based on these findings, further research into the impact of government regulation on the intention to invest in cryptocurrencies is needed.

2.7. Gender

Alshamy (2019) found that a person's intention to invest is influenced by their gender, supporting previous research that gender influences investment intentions due to differences in risk tolerance between men and women (Bannier & Neubert, 2016; Lemaster & Strough, 2013). Men and women have different perspectives on investing (Astika & Sari, 2019): men tend to prefer

riskier investments, whereas women prefer less risky investments. According to Bayyurt (as cited by Astika & Sari, 2019), this is due to women having lower self-confidence in terms of investment than men. Men are more aware of investment risks than women are (Altowairqi et al., 2021) and are more likely than women to enjoy taking risky investment actions due to their physiological nature (Marlow & Swail, 2014). Based on this explanation, further research into the effect of gender on the intention to in-vest in crypto assets is warranted.

2.8. Relationship between subjective norms and behavioral intention to invest in cryptocurrency

Several studies have produced conflicting findings regarding the relationship between subjective norms and behavioral intentions. Several studies have found that subjective norms have no effect on the intention to invest in cryptocurrency (Arias-oliva et al., 2019; Ayedh et al., 2020; Echchabi, Omar, et al., 2021; Mazambani & Mutambara, 2019; Nurbarani & Soepriyanto, 2022; Nurhayani et al., 2022; Zamzami, 2020). In contrast to these findings, other researchers discovered that subjective norms influence behavioral intentions to invest in cryptocurrency (Almajali et al., 2022; Anser et al., 2020; Echchabi, Aziz, et al., 2021; Pham et al., 2021). According to Huong et al. (2021), in a study to determine the behavioral intention to invest in cryptocurrencies in Vietnam, it was found that subjective norms have a positive and significant influence on the intention to invest in crypto assets among the three predictor variables of behavioral intention in the TPB model. According to Huong et al. (2021), the right key person can convince someone to invest in cryptocurrency while other research finds that people who are regarded as important and trustworthy by investors have the greatest influence on their intent to invest in cryptocurrency (Gazali et al., 2019; Jariyapan et al., 2022). Based on the explanation provided above, the researcher proposes the following hypothesis:

H1: Subjective Norms have an influence on Behavioral Intentions to Invest in Cryptocurrency

2.9. Relationship between financial literacy and behavioral intention to invest in cryptocurrency

An investor must be financially literate in order to maximize investment opportunities from the various investment products available as these are considered complex instruments (Rasool & Ullah, 2020). Financial literacy can be defined as a person's ability to comprehend, analyze, manage, and communicate personal financial issues (Rahayu et al., 2022). Someone with good financial literacy will want to participate in risky investments and will be able to make prudent choices regarding investments (Samsuri et al., 2019). Thus someone who wishes to invest in extremely risky cryptocurrencies must have a high level of financial literacy. Based on the above explanation, the researcher proposes the following hypothesis:

H2: Financial Literacy has an influence on Behavioral Intentions to invest in cryptocurrency

2.10. Relationship between trust and behavioral intention to invest in cryptocurrency

According to Soedarto (as cited by Miraz et al., 2022), trust is one of the factors that influence people's behavior intentions. The relationship between intention and belief is a critical foundation for someone's behavioral intentions when using technology (Ku-mahamud et al., 2019). As a new investment option in Indonesia, the more trust people have in crypto assets, the more likely they are to invest (Lim et al., 2022). Based on the explanation above, the researcher proposes the following hypothesis:

H3: Trust has an influence on Behavioral Intention to invest in cryptocurrency

2.11. Relationship between government regulation and behavioral intention to invest in cryptocurrency

Government regulations and support have made a significant contribution to avoiding uncertainty in the use of new technology, specifically cryptocurrency (Wu et al., 2022). The behavioral intention to use cryptocurrency is significantly influenced by government regulations

because clear regulations can avoid uncertainty in transactions, provide security, can provide protection, and with government supervision can solve problems experienced by users (Albayati et al., 2020; Putra & Darma, 2019; Saputra & Darma, 2022). Threats by governments to ban cryptocurrencies in their respective countries can also reduce people's intentions to use cryptocurrency in those countries (Gillies et al., 2020). Based on the explanation above, the researcher proposes the following hypothesis:

H4: Government Regulations have an influence on Behavioral Intentions to invest in cryptocurrency

2.12. Gender moderates subjective norms on behavioral intentions to invest in cryptocurrency

Gender has been used as a moderator between subjective norms and behavioral intentions in several studies. Venkatesh's UTAUT theory explains how gender influences the relationship between social influence and behavioral intentions (Venkatesh et al., 2022). Cabanillas et al. (2021) stated that there was a relationship between subjective norms and gender-moderated intentions in the use of new technology, which in this study could be crypto. In contrast, another study found no positive relationship between social influence and behavioral intention moderated by gender in the use of cryptocurrency in Indonesia (Novendra & Gunawan, 2017). According to Nurbarani and Soepriyanto (2022), demographic factors such as gender cannot moderate the relationship between subjective norms and the intent to invest in cryptocurrency assets. Based on the explanation above, the researcher proposes the following hypothesis:

H5: Gender moderates the relationship between Subjective Norms and Behavioral Intentions to invest in cryptocurrency

2.13. Gender moderates financial literacy on behavioral intentions to invest in cryptocurrency

Previous research has found a link between gender, financial literacy, and behavioral intention. Previous research has found that men have better financial literacy than women (Chen, 2021; Falahati & Paim, 2011; Lachance & Legault, 2007) while other studies have found that women have more financial knowledge than men (Kim et al., 2011; Lusardi & Tufano, 2015). Asandimitra et al. (2019) discovered that career women have high financial literacy due to their discipline in developing good financial plans and being consistent in continuing to invest their extra funds for investment.

Other research has found that gender has no effect on financial literacy or behavioral intentions, for example, financial literacy has been shown to have no effect on women's investment decisions (Bannier & Neubert, 2016). Other research indicates that men and women have the same behavioral intentions because there is no difference in financial literacy between men and women regarding financial behavior, which in this case can be considered investment behavior (Ansar et al., 2019; Fazli & Aw, 2021). In their research, Pertiwi et al. (2020) discovered that gender cannot moderate the relationship between financial knowledge and financial decisions, which can be interpreted as an investment. Gender does not influence different perceptions of their investment decision. Based on the explanation above, the researcher proposes the following hypothesis:

H6: Gender moderates the relationship between Financial Literacy and Behavioral Intention to invest in cryptocurrency

2.14. Gender moderates trust on behavioral intentions to invest in cryptocurrency

Previous research has discovered a link between trust, gender, and behavioral intention, indicating that women are more likely than men to believe in low-risk investments (Astika & Sari, 2019; Senkardes & Akadur, 2021). According to Wang, Keller, and Siegrist (as cited by Oliveira et al., 2017), based on gender, women prefer investments in the form of art, antiques, or gold and silver, which have less risk than investments made by men, such as stocks, houses, land, or, in this study, investment in crypto assets. Gender does not moderate the relationship between beliefs and

behavioral intentions, according to other studies, which found no differences in men's and women's beliefs about their behavioral intentions (Kayani et al., 2021; Yang et al., 2021; Zamzami, 2021). Based on the explanation above, the researcher proposes the following hypothesis:

H7: Gender moderates the relationship between Trust and Behavioral Intention to invest in cryptocurrency

2.15. Gender moderates government regulation on behavioral intentions to invest in cryptocurrency

The government plays a significant role in persuading men and women to invest in cryptocurrencies (Kayani et al., 2021). Government regulations are known to influence people's desire to own cryptocurrencies (Huang, 2019). Huang (2019) explained that men are more likely to want to own cryptocurrencies if the government can implement regulations to reduce risk in crypto transactions. His research discovered that they have no effect on the actions of women. Based on the explanation above, the researcher proposes the following hypothesis:

H8: Gender moderates the relationship between Government Regulation and Behavioral Intentions to invest in cryptocurrency

The following figure explains the research framework that was developed by the previous study.

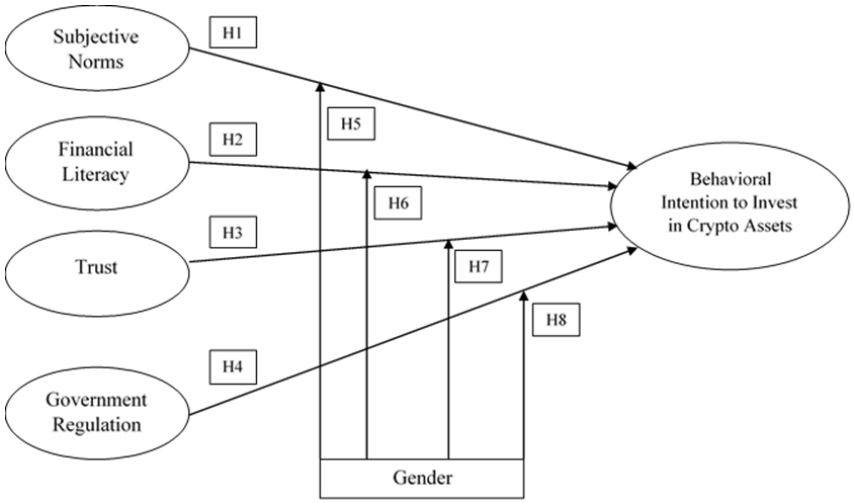

Figure 1. Research framework of this study

Source: It's a modification from Huong et al. (2021), Cristofaro et al. (2022), Mendoza-tello et al. (2018), Putra & Darma (2019), and Pham et al. (2021)

Methods

This study employs a quantitative approach, including PLS-SEM analysis. PLS is used to test theories with small datasets, such as a small number of samples, and to explain whether or not there is a relationship between latent variables, as well as to confirm a theory (Ghozali & Latan, 2015). The PLS-SEM analysis is divided into two sub-models: the measurement model (outer model), which explains how the manifest variable represents the latent variable to be measured, and the structural model (inner model), which demonstrates the strength of estimation between latent variables (Ghozali & Latan, 2015). This study employs a purposive sampling approach, with criteria being respondents who have experience investing in assets other than cryptocurrency and are 17 years old, as they are considered legally able to invest. Furthermore, 196 respondents were obtained who answered the questionnaire in the distributed survey, and 149 respondents who had invested were chosen. This study employs four point Likert scale measurements, with 1 indicating Strongly Disagree, 2 indicating Disagree, 3 indicating Agree, and 4 indicating Strongly Agree. The intention to invest in cryptocurrency is investigated using four variables, namely subjective norms, financial literacy, trust, and government regulations, with gender acting as a moderating variable. The

analysis was divided into four stages: descriptive analysis, outer model analysis to determine the validity and reliability of the research questionnaire, inner model analysis to test the effect between variables and hypothesis testing, and multi group analysis to compare two groups, namely men and women, and their influence in moderating the relationship between variables.

The question items of construct variables and indicator items are shown in Table 1.

Table 1.
Operational research variables

No	Construct Variable	References	Indicator	Indicator Code
1	Subjective Norms (SN)	(Cristofaro et al., 2022; Pham et al., 2021)	Opinions of important people in my life, such as family, spouse, and close friends, influence my decision to invest in crypto assets.	SN1
			I intend to invest in crypto assets due to pressure from people who influence me.	SN2
			Because of the advice of those close to me, I intend to invest in crypto assets.	SN3
2	Financial Literacy (FL)	(Cristofaro et al., 2022; Zhao & Zhang, 2021)	I intend to invest in cryptocurrency because I am knowledgeable about crypto assets.	FL1
			I intend to invest in crypto assets because I am capable of dealing with problems during the investing process.	FL2
3	Trust (TR)	(Alaeddin & Altounjy, 2018; Mendoza-tello et al., 2018; Miraz, 2020)	I believe in the services provided by Indonesian exchanges (for example, Tokocrypto, Indodax, Tokoin, Pluang, Pintu), so I intend to invest in crypto assets.	TR1
			I believe in the security of data privacy in crypto assets.	TR2
			I believe that investments in crypto assets are trustworthy because they avoid fraud and reduce transaction risks.	TR3
			I intend to invest in crypto assets because I am confident in the legality of crypto assets.	TR4
			I am confident in the security of the crypto asset transaction system.	TR5
			The transparency provided by crypto assets encourages me to invest.	TR6
4	Government Regulation (GR)	(Putra & Darma, 2019; Saputra & Darma, 2022)	I intend to invest in cryptocurrency because the government supports the existence of crypto assets	GR1
			I intend to invest because of the government's efforts to reduce risk in crypto assets	GR2
			I intend to invest because the government wants to be responsible by regulating the use of crypto assets	GR3
5	Behavioral Intention (BI)	(Broome, 2011; Pham et al., 2021)	I intend to invest in crypto assets	BI1
			I intend to make crypto assets a viable investment option.	BI2

Results

4.1 Characteristics of the Respondents

The characteristics of the respondents (Table 2) from the survey conducted included by the researcher are gender, age, last education, profession and whether they know crypto or not.

It is known that the most respondents in this study were women (60%) compared to men (40%). Based on age, the 23-28 age group and the 29-33 age group dominated with percentages of 80% and 9%. Based on the level of education, most of the respondents were bachelor graduates (86%), then master graduates (16%) and finally high school graduates (5%). Based on their profession, most respondents are private employees (65%) and entrepreneurs (10%).

Then, from all the respondents who filled out the survey it was found that as many as 85% of respondents knew about the term crypto while the other 15% did not know about crypto.

Table 2.
Respondent's characteristics

Characteristic	Criteria	Frequency (*n* = 149)	Percentage (%)
Gender	Male	60	40%
	Female	89	60%
Age	17-22	5	3%
	23-28	119	80%
	29-33	14	9%
	34-39	4	3%
	40-44	1	1%
	45-50	4	3%
	>50	2	1%
Education	High School	5	3%
	Bachelor's Degree	128	86%
	Masters Degree	16	11%
Profession	Unemployed	4	3%
	Student	5	3%
	Private sector employee	97	65%
	Civil servant	6	4%
	Entrepreneur	15	10%
	Freelancer	4	3%
	Others	18	12%
Know Crypto Assets	Yes	127	85%
	No	22	15%

4.2 Outer Model Analysis

Outer model analysis is carried out by testing convergent validity, discriminant validity, and reliability. The outer model can demonstrate how each indicator block relates to its latent variables (Ghozali & Latan, 2015). Convergent validity testing is used to determine the relationship between indicators and construct scores (Ghozali & Latan, 2015). Convergent validity is indicated by outer loading and average variance extracted (AVE) values greater than 0.5 for each indicator (Hair et al., 2019). To ensure that each concept from each latent model is distinct from other variables, discriminant validity testing is performed (Ghozali & Latan, 2015). Discriminant validity is determined by the cross-loading value and the results of the Fornell-Larcker criterion measurement. The cross-loading value must be above 0.70 to be said to have good discriminant validity (Hair et al., 2019). Meanwhile, the value of the Fornell-Larcker criterion test on the same variable must be higher compared to other variables (Hair et al., 2019). Reliability testing is required to determine how consistent the results of a study are when repeated. The value of composite reliability and Cronbach's alpha, which must be greater than 0.70, can be used to assess reliability testing (Ghozali & Latan, 2015).

Table 3 shows that the outer loading value of all indicators is greater than 0.50. The AVE value is also greater than 0.50, indicating that all indicators used in the study have a high correlation between indicators in the same variable. Furthermore, based on the value of Cronbach's alpha and composite reliability, the value is greater than 0.70, indicating that all of the indicators of subjective norms, government regulations, financial literacy, trust and behavioral intention that are used in this research are valid and reliable.

Furthermore, as shown in Table 4, the value of the cross-loading of all indicators of each variable behavioral intention, financial literacy, government regulation, subjective norms and trust that are used in this research is greater than 0.70 when compared to other variables.

Table 3.
Convergent validity and reliability test results

Variable	Indicator	Outer Loading	AVE	Cronbach's Alpha	Composite Reliability
		> 0.50	> 0.50	> 0.70	> 0.70
Subjective Norms (SN)	SN1	0.906	0.786	0.867	0.917
	SN2	0.827			
	SN3	0.924			
Government Regulation (GR)	GR1	0.933	0.843	0.909	0.941
	GR2	0.927			
	GR3	0.893			
Financial Literacy (FL)	FL1	0.927	0.868	0.849	0.930
	FL2	0.937			
Trust (TR)	TR1	0.810	0.709	0.918	0.936
	TR2	0.800			
	TR3	0.825			
	TR4	0.867			
	TR5	0.885			
	TR6	0.863			
Behavioral Intention (BI)	BI1	0.954	0.908	0.899	0.952
	BI2	0.952			

Table 4.
The cross loading test results

Indicator	BI	FL	GR	SN	TR
BI1	**0.954**	0.592	0.437	0.468	0.819
BI2	**0.952**	0.642	0.452	0.411	0.796
FL1	0.583	**0.927**	0.565	0.299	0.602
FL2	0.623	**0.937**	0.549	0.403	0.667
GR1	0.528	0.575	**0.933**	0.542	0.585
GR2	0.347	0.514	**0.927**	0.433	0.447
GR3	0.362	0.547	**0.893**	0.416	0.460
SN1	0.396	0.331	0.439	**0.906**	0.447
SN2	0.274	0.196	0.402	**0.827**	0.364
SN3	0.467	0.422	0.500	**0.924**	0.519
TR1	0.724	0.699	0.522	0.487	**0.810**
TR2	0.615	0.481	0.331	0.396	**0.800**
TR3	0.657	0.486	0.487	0.472	**0.825**
TR4	0.740	0.601	0.534	0.452	**0.867**
TR5	0.712	0.529	0.426	0.390	**0.885**
TR6	0.808	0.624	0.480	0.445	**0.863**

In the Fornell-Larcker criterion test (Table 5), the AVE square root value of the variable is already higher with the variable itself than with the other variables. Based on this calculation, it shows that all variables have a good level of discriminant validity.

Table 5.
Fornell-Larcker criterion test results

Variable	BI	FL	GR	SN	TR
BI	**0.953**				
FL	0.648	**0.932**			
GR	0.466	0.598	**0.918**		
SN	0.443	0.376	0.509	**0.887**	
TR	0.847	0.682	0.554	0.511	**0.842**

4.3 Inner Model Analysis

Inner model analysis is carried out by testing the coefficient of determination (R2), effect size testing (f2) and path coefficients testing. Testing the coefficient of determination (R2) measures

how far is the model's ability to apply variations in the dependent variable (Ghozali & Latan, 2015). In measuring the coefficient of determination, if the test results show a value of 0.75 or more then it is considered to have a strong influence, a value of 0.50 or more is considered to have a moderate effect and a value of 0.25 or more is considered to have a weak effect.

Table 6.
The measurement results of the coefficient of determination

Variable	R^2
Behavioral Intention	0.729

According to Table 6, the research model has a strength classification of 0.729. Based on these findings, the variables of subjective norms, government regulations, financial literacy, and trust can explain 72.9% of behavioral intentions, while the rest can be influenced by other variables. These findings also demonstrate that the influence of exogenous variables, such as subjective norms, government regulations, financial literacy, and trust, has a moderate effect on the endogenous variable, behavioral intentions.

The effect size test (f2) was used to determine whether or not changes in the value of exogenous constructs to endogenous constructs had any effect (Ghozali & Latan, 2015). In the effect size test, a value of 0.35 or greater indicates a large effect, a value of 0.15 or greater indicates a moderate effect, and a value of 0.02 or greater indicates a small effect (Hair et al., 2017).

Table 7.
Effect size test results

Variable	**BI**
BI	
FL	0.041
GR	0.008
SN	0.002
TR	0.973

This research also proofs that the trust variable (TR) has the greatest influence on behavioral intention (BI) with an f2 value of 0.973. The financial literacy variable (FL) has a moderate influence on behavioral intention (BI) with an f2 value of 0.041. Finally, two variables, government regulations (GR) and subjective norms (SN), have the least influence on behavioral intention (BI) with respective f2 values of 0.008 and 0.002 (Table 7).

Furthermore, the path coefficients must be tested to determine whether the hypothesis has a positive or negative direction (Ghozali & Latan, 2015). When testing path coefficients, the critical t-value must be higher than 1.96 with a significance level of 5% and the p-value must be less than 0.05 (Hair et al., 2017). This test can be performed by using a bootstrapping procedure to assess the effect of exogenous variables on endogenous variables by testing hypotheses (Hair et al., 2019). The purpose of bootstrapping is to determine the level of significance or probability (Ghozali & Latan, 2015). With bootstrapping analysis, a t-statistic value will be obtained to test whether or not the exogenous variable has a significant effect on endogenous variables and the p value will be compared with the significance level value to determine whether the hypothesis is accepted or rejected (Ghozali & Latan, 2015).

Table 8.
Path coefficients, t-value and p-value test results

Exogenous Variable	Endogenous Variable	Relationship Direction	T Statistics (> 1.96)	P Values (< 0.05)
	BI			
FL	0.155	Positive	2.009	0.045
GR	-0.063	Negative	0.952	0.341
SN	0.027	Positive	0.483	0.627
TR	0.763	Positive	11.564	0.000

According to the path coefficients test results in Table 8, the TR variable has the highest level of relationship with BI, with a path coefficients value of 0.763, while the GR variable has the lowest level of relationship with BI, with a path coefficients value of -0.063. Furthermore, the variables GR and SN to BI have t-values less than 1.96, whereas the variables FL and TR to BI have t-values greater than 1.96. The table shows that the p-values of the GR and SN variables are greater than 0.05, while the FL and TR variables are less than 0.05. Based on the data processed with the bootstrap procedure of 5000, the GR and SN variables have no significant relationship with the BI variable. Meanwhile, there is a significant relationship between the variables FL and TR to BI.

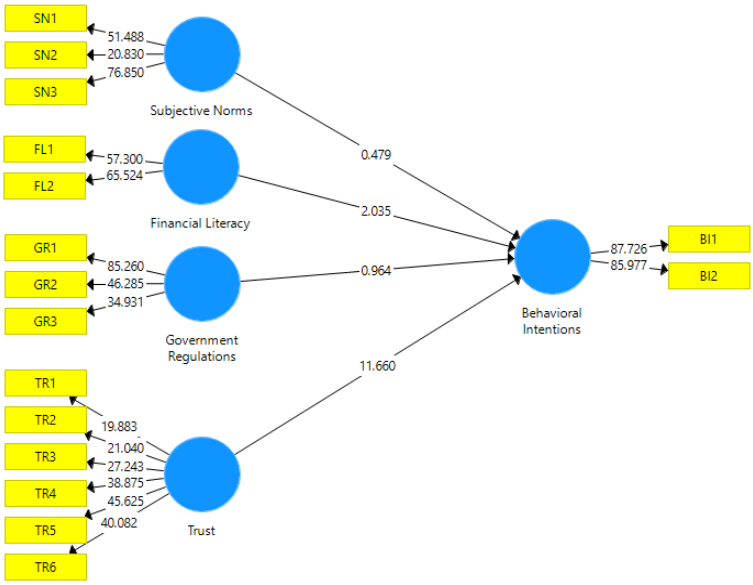

Figure 2. Path coefficients test results

4.4 Multigroup Analysis

Gender is used as a moderator between subjective norms, financial literacy, trust, and government regulations on behavioral intentions in this study. In this study, multigroup analysis is required to compare data analysis between the characteristics of men and women. The multigroup analysis was performed to see if there were any differences in how exogenous variables affected endogenous men and women. A bootstrapping procedure of 5000 was used in the test to determine the r-square value as well as the t-statistics value. This procedure is used to determine the effect of the exogenous variables' significance on the endogenous variables.

Table 9.
R-Square and t-statistics score in the male and female groups

Male			Female		
R-Square	**Endogenous Variable**	**t-statistics**	**R-Square**	**Endogenous Variable**	**T-statistics**
Exogenous Variable	**BI**		**Exogenous Variable**	**BI**	
SN	0.24	1.6	SN	0.146	1.818
FL	-0.047	0.418	FL	-0.099	1.274
GR	0.09	0.854	GR	-0.015	0.245
TR	0.603	4.894	TR	0.863	11.258

The study showed that the trust variable has the highest r-square value in the male group category, with a t-statistics value above 1.96, that is 4.894. This indicates that only the trust variable has a moderate effect on the behavioral intention to invest in crypto assets in the male group category. Furthermore, in the women's group category, the trust variable has the highest r-square value of 0.863 with a t-statistics value of 11.258. Only the trust variable has a strong influence on the behavioral intention to invest in crypto assets in the women's group category.

The Smith-Satterthwait test is required after bootstrapping to determine the moderating effect of gender on the intention to invest in cryptocurrency (Ghozali & Latan, 2015). This test is performed by calculating the path coefficient of each subsample that will be compared and tested for significance.

Table 10.
Smith-Satterhwait test results for gender subgroups

Variable	Description	Male	Female
Subjective Norms (SN)	Path Coefficients	0.09	-0.015
	Standard Error	0.105	0.062
Financial Literacy (FL)	Path Coefficients	0.24	0.146
	Standard Error	0.15	0.081
Government Regulation (GR)	Path Coefficients	-0.047	-0.099
	Standard Error	0.113	0.078
Trust (TR)	Path Coefficients	0.603	0.863
	Standard Error	0.123	0.077

The t-statistic value is calculated as follows:

$$t\,SN\ \frac{0.09-(-0.015)}{\sqrt{0.105^2+0.062^2}}=0.96$$

$$t\,FL\ \frac{0.24-(-0.146)}{\sqrt{0.15^2+0.081^2}}=0.60$$

$$t\,GR\ \frac{(-0.047)-(-0.099)}{\sqrt{0.113^2+0.078^2}}=0.43$$

$$t\,TR\ \frac{0.603-(-0.863)}{\sqrt{0.123^2+0.077^2}}=-2.01$$

The t-statistic value must be greater than 1.96 to indicate that the moderating variable has a significant effect on gender. According to the calculation above, only the confidence variable (TR) has a value greater than 1.96, indicating that the two paths differ significantly between men and women. Gender appears to moderate the relationship between trust and behavioral intention (BI).

The result of hypotheses testing is explained in the following Table 11:

Table 11.
Hypothesis testing

Hypothesis	Hypothesis Test	Results
H1: Subjective Norms have an influence on Behavioral Intentions	Subjective Norms have no significant effect on Behavioral Intentions	Rejected
H2: Financial Literacy has an influence on Behavioral Intentions	Financial Literacy has a significant effect on Behavioral Intention	Accepted
H3: Trust has an influence on Behavioral Intention	Trust has a significant influence on Behavioral Intention	Accepted
H4: Government Regulations have an influence on Behavioral Intentions	Government Regulations do not have a significant effect on Behavioral Intentions	Rejected
H5: Gender moderates the relationship between Subjective Norms and Behavioral Intentions	Gender does not moderate the relationship between Subjective Norms and Behavioral Intentions	Rejected
H6: Gender moderates the relationship between Financial Literacy and Behavioral Intention	Gender does not moderate the relationship between Financial Literacy and Behavioral Intention	Rejected
H7: Gender moderates the relationship between Trust and Behavioral Intention	Gender moderates the relationship between Trust and Behavioral Intention	Accepted
H8: Gender moderates the relationship between Government Regulation and Behavioral Intentions	Gender does not moderate the relationship between Government Regulation and Behavioral Intentions	Rejected

After testing all eight hypotheses, only three were accepted, namely the variables of financial literacy and trust, which are known to influence the behavioral intention to invest in cryptocurrency. Gender is also known to moderate the relationship between trust and behavioral intentions, with women having more trust in cryptocurrency as a new investment asset than men.

Discussion

This study aims to find out the causes of the intention to invest in cryptocurrency in Indonesia. Researchers also use variables of subjective norms, financial literacy, trust and government regulations as determinants of this behavioral intention. Gender is also used as a moderating variable to determine whether men and women have different investment intentions.

The study's findings show that subjective norms have no influence on one's intent to invest in cryptocurrency assets. Other people's influence and opinions are known to have no impact on their intention to invest. Ayedh et al. (2020) explained that, because other people have no experience investing in crypto assets, they cannot provide influence or opinions that can lead to someone's intention to invest. According to Mazambani and Mutambara (2019), subjective norms may have no effect because investment is considered a private matter that does not require the intervention of others.

Financial literacy was found to have an influence on the intention to invest in cryptocurrency assets. According to the findings of this study, respondents already have good financial literacy, which means that their intention to invest in cryptocurrencies is motivated by a desire to avoid the risks associated with investing. This high level of financial literacy is also due to the respondents' experience in investing, which means they not only have knowledge, but also understand how to apply it. The respondents' ages, which ranged from 23 to 28 years old, also indicate that the younger generation is more willing to take risks than the older generation. The younger generation is also more adept at using technology to access information, which helps them make more informed investment decisions.

Trust is also known to have an influence on the intention to invest in cryptocurrency assets. This research can prove that respondents do not only believe in crypto exchanges, but also in the blockchain system itself. Trust can arise because they already understand cryptocurrency technology and how to use it. Nonetheless, factors regarding avoiding scams and the legality of crypto still need to be improved. This is certainly the duty of the government to provide a safer crypto investment environment for all investors in Indonesia.

Government regulations were found to have no influence on the intention to invest in cryptocurrency assets. This indicates that the increasing intention to invest in cryptocurrencies is not influenced by applicable law. Besides because they already have good financial knowledge, the risk resilience of the respondents is also high so that government regulations do not affect the formation of their behavioral intentions.

This study also discovered that, although gender can moderate the relationship between trust and behavioral intentions, it cannot moderate the relationship between subjective norms, financial literacy, and governmental regulations on behavioral intentions. Both men and women are unaffected by social pressure or environmental influences to invest. There was also no difference between men and women in terms of the effect of their financial literacy on the intention to invest in cryptocurrency assets. Both men and women have the same knowledge regarding this investment. In this study, there was no effect of government regulations on investment intentions between men and women. This study discovered that women have higher trust in the services provided by crypto exchanges and blockchain systems than men, which influences their intention to invest in cryptocurrency assets.

Conclusion

7.1 Conclusion

The research aims to find out the factors that can influence someone to have the intention to invest in cryptocurrency. This study analyzes the influence of subjective norms, financial literacy, trust and government regulations on the intention to invest in crypto assets.

According to the research findings, only financial literacy and trust, two of the four exogenous variables chosen, have an effect on the intention to invest in cryptocurrency. This indicates that their intention is formed based on the knowledge they already have about cryptocurrencies and their applications, so that they finally trust the blockchain system used in crypto transactions and exchanges as a means of buying and selling their assets. This study also discovered that women's trust is greater than men's in influencing their intention to invest in crypto assets. Women today are more willing to make risky investments than men.

7.2 Limitations and Recommendation

This study seeks to explain the causes of the intention to invest in cryptocurrencies which continues to increase in Indonesia. The limitation of this study is that the majority of respondents are residents of the capital, where it is easier to obtain information about cryptocurrency investing. Because the majority of respondents are city dwellers, the results are less diverse. Not only that, but their education level in urban areas is higher than in other areas. Further research on cryptocurrency investment needs to be conducted on respondents who have never invested at all. As such, research can be conducted on students at school or university, which may yield results that differ from this research.

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