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# Intention to use cryptocurrency: Social and religious perspective

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## Abstract

**Purpose** – This study tries to find out what factors influence the intention to use cryptocurrency from a social and religious perspective using Self Determination Theory (SDT) and Theory of Planned Behavior (TPB).

**Methodology** – Respondents were chosen using purposive sampling targeting z generation and analyze using Structural Equation Modeling - Pooled Least Square (SEM-PLS). 100 respondents took part in this study and analyze using SmartPLS 3.2.9 Software.

**Findings** – The result of this study indicates that FoMO and Islamic financial literacy does not have influences on intention to use cryptocurrency while Attitude has a positive effect on intention to use cryptocurrency. The other finding of this study is religiosity and subjective norms has influence on attitude while higher level of religiosity will increase the Islamic financial literacy.

**Implications** – Theoretically, this study contributes to financial behavior and financial technology study. Practically, this study can be used by developer of sharia investment platform to optimize their product. Because even all of our respondents are a moslem, majority of them didn't investing in sharia product but also don't have intention to engage in Cryptocurrency.

**Originality** – We believe this study is the first empirical study that investigates the intention to use cryptocurrency from a religious perspective, specifically Islamic financial literacy.

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## Introduction

The technology has become rapidly growing in the last decade. Technology has been involved in every human activity such as politics, education and also economics. The technology involvement in the economics sector is evidenced by the existence of Financial Technology (Fintech). One of the fintech with the biggest growth is cryptocurrency. The concept of cryptocurrency was brought by David Chaum in the 1980s and the first transaction of cryptocurrency was in 2008 done by Nakamoto and Hal Finney with the bitcoin transaction. In line with the technology, crypto is also rapidly growing. According to Aarti et al. (2021), the market size of crypto in 2021 was $1.49 billion and projected to reach $4.94 billion in 2030. Indonesia is the 4th largest country worldwide, the number of users of crypto in 2020 reach 4 million and reach 7,5 million users in 2021. Cryptocurrency could be used as currencies or safe haven (Urquhart & Zhang, 2019).

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The existence of cryptocurrency also has some issues between society. The arguments are based on several issues such as security, economics and also religiosity. The arguments come from both literature and practice. Dwyer (2015) shows that crypto has higher volatility than gold or other currencies, while Briere et al. (2015) find that crypto can be a diversification for investors. The argument also based on religion aspect, there is a debate whether the crypto is allow or prohibit in Islam. Meera (2018) and Abu Bakar et al. (2017) suggest that crypto failed to meet the Islamic principle that currencies should be backed by real assets. Nurhisam (2017) also prohibits the use of cryptocurrency because it has more risks and weaknesses instead of the benefits. Indonesia as the country with the most Muslim population in the world, this issue also arises. Majelis Ulama Indonesia (MUI) as the Muslim fatwa institution also stated that cryptocurrency is prohibited in Islam (MUI, 2021). In the worldwide perspective, cryptocurrency also has several issues. In the United States, Joshua Garza did a virtual currency scam worth USD 9 million (Federal Bureau Investigation, 2019). In Turkey, Fatih Ozer as crypto exchanger, committed a cryptocurrency fraud worth USD 2 billion with 391.000 victims.

Prior research about cryptocurrency was conducted in several topics such as cryptocurrency in Islamic perspective (Abu Bakar et al., 2017; Mahdzan et al., 2017; Meera, 2018; Nurhisam, 2017; Siswantoro et al., 2020), the relationship between cryptocurrency and financial literacy (Fujiki, 2020, 2021; Panos & Karkkainen, 2019; Syarkani & Tristanto, 2022), behavioral (Baur & Smales, 2022; Farhana & Muthaiyah, 2022) the acceptance of crypto using TAM (Ter Ji-Xi et al., 2021) and UTAUT (Miraz et al., 2022), auditing (Dyball & Seethamraju, 2022; Harrast et al., 2022), regulation (Pelagidis & Kostika, 2022), and the relationship between cryptocurrency and cybercriminal (Corbet et al., 2019). The objectives of this paper are to investigate the relationship between Fear of Missing Out (FoMO), Islamic financial literacy, subjective norms, attitude, religiosity and the intention to use cryptocurrency. To the best author's knowledge, this research is the first research that investigates the relationship between cryptocurrency, religiosity and Islamic financial literacy. This paper is organized as follows: introduction containing the research background, then literature review will discuss the theories, previous research and hypothesis development. Third section will discuss the research method. Results and discussion will be discussed in the fourth section. Last section will discuss the conclusion, research's implication and further research possible.

## Literature Review and Hypotheses Development

### Fear of Missing Out (FoMO)

Self Determination Theory (SDT) is the origin in constructing FoMO. Referring to Przybylski et al., (2013) SDT is a perspective taken to better understand FoMO through the effectiveness of self-regulation and mental health so that it is reduced to three basic psychological needs of individuals: ability, autonomy and connection satisfaction. This theory has the point of view that the FoMO phenomenon is understood as inadequate self-regulation resulting in low satisfaction of psychological needs. FoMO is expressed in the form of an unpleasant experience and is ignored by people around, causing excessive fear and anxiety disorders, besides the overflow of information from the use of online-based technology (the internet) is one of the main causes (Przybylski et al., 2013). This statement is proved by a survey conducted by JWTIntelligence, (2012) which states that FoMO is experienced by up to 40% of internet users worldwide. As its development, FoMO is classified as a new symptom caused by internet use disorder. Individuals can easily find and share information via the internet and are supported by actual activities and events. In the end, FoMO is known as a social anxiety caused by advances in technology and information and the increasing use of social media.

Several previous research about the relationship between FoMO and investing was found. Herman (2000) did a research that shows investor decision making influenced by cognitive and environment which match with FoMO concept. Argan et al., (2022) conduct a research that investigates the relationship between FoMO and investment involvement. The result shows that FoMO has a positive correlation with investment involvement. This result is inline with previous study conducted by Cipriani and Guarino (2005) which found that investors ignore their knowledge

and only follow the investment decision of other investors under certain circumstances. According to several previous research, then we hypothesize that:

$H_1$: FoMO has positive effect to intention to use cryptocurrency

**Subjective Norms and Attitude**

Another theory we use in this paper is Theory of Planned Behavior (TPB). According to Ajzen (1991) TPB is the extensive model from Theory of Reasoned Action (TRA). According to Ajzen and Fishbein (1980), subjective norm is defined as the individual perception of social pressure to do or not to do a behavior. While Ajzen (1991) defined subjective norms as normative beliefs that related to individual's important people will agree or disagree to do certain behavior. Furthermore, Ajzen (1991) said that an individual's attitude and decision are strongly influenced by what is done by his/her community.

Several previous studies were conducted in investment topics. Yoopetch and Chaithanapat, (2021) shows that subjective norms have a positive effect on financial attitude and financial attitude has a positive effect on stock investment intention. Adam and Shauki (2014) conducted a similar research and resulting that attitude has a positive effect on investor's intention. In Islamic studies, Md Husin et al. (2022) investigate the impact of attitude on investor's decision making in Islamic stock market. The result shows that attitude has a positive effect on investment decisions. According to several prior research and theory, then we hypothesized as follows:

$H_2$: Subjective norms has positive effect on attitude toward cryptocurrency
$H_3$: Attitude has a positive effect on intention to use cryptocurrency

**Islamic Financial Literacy and Religiosity**

TPB has three origin postulates to show the effect of intention to behave such as subjective norms, attitude toward and perceived behavior control. However, in several studies TPB was extended to several external variables such as religiosity and financial literacy. Widyastuti et al. (2016) conducted research using financial literacy as a predictor for intention to saving behavior using TPB as underlying theory. Another research also conducted by Antara et al., (2016). They proposed an extensive model based on TPB in the context of Islamic financial literacy. The model shows that Islamic financial literacy as the predictor for attitude. Moreover, Badshah et al. (2014) and Jamal & Sharifuddin (2015) conduct research with TPB as the underlying theory to investigate the effect of Islamic financial literacy on financial decisions. Those studies show that financial decisions are strongly influenced by Islamic financial literacy.

Several research about Islamic financial literacy was conducted in several topics such as saving behavior (Azlan et al., 2015; Widyastuti et al., 2016), SDGs (Saifurrahman & Kassim, 2021; Saputra & Rahmatia, 2021) and intention to use Islamic banking (Albaity & Rahman, 2019; Zaman et al., 2017). Those research shows that Islamic financial literacy influenced the behavioral intention. In particular, Albaity and Rahman (2019) and Zaman et al. (2017) show that Islamic financial literacy has a positive effect on intention to use Islamic banking. We argue the positive effect caused by their dependent variable is intention to use Islamic banking -which not prohibited in Islam-. In contrary, our research focus on intention to use cryptocurrency -which prohibited in Islam-. Thus, based on that we hypothesized as follows:

$H_4$: Islamic financial literacy has negative effect on intention to use cryptocurrency

McDaniel and Burnett (1990) stated that religiosity can be a strong predictor of an individual's attitude and behavioral intention (Graafland, 2017). Several research was conducted containing religiosity and individual attitude such as (Alam & Sayuti, 2011; Chan et al., 2005; Mahdzan et al., 2017). Chan et al. (2005) shows that the Islamic value in a product strongly influences personal choice. Alam and Sayuti (2011) shows that Muslim consumer will using product that inline with his/her religious norms. In investment context, Mahdzan et al. (2017) shows that religiosity impacts the allocation of risky assets in portfolio. In this paper, we use new technology

such as cryptocurrency which is classified as a risk asset because several frauds have happened. Based on several prior research we hypothesized as follows:

$H_5$: Religiosity has a positive effect on attitude toward cryptocurrency

In educational context, several researches also contain religiosity and financial literacy (Darnell & Sherkat, 1997; LaRose, 2009; Lehrer, 1999; Regnerus & Elder, 2003). Lehrer (1999) and Darnell & Sherkat (1997) stated that religiosity has a negative effect on literacy. Their studies were conducted in christian context while this study was conducted in Islamic context. LaRose (2009) and Regnerus and Elder (2003) stated that religiosity and educational level has positive effect and religiosity can encourage the level of literacy. In Islamic context, Muslim with high religiosity is assumed to known several terminologies in Islamic finance such as *riba*, *gharar* and *maysir* (Utomo et al. 2020). Thus according to several prior studies, we hypothesized as follows:

$H_6$: Religiosity has a positive effect on Islamic financial literacy

## Cryptocurrency

A cryptocurrency is a virtual coin. In other words, it has no physical form. The only proof of cryptocurrency ownership is the transaction recorded on the blockchain. A blockchain is a public record (or electronic ledger). For example, people who own cryptocurrency want to buy goods from sellers who accept cryptocurrency as a payment method. Instead of banks facilitating the movement of currency, this movement is done through a public ledger system (Siswantoro et al., 2020).

The use of cryptocurrency was first recorded in 2008 namely a currency known as Bitcoin. The currency is introduced by a person or group using the anonymous name Satoshi Nakamoto through a publication entitled "Bitcoin: A Peer-to-Peer Electronic Cash System" published in 2008. Nakamoto (2008) explained that Bitcoin is created and distributed peer-to-peer or transactions are conducted directly between individuals and do not have a central bank.

Several research related to cryptocurrency were carried out in several topics such as cryptocurrency in Islamic perspective (Abu Bakar et al., 2017; Mahdzan et al., 2017; Meera, 2018; Nurhisam, 2017; Siswantoro et al., 2020), the relationship between cryptocurrency and financial literacy (Fujiki, 2020, 2021; Panos & Karkkainen, 2019; Syarkani & Tristanto, 2022), behavioral (Baur & Smales, 2022; Farhana & Muthaiyah, 2022) the acceptance of crypto using TAM (Ter Ji-Xi et al., 2021) and UTAUT (Miraz et al., 2022), auditing (Dyball & Seethamraju, 2022; Harrast et al., 2022), regulation (Pelagidis & Kostika, 2022), and the relationship between cryptocurrency and cybercriminal (Corbet et al., 2019).

## Research Framework

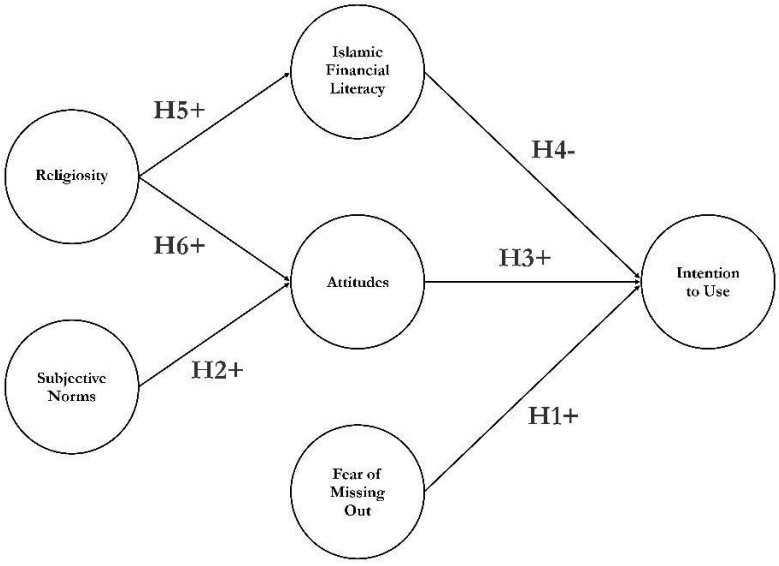


**Figure 1.** Research Framework

## Research Methods

### Sample Selection

Purposive sampling was used in this study. The sample was chosen based on following criteria: (a) Moslem, (b) Indonesian, (c) has an economic educational background, (d) z generation. We limited respondents to some criteria because the objective of this study is the intention to use cryptocurrency based on Islamic views. The economic educational background needed because we use Islamic financial literacy as our predictor variables. Then the z generation used because many of the z generation only follow the trend without knowledge and more likely to be affected by social influence (Lubis et al., 2022). The study was conducted on 21st November until 25th November 2022. The questionnaire was made using google form and distributed online through social media such as WhatsApp and Instagram. We use this method to get a better response from z generation. For the sample size we use the Kline's (2005) recommendation. Medium sample for Structural Equation Modelling (SEM) is 100 to 200. The large sample is over 200 and the small sample is less than 100. Our result shows that 100 respondents were engaged in filling out the survey questionnaire. In this study the majority of the respondents are female (57 respondents). Based on the age of the respondents, the majority are 21-23 years old (57%) followed by respondents with the ages of 24 to 26 years old (38%) and the ages of 17-20 (5%). The majority of respondents have a bachelor degree (83%), followed by master degree (16%) and doctoral degree (1%). Based on the type of university, 59% of respondents are from Islamic-based universities. Majority of our respondents (70%) didn't investing in sharia product.

**Tabel 1.** Respondents Demographic

| Constructs | Frequency | Percentage |
|---|---|---|
| Gender | | |
| Male | 43 | 43% |
| Female | 57 | 57% |
| Age | | |
| 17-20 | 5 | 5% |
| 21-23 | 57 | 57% |
| 24-26 | 38 | 38% |
| Educational Level | | |
| Bachelor | 83 | 83% |
| Master | 16 | 16% |
| Doctoral | 1 | 1% |
| University Type | | |
| Islamic University | 59 | 59% |
| Public University | 41 | 41% |
| Actively Invest in Sharia Product | | |
| Yes | 30 | 30% |
| No | 70 | 70% |

### Variable Measurement

This research is quantitative study using a questionnaire survey method. The questionnaire uses 6 scales from strongly disagree to strongly agree. The measurement of each variable was adopted and modified from several previous research. For the social perspective we use FoMO that was adopted and modified from Przybylski et al. (2013), subjective norms, attitude and behavioral intention was adopted from Ajzen (1991). For the religiosity perspective we use Islamic financial literacy was adopted from Dinc et al., (2021) and religiosity was adopted from Rahim et al. (2016). All of the survey's item were in English then we translate it to Bahasa Indonesia because our target is Indonesian.

### Data Analysis

This study using Partial Least Square - Structural Equation Model (PLS-SEM) with SmartPLS 3.0 software. In order to measure the intention behavior, we follow the statistical step did by Kholid et al. (2022). According to Hair et al. (2017), SEM will conduct measurement model and structural model. Measurement model containing reliability and validity tests while structural model containing hypothesis testing (Hair et al., 2017).

## Results and Discussion

### Measurement Model

First step of the measurement model is testing the factor loading from each instrument. The reliability of each instrument can be accepted if the loading factor value is greater than 0,7 (Hair et al., 2017). Our result shows that several items should be dropped because they do not meet the criteria. The items that should be dropped are FOMO4, IFL1, IFL3, IFL5, IFL6, IFL7, IFL8, IFL12, R2 and R3. Table 2 presents the result of the reliability test after dropping the items that do not meet the criteria. Table 2 also presents the value of cronbach alpha (CA), composite reliability (CR) and average variance extracted (AVE). The minimum value of acceptable CA and CR is 0,70 (Cronbach, 1951). While the minimum value of AVE is 0,50 (Hair et al., 2017).

**Tabel 2.** Measurement Model

| Indicator | Loadings Factor |
|---|---|
| Fear of Missing Out | CA:0,789 CR:0,869 AVE:0,689 |
| FOMO1: I feel afraid if I don't follow other people's trends | 0,912 |
| FOMO2: I'm afraid that I don't have the same experience as my friend | 0,758 |
| FOMO3: I feel anxious when I don't know what my friends are doing | 0,812 |
| Islamic Financial Literacy | CA:0,870 CR:0,905 AVE:0,657 |
| IFL2: I avoid interest-based transactions (*riba*) | 0,822 |
| IFL4: Paying interest-based loans (*riba*) is unacceptable to me | 0,807 |
| IFL9: There are alternative investment options without interest (*riba*) | 0,806 |
| IFL10: I can manage my finances without any involvement of interest) | 0,854 |
| IFL11: Interest (*riba*) has a negative impact on the economy | 0,763 |
| Religiosity | CA:0,860 CR:0,899 AVE:0,640 |
| R1: I believe in Allah who determines destiny | 0,769 |
| R4: I believe in and feel comfortable with my religion | 0,777 |
| R5: I always follow the rules of my religion in all aspects of life | 0,802 |
| R6: I have always avoided haram earnings | 0,818 |
| R7: I always fulfill my obligation to Allah | 0,834 |
| Subjective Norms` | CA:0,832 CR:0,888 AVE:0,665 |
| SN1:The majority of people I know have used Cryptocurrency | 0,757 |
| SN2: Important people in my life have used Cryptocurrency | 0,788 |
| SN3: People who knew me will agree that I use Cryptocurrency | 0,859 |
| SN4: People who knew me will suggest I use Cryptocurrency | 0,852 |
| Attitudes | CA:0,932 CR:0,952 AVE:0,831 |
| ATT1: Using Cryptocurrency is a good choice for me | 0,908 |
| ATT2: Using Cryptocurrency is profitable for me | 0,905 |
| ATT3: Using Cryptocurrency is useful in my life | 0,935 |
| ATT4: Using Cryptocurrency was the best decision I made | 0,899 |
| Intention to Use | CA:0,924 CR:0,952 AVE:0,869 |
| INT1: I am interested in using Cryptocurrency | 0,932 |
| INT2: I will think about using Cryptocurrency | 0,933 |
| INT3: I will use Cryptocurrency in the future | 0,931 |

**Structural Model**

The result shows that the value of $R^2$ for intention is 0,517 while the $R^2$ for attitude and Islamic financial literacy is 0,504 and 0,341. This means that 51,7% of the intention to use crypto is explained by Islamic financial literacy, attitude, and FoMO and the other 38,3% explained by other variables. Also for attitude and Islamic financial literacy, 50,4% of the attitude is explained by religiosity and subjective norms while another 49,6% explained by other variables and 34,1% of Islamic financial literacy is explained by religiosity and another 65,9% is explained by other variables outside the model. Figure 2 presents the result of hypothesis testing indicating that only H2, H3, H5 and H6 are supported. H2, H3 and H5 are positively significant at 0,01 level and H6 positively significant at 0,1 level. H1 and H4 are unsupported because their p value >0,1. Our result didn't support H1 and H4 because our majority sample has an economic education background. So they could be not affected by their social circle and use their knowledge if they really want to use cryptocurrency. The insignificant relationship between Islamic financial literacy and intention to use cryptocurrency could be caused by cryptocurrency being relatively new financial technology. For some people, they prioritize the main knowledge about the new technology before they assess it from a sharia compliance view. This statement supported by previous research was conducted by Panos et al., (2019). Their research shows that people who have better financial literation don't have intention to own cryptocurrency because they knew cryptocurrency is risky assets indicated by several fraud in cryptocurrency context.

The result shows that the $R^2$ value for intention is 51,7%. If we compare the $R^2$ value with another research that measure the intention to adopt cryptocurrency, this research provide sufficient value than existing research such as Miraz et al., (2022) that shows only 29,7% when they use UTAUT as predictor for intention to use cryptocurrency. Another study has slightly better $R^2$ than our study (Ter Ji-Xi et al., 2021) with 58,6% when they use Technology Acceptance Model (TAM) containing performance expectancy, perceived risk, facilitating condition and effort expectancy as the predictor for intention to use cryptocurrency.

The hypothesis testing shows that FoMO and Islamic financial literacy doesn't have influence on intention to use cryptocurrency. As we mentioned before, that might be caused by our sample having an economic education background. People who have at least a bachelor degree in economics, when they have investment choices such as cryptocurrency, they will use their knowledge as the main consideration and will ignore the social influence. Moreover, as we mentioned before that they use knowledge as the main consideration before engaging in crypto investment, they also set aside sharia compliance. Furthermore, crypto is classified as a new technology that has greater perceived risk and some fraud cases as we explained in the introduction. That leads to lower intention to use crypto before they assess from a sharia view. This result is also supported by previous research (Gunawan et al., 2021; Trianto et al., 2021). Gunawan et al. (2021) find that the Islamic financial literacy does not influence investment behavior among Islamic communities.

The result of our study shows that attitude has a positive effect on intention to use cryptocurrency and indicates that the greater attitude will result in greater intention to use cryptocurrency. Our result is inline with previous research (Adam & Shauki, 2014; Husin et al., 2022; Utomo et al., 2020; Yoopetch & Chaithanapat, 2021). Husin et al. (2022) shows that attitude has a positive effect on investor's intention to engage in investing activity. Adam and Shauki (2014) conducted a similar research and resulting that attitude has a positive effect on investor's intention. Yoopetch and Chaithanapat (2021) find that financial attitude has a positive effect on intention to engage in stock investment while Utomo et al. (2020) find that attitude has an effect on intention to use Islamic financial products.

Our result also shows that religiosity and subjective norms are predictor variables for attitude. This result indicates that greater level of religiosity and subjective norms will impact a greater attitude toward cryptocurrency. According to Ajzen (1991), subjective norms can be defined as normative beliefs that related to an individual's important people will agree or disagree to do certain behavior and individual's behavior strongly influenced by his or her community. While McDaniel and Burnett (1990) stated that religiosity can be a strong predictor of an individual's

attitude and behavioral intention. In this research, we use religiosity and subjective norms as a predictor for attitude towards cryptocurrency and the statistical result says that both of them has influenced on attitude towards cryptocurrency. Thats mean if in his/her community cryptocurrency is seen as something positive both normatively and religiously then the individu will have positive attitude toward cryptocurrency and vice versa. This result is inline with several previous research such as Yoopetch and Chaithanapat (2021), and Utomo et al. (2020). Both of the studies show that subjective norms and religiosity have a positive effect on financial attitudes.

Religiosity also has a positive effect on Islamic financial literacy. This result is inline with several prior studies that find religiosity has a positive effect on literacy and educational level (LaRose, 2009; Regnerus & Elder, 2003). This means a higher level of religiosity will impact higher Islamic financial literacy. This result seems very logical considering Islamic financial literacy is not common knowledge in formal education and many of the terms used in Islamic financial literacy are related to religious knowledge.

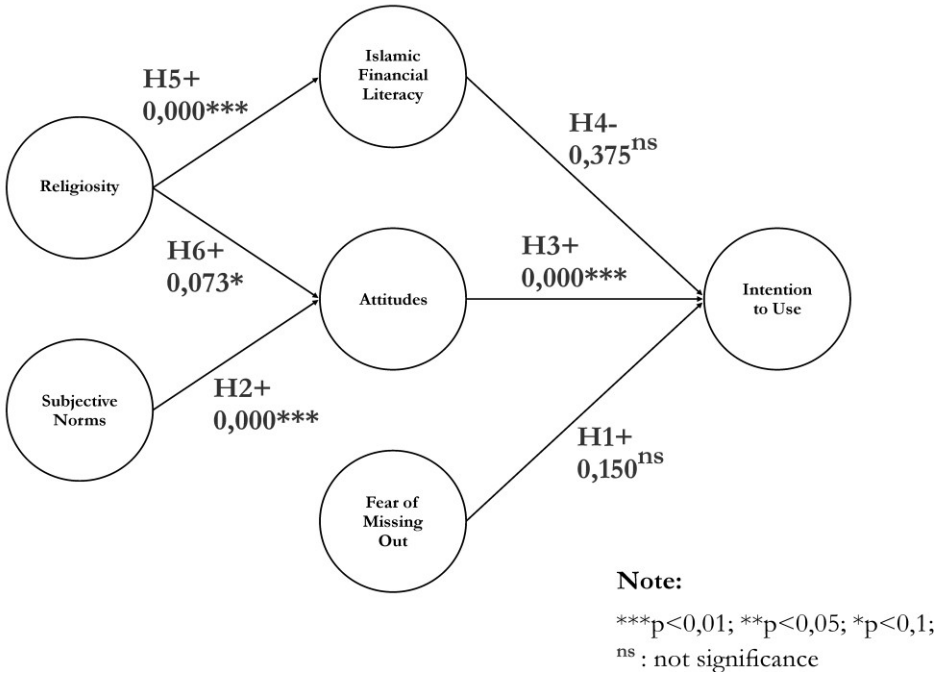


**Figure 2.** Result of Structural Model

## Conclusion

The findings of this study broaden the understanding of what factors can influence the intention to use cryptocurrency. In summary, this study finds that attitude has an influence on intention to use cryptocurrency, religiosity and subjective norms are predictor variables for attitude toward cryptocurrency. Surprisingly there is no significant relationship between FoMO and Islamic financial literacy on the intention to use cryptocurrency. This study contributes to literature of financial behavior and financial technology. Practically, this study can be used by developer of sharia investment platform to optimize their product. Because even all of our respondents are a moslem, majority of them didn't investing in sharia product but also don't have intention to engage in Cryptocurrency. This could be happened because the Islamic financial literacy in Indonesia is low. Our study has several limitations. First, in our sampling method, our criteria were to have an economic educational background. This might be reducing the FoMO and Islamic financial literacy influences on intention to use crypto. Second, from a religious perspective, our study only uses Islamic financial literacy on predicting the intention to use crypto. Further research could be to add another construct such as the knowledge of *riba* (Aji et al., 2019) or another construct possible. Further research can also integrate with various relevant theories to get more comprehensive results.

**Author Contributions**

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## References

Aarti, G., Pramod, B., & Vineet, K. (2021). *Cryptocurrency market outlook*. https://www.alliedmarketresearch.com/crypto-currency-market

Abu Bakar, N., Rosbi, S., & Uzaki, K. (2017). Cryptocurrency framework diagnostics from Islamic finance perspective: A new insight of bitcoin system transaction. *International Journal of Management Science and Business Administration, 4*(1), 19–28. https://doi.org/10.18775/ijmsba.1849-5664-5419.2014.41.1003

Adam, A. A., & Shauki, E. R. (2014). Socially responsible investment in Malaysia: Behavioral framework in evaluating investors' decision making process. *Journal of Cleaner Production, 80*, 224–240. https://doi.org/10.1016/j.jclepro.2014.05.075

Aji, H. M., Berakon, I., Muafi, & Kholid, M. N. (2019). The moderating role of knowledge about riba on intention to use e-money: Findings from Indonesia. *2019 IEEE 6th International Conference on Industrial Engineering and Applications, ICIEA 2019, April,* 588–593. https://doi.org/10.1109/IEA.2019.8714982

Ajzen, I. (1991). The theory of planned behavior. Organizational behavior and human decision processes, 50(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. NJ: Prentice Hall.

Alam, S. S., & Sayuti, M. N. (2011). Applying the theory of planned behavior (TPB) in halal food purchasing. *International Journal of Commerce and Management, 21*(1), 8–20. https://doi.org/10.1108/10569211111111676

Albaity, M., & Rahman, M. (2019). The intention to use Islamic banking: an exploratory study to measure Islamic financial literacy. *International Journal of Emerging Markets, 14*(5), 988–1012. https://doi.org/10.1108/IJOEM-05-2018-0218

Antara, P. M., Musa, R., & Hassan, F. (2016). Bridging Islamic financial literacy and halal literacy: The way forward in halal ecosystem. *Procedia Economics and Finance, 37*(December), 196–202. https://doi.org/10.1016/s2212-5671(16)30113-7

Argan, M., Altundal, V., & Tokay Argan, M. (2022). What is the role of FoMO in individual investment behavior? The relationship among FoMO, involvement, engagement, and satisfaction. *Journal of East-West Business,* 1–28. https://doi.org/10.1080/10669868.2022.2141941

Azlan, A., Jamal, A., Kamal, W., Mohdrahimie, R., Roslemohidin, A. K., & Osman, Z. (2015). The effects of social influence and financial literacy on savings behavior: A study on students of higher learning institutions in kota Kinabalu, Sabah. *International Journal of Business and Social Science, 6*(11), 110–119.

https://ijbssnet.com/journals/Vol_6_No_11_1_November_2015/12.pdf

Badshah, W., Hakam, U., Khan, A. S., & Saud, S. (2014). Factors affecting short-term investment intensions of stock investors in Pakistan. *Management and Administrative Sciences Review, 3*(3), 464–469. https://www.researchgate.net/profile/Waqar-Badshah/publication/328996235_Factors_Affecting_Short-Term_Investment_Intensions_of_Stock_Investors_in_Pakistan/links/5beebb75299bf1124fd64d62/Factors-Affecting-Short-Term-Investment-Intensions-of-Stock-Investors-in-Pakistan.pdf

Baur, D. G., & Smales, L. A. (2022). Trading behavior in bitcoin futures: Following the "smart money." *Journal of Futures Markets, 42*(7), 1304–1323. https://doi.org/10.1002/fut.22332

Briere, M., Oosterlinck, K., & Szafarz, A. (2015). Virtual currency, tangible return: Portfolio diversification with bitcoin. *Journal of Asset Management, 16*(6), 365–373. https://doi.org/10.1057/jam.2015.5

Chan, C., Gayatri, G., Mort, G. S., & Hume, M. (2005). *understanding service quality from the islamic customer perspective*. http://hdl.handle.net/1885/84250

Cipriani, M., & Guarino, A. (2005). Herd behavior in a laboratory financial market. *American Economic Review, 95*(5), 1427–1443. https://doi.org/10.1257/000282805775014443

Corbet, S., Cumming, D. J., Lucey, B. M., Peat, M., & Vigne, S. A. (2019). The destabilising effects of cryptocurrency cybercriminality. *Economics Letters, 191*(108741). https://doi.org/10.1016/j.econlet.2019.108741

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*(3), 297–334. https://doi.org/10.1007/BF02310555

Darnell, A., & Sherkat, D. E. (1997). The impact of fundamentalism on women. *The Impact of Protestant Fundamentalism on Educational Attainment, 62*(2), 306–315. https://doi.org/10.2307/2657306

Dinc, Y., Çetin, M., Bulut, M., & Jahangir, R. (2021). Islamic financial literacy scale: an amendment in the sphere of contemporary financial literacy. *ISRA International Journal of Islamic Finance, 13*(2), 251–263. https://doi.org/10.1108/IJIF-07-2020-0156

Dwyer, G. P. (2015). The economics of bitcoin and similar private digital currencies. *Journal of Financial Stability, 17*, 81–91. https://doi.org/10.1016/j.jfs.2014.11.006

Dyball, M. C., & Seethamraju, R. (2022). Client use of blockchain technology: exploring its (potential) impact on financial statement audits of Australian accounting firms. *Accounting, Auditing and Accountability Journal, 35*(7), 1656–1684. https://doi.org/10.1108/AAAJ-07-2020-4681

Farhana, K., & Muthaiyah, S. (2022). Behavioral intention to use cryptocurrency as an electronic payment in Malaysia. *Journal of System and Management Sciences, 12*(4), 219–231. https://doi.org/10.33168/JSMS.2022.0414

Federal Bureau Investigation. (2019). *Cryptocurrency fraudster sentenced.* https://www.fbi.gov/news/stories/cryptocurrency-fraudster-sentenced-021119

Fujiki, H. (2020). Who adopts crypto assets in Japan? Evidence from the 2019 financial literacy survey. *Journal of The Japanese and International Economies, 58*. https://doi.org/10.1016/j.jjie.2020.101107

Fujiki, H. (2021). Crypto asset ownership, financial literacy, and investment experience. *Applied Economics, 53*(39), 4560–4581. https://doi.org/10.1080/00036846.2021.1904125

Graafland, J. (2017). Religiosity, attitude, and the demand for socially responsible products. *Journal of Business Ethics, 144*(1), 121–138. https://doi.org/10.1007/s10551-015-2796-9

Gunawan, A., Asmuni, & Siregar, S. (2021). Islamic financial literacy and financial behavior: The case of Muhammadiyah community in Medan city. *Journal of Accounting and Investment, 22(*3), 500–516. https://doi.org/10.18196/jai.v22i3.10043

Hair, J. F., Hult, G. T., Ringle, C., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling* (PLS-SEM) (Second Edi). Sage Publications.

Harrast, S. A., McGilsky, D., & Sun, Y. (2022). Determining the inherent risks of cryptocurrency: a survey analysis. *Current Issues in Auditing, 16*(2), A10–A17. https://doi.org/10.2308/CIIA-2020-038

Herman, D. (2000). Introducing short-term brands: A new branding tool for a new consumer reality. *Journal of Brand Management, 7*(5), 330–340. https://doi.org/10.1057/bm.2000.23

Husin, M. M., Aziz, S., & Bhatti, T. (2022). The impact of brand familiarity, perceived trust and attitude on investors' decision-making in Islamic stock market. *Journal of Islamic Marketing, 2019*. https://doi.org/10.1108/JIMA-04-2020-0093

Jamal, A., & Sharifuddin, J. (2015). Perceived value and perceived usefulness of halal labeling: The role of religion and culture. *Journal of Business Research, 69*, 933–941. https://doi.org/10.1016/j.jbusres.2014.09.020

JwtIntelligence. (2012). *Fear of missing out (FoMO)*. https://www.slideshare.net/jwtintelligence/the-fear-of-missing-out-fomo-march-2012-update

Kholid, M. N., Tumewang, Y. K., & Amin, H. (2022). Aspirations to become a sharia accountant: A multigroup analysis between Islamic and public university. *Jurnal Ekonomi & Keuangan Islam, 8*(2), 182–196. https://doi.org/10.20885/jeki.vol8.iss2.art3

Kline, R. B. (2005). *Principles and practice of structural equation modelling*. Guilford Press.

LaRose, R. A. (2009). *The relationship between religiosity and educational pursuit and perception among college students at Utah State University* [Utah State University]. https://digitalcommons.usu.edu/etd/444

Lehrer, E. L. (1999). Religion as a determinant of an organizational culture. *Social Science Research, 28*, 358–379. https://doi.org/10.1006/ssre.1998.0642

Lubis, D., Tri Wahyuni, K., Mahanani, Y., & Riyadi, A. H. (2022). Why does the young generation invest in sharia mutual funds on the Bibit platform? *Jurnal Ekonomi & Keuangan Islam, 8*(2), 264–279. https://doi.org/10.20885/jeki.vol8.iss2.art9

Mahdzan, N. S., Zainudin, R., Che Hashim, R., & Sulaiman, N. A. (2017). Islamic religiosity and portfolio allocation: The Malaysian context. *International Journal of Islamic and Middle Eastern Finance and Management, 10*(3), 434–452. https://doi.org/10.1108/IMEFM-11-2016-0162

McDaniel, S. W., & Burnett, J. J. (1990). Consumer religiosity and retail store evaluative criteria. *Journal of the Academy of Marketing Science, 18*(2), 101–112. https://doi.org/10.1007/BF02726426

Meera, A. K. M. (2018). Cryptocurrencies from Islamic perspectives: The case of bitcoin. *Buletin Ekonomi Moneter dan Perbankan, 20*(4), 443–460. https://doi.org/10.21098/bemp.v20i4.902

Miraz, M. H., Hasan, M. T., Rekabder, M. S., & Akhter, R. (2022). Trust, transaction transparency, volatility, facilitating condition, performance expectancy towards cryptocurrency adoption through intention to use. *Journal of Management Information and Decision Sciences, 25*(S5), 1–20. https://www.abacademies.org/articles/Trust-transaction-transparency-volatility-facilitating-condition-performance-expectancy-towards-cryptocurrency-adoption-through-intention-to-use-1532-5806-25-S1-006.pdf

MUI. (2021). *Keputusan fatwa hukum uang kripto atau cryptocurrency*. https://mui.or.id/berita/32209/keputusan-fatwa-hukum-uang-kripto-atau-

cryptocurrency/

Nakamoto, S. (2008). Bitcoin: A peer-to-peer electronic cash system. *Decentralized Business Review*. https://assets.pubpub.org/d8wct41f/31611263538139.pdf

Nurhisam, L. (2017). Bitcoin: Islamic law perspective. *Qudus International Journal of Islamic Studies, 5*(2). https://doi.org/10.21043/qijis.v5i2.2413

Panos, G. A., & Karkkainen, T. (2019). Financial literacy and attitudes to cryptocurrencies. *SSRN Electronic Journal,* https://doi.org/10.2139/ssrn.3482083

Pelagidis, T., & Kostika, E. (2022). Investigating the role of central banks in the interconnection between financial markets and cryptoassets. *Journal of Industrial and Business Economics, 49*(3), 481–507. https://doi.org/10.1007/s40812-022-00227-z

Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional and behavioral correlates of fear of missing out. *Computers in Human Behavior, 29*, 184101848. https://doi.org/10.1016/j.chb.2013.02.014

Rahim, S. H. A., Rashid, R. A., & Hamed, A. B. (2016). Islamic financial literacy and its determinants among university students: An exploratory factor analysis. *International Journal of Economics and Financial Issues, 6*, 32–35. https://dergipark.org.tr/en/download/article-file/364002

Regnerus, M. D., & Elder, G. H. (2003). Staying on track in school: Religious influences in high- and low-risk settings. *Journal for the Scientific Study of Religion, 42*(4), 633–649. https://doi.org/10.1046/j.1468-5906.2003.00208.x

Saifurrahman, A., & Kassim, S. (2021). Islamic financial literacy for Indonesian MSMEs during Covid-19 pandemic: Issues and importance. *Journal of Islamic Finance, 10*(1), 45–60. https://journals.iium.edu.my/iiibf-journal/index.php/jif/article/view/526

Saputra, A. D., & Rahmatia, A. (2021). Islamic financial literacy index of students: Bridging SDGs of Islamic finance. *Economics and Finance in Indonesia, 67*(1), 34. https://doi.org/10.47291/efi.v67i1.730

Siswantoro, D., Handika, R., & Mita, A. F. (2020). The requirements of cryptocurrency for money, an Islamic view. *Heliyon, 6*(1), e03235. https://doi.org/10.1016/j.heliyon.2020.e03235

Syarkani, Y., & Tristanto, T. A. (2022). Examining the predictors of crypto investor decision. *International Journal of Research in Business and Social Science, 11*(6), 324–333. https://doi.org/10.20525/ijrbs.v11i6.1940

Ter Ji-Xi, J., Salamzadeh, Y., & Teoh, A. P. (2021). Behavioral intention to use cryptocurrency in Malaysia: an empirical study. *Bottom Line, 34*(2), 170–197. https://doi.org/10.1108/BL-08-2020-0053

Trianto, B., Yuliaty, T., & Sabiu, T. T. (2021). Determinant factor of Islamic financial inclusiveness at MSMEs: Evidence from Pekanbaru, Indonesia. *Jurnal Ekonomi & Keuangan Islam, 7*(2), 105–122. https://doi.org/10.20885/JEKI.vol7.iss2.art1

Urquhart, A., & Zhang, H. (2019). Is bitcoin a hedge or safe haven for currencies? An intraday analysis. *International Review of Financial Analysis, 63*, 49–57. https://doi.org/10.1016/j.irfa.2019.02.009

Utomo, S. B., Sekaryuni, R., Widarjono, A., Tohirin, A., & Sudarsono, H. (2020). Promoting Islamic financial ecosystem to improve halal industry performance in Indonesia: a demand and supply analysis. *Journal of Islamic Marketing, 12*(5), 992–1011. https://doi.org/10.1108/JIMA-12-2019-0259

Widyastuti, U., Suhud, U., & Sumiati, A. (2016). The impact of financial literacy on student teachers' saving intention and saving behaviour. *Mediterranean Journal of Social Sciences.*

https://doi.org/10.5901/mjss.2016.v7n6p41

Yoopetch, C., & Chaithanapat, P. (2021). The effect of financial attitude, financial behavior and subjective norm on stock investment intention. *Kasetsart Journal of Social Sciences, 42*(3), 501–508. https://doi.org/10.34044/j.kjss.2021.42.3.08

Zaman, Z., Mehmood, B., Aftab, R., Shahid, M., & Ameen, Y. (2017). Role of Islamic financial literacy in the adoption of Islamic banking services: An empirical evidence from Lahore, Pakistan. *Journal of Islamic Business and Management, 7*(2), 230–247. https://doi.org/10.26501/jibm/2017.0702-006