AFFECTING FACTORS INTEREST IN STABLECOIN AS THE DIGITAL MONEY

Peerapat Wattanasin [*], Tanpat Kraiwanit [*], Somchai Virunhaphol [*]

* Faculty of Economics, Rangsit University, Lak Hok, Pathum Thani, Thailand

How to cite: Wattanasin, P., Kraiwanit, T., & Virunhaphol, S. (2023). Affecting factors interest in stablecoin as the digital money. In E. Karger & A. Kostyuk (Eds.), *Corporate governance: An interdisciplinary outlook* (pp. 91–99). Virtus Interpress. https://doi.org/10.22495/cgaiop19

Copyright © 2023 The Authors

Received: 29.09.2022
Accepted: 07.10.2022
Keywords: Stablecoin, Digital Money, CBDC
JEL Classification: A1, A130, A140
DOI: 10.22495/cgaiop19

Abstract

This research aims to study the factors influencing interest in stablecoins using convenience sampling from a nationwide sample by collecting data through online Google Forms distributed on platforms such as Facebook and Line. This research selected 460 samples from the general public and analyzed them with the analysis of covariance (ANCOVA) model. The results showed that living space affected interest in stablecoins at a significance level of 0.05. Living in a residential area in Bangkok also had an impact on interest in stablecoins. Other factors such as age, education level, and income were not significantly related at 0.05. Government digital currency service providers could use these results to develop a plan for disseminating knowledge among the target groups for maximum efficiency. This could also be applied to the government's knowledge dissemination regarding central bank digital currency (CBDC), which would be the first step in Thailand's move towards becoming a digital economy. It could also be used as a basis for further research to explore the reasons why people living in Bangkok are more interested in stablecoins than those in other provinces.

1. INTRODUCTION

The advancement of information and communication technologies (ICT), as well as the spread of the Internet, have all contributed to globalization entering a qualitatively new stage of development. The computer and

newly generated ICTs are the main technological attributes of the current stages of globalization, uniting the world into a single communication system, creating an integrated financial and information space. In addition, the economy is primed for new and emerging forms of consumption. This is the result of a convergence of technological, economic, and sociocultural phenomena that is currently changing traditional forms of commercial exchange. All of these occurrences highlight the significance of the new trend in the development of the society's socioeconomic structure (Limna et al., 2022a). Humans have used a wide range of mediums of exchange in the past, from objects and rare metals to banknotes and coins. In this era, with the arrival of globalization, countries in each region are connected. This has been accompanied by the great leaps in technology that have been developed by many organizations. Furthermore, the financial industry has also created an innovation called digital money to reduce the restrictions on banknotes and coins, such as ease of portability and the speed of cross-border transfers (Bank of Thailand, 2017). Digital money is widely known, but another type of exchange, in the form of digital currency or cryptocurrency, is also gaining attention. Cryptocurrencies are different from standard currency because these funds do not necessarily relate to the local currency and are generated through a complex mathematical encryption process. Since these cryptocurrencies do not need asset backing, their value is based on supply and demand, resulting in price volatility ("Getting to know cryptocurrency", 2020; Limsakul & Kraiwanit, 2020). Despite the widespread adoption of cryptocurrencies, the stability of the currency is still important. A type of digital currency with the addition of local currency backing its value is known as a stablecoin. A stablecoin is a digital currency that has a mechanism for maintaining value. For example, this may include its value being pegged to the world's major currencies, being backed up by commodities or being throttled by computer mechanisms (Mita et al., 2019; Jenweeranon, 2022). In addition, stablecoins are similar to money because of their ability to maintain their value. Therefore, stablecoins are increasingly being used as a medium of payment (Bolt et al., 2022; Morgan, 2022). The type of stablecoin studied in this study was the fiat-collateralized stablecoin backed by money, which is one of the most fundamental concepts. Moreover, the deposit of the world's currencies with an intermediary corresponds to the value of the asset collateral. Hence, it is critical to investigate the factors that influence an individual's interest in stablecoin as a digital currency. This study investigates the factors influencing an individual's interest in stablecoins as a digital currency in Thailand. This study may aid government digital currency service providers to develop plans and disseminate knowledge to the target audience. It could also be applied to the government's central bank digital currency (CBDC) knowledge dissemination, which

would be Thailand's first step toward becoming a digital economy society and beyond.

The objectives of the study are:

1. To study the factors related to interest in stablecoins.

2. To allow government digital currency service providers to use the study results to develop a plan for disseminating knowledge to the target group in the most efficient way possible.

Scope of research is as follows:

1. *Content scope*: This study used an analysis of covariance (ANCOVA) technique. Demographic factors were used as independent variables, interest in stablecoins as the dependent one, and knowledge of cryptocurrencies as the covariate. The independent variables were sex, age, education, income, and area of residence.

2. *Population scope*: The target population was unknown. The samples were Thai people using stablecoin as digital money. A sample of 460 Thai people was utilized.

3. *Scope of time and area*: The researcher collected the data between July and August 2022. The study area was Thailand, assessing through online communication.

2. LITERATURE REVIEW

Stablecoins can be traded. Users can easily and quickly conduct financial affairs despite tax difficulties and restrictive laws. Stablecoins also have a significant risk in that if they are not accepted by any country in the world, they may not be able to function effectively, and there is also a risk that users may be cheated by the developers (Li & Shen, 2021; Lyons & Viswanath-Natraj, 2020). However, even if countries accept it, users face the difficulty of the rules in each country. Stablecoins affect banks by potentially gaining market share with credit cards and more convenient payments than banks in some respects (Adrian & Griffoli, 2019). In the future, there may be a CBDC or stablecoin managed by a central bank. CBDCs have the same properties as stablecoins and the same currency status in that country. This could eliminate more legal hassles and corruption problems with the proof-of-concept system. Banks and domestic systems will support the difficult process of solving the various problems of stablecoin until it can be used effectively and is widely accepted (Dell'Erba, 2019; Kasemrat & Kraiwanit, 2022).

Stablecoins play a vital role (Lipton et al., 2020). Stablecoins, a new generation of cryptocurrencies, may be able to provide a digital cash equivalent pegged to a major national currency or a basket of currencies or assets. Stablecoins would thus combine the benefits of traditional bank money (in terms of value stability) with the benefits of cryptocurrencies (in terms of lack of bank intermediation and hence greater privacy and potentially lower transaction costs). In 2019, Facebook announced the formation of a consortium with other major

players in the payments system and other sectors (technology, communications, venture capital, and even nonprofit), with the goal of launching a stablecoin called Libra (Fantacci & Gobbi, 2021). Several factors may influence an individual's interest in using Libra. Libra offers ease of payment. It provides a simple method for purchasing any goods or services online, so users can use Libra as easily as they would send a message. When Libra becomes a global currency, money exchange will be unnecessary. Libra can be used in any country and no cash is required. When Libra becomes available, taxation, which requires financial institution statements, will become more complicated. Libra users will have more bargaining power; as a result, commercial banks will need to develop financial transaction systems and services that meet the needs of their customers (Limsakul & Kraiwanit, 2020).

Furthermore, many pioneering online retailers, such as Overstock, have begun to accept cryptocurrency payments. However, the extreme price volatility of traditional cryptocurrencies (e.g., Bitcoins) prevents their widespread adoption as regular payment tools. Stablecoins, which are commonly backed by real assets, are proposed to make cryptocurrencies more acceptable in daily payments. Nonetheless, significant short-term volatility in stablecoins may deter consumers from purchasing when the product's valuation is uncertain. For instance, if consumers discover low ex-post valuation, the short-term volatility of returned stablecoins would be disutility for risk-averse consumers who need to convert stablecoins to fiat currency before exiting the market. In this case, online retailers can use blockchain traceability to reduce return risks by disclosing reliable product information (Li & Shen, 2021; Zhang et al., 2022).

3. METHODOLOGY

3.1. Data collection and the sample

The researchers collected the data using self-administered online questionnaires and employed convenience sampling. According to Limna et al. (2022a), a typical survey has a 95% confidence level. At $p = 0.5$, a minimum of 385 cases must be collected using stratified random sampling, with a sample error of 5% and a precision level of 95%. As a result, 460 participants from Thailand were recruited, using convenience sampling. The data were gathered through questionnaires created with Google Forms and distributed through various online channels such as Facebook and LINE applications.

3.2. Tool creation and quality inspection

For the process of develop research tool can be described by the following stages:

1. Examination of articles, books, and research related to stablecoins and cryptocurrency to formulate the concepts and guide the creation of questionnaires.

2. Creation of a questionnaire divided into sections and consider the content in accordance with the hypothesis, objectives, and conceptual framework.

3. Consultation with an advisor for advice on the revision of the completed questionnaire. This step was to make the data more accurate.

4. Trialing of the questionnaire with a similar simple group of 30 people and testing for reliability before collecting the actual data. The questionnaires were pre-tested to check the content's completeness. The researchers tested the questionnaire with a group of people who were similar to the sample group and then assessed the data for reliability using Cronbach's alpha coefficient. According to Nasution et al. (2020) and Sitthipon et al. (2022), in the reliability of the measurements, the alpha coefficients of Cronbach are needed to overcome all constructs of 0.7. Therefore, this test was able to be implemented.

3.3. Data analysis and statistics

This study examined the factors affecting interest in stablecoins using quantitative research methods and an approach based on ANCOVA analysis, a model that uses multiple independent variables, one independent variable and one dependent variable. The study used demographic factors as independent variables, *interest in stablecoins* as the dependent variable, and covariates as cognitive variables in cryptocurrencies. The independent variables were *sex*, *age*, *education*, *income* and *area of residence*.

4. FINDINGS

The sample of 479 people was classified by gender, and the majority were female, with 268 or 59.5% women, and 211 or 44.1% males. The sample included 342 people or 71.4% aged 21–30 years, 116 people or 24.2% aged 21–30 years, 10 people or 2.1% aged 31–40 years, and 11 people or 2.3% 41 years or older. With regard to educational level, 30 people or 6.3%, had a level lower than the vocational certificate or lower than Mathayom (high school), 6,142 people or 29.6% a level equivalent to a vocational certificate or Mathayom (high school) 6,294 people or 61.4% had a vocational education level and Bachelor's degree, and 13 people or 2.7% had a Master's degree or higher. When asked about income, 364 people or 76% had an income less than 10,000 baht, 70 people or 14.6% an income in the range of 10,001–15,000 baht, 18 people or 3.8% an income of 15,001–20,000 baht, 18 people or 3.8% an income of 25,001–45,000 baht,

and 9 people or 1.9% an income of more than 45,000 baht. There were 164 people living in Bangkok, or 34.2%, and 315 people or 65.8% outside of Bangkok. There were 328 people or 68.5% interested in stablecoins. 151 people or 31.5% expressed disinterest in stablecoins.

Table 1. The error variances test using Levene's test of equality of error variances

F	*df1*	*df2*	*Sig.*
2.533	10	468	.006

Note: Dependent variable: Interest in stablecoins.

As for the analysis of factors affecting interest in stablecoins, the results of the ANCOVA analysis are shown in the table. It was determined that the error variances of the independent variables were different, which did not conform to the ANCOVA, according to the error variances test, where there must be no difference between each error variance. The statistical hypothesis was still tested in this study.

Table 2. The hypothesis test by using tests of between-subjects effects

Source	*Type III sum of squares*	*df*	*Mean square*	*F*	*Sig.*
Intercept	20.577	1	20.577	96.706	0.000
Sex	0.091	1	0.091	0.435	0.510
Age	0.169	1	0.169	0.808	0.369
Education	0.078	1	0.078	0.374	0.541
Income	0.692	1	0.692	3.307	0.070
Area of residence	1.566	1	1.566	7.482	0.006
Score in test	3.726	10	0.373	1.780	0.062

Note: Dependent variable: Interest in stablecoins.

The ANCOVA analysis used *interest in stablecoins* as the dependent variable. The demographic factors were the independent variables and from Levene's test of equality of error table, it can be concluded that the samples had a sig. value of less than 0.05. But the researcher collected more data than the specified quantity. The sample was workable and thus the data from the sig. values were discussed and it was concluded that the residential area resulted in significant interest in stablecoins at less than 0.05.

5. CONCLUSION AND DISCUSSION

Studies have shown that the main factor affecting interest in stablecoins is living in a residential area. People who live in Bangkok are more likely to be interested in stablecoins than those who do not. It is possible that the population of Bangkok is more likely to be informed than those living

elsewhere. Therefore, having a residence in Bangkok makes people more interested in stablecoins.

In addition to the factor concerning living area, other factors such as age, educational level and income have no significant correlation, contrary to the theory that:

1. Gender differences cause people to have different communication behaviors. That is to say, females are more likely to want to send and receive news than males, while males do not only want to communicate but also want to build good relationships. In addition, the two sexes have significant differences in thinking, values and attitudes.

2. Age is a factor that affects thinking and behavior due to different life experiences and varying ways of using journalism.

3. Education is a factor that results in people having different opinions, values, attitudes and behaviors. Higher education can be good for receiving information because of the breadth of knowledge and thorough thinking involved.

4. Socioeconomic status refers to the occupation, income and social status of an individual. It has a significant influence on audiences with different cultures, experiences, attitudes, values and goals.

Due to the news of the TerraUSD or stablecoin collapse, stablecoins are viewed negatively and the data collection may not be entirely accurate. The collapse has involved amending laws and penalizing digital asset operators. This may have resulted in less interest in the stablecoin assessed in the sample.

6. SUGGESTIONS

The researchers have the following recommendations based on the results of this study. For policy suggestions, government digital currency service providers can use the study results to develop plans and disseminate knowledge to the target audience for maximum efficiency. This may also be applied to the government's CBDC knowledge dissemination, which would be the first step in Thailand's move towards becoming a digital economy society. Moreover, it can also be used as further research to deepen the reasons why people living in Bangkok are more interested in stablecoins than in other provinces. For future research suggestions, technology is rapidly changing and cryptocurrencies are a new innovation that can be greatly improved. Those interested in further research should focus on the accuracy of the data in terms of whether past data can be used today. It is suggested that they do so in relation to government-sponsored cryptocurrencies to allow for more impartial data collection. Qualitative research, such as interviews or focus group discussions, could provide more insight into future research. Next research should study the influence of regulation on the sphere and the awareness of the respondent on the stablecoin topic.

REFERENCES

1. Adrian, M. T., & Griffoli, M. T. M. (2019). The rise of digital money. *FinTech Notes, 1*. International Monetary Fund. https://doi.org/10.5089/9781498324908.063
2. Bank of Thailand. (2017). Libra Kạb xnākht kār pĕn s̄kul ngein dicithạl radạb lok? [Libra and future of global currency?]. *BOTMagazine*. https://www.bot.or.th/Thai/BOTMagazine/Pages/256204Knowledge04.aspx
3. Bolt, W., Lubbersen, V., & Wierts, P. (2022). Getting the balance right: Crypto, stablecoin and central bank digital currency. *Journal of Payments Strategy & Systems, 16*(1), 39–50. https://www.ingentaconnect.com/content/hsp/jpss/2022/00000016/00000001/art00005
4. Dell'Erba, M. (2019). Stablecoins in cryptoeconomics: From initial coin offerings to central bank digital currencies. *New York University Journal of Legislation and Public Policy, 22*(1), 1–47. https://nyujlpp.org/wp-content/uploads/2019/12/DellErba-Stablecoins-in-Cryptoeconomics-22-nyujllp-1.pdf
5. Fantacci, L., & Gobbi, L. (2021). Stablecoins, central bank digital currencies and US dollar hegemony: The geopolitical stake of innovations in money and payments. *Accounting, Economics, and Law: A Convivium,* Article 20200053. https://doi.org/10.1515/ael-2020-0053
6. Getting to know cryptocurrency. (2020). *Depa*. www.depa.or.th/th/article-view/getting-know-cryptocurrency
7. Jenweeranon, P. (2022). Cryptocurrency, stablecoins, and blockchain. In H. Y. Chen, P. Jenweeranon, & N. Alam (Eds.), *Global perspectives in FinTech* (pp. 117–154). Palgrave Macmillan Cham. https://doi.org/10.1007/978-3-031-11954-5_7
8. Kasemrat, R., & Kraiwanit, T. (2022, April 29). Potential acceptance of upcoming Thai retail CBDC (central bank digital currency) in Thailand. In *Proceedings of the RSU International Research Conference 2022* (pp. 241–250). Rangsit University. https://rsucon.rsu.ac.th/files/proceedings/RSUSOC2022/IN22-004.pdf
9. Li, C., & Shen, Y. (2021). The potential impacts and risks of global stablecoins. *China Economic Journal, 14*(1), 39–51. https://doi.org/10.1080/17538963.2021.1872167
10. Limna, P., Kraiwanit, T., & Siripipattanakul, S. (2022a). *The relationship between cyber security knowledge, awareness and behavioural choice protection among mobile banking users in Thailand*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4268205
11. Limna, P., Kraiwanit, T., & Siripipatthanakul, S. (2022b). *The growing trend of digital economy: A review article*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4183686
12. Limsakul, A., & Kraiwanit, T. (2020). Libra as a digital currency and its impacts on the Thai economy. *AU-EJournal of Interdisciplinary Research, 5*(2), 110–118. http://www.assumptionjournal.au.edu/index.php/eJIR/article/view/4807
13. Lipton, A., Sardon, A., Schär, F., & Schüpbach, C. (2020). Stablecoins, digital currency, and the future of money. In A. Pentland, A. Lipton, & T. Hardjono (Eds.) *Building the new economy*. MIT Press. https://wip.mitpress.mit.edu/pub/17h9tjq7/release/4

14. Lyons, R. K., & Viswanath-Natraj, G. (2020). *What keeps stablecoins stable?* (NBER Working Paper 27136). National Bureau of Economic Research. https://www.nber.org/papers/w27136
15. Mita, M., Ito, K., Ohsawa, S., & Tanaka, H. (2019). What is stablecoin?: A survey on price stabilization mechanisms for decentralized payment systems. In *Proceedings of the 2019 8th International Congress on Advanced Applied Informatics (IIAI-AAI)* (pp. 60–66). IEEE. https://doi.org/10.1109/IIAI-AAI.2019.00023
16. Morgan, J. (2022). Systemic stablecoin and the defensive case for central bank digital currency: A critique of the Bank of England's framing. *Research in International Business and Finance, 62*, Article 101716. https://doi.org/10.1016/j.ribaf.2022.101716
17. Nasution, M. I., Fahmi, M., & Prayogi, M. A. (2020). The quality of small and medium enterprises performance using the structural equation model-part least square (SEM-PLS). *Journal of Physics: Conference Series, 1477*(5), Article 052052. https://doi.org/10.1088/1742-6596/1477/5/052052
18. Sitthipon, T., Limna, P., Jaipong, P., Siripipattanakul, S., & Auttawechasakoon, P. (2022). Gamification predicting customers' repurchase intention via e-commerce platforms through mediating effect of customer satisfaction in Thailand. *Review of Advanced Multidisciplinary Sciences, Engineering & Innovation, 1*(1), 1–14. https://ijbmcjournals.org/ramsey-volume-1-issue-1-apr-2022/
19. Zhang, K., Choi, T.-M., Chung, S.-H., Dai, Y., & Wen, X. (2022). *Managing product returns with blockchain adoption: Stablecoins and traceability*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4178813