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# Study of Factors Influencing Consumer to Adopt Cryptocurrency

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**Abstract**

Cryptocurrencies have become one of the most traded financial assets in the last decade. The first half of 2022 will not be easily forgotten by the crypto faithful as it shifted investor sentiment after a monster cryptocurrency rally in 2021 that saw bitcoin (BTC) and altcoins scale multiple record peaks. Just as users were getting comfortable with their passive DeFi incomes, Terra and its non-collaterised stablecoin collapsed in a sensational turn of events. Three Arrows Capital (3AC), a crypto hedge fund that managed assets worth about $10bn at its peak, went bankrupt as falling crypto prices forced liquidations of collateralized loans and leveraged trading positions across the industry, aggravating the sell-off. Investor sentiment plummeted as crypto lending platforms like Celsius and Babel suspended withdrawals for clients. Investor sentiment plummeted as crypto lending platforms like Celsius and Babel suspended withdrawals for clients. The future of cryptocurrency still remains unclear. Given all these mess, we would like to know what factors could actually influence consumer adoption of cryptocurrency from here on out.

The purpose of this research is to study factors influencing consumer to adopt cryptocurrency. These factors include seven independent variables: Convenience (CV), Popularity (PL), Usefulness (UF), Credibility (CD), Recommendations (RC), Price Stability (PS) and Risk (RK) and one dependent variable: Crypto Behavior (BH). 400 sample were collected using

electronic questionnaire through social media. We used Structural Equation Models (SEM) for data analysis. The result shows that Since the RMSEA, which is an absolute fit index that assesses how far our hypothesized model is from a perfect model, for this model is .047 (<.05) which strongly indicates a “close fit” and the Goodness of Fit Index (GFI) value is .934 (>.90), the model seems to fit well according to the descriptive measures of fit. More importantly Popularity (PL), Usefulness (UF), Credibility (CD), Recommendations (RC) and Risk (RK) seem to have significant effects on influencing consumer to adopt cryptocurrency due to their p-values are both less than .05. That means as long as cryptocurrency is becoming more popular, useful, credible and highly recommended by key stakeholders (friends & family, professionals and influencers) with better risk management, consumer will be more welcome to adopt cryptocurrency as both day-to-day currency and investment alternative. One interesting finding is that Price Stability (PS) of cryptocurrency that we’ve seen over and over again especially post-covid doesn’t seem to significantly impact much of consumer adoption.

**Keywords:** cryptocurrency, SEM, customer adoption

## 1. Introduction

### *1.1Background of the Study*

Cryptocurrencies have become one of the most traded financial assets in the last decade. The first half of 2022 will not be easily forgotten by the crypto faithful as it shifted investor sentiment after a monster cryptocurrency rally in 2021 that saw bitcoin (BTC) and altcoins scale multiple record peaks. Just as users were getting comfortable with their passive DeFi incomes, Terra and its non-collateralized stablecoin collapsed in a sensational turn of events. Three Arrows Capital (3AC), a crypto hedge fund that managed assets worth about $10bn at its peak, went bankrupt as falling crypto prices forced liquidations of collateralized loans and leveraged trading positions across the industry, aggravating the sell-off. Investor sentiment plummeted as crypto lending platforms like Celsius and Babel suspended withdrawals for clients. Investor sentiment plummeted as crypto lending platforms like Celsius and Babel suspended withdrawals for clients. The future of cryptocurrency still remains unclear. Given all these mess, we would like to know what factors could actually influence consumer adoption of cryptocurrency from here on out.

Cryptocurrency adoption has been a subject of debate in recent years. Despite its widespread use, it is still not yet mainstream. Many factors have contributed to this, including concerns over its volatility, regulatory challenges, and security issues. However, there are several factors that could drive consumer adoption of cryptocurrency in the coming years.

Firstly, the increasing mainstream acceptance of cryptocurrency could help to drive adoption. As more companies and institutions begin to accept cryptocurrency as a legitimate form of payment, this could increase the public's confidence in the technology. For example, in 2021, PayPal announced that it would allow users to buy, sell, and hold cryptocurrencies on its platform. Similarly, Tesla announced that it had invested $1.5 billion in bitcoin and would

accept it as a form of payment for its cars. As more companies follow in their footsteps, this could help to increase the adoption of cryptocurrency.

Secondly, the development of user-friendly interfaces and tools could help to drive adoption. In the early days of cryptocurrency, it was primarily used by tech-savvy individuals. However, as the technology has evolved, it has become more user-friendly, and there are now a variety of platforms and tools that make it easier for people to buy, sell, and store cryptocurrencies. For example, Coinbase, one of the largest cryptocurrency exchanges, has developed an easy-to-use app that allows users to buy and sell cryptocurrencies with just a few clicks.

Thirdly, increased regulatory clarity could help to drive adoption. Currently, there is a lack of clear regulation surrounding cryptocurrencies, which has led to uncertainty and confusion. However, as governments and regulatory bodies around the world begin to clarify their stance on cryptocurrencies, this could help to increase consumer confidence in the technology. For example, in the United States, the Securities and Exchange Commission (SEC) has been working to provide clearer guidance on how cryptocurrencies should be regulated.

Fourthly, the development of new use cases for cryptocurrency could help to drive adoption. While cryptocurrency has primarily been used for trading and investment purposes, there are a variety of other potential use cases. For example, cryptocurrencies could be used for cross-border payments, micropayments, and even as a store of value. As more use cases are developed and adopted, this could help to increase the value and utility of cryptocurrency, which in turn could help to drive adoption.

Finally, the security of cryptocurrency will play a significant role in driving adoption. While cryptocurrency has been touted as a more secure form of payment compared to traditional methods, there have been several high-profile hacks and security breaches in recent years. As technology continues to evolve, it will be important for developers and companies to prioritize security to ensure that consumers feel confident in using cryptocurrency.

*1.2 Crypto currencies in Thailand*

The use of cryptocurrency has gained significant attention in recent years in Thailand. While the government has been cautious about regulating the industry, there has been a growing interest among Thai citizens in investing and using cryptocurrencies. One of the most popular cryptocurrencies in Thailand is Bitcoin. In 2017, the Bank of Thailand issued a warning to Thai citizens about the risks associated with investing in Bitcoin and other cryptocurrencies. However, this warning did not deter many Thais from investing in digital currency.

In 2018, the Thai Securities and Exchange Commission (SEC) announced that it would allow the trading of seven cryptocurrencies, including Bitcoin, Ethereum, and Ripple. This move was seen as a positive step towards legitimizing the use of cryptocurrencies in Thailand. Since then, the Thai government has continued to take steps to regulate the industry. In 2019, the Thai SEC issued regulations for initial coin offerings (ICOs), which require companies to register with the SEC and comply with certain disclosure requirements.

In addition to Bitcoin, there are several other cryptocurrencies that are gaining popularity in Thailand. One of these is Tether, a stablecoin that is pegged to the US dollar. Tether has become a popular choice among Thai investors due to its stability and ease of use. Another popular cryptocurrency in Thailand is Litecoin, which is often referred to as the "silver to Bitcoin's gold." Litecoin is a faster and cheaper alternative to Bitcoin, making it an attractive option for those who want to invest in cryptocurrency but are wary of Bitcoin's high fees.

Overall, the use of cryptocurrency in Thailand continues to grow, with many Thais seeing it as a viable investment opportunity. While the government has taken steps to regulate the industry, there is still a lack of clarity on how cryptocurrencies will be treated in the long term. However, with the continued growth of the industry worldwide, it is likely that cryptocurrencies will continue to be an important part of the financial landscape in Thailand and beyond. Most reliable crypto Currencies platforms for Thai peoples are as follows: (1) Bitkub, (2) Binance, (3) Coins.co.th, (4) Huobi, (5) Satang Pro, and (6) TDAX.

*1.3 Statement of Problem*

The adoption of cryptocurrency by consumers has been a topic of interest in recent years, with the potential to revolutionize the way we handle financial transactions. However, despite the increasing popularity of cryptocurrency, many consumers are still hesitant to adopt it as a payment method. The problem lies in the lack of understanding and awareness of the benefits and risks associated with cryptocurrency, as well as concerns about security, volatility, and regulatory issues.

Research question:

Following the backdrop and presentation of problems, the researcher develops the research question as follows in order to perform the research study.

Main question:

The main research question is “What is the structural relationship among all the variables and how Convenience factor, Popularity factor, Usefulness factor, Credibility factor, Recommendations factor, Price Stability factor and Risk factor will effect on the Crypto Behavior of the Consumer to Adopt Cryptocurrency”. Hence, the researcher is interested in the factor influencing Consumer to Adopt Cryptocurrency.

*1.4 Theoretical Background*

There are various theories that investors may use for crypto investments, most of the popular theory for Crypto Investors are as follows:

Efficient Market Hypothesis: This theory states that all available information is already reflected in the current price of a cryptocurrency, making it impossible for an investor to consistently beat the market. Therefore, investors who subscribe to this theory may opt for passive investing through index funds or other diversified crypto investment vehicles.

Technical Analysis: This theory involves analyzing charts and patterns to predict future price movements. Technical analysts may use tools such as moving averages, trend lines, and chart indicators to identify entry and exit points for trades.

Fundamental Analysis: This theory involves analyzing the underlying factors that may affect the value of a cryptocurrency, such as its technology, adoption, and competition. Fundamental analysts may evaluate the team behind the project, the use cases of the cryptocurrency, and the regulatory landscape to make investment decisions.

Risk Management: This theory involves managing risk through diversification, position sizing, and other risk mitigation strategies. Investors who subscribe to this theory may seek to spread their investments across different cryptocurrencies, asset classes, and geographic regions to minimize the impact of any single investment on their overall portfolio.

HODLing: This theory involves holding onto a cryptocurrency for the long term, regardless of short-term price fluctuations. Investors who subscribe to this theory believe that the value of a cryptocurrency will increase over time as adoption and demand grow, and may only sell their holdings in response to significant changes in the underlying technology or market conditions.

The most appropriate theory for a particular investor will depend on their investment goals, risk tolerance, and personal preferences.

### *1.5 Literature Review*

#### 1.5.1 Effect of Convenience on Crypto Behavior to Adopt Crypto

The convenience factor has played a significant role in the adoption of cryptocurrency among consumers. The ease of use, accessibility, and simplicity of cryptocurrency platforms have influenced consumers to adopt and engage with cryptocurrencies.

User-friendly interfaces: User-friendly interfaces have made it easier for consumers to access and use cryptocurrency platforms. These interfaces have reduced the complexity of cryptocurrency platforms, making them more accessible to a wider range of users. According to a survey conducted by Finder, 43.3% of respondents cited ease of use as a factor that influenced their decision to adopt cryptocurrency (Finder, 2021).

Mobile applications: The availability of mobile applications has made it easier for consumers to access their cryptocurrency wallets and carry out transactions on the go. The convenience of using mobile applications has made it possible for consumers to engage with cryptocurrency platforms more frequently. According to a report by Statista, there were over 3.5 billion smartphone users worldwide in 2020, and this number is expected to reach 4.3 billion by 2023 (Statista, 2021).

Quick transactions: The speed of transactions on cryptocurrency platforms has also influenced consumers to adopt cryptocurrencies. Unlike traditional financial systems that may take days to process transactions, cryptocurrency transactions can be completed within

minutes. This convenience has made cryptocurrency platforms more appealing to consumers who value speed and efficiency. According to a report by MarketsandMarkets, the global cryptocurrency market is expected to grow at a CAGR of 6.18% from 2021 to 2026 (MarketsandMarkets, 2021).

Low transaction fees: The low transaction fees associated with cryptocurrency transactions have also influenced consumers to adopt cryptocurrencies. Traditional financial systems often charge high fees for transactions, which can discourage consumers from using these systems. In contrast, cryptocurrency platforms charge much lower transaction fees, making them more appealing to consumers. According to a report by Statista, the average transaction fee for Bitcoin was $2.94 in April 2021, compared to $21.13 in December 2017 (Statista, 2021).

The convenience factor has played a significant role in the adoption of cryptocurrency among consumers. User-friendly interfaces, mobile applications, quick transactions, and low transaction fees have influenced consumers to adopt and engage with cryptocurrency platforms. These factors have made cryptocurrency platforms more accessible and appealing to a wider range of users, which has contributed to the growth of the cryptocurrency market.

1.5.2 Effect of Popularity on Crypto Behavior to Adopt Cryptocurrency

The popularity of cryptocurrency has been a significant factor in the behavior of consumers to adopt cryptocurrency. The rise in popularity of cryptocurrencies such as Bitcoin, Ethereum, and Dogecoin has attracted the attention of consumers, investors, and businesses worldwide. cryptocurrencies of the effects of popularity on crypto behavior of consumers to adopt cryptocurrency are as follow:

Social proof: The popularity of cryptocurrencies has created a sense of social proof among consumers. Social proof refers to the psychological phenomenon where people tend to follow the actions of others in their social group. The increasing number of people using and investing in cryptocurrencies has created a sense of legitimacy and trust in these digital assets, which has influenced consumer behavior. According to a survey conducted by Gemini, 63% of respondents said they would be more likely to invest in cryptocurrency if their friends or family members did (Gemini, 2021).

Increased media coverage: The growing popularity of cryptocurrencies has attracted significant media attention, with many news outlets covering the rise of digital assets. This increased media coverage has helped to raise awareness about cryptocurrencies, making them more accessible and appealing to a wider range of consumers. According to a report by Mordor Intelligence, the global cryptocurrency market is expected to grow at a CAGR of 6.18% from 2021 to 2026, driven by increasing media coverage and public awareness (Mordor Intelligence, 2021).

Celebrity endorsements: The endorsement of cryptocurrencies by celebrities has also influenced consumer behavior. Celebrities such as Elon Musk, Snoop Dogg, and Mark Cuban have publicly endorsed cryptocurrencies, which has increased their popularity and appeal to

consumers. According to a survey conducted by YouGov, 27% of respondents said they would be more likely to invest in cryptocurrency if a celebrity endorsed it (YouGov, 2021).

Increased acceptance by businesses: The increasing popularity of cryptocurrencies has also led to increased acceptance by businesses. More and more businesses are accepting cryptocurrencies as payment, which has made them more accessible and usable for consumers. According to a report by Hootsuite, the number of businesses accepting Bitcoin as payment increased by 582% from 2016 to 2020 (Hootsuite, 2021).

The popularity of cryptocurrencies has played a significant role in the behavior of consumers to adopt cryptocurrency. Social proof, increased media coverage, celebrity endorsements, and increased acceptance by businesses have influenced consumer behavior and contributed to the growth of the cryptocurrency market.

1.5.3 Effect of Usefulness on Crypto Behavior to Adopt Cryptocurrency

There are several factors that influence the adoption of cryptocurrencies by consumers, and usefulness is one of the key factors. In this context, usefulness refers to the perceived benefits and practical applications of cryptocurrencies in everyday life. Studies have shown that the perceived usefulness of cryptocurrencies is a significant predictor of consumers' intention to adopt and use them. For instance, a study conducted by Haddad and Hornik (2021) found that the perceived usefulness of cryptocurrencies positively influences consumers' intention to use them. Similarly, a study by Wang et.al, (2019) found that the perceived usefulness of cryptocurrencies positively influences consumers' trust and intention to use them. Moreover, the perceived usefulness of cryptocurrencies is also associated with consumers' behavior in using and holding cryptocurrencies. A study by Kim and Kim (2021) found that the perceived usefulness of cryptocurrencies is positively associated with consumers' intention to hold them for a longer period.

Overall, these findings suggest that the perceived usefulness of cryptocurrencies is an important factor in consumers' adoption and behavior towards them. As such, it is important for businesses and policymakers to highlight the practical applications and benefits of cryptocurrencies to increase their adoption among consumers.

1.5.4 Effect of Credibility on Crypto Behavior to Adopt Cryptocurrency

Credibility refers to the trustworthiness and legitimacy of cryptocurrencies and the platforms that facilitate their use. Research has shown that consumers' perceptions of the credibility of cryptocurrencies can impact their intention to adopt and use them. For example, a study by Ali, Ur, and Nguyen (2020) found that consumers' perceptions of the credibility of cryptocurrencies have a significant positive effect on their intention to use them. Similarly, a study by Oh, Kwon, & Kim (2020) found that perceived credibility positively influences consumers' trust and adoption of cryptocurrencies.

Moreover, credibility is also associated with consumers' behavior towards cryptocurrencies. A study by Moilanen and Teich (2017) found that the perceived credibility of cryptocurrencies

is positively associated with consumers' intention to invest in them. Overall, these findings suggest that credibility is an important factor in consumers' adoption and behavior towards cryptocurrencies. To increase adoption and use of cryptocurrencies, businesses and policymakers need to focus on building credibility and trust in the technology and platforms that facilitate their use.

1.5.5 Effect of Recommendations on Crypto Behavior to Adopt Cryptocurrency

Recommendation refers to the impact of recommendations or opinions of family, friends, or peers on the adoption and use of cryptocurrencies. Research has shown that social influence can play a significant role in consumers' intention to adopt and use cryptocurrencies. For example, a study by Kim et al. (2020) found that social influence has a positive effect on consumers' intention to adopt cryptocurrencies. Similarly, a study by Cheah and Fry (2015)found that social influence positively affects consumers' awareness and interest in cryptocurrencies.

Moreover, social influence is also associated with consumers' behavior towards cryptocurrencies. A study by Chan and Cheng (2019)found that social influence positively influences consumers' actual use of cryptocurrencies. Overall, these findings suggest that social influence is an important factor in consumers' adoption and behavior towards cryptocurrencies. To increase adoption and use of cryptocurrencies, businesses and policymakers need to focus on building positive word-of-mouth and social influence around cryptocurrencies.

1.5.6 Effect of Price Stability on Crypto Behavior to Adopt Cryptocurrency

Price stability refers to the stability and predictability of the value of cryptocurrencies over time. Research has shown that price stability can impact consumers' intention to adopt and use cryptocurrencies. For example, a study by Kristoufek (2015) found that volatility negatively affects the adoption of cryptocurrencies. Similarly, a study by Böhme et al. (2015) found that price stability is an important factor in consumers' perception of the value of cryptocurrencies.

Moreover, price stability is also associated with consumers' behavior towards cryptocurrencies. A study by Gandal et al. (2015) found that price volatility negatively affects the liquidity of cryptocurrencies. Overall, these findings suggest that price stability is an important factor in consumers' adoption and behavior towards cryptocurrencies. To increase adoption and use of cryptocurrencies, businesses and policymakers need to focus on promoting price stability and reducing volatility in the market.

1.5.7 Effect of Risk on Crypto Behavior to Adopt Cryptocurrency

Risk refers to the uncertainty and potential loss associated with the use and adoption of cryptocurrencies. Research has shown that risk perception can impact consumers' intention to adopt and use cryptocurrencies. For example, a study by Kshetri (2018) found that perceived risk negatively affects consumers' intention to adopt cryptocurrencies. Similarly, a study by

Yousaf et al. (2019) found that perceived risk negatively affects consumers' attitude towards cryptocurrencies.

Moreover, risk is also associated with consumers' behavior towards cryptocurrencies. A study by Baur et al. (2018) found that risk perception negatively affects consumers' willingness to hold and trade cryptocurrencies. Overall, these findings suggest that risk is an important factor in consumers' adoption and behavior towards cryptocurrencies. To increase adoption and use of cryptocurrencies, businesses and policymakers need to focus on reducing the perceived risk associated with the use and adoption of cryptocurrencies.

*1.6 Hypothesis*

H1: Convenience (CV) will have the effect on Crypto Behavior of the Consumer to Adopt Cryptocurrency.

H2: Popularity (PL) will have the effect on Crypto Behavior of the Consumer to Adopt Cryptocurrency.

H3: Usefulness (UF) will have the effect on Crypto Behavior of the Consumer to Adopt Cryptocurrency.

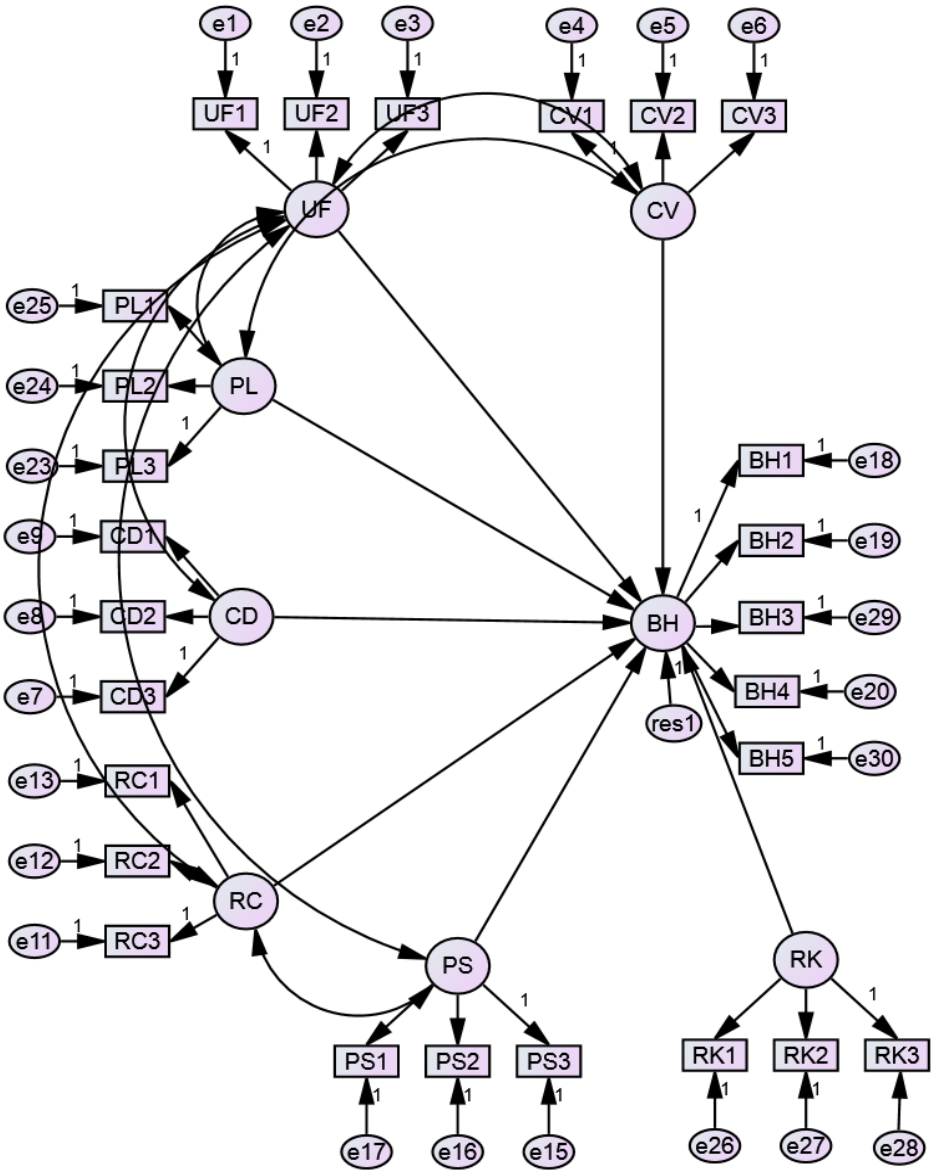
H4: Credibility (CD) will have the effect on Crypto Behavior of the Consumer to Adopt Cryptocurrency.

H5: Recommendations (RD) will have the effect on Crypto Behavior of the Consumer to Adopt Cryptocurrency.

H6: Price Stability (PS) will have the effect on Crypto Behavior of the Consumer to Adopt Cryptocurrency.

H7: Risk (RK) will have the effect on Crypto Behavior of the Consumer to Adopt Cryptocurrency.

**The Hypothesized Model**




Independent variables include Convenience (CV), Popularity (PL), Usefulness (UF), Credibility (CD), Recommendations (RC), Price Stability (PS) and Risk (RK).

Dependent variable is Crypto Behavior (BH).

## 2. Method of Research

### *2.1 Research Strategy*

This present research has used the quantitative research method to achieve the purposes of the study. The researcher collected and analyzed data by using the questionnaires as a survey tool to achieve the aim of the research to study factors influencing on the Consumer to Adopt

Cryptocurrency. The questionnaire was applied as the research instrument to which is constructed by applying the related theories and approved by the expertise.

The quantitative research has the three general classifications. They are casual comparative, descriptive and experimental. This research is using the casual comparative approach. In the casual comparative approach, the research studies how the dependent variable is affected by the independent variables as part of the cause-and-effect relationships. Specifically, the interaction between independent variables on the dependent variable is the focus of the research (Williams, 2007).

The samples of the research were carefully chosen from the population which is the methodology utilized for performing the research about the Consumer to Adopt Cryptocurrency. Moreover, the samples were randomly chosen for considering the method of convenient and purposive sampling. The statistical techniques applied for data analysis and interpretation consist of inferential statistics, descriptive statistics, and Structural Equation Modelling (SEM) for Factor Analysis.

*2.2 Reliability*

Researchers are using the value of Cronbach's alpha coefficient to measure the reliability of the Questionnaire. The researcher was accomplished 30 peoples as a sample for the pilot test. All 30-sample data has been entering into IBM SPSS 24 statistical software. The value of Cronbach's alpha coefficient of the questionnaire must be greater than 0.70 for all parts, therefore the questionnaire is considered as reliable (Taber, 2018).

Criteria of Cronbach's alpha coefficient

| Cronbach's alpha coefficient | Reliability Level | Desirability Level |
|---|---|---|
| 0.80 – 1.00 | Very High | Excellent |
| 0.70 – 0.79 | High | Good |
| 0.50 – 0.69 | Medium | Fair |
| 0.30 – 0.49 | Low | Poor |
| Less than 0.30 | Very Low | Unacceptable |

The result of Cronbach's Alpha Test from 30 samples: All Factors

| Statement of each part | Alpha Coefficient | Accept/ Not |
|---|---|---|
| Convenience | 0.918 | Accept |
| Popularity | 0.792 | Accept |
| Usefulness | 0.864 | Accept |
| Credibility | 0.824 | Accept |
| Recommendations | 0.911 | Accept |
| Price Stability | 0.815 | Accept |
| Risk | 0.912 | Accept |
| Crypto Behavior | 0.863 | Accept |
| Total | 0.895 | Accept |

*2.3 Population and Sample Size*

2.3.1 Population

Population can be described as the people who lived in Bangkok, Thailand. The target population including the native and foreigners who live, work and study in Bangkok not lower than 1 year.

2.3.2 Sample size

Structural Equation Modeling (SEM) is a powerful and versatile technique that extends the generic linear model. Like other statistical methods, SEM has a set of assumptions that must be met or approximated to ensure accurate results. One of the main challenges in SEM is determining the appropriate sample size, which unfortunately has no general method for selection.

Bentler and Chou (1987) suggest that researchers use at least 5 examples for each parameter estimate in SEM analysis, assuming that the data is well-behaved (e.g., no missing data, normally distributed, etc.). Additionally, they recommend that researchers use 5 cases per parameter estimate instead of every observed variable. Since measured variables usually have at least one path coefficient related to another variable in the analysis, as well as a residual term or variance estimate, it is important to follow the recommendations of Bentler, Chou, and Stevens and have a minimum of 15 cases per measured variable. Most of the researchers are recommended to using the sample size of 200 or 5/10 cases per parameters at least (Kline, 2005).

Moreover, the outcomes of the simulation of Monte Carlo which is studying the use of confirmatory factor analysis models (Loehlin, 1992). After assessing his literature, he realizes that for this kind of model with 2 to 4 factors, the researchers should have a plan on

collecting at 100 cases minimum, 200 cases is better (if possible). Consequences of using the smaller samples contain of more convergence failures (the software cannot make a acceptable solution), lowered precision of parameter estimates, inappropriate solutions (together with the negative error variance estimates for measured variables), and especially, standard errors – SEM program standard errors are computed under the assumption of large sample sizes.

The common recommendation is to obtain more data when possible. Although in this research study is using 400 samples. The 400-sample size is often considered as the most "cost effective" sample size and it gives the statistical accuracy of ±5%.

## 3. Research Findings

### *3.1 Correlation of the Variables*

This section reviews the various goodness-of-fit criteria for testing the model in the following manner. Model evaluation uses root mean square residuals (RMR) as one of the review criteria, and a model is considered good or satisfactory if the RMR value is low. RMR is the root mean square of the residuals. RMR is the sum of the squares of the sample variances and covariances minus the corresponding estimated variances and covariances, and the square root of the mean. RMR is acceptable if it is less than 0.08. The smaller the RMR, the better the fit the smaller the RMR, the higher the goodness of fit. The goodness-of-fit index (GFI) is a measure of goodness-of-fit that ranges from 0 to 1 but can theoretically be a negative number with no significance. By convention, the GFI should be equal to or greater than 0.90 for the model to be considered acceptable. The adjusted goodness-of-fit index (AGFI) is the adjusted GFI value and should be greater than 0.9 or more for the model to be considered acceptable. Parsimonious normed fit index (PGFI) determines whether the research model is too complex, and the same sample information but similar models are better with a larger parsimonious index. Usually PGFI >0.50, the model is considered satisfactory.

RMR, GFI

| Model | RMR | GFI | AGFI | PGFI |
|---|---|---|---|---|
| Default model | .079 | .940 | .923 | .760 |
| Saturated model | .000 | 1.000 | | |
| Independence model | .641 | .239 | .175 | .213 |

According to the above table of our SEM result, the value of root mean square residuals (RMR) is less than 0.8, the model is better fit. The Goodness of Fit Index (GFI) value is .930 (>.90), the model seems to fit well according to the descriptive measures of fit. For the PGFI, our result is 0.75, which is greater than 0.50, so that our model can be considered as satisfactory.

*3.2 Fit Indices*

The use of Structural Equation Model (SEM) has become increasingly popular in business research, and it can be categorized into three types: measurement models (type 1), structural models (type 2), and a combination of both (type 3) (McQuitty, 2004). In this study, the researcher used type 3. SEM is a quantitative data analysis method that examines the theoretical relationships between observable "endogenous variables" and unobservable "exogenous variables" (Byrne, 2001). SEM is not a single statistical approach, but a collection of techniques that involves examining covariance structure using regression and factor analysis. The SEM method starts with a model definition that establishes links between variables and the direction of their effects. Specification is a visual representation of practical hypotheses, while measurement is made up of applicable theory, information, and a produced model. In the estimation process, SEM generates regression weights, covariances, variances, and correlations in an iterative process that converges on parameter estimates. After the estimation process, fit statistics are used to assess whether the proposed model is suitable for the data or whether modifications are necessary to improve the fit. Holmes-Smith, Coote, & Cunningham (2006) note that there are three types of model fit statistics that can be used.

The three types of model fit are as follows:

- Absolute fit indexes,
- Incremental fit or Comparative fit index, and
- Indices of model parsimony

There are different ways of assessing model fit, and guidelines exist for minimum acceptable levels of fit indices (Byrne, 2001). However, some researchers caution that the evaluation process can be problematic because different fit indices may be used in different studies or recommended by different reviewers ( (Maruyama, 1998) & (Ping Jr., 2004)), leading to a lack of reliable standards for assessing fit (Kenny & McCoach, 2003). Nonetheless, certain fit indices like CFI, TLI, and RMSEA are commonly used (Kenny & McCoach, 2003). According to Hulland, Chow, and Lam (1996), the CFI, NFI, and IFI should range between 0 and 1, with values close to 1 indicating a better fit. An acceptable fit is indicated by values between 0.90 and 0.95, while values greater than 0.95 suggest a very good fit.

Because of its unique relative power of the combination of attributes, RMSEA is of great importance in the evaluation of fit indices. One of the most revealing principles in covariance structure modeling is the RMSEA fit statistic (Byrne, 2001). A value of RMSEA less than 0.05 suggests a decent fit, whereas a value greater than 0.08 shows that there are reasonable approximation errors in the population (Browne & Cudeck (1992) & Byrne (2001)).

Baseline Comparisons

| Model | NFI Delta1 | RFI rho1 | IFI Delta2 | TLI rho2 | CFI |
|---|---|---|---|---|---|
| Default model | .860 | .781 | .903 | .818 | **.913** |

According to the above table, CFI, which is incremental fit indices that compare the fit of our hypothesized model with that of a baseline model (i.e., a model with the worst fit), its value equals .913 indicating an acceptable fit.

RMSEA

| Model | RMSEA | GFI | AGFI | PGFI |
|---|---|---|---|---|
| Default model | .042 | .924 | .903 | .865 |
| Saturated model | .000 | 1.000 | | |
| Independence model | .242 | .231 | .154 | .213 |

Since the RMSEA, which is an absolute fit index that assesses how far our hypothesized model is from a perfect model, for this model is .042 (<.05) which strongly indicates a “close fit”.

*3.3 Hypothesis*

| | | | Estimate | S.E. | C.R. | P | Label |
|---|---|---|---|---|---|---|---|
| BH | <--- | CV | .052 | .048 | 1.086 | .278 | |
| BH | <--- | UF | .161 | .049 | 3.319 | *** | |
| BH | <--- | PL | .155 | .051 | 3.019 | .003 | |
| BH | <--- | CD | .115 | .052 | 2.207 | .027 | |
| BH | <--- | RC | .119 | .052 | 2.263 | .024 | |
| BH | <--- | PS | .100 | .054 | 1.864 | .062 | |
| BH | <--- | RK | .104 | .051 | 2.043 | .041 | |

## 4. Conclusion

*4.1 Hypothesis Result*

According to our SEM Result,

H1: Convenience (CV) does not have the effect on Crypto Behavior of the Consumer to Adopt Cryptocurrency.

H2: Popularity (PL) have the effect on Crypto Behavior of the Consumer to Adopt Cryptocurrency.

H3: Usefulness (UF) have the effect on Crypto Behavior of the Consumer to Adopt Cryptocurrency.

H4: Credibility (CD) have the effect on Crypto Behavior of the Consumer to Adopt Cryptocurrency.

H5: Recommendations (RD) have the effect on Crypto Behavior of the Consumer to Adopt Cryptocurrency.

H6: Price Stability (PS) does not have the effect on Crypto Behavior of the Consumer to Adopt Cryptocurrency.

H7: Risk (RK) will have the effect on Crypto Behavior of the Consumer to Adopt Cryptocurrency.

*4.2 Discussion*

Based on our SEM result, Popularity (PL), Usefulness (UF), Credibility (CD), Recommendations (RC) and Risk (RK) seem to have significant effects on influencing consumer to adopt cryptocurrency due to their p-values are both less than .05. That means as long as cryptocurrency is becoming more popular, useful, credible and highly recommended by key stakeholders (friends & family, professionals and influencers) with better risk management, consumer will be more welcome to adopt cryptocurrency as both day-to-day currency and investment alternative. One interesting finding is that Price Stability (PS) of cryptocurrency that we've seen over and over again especially post-covid doesn't seem to significantly impact much of consumer adoption.

*4.3 Recommendations for Future Research*

The generalizability of the findings are the limitations of this study. The sample used in this research was targeted on all age groups. So that future research should be choosing the certain age groups. The different viewpoints of confirmatory factor analysis (CFA) can also be applied on the factors which were reviewed in this research to find further inside on the Study of Factors Influencing Consumer to Adopt Cryptocurrency. Moreover, the different Structural construct and model can be used based on the factors discussed in the paper.

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