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Acceptance of Cryptocurrency in Thailand

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Abstract

Background and purpose: The popularity of trading in cryptocurrency has risen from time to time in the market. Many countries, including Thailand, are aware of cryptocurrencies, especially in terms of taxation, Initial Coin Offering (ICO), legalization and control and scamming. This study focuses on providing a deep analysis of the perceptions of Thai cryptocurrency investors. **Research design, data and methodology:** The investors' demographic characteristics of gender, age, occupation, education level and income were examined as control variables. The data analysis was based on 898 respondents in the Thai cryptocurrency market. Binary regression was employed. **Results:** The majority of the respondents was male at about 63.6 percent. Most of the contributors' age between 21 and 30 years old. Interestingly 56 percent of the occupation is students. Age, gender, and income had a significant influence on cryptocurrency adoption. **Conclusions:** Thailand needs a collaborative plan involving policymakers, regulators, investors, the Bank of Thailand (BOT), the government, and the Securities and Exchange Commission, Thailand (SEC). This will drive sustainable growth in the financial and technology sectors, while balancing innovation, policies, and regulations. Initially, attention should be given to male investors with higher age and income, who show greater cryptocurrency investment potential.

Keywords: Blockchain Technology, Cryptocurrency, Digital currency, Financial Investment, Thailand

JEL Classification Code: E42, G18, O33, O38

1. Introduction

Cryptocurrencies such as Bitcoin, SETLcoin, Ether, Solar Coin, or Liberty Reserve exist since 2009. Cryptocurrency, a digital or virtual form of currency, has gained significant attention and adoption globally, challenging traditional financial systems (Dierksmeier & Seele, 2018; Fauzi, et al., 2020). A digital asset is a unit of digital data that serves as a medium for exchanging value when buying and selling goods and services. It can be compared to the physical cash used today. These digital data units are commonly referred to as digital coins or cryptocurrency because they can be used for trading goods, services, and investments. However, unlike physical cash, digital assets are intangible. In addition to being used as a cryptocurrency for trade, digital assets can also represent the right to invest in various forms. In Thailand, digital assets are officially supported and regulated, and they can be

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classified into two types: digital tokens and cryptocurrency. It is important to note that currently, no central bank in the world can guarantee that cryptocurrency can be considered legal tender. Some well-known cryptocurrencies include Bitcoin, Ethereum, Cardano, and Solana. Bitcoin, in particular, holds the largest market share among digital currencies (Chatchawanchanchanakij, 2022). Bitcoin is a decentralised cryptocurrency founded in 2008. The superiority of Bitcoin results from the fact that all transactions could happen as peer-to-peer transactions without an intermediary. Nakamoto, the founder of Bitcoin, stated that the technology allows 'online payments to be sent directly from one party to another without going through a financial institution. Ethereum is the second largest global digital asset, which was founded by Vitalik Buterin, Chales Hoskinson, Gavin Wood, Joseph Lubin and Anthony Di lorio. Ethereum has been used in various ways, such as decentralised finance (DeFi), smart contract deployment and non-fungible tokens (NFTs). All of these are based on Ethereum's ERC-20 token standard over the Ethereum blockchain. Tether (USDT) is a stable coin. Tether White Paper claims that it is backed by the same amount of U.S. dollars (one-to-one ratio). The core benefits that Tether mentions on the usage of USDT are that it allows users to move the cryptocurrency freely, quickly and cheaply. The major risk of the USDT is the possibility of bankruptcy because there is still no evidence to prove the one-to-one ratio. USDC is built on the ERC-20 standard which is run on Ethereum blockchain. Different from the USDT, the USDC declares audit results monthly. USDC is widely accepted by leading firms (Klein et al., 2023; Kraiwanit, 2023; Kraiwanit & Chomtosuwan, 2023)

Cryptocurrency, a digital or virtual form of currency, has gained significant attention and adoption globally, challenging traditional financial systems. In Thailand, the acceptance and utilisation of cryptocurrencies have been steadily increasing, indicating a growing interest in this emerging digital asset market. Given its significance, an acceptance of cryptocurrency in Thailand is a critical topic to study. Therefore, this research aims to delve into the acceptance of cryptocurrency in the Thai digital asset market and investigate the factors that may influence its adoption.

2. Literature review

Tangwattanarat (2017) stated that Thai investors have positive attitudes and perceptions of cryptocurrency investments due to the blockchain technology and an innovative view. In addition, Limsakul and Kraiwanit (2020) found that Thai investors have beliefs, optimism, bias and overconfidence in cryptocurrency investment. Fongthiwong and Chancharoenchai (2019) confirmed based on their research that private sector males 20 to 40 years old with a salary range from 10,000-30,000 THB are more likely than others to adopt cryptocurrency. This provides support to our research result that gender and age are significant for the adoption of cryptocurrency. Waroonkun et al. (2021) revealed their study results that investors between 31 and 40 years old showed a greater level of understanding towards digital asset taxation than the lower age range. This is aligned with our research that age has a significant effect on the adoption rate. Nevertheless, Waroonkun et al. (2021) found that the higher the education level, the better the understanding of the taxation of cryptocurrency. This is opposite to our research outcome related to education level in which a higher education level of investors did not imply a higher adoption rate of cryptocurrency.

The research by Sukumaran et al. (2022) gathered information from 211 respondents showing that the demographics of age and gender of Malaysian investors significantly influenced adopters and potential adopters. Likewise, in our research results, age and gender were found to be a significant influence among Thai investors. Sukumaran et al. (2022) also stated that education, income and investment experience were not found to be significant. This result is opposite to our research on income, whereby we found that income level is significant. Another difference between the two research studies is that our research did not examine investment experience. Hence, there is no outcome in this paper related to that.

Interesting research in Turkey by Senkardes and Akadur (2021) found that men tend to invest in cryptocurrency more than women, and men also follow the investment outcome more than women. These researchers also showed in their study between genders based on psychological and demographic factors that women prefer investments other than in cryptocurrency due to limited knowledge and income levels. In other words, the outcome of the research focused on Turkey is aligned with our results that there is a significant difference based on the gender of the respondents in Thailand.

Research conducted in India by Mohammed-Nabeel and Sumathy (2021) found four interesting outcomes that indicated young people between 25 and 35 years of age are significantly aware of cryptocurrency. The investors with a higher education level (postgraduates) are more conscious of digital currency compared to graduates. Investors with occupations such as professional or business people were more aware of the adoption of cryptocurrency than the rest. Lastly, the longer period of investment experience, the more confidential with cryptocurrencies. The India research outcomes on the age is aligned with this research only whereby the education level and occupation are not.

Vejačka and Paľová (2019) have disclosed interesting research to enhance the digital and financial knowledge of Slovak women. The study found that male respondents generally had more knowledge of the cryptocurrencies than did the women respondents. In addition, the authors suggested that long-term education in Information and Communications Technology (ICT) and economics could improve literacy. However, our research found that the education level in Thailand had no significance in the adoption of cryptocurrency.

Research on cryptocurrency adoption in Malaysia by Ku-Mahamud et al. (2019) showed that adoption does not depend on age, education level or industry sector. These results may vary because the study was conducted among Malaysian blockchain communities. The respondents were probably already familiar with the blockchain and cryptocurrency. As a result, the outcome showed that educational background does not play an important role in determining the involvement of respondents in cryptocurrency. This can be differentiated from our research in Thailand as our respondents were diversified in terms of demography and background, and the study did not point to only a group of people who were aware of either blockchain or cryptocurrencies.

3. Methodology

Following a review of the concepts and theories related to research used in quantitative analysis, the researcher created a questionnaire to conduct research on the acceptance of cryptocurrency in the Thai digital asset market. Moreover, the questionnaire was also developed by interviewing three experts who have extensive experience and expertise in the cryptocurrency market. The topics covered were the superiority and the pitfalls of cryptocurrency, the impact of cryptocurrency usage on people in the country, the risks of using cryptocurrency and the adoption of cryptocurrency in Thailand. The questionnaire was tested on 30 respondents (pre-testing) for a dedicated questionnaire, as recommended by Limna et al. (2023). Measuring instruments' reliability and validity were also evaluated. According to Sitthipon et al. (2022) and Siripipatthanakul et al. (2023), it is vital to comprehend that the validity of an instrument refers to how well it measures the researcher's conceptual framework or hypothesis. In the analysis of the acceptance of cryptocurrency in the Thai digital asset market, the independent variables were gender, age, occupation, education level and income. In this study, eight hundred and ninety-eight (898) samples were collected and focused on the population familiar with the trade of cryptocurrency. The binary regression model was employed for the analysis.

4. Results

Most of the respondents were male (63.6 percent) as illustrated in Table 1. The majority were between 21 to 30 years old, while the minority were respondents over 50 years old. The occupation of students was at a very high proportion and was the leader in the occupation category at 56 percent. The state enterprise employee occupation had a response at 7 percent and government service had only 4.4 percent. In addition, 70 percent of the respondents had a bachelor's degree. Lastly, 35.2 percent had an income lower than 10,000 THB per month.

Table 1: Demographic profile of respondents

Demographic Factors	Category	Percentage
Gender	Male	63.6%
	Female	36.4%
Age	<20	22%
	21-30	52.4%
	31-40	18.4%
	41-50	5.6%
	>50	1.6%
Occupation	Government service	4.4%
	State enterprise employee	7.0%
	Private company employee	35%
	Business owner	56%
	Student	22.8%
Education Level	High school or lower than bachelor's degree	70.0%
	Bachelor's degree	7.2%
	Higher than bachelor's degree	35.2%
Income in THB	<10.000	26.8%
	10,000-20.000	15.6%
	20.001-30.000	5.6%
	30,00-40,000	16.8%
	>40.001	22.8%

Table 2: Test of model's performance using all independent variables by the Omnibus Test

		Chi-square	df	Sig.
Step 1	Step	138.638	5	0
	Block	138.638	5	0
	Model	138.638	5	0

Table 2, presents that chi-square is 138.638, with df equal to 5. Therefore, a dependent variable can be explained by all independent variables at the significance level of 0.05.

The independent variables of gender, occupation, age, education level and income in Thai baht (THB).

Table 3: The model summary (using all independent variables)

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	1102.760a	0.143	0.191

Note: Estimation terminated at iteration number 4 because parameter estimates were changed by less than .001.

Table 3 presents the pseudo R-square and the Nagelkerke R-square of the model. It shows that the model could explain approximately 19.1 percent of the variation in the result at the significance values of 0.05.

Table 4: Classification table for back-testing (includes all independent variables)

Observed			Predicted		
			Adoption of Cryptocurrency		Percentage
			0	1	Correct
Sep 0	Adoption of Cryptocurrency	0	477	0	100
		1	421	0	0
	Overall Percentage				53.1

Note: The cut value is .500

In Table 4, the classification indicates that the model with all independent variables can predict the adoption of cryptocurrency with an accuracy rate of 53.1 percent of cases when there is a cut value of 0.500 or when the scope of acceptance is 50 percent.

Table 5: Variables in the model using all independent variables.

		B	SE	Wald	df	Sig.	Exp(B)
Step 1a	Gender	1.181	0.147	64.687	1	0	3.258
	Age	0.436	0.131	11.125	1	0.001	1.546
	Occupation	0.017	0.103	0.026	1	0.872	1.017
	Educational Level	0.228	0.147	6.176	1	0.013	0.694
	Income in THB	-1.599	0.074	9.408	1	0.002	1.256
	Constant	-0.365	0.698	5.253	1	0.022	0.202

Note: Variable(s) entered in step 1: gender, occupation, age, educational level and income in THB

The significance level of each independent variable is presented in Table 5. It shows that a dependent variable (the adoption of cryptocurrency in Thai digital asset market) could be described by three significant independent variables, namely gender, age and income. On the other hand, occupation and education level are not significant.

The adoption rate in cryptocurrency is significant when there is a change in gender to male. The change led to an increase in the rate by 3.258. When there is an increase of one unit in age, the adoption of the cryptocurrency in Thai digital asset market will increase by 1.546. When there is an increase of one unit in income, the adoption of the cryptocurrency in Thai digital asset market will increase by 1.256.

5. Discussion and Conclusion

The results of the research reveal that gender, age and income influence the adoption of cryptocurrency in the Thai digital asset market. First, gender is significant in the research result, which reveals that males have the adoption of cryptocurrency at a certain level compared to females. Second, a difference in age leads to a considerable difference in the adoption level of cryptocurrencies. The older investor tends to invest in cryptocurrency more than the younger one. Third, a higher income has a significant impact on the adoption of cryptocurrency. A 1-unit increase in income raises the adoption rate by a factor of 1.256 per the analysis result presented in Table 6. Once the investors have more income, they are more likely to adopt cryptocurrencies. To increase awareness of the cryptocurrencies, business firms, such as the exchange, could target the higher income group of people more than the others.

Besides the three factors mentioned in the summary that support the cryptocurrency adoption rate in Thai digital asset market, the policies that involve cryptocurrency regulations need to be crafted in certain ways. Thai policymakers and regulators may first consider whether the regulation is at an excessive degree. Either over or under regulation will lead to a threat to the improvement of the technology, especially in financial areas. Taxation and restrictions are blocking the growth of the number of investors as well as fintech companies and start-ups that would like to dedicate their innovative ideas.

Besides the misfiring of Thailand regulation policies on this, there could be downsides, for example, financial fraud, cyber-attacks, tax evasion, drug trafficking, drug smuggling and bribery and corruption. These bring fewer benefits to parties, including the industries. Therefore, investors, including wholesale and retail investors, should be protected by policies and regulators.

Thailand needs to establish an overall plan and roadmaps with policymakers, regulators, investors, the Bank of Thailand (BOT), the government and, especially, the Securities and Exchange Commission, Thailand (SEC) working together. This will blend and craft the direction towards sustainable growth, especially in financial and technology sectors. In addition, it would also balance technology with innovation and adoption and policies with and regulation. In the early stage of Thailand's master plan together with the outcome of this research, the authorized parties may focus on male investors who have higher age and income because this group of investors tends to invest more in cryptocurrency compared to the rest.

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