

# A Causal Relationship Model Of Factor Affecting The Wealth Creation Of Digital Asset Investment In Thailand

Petcharaporn Chatchawanchanakit

*King Mongkut's Institute of Technology Ladkrabang Prince of Chumphon Campus, Thailand. Email: [petcharaporn.ch@kmitl.ac.th](mailto:petcharaporn.ch@kmitl.ac.th), OrcidID: 0000-0003-0484-9047*

## ABSTRACT

The objectives of this research were 1.) to study the level of opinion of Millennials investors towards wealth creation in digital asset investment and 2) to analyze the causal factors affecting wealth creation in digital asset investment. The population and samples in the research were Millennials who are investors in digital assets in Thailand using Cochran's cohort method for totaling 385 persons. The quality-tested questionnaire was used as a research tool. The statistics used in the research consisted of descriptive statistics such as frequency, percentage, mean, standard deviation and inferential statistics including multiple regression analysis. The research results revealed that the opinion level of investment factors in information, market risk perception, security economic factors and networking wealth creation had the highest mean. The results of hypothesis testing revealed that the causal factors consisted of investment factor ( $X_1$ ), risk perception factor ( $X_2$ ), and economic factor ( $X_3$ ) together predicting ( $R^2$ ) for 49.8% at the statistical significance level of 0.05.

**Keywords:** Digital asset, risk, wealth, investment.

## INTRODUCTION

"Bitcoin" is something that is used by most investors as a topic of discussion whether it is investing in any market, gold, stocks, funds, real estate or other precious minerals. Due to the occurring volatility, the exponential growth rate which cannot be found in any asset is unique from any asset that has ever existed. Bitcoin is the unique asset because its price cannot be controlled by any entity. It is the computer data unit that can be linked by a strong network of the system. Anyone can own Bitcoin if trading without a regulated intermediary. With the interest of the price that has been continuously adjusted and has risen several times over the past period, there are famous investors, various news agencies, world-class financial institutes including economic news headlines need to pay attention to this type of digital asset very much. On 10<sup>th</sup> November, 2021, the price per 1 BTC peaked with a price of 2285500 baht (<https://coinmarketcap.com/th/ico-calendar/>).

Bitcoin is the the world's first and highest-valued cryptocurrency in the digital currency market. Bitcoin was created in 2009 by a creator who used the pseudonym of "Satoshi Nakamoto" to create an independent currency which does not directly depend on the government or any intermediary organization. It can be used to exchange goods and services without the need to go through an intermediary. Bitcoin uses Blockchain technology to record transactions. Blockchain is the most reliable and secure storage technology. There is a decentralized working principle where a copy of the data is stored on all computers throughout the network. The system will always check that all machines are in sync. Therefore, it is difficult to forge information and can be inspected transparently. Bitcoin is created with a limit of 21 million coins. The creators of Bitcoin predict if Bitcoin is growing rapidly and without limits, it can cause inflation and will cause the value of Bitcoin to decline until it disappears from the market. Therefore, limiting the number of Bitcoin is a solution to avoid any unforeseen event in the future. With

the limited features of this Bitcoin, the value of Bitcoin will continually increase.

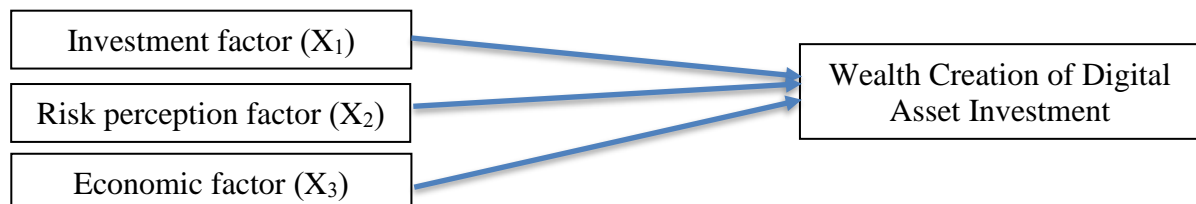
The advent of digital assets has created a wide variety of businesses in the digital world whether it is investing, saving, depositing interest causing a wave of investment among new investors who are ready to build wealth. Charles Schwab, an American multinational financial service provider providing banking services, commercial banking, electronic trading platform, and wealth management consulting services for retail and institutional clients, disclosed the report revealing that a large number of Millennials are investing more Bitcoin-related in their portfolios. This shows the popularity of Bitcoin investments in either form of funds or the form of a real asset. It also reflects the awakening of Millennials who are more interested in investing than traditional asset investments. As Millennials grew up with technology, there is interest and is likely to be ready to accept future investments as well (<https://www.schwab.com/>).

The increasing growth rate of Bitcoin every year attracts more people to invest in the market. People who want to create wealth for

themselves also come to invest. They start to invest in Bitcoin trading. This made Bitcoin very popular and discussed. Bitcoin is therefore an independent digital asset alternative suitable for new generation investors who are interested in new investments but still lacks the knowledge and understanding. They want to learn about it. The researcher therefore conducted this research in order to know the investment factors, risk perception factor, and economic factors affecting the wealth creation of Bitcoin digital asset investments among Millennials as they are people who are active in technology and have positive attitude towards new technologies. This can be the guideline for those who are deciding or wanting to invest but lack the confidence to create wealth in the digital age. The researcher aimed to study the level of investors' opinions and analyze the causal factors affecting wealth creation in Bitcoin digital asset investment.

## RESEARCH CONCEPTUAL FRAMEWORK

### Independent variables



### **Review of related literature and researches**

Regarding the research on the causal relationship model of factor affecting the wealth creation of digital asset investment in Thailand, the researcher had reviewed the general information of digital assets, related law, investment theory concept, risk perception, and economic theory concept of wealth creation including related researches. The details are as follows.

The digital asset is the digital data unit created as a medium for exchanging value in buying and selling goods and services which can be compared to the cash used today. These digital data units are popularly called. Digital coins or Cryptocurrency because it can be used to trade goods and services including investment. The difference is that cash in use is

tangible as it is issued in banknotes or coins. The digital assets, on the other hand, are intangible. Apart from being used as a cash agent (Cryptocurrency) for trading goods or services, digital assets can also be applied to determine the right to invest in various forms. Digital assets can be divided into 2 types which are legal in Thailand Officially supported and regulated. The types of digital assets can be divided into 2 types, which are officially supported and regulated by the laws of Thailand: 1) Digital Tokens and 2) Cryptocurrency. At present, Cryptocurrency is not a money that any central bank in the world can guarantee that it can be the legal tender. Cryptocurrencies which are widely known include Bitcoin, Ethereum, Cardano, and Solana. The digital currency with the largest market share is Bitcoin (Securities and

Exchange Commission, 2018). In Thailand, a law has been issued to regulate digital assets. The purpose of the legislation is to protect the investors and create clarity in governance as well as preventing money laundering. It is very popular in investing and the agency is concerned about investment because there are risks of the highly volatile cryptocurrency world. In the past, it was said that cryptocurrencies were not considered legal payments in Thailand according to the Currency Act B.E. 2501, Section 9, and had no value in itself. The value of such data items will vary according to the needs of the trading group. An additional law was issued in the year 2018 including 1) the Royal Decree on the Undertaking of Digital Asset Businesses B.E.2561 and 2) the Royal Decree Amending the Revenue Code (No. 19) B.E.2561 to determine the supervision and control on business operations and carrying out activities related to digital assets and to support the adoption of technology to cause sustainable development on economics and society.

### **Investment theory**

Investment is the context of investing in the financial and securities markets. It is the demand to buy assets or securities by using savings or Bank Credit to buy assets and securities as needed to generate returns in different forms. The investment can be divided into two types. Each type of investment has the following characteristics; 1. Direct investment is an investment that the investor has to make his own investment decision, 2. Indirect investment is an investment in which other institute invests instead and decide on behalf of the owner of the savings such as investing in various funds. Many academicians such as Phacharee Khumsap (2020), Chalermkwan Krutbunyong (2019), Wikrom Kasemwut (2019) state that the investment is the use of existing assets such as cash and other assets to generate benefits and rewards believing that the marginal return can compensate for the duration, inflation, and various risks possibly occurring during the investment worthily. The income must be worth the inflation rate that occurs and worth the uncertainty that will arise in the future. Money can be used to buy financial assets, such as a fixed deposit with a bank, buying government bonds or purchase of ordinary shares and investing in digital assets. Investment is an important variable for a

country's economy. It is considered to save money in order to receive a return at a level that investors or savers can accept with a proportion of the risks incurred by relying on the analysis of securities in order for the investors to decide to buy, sell or hold such assets. The assets can be classified into 2 types; 1) Fundamental analysis. The fundamental asset analysis is a concept that aims to analyze variables related to asset pricing and return rate. The result of comparison will lead to decision making. Fundamental analysis is an attempt to assess the true value of an asset by using the information that is relevant to the cash flow the investors expect to receive. The consideration is from the analysis of economic conditions and asset condition analysis. 2) Technical Analysis or technical asset analysis is an analytical feature to calculate the intrinsic value of an asset by using historical data related to the price and volume of the asset to assess the value of assets in the future by taking into account both internal and external factors of the asset. This includes analyzing the asset's internal data to determine the reliability and functionality of the asset as well as analysis of information, news, external data, presentations from publishers, websites that do not come from the assets themselves, mentions of influences that influence or induce opinions or belief in the asset.

### **Economic theory**

Investing in digital assets with high price volatility attractive to a lot of investors, economic changes and dynamics can be applied as a principle to increase the opportunity for a better understanding of digital asset investment. It can gain access to market mechanisms that attract more investor money into the market. For the definition of economics, there are many academicians who have defined it. For example, Robin Boadway (2006) defined that economics is very important to any economic system. The concept of Cost-Benefit Analysis (CBA) was presented as the process of ranking policy alternatives from an economic perspective that takes into account both the benefits of the policy and the cost of project investments. These are classified completely to make the analysis clearer by categorizing costs as direct costs, indirect costs and categorizing the benefits to avoid re-counting. The price of both the cost and benefit is then calculated by adjusting its value to the world price. Similarly,

the economist, Harry Markowitz (1956), presented the important Modern Portfolio Theory (MPT) which defined economics as a mechanism that controls the market's ability to move in order to strengthen the standards of supervision and control on the investment portfolio management taking into account risks, returns, stability in various investments. This agrees with Alfred Marshall (1890) stating that supply demand is a simulation of the behavior of individuals or organizations and studies on the relationship of decision-making. It consists of identifying decision-makers, alternatives that can be made and objectives of decision-makers. The objective of the decision maker is usually for maximizing the profits. Return is the ratio between the available rate of return or benefits such as interest, dividends and profit and the market premium rate of return. It is the stability of the asset with a continuous growth rate being able to come into possession with safety and without worrying.

### **Risk perception theory**

Investors need to be aware of and understand how to invest in digital assets that carry a high level of risk due to price volatility, intervention from those who saw the benefits of investing, or negligence caused by investors. It can be cheating or fraud of the service provider. The aforementioned risks are all important in making decisions in creating wealth. It was described by many academicians such as John C. Mowen & Michael Minor (1998), Raymond Bauer (1960), Cunningham & Scott M (1967) stating that the perception of information, understanding and recognition of risks are important in investor behavior, negative direction uncertainty, high risk representing safety, security and privacy preservation system. This is as same as like Zhou (2013) stating that the risk perception negatively affects investment intention in terms of privacy, concern on the disclosure of information and good control over the database system. It is related to confidence and willpower. The risk perception consists of 4 areas; risk perception in economics, action, human, and privacy. There are 3 types of risk components that must be considered when investing in digital assets; 1) Systematic Risk, 2) Specific Risk, 3.) Personal Risk which is the risk caused by the investor.

### **Financial wealth theory**

The researcher integrated according to the theoretical concepts of academicians. Phasut Ngowiwatchai and Yuttana Setthapramote (2001), Nathamon. Permsuk (2019), and Krisada Sektrakul (2010) said that wealth creation is a basic way of living that everyone should study in order to generate income, status or society for themselves that will be able to create the ability to create wealth for life and property taking into account safety. It is the hedging and stable asset. The size of a person's net assets comes from the person's total assets deducted with the person's liabilities. Therefore, managing the wealth of a person refers to the process of managing the sustainable wealth of net assets to achieve financial goals for oneself at different time. The wealth creation is to gain income from business operation including the income that comes from using one's abilities. The idea is to create wealth which is the use of ability to earn income from salary. If successful, it will result in the ability to save more which is the foundation of wealth creation. Knowing to collect is to share the income acquired for immediate savings. This is considered to create financial discipline in order to expand the base of savings supporting to build wealth in the future. Knowing how to spend for what is necessary and not spending extravagantly can create wealth in the future. Knowing to expand saving will also create wealth to suit the level of risk that can be tolerated. It is not bank deposit. This is consistent with the four principles of wealth management; 1) Wealth Creation including earning income from regular career, income from business operations, and income from one own abilities, 2.) Wealth Protection is the creation of collateral to reduce the risk of damage as well as possible losses such as insurance, business insurance, 3.) Wealth Accumulation which requires setting goals and planning in order for money to work in the most efficient way, 4.) Wealth Distribution is the allocation of assets to pass it on to the people around and share to society by ensuring that assets will be inherited according to their own will. In measuring the wealth, Ratchaneekorn Wongchan (2012) proposed 3 aspects; financial liquidity analysis, debt analysis, and opportunity to create financial wealth. According to Warren Buffett (2020), wealth is an increase in the size of one's net assets which comes from its own total assets deducted with its own liabilities. If these two values are

subtracted, there is a greater positive value. It is called having a lot of wealth. There are 3 main elements of wealth creation. 1) Wealth Creation is earning income from business operations, regular income, and income derived from the use of one own abilities to protect the wealth, create collateral, and reduce the risk of damage and potential losses. 2) Wealth Accumulation is aiming and planning to make money work most efficiently. 3) Wealth Distribution or networking is to allocate assets to pass on to people around and share to society by ensuring that assets will be inherited according to one's own will.

## RESEARCH METHODOLOGY

For the study on the causal relationship model of factors affecting the wealth creation of digital asset investment in Thailand, the researcher used quantitative research using questionnaires as a tool to collect data. The data was analyzed by using statistical processing from the program to find the causal factors affecting wealth creation in digital asset investment in Thailand.

The population and sample used in this study were Millennials investors who invest in digital assets in Thailand. The exact population size of the sample group was unknown. Therefore, the method was used to determine the sample group using an unknown population calculation formula of Cochran (1977) in determining the sample size of 385 people. The variables used in this research included 1) Investment factors consisted of asset information, fundamental analysis of assets,

technical analysis, information and news, 2) Risk perception factors consist of market risk, asset risk, and individual risk, 3) Economic factor consisted of the returns, opportunity to increase income, security and dependent variables including creating wealth in investing in digital assets in Thailand, investment portfolio enhancement network building by using a questionnaire. The results obtained from the literature review and quality check by experts and Cronbach's Alpha (1951) test were 0.837. The statistics used in the data analysis consisted of descriptive statistics such as frequency, percentage, mean, standard deviation, and inferential statistics such as Multiple Regression Analysis.

## RESEARCH RESULTS

According to general information of the group of digital asset investors in Thailand, most of them are male for 213 persons representing 55.30%, aged 28-31 years for 154 people representing 40.00%, being company employees / employees of general occupation for 92 persons representing 23.90%, with average monthly income of 20,001 - 30,000 baht for 110 persons representing 28.60%, with bachelor's degree for 155 persons representing 40.30%, being long-term investors (more than 1 year) for 203 persons representing 52.70%, and having a proportion of investment relative to the assets of investors of 10%-30% for 150 persons representing 39.00%, with a level of risk that investors can afford to lose 10%-30% for 136 persons representing 35.30%.

Table 1. Results of study on the opinion levels of the causal factors of wealth creation in digital asset investment in Thailand

| Causal factors of wealth creation in digital asset investment in Thailand | $\bar{x}$ | S.D. | Interpretation of results |
|---|-----------|------|---------------------------|
| Investment factors  |           |      |                           |
| Information of assets   | 4.52      | 0.37 | The most                  |
| Fundamental analysis of assets  | 4.57      | 0.34 | The most                  |
| Technical analysis  | 4.46      | 0.41 | The most                  |
| Information and news  | 4.59      | 0.35 | The most                  |
| Risk perception factors   |           |      |                           |
| Market risk   | 4.63      | 0.36 | The most                  |
| Asset specific risk   | 4.60      | 0.37 | The most                  |
| Individual risk   | 4.62      | 0.38 | The most                  |
| Economic factors  |           |      |                           |
| Returns   | 4.58      | 0.41 | The most                  |
| Opportunities to increase income  | 4.48      | 0.33 | The most                  |
| Security  | 4.61      | 0.38 | The most                  |

Table 2. Results of study on the opinion levels of the wealth creation in digital asset investment in Thailand

| Wealth creation in digital asset investment in Thailand | $\bar{x}$ | S.D. | Interpretation of results |
|---|-----------|------|---------------------------|
| Investment  | 4.61      | 0.39 | The most                  |
| Investment portfolio enhancement                        | 4.62      | 0.39 | The most                  |
| Network building  | 4.65      | 0.39 | The most                  |

Table 3 Results of analysis on the causal relationship model of factors affecting the wealth creation of digital asset investment in Thailand

| Causal factors affecting the wealth creation of digital asset investment in Thailand | Investment factors ( $X_1$ ) | Risk perception factors ( $X_2$ ) | Economic factors ( $X_3$ ) |
|--|------------------------------|-----------------------------------|----------------------------|
| Investment factors ( $X_1$ )   | 1.00                         | .585**                            | .585**                     |
| Risk perception factors ( $X_2$ )  |                              | 1.00                              | .789**                     |
| Economic factors ( $X_3$ )   |                              |                                   | 1.00                       |

From Table 3, the results of the analysis on the relationship between the independent variables (Multicollinearity) and causal factors affecting wealth creation in digital asset investment in Thailand, it was found that the correlation coefficient between the variables was between 0.585 – 0.859, which was not more than 0.80 (Cooper and Schindle, 2006), indicating that the variables were not correlated among themselves. Therefore, it can

be assumed that all the initial variables do not have any problem with one another (Multicollinearity). Therefore, all independent variables affecting variables can be analyzed followed by Multiple Regression Analysis to study the influence of independent variables on dependent variables. Causal factors affecting wealth creation in digital asset investment in Thailand are as follows:

Table 4 Hypothesis test results

| Causal factors affecting the wealth creation of digital asset investment in Thailand            | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|---|-----------------------------|------------|---------------------------|-------|------|
|   | B                           | Std. Error | Beta                      |       |      |
| Constant  | 0.139                       | 0.173      |                           | .806  | .421 |
| Investment factors ( $X_1$ )  | 0.402                       | 0.041      | 0.381                     | 9.847 | .000 |
| Risk perception factors ( $X_2$ )   | 0.342                       | 0.067      | 0.314                     | 5.119 | .000 |
| Economic factors ( $X_3$ )  | 0.238                       | 0.068      | 0.215                     | 3.505 | .001 |
| R = 0.800 <sup>a</sup> R <sup>2</sup> = 0.640 Se <sub>est</sub> = 0.195 F = 226.092 Sig = 0.000 |                             |            |                           |       |      |

From Table 4, the causal factor hypothesis test results consisted of investment factors ( $X_1$ ), risk perception factors ( $X_2$ ) and economic factors ( $X_3$ ) affecting wealth creation in digital asset investments in Thailand. The results of the analysis of investment factors ( $X_1$ ), risk perception factors ( $X_2$ ), and economic factors ( $X_3$ ) had a

correlation (R) at 0.800 and were able to predict ( $R^2$ ) = 0.498. The independent variables of the three causal factors can predict and explain dependent variables of 49.8% which can be written as a forecast equation in the form of an equation as follows:

$$\hat{Y} = 0.139 + 0.402 X_1 + 0.342 X_2 + 0.238 X_3$$

$$\hat{Z} = 0.381 Z_1 + 0.314 Z_2 + 0.215 Z_3$$

## CONCLUSION AND DISCUSSION OF RESULTS

According to the hypothesis test on the causal factors affecting the wealth creation in digital asset investment in Thailand, The results of the analysis revealed that all three causal factors, consisting of investment factors (X1), risk perception factors (X2) and economic factors (X3), altogether predict wealth creation in digital asset investments in Thailand with a correlation (R) at 0.800 and able to predict (R<sup>2</sup>) = 0.498. This indicated that the hypothesis test result was 0.381, Investment Factors of + 0.314, Risk Perception Factors of + 0.215, and Economic Factors can create wealth in digital asset investment in Thailand. Krisda Sektrakul. (2010) said that investing is where investors take cash assets to operate in a profitable way to get returns in the future. Investors believe that the cash or the marginal return that will be returned will be able to compensate for the duration inflation and various risks that may occur during the investment worthily. This is correspondent to the research of Weerawat Suwannapong and Pramote Luenam (2018) studying the factors influencing the intention of investing in gold online of those who know or have used online gold trading services. It was found that the intention to invest in gold online comes from familiarity and risk perception factors influencing the intention of investing in gold online through trust significantly although the income control factor has no influence. Phacharee Khumsub (2020) said that this cash flow must worth the inflation rate and worth the uncertainty with future cash flow. It is a common type of investment before investing in digital assets. According to Jermisittiparsert, K., Ambarita, D., Mihardjo, L., & Ghani, E. (2019), investment is an important variable in a country's economy to analyze the results of internal and external factors of assets including the perception of risks. The recognition process is the process in which investors are exposed to information with the intention of receiving that information and understanding the meaning of perceived risks. The first is the exposure stage, where consumers receive information through their senses. In the attention stage, consumers share their interest to the stimulus. Finally, they understand the meaning. In the comprehension stage, consumers compose data and interpret it to make it understandable. Similarly,

Cunningham, S.M. (1967), Zhou, E. (2013) and Bauer, R.A. (1960), Heng, X. ., Hock-Hai, T., & Bernard, C. Y. T. (2005) said that the risk perception negatively affects investment intention, disclosure and good control over the database system, legal structure and accreditation, economic, operational, personal and privacy risks. This is consistent with the research of Kanthamane Preecha and Thanapon Janesuthiwetkul(2021) finding that the perceived benefit factor, trust factor, and the perceived ease of use factor affected decision-making. In economics, Robin Boadway (2006), Harry Markowitz (1956) and Alfred Marshall (1890) suggested the Cost-Benefit Analysis (CBA) to calculate the cost-benefit prices and the ability of the market to be able to be driven in order to strengthen the standards of supervision and control in the management of investment portfolios, demand and supply, and the ratio of yields or existing benefits such as interest, dividends, profits, market premiums, and stability rates. It is the stability of the asset with a continuous growth rate being able to come into possession with safety and worry-free. All of which affect wealth creation. This agrees with the research of Rewat Thiammok and Sumeth Thuwadaratrakul (2020) finding that most investors focus on economic, political and industrial conditions and stock fundamental analysis, technical analysis and individual stock information. According to Warren Buffett's (2020) principle, the three components are 1) Wealth Creation, 2) Wealth Accumulation, and 3) Wealth Distribution or Networking. The researcher found that the investment factors had the highest coefficient clarifying that the investor group wishes to create wealth by sharing money and allocating funds for use in investing in digital assets which the agencies that supervise the provision of various information to promote investment in a convenient and safe manner in order to continue to create a good economy as well as providing information and security to investors to prevent risks and problems.

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