

INVESTOR'S VIEWS AND PREFERENCES TOWARDS CRYPTOCURRENCIES IN KERALA

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ABSTRACT

Cryptocurrencies are digital currencies that can be used to buy goods or services online or traded as a security between parties who are interested. Unlike paper cash, these virtual currencies are very safe because of the advanced encryption technology, making counterfeiting practically impossible. It used to trade on cryptocurrency exchanges as well. The history of cryptocurrencies isn't all that old. Although it has only been around for 13 years, the cryptocurrency's future remains uncharted territory. The authors of this paper investigate the attitudes and preferences of investors regarding cryptocurrency investment with the help of factor analysis technique. The researcher identified two factors that affect the preference and attitude of the cryptocurrency investor such as uncertain legality and risk and volatility. These factors further test with the investors age group and occupation with one-way nova and find out that the both factors have significant influence on the age of the investors in cryptocurrency investment while only factor two – risk and volatility – have significant impact on the investment in cryptocurrencies.

Key Words: Confirmatory Factor Analysis, Cryptocurrencies, Investment Decision, Uncertain Legality.

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INTRODUCTION

A cryptocurrency or digital currency is a digital asset meant to function as a mode of payment that uses cryptography to protect transactions and limit the production of new currency units. Cryptocurrencies are a subclass of digital currencies, and also virtual currencies and digital money. The term cryptocurrency originated from the two terms "crypto" (data encryption) and "currency" (medium of exchange). Cryptocurrency is a kind of electronic or virtual money. It exists only in digital form. Cryptocurrencies are stored in cryptographic wallets through an openly available address. It will also be secured with a very strong password called a "personal key." To prevent cheating, all currencies require some method of controlling supply and enforcing certain security features. Organizations such as central banks oversee the money supply in fiat currencies and provide anti-counterfeiting elements to real cash. These security features make it extra tough for an attacker to counterfeit money, but they don't make it impossible (Gopinath, 2020). Finally, law enforcement is required to prevent people from breaching the system's regulations.

The first devolved cryptocurrency, Bitcoin, was launched in 2009 and is now one of the far more popular cryptocurrencies. Since then, several of these new cryptocurrencies have emerged. They're referred to as "altcoins" since they're a mix of bitcoin and other cryptocurrencies (Subhashini & Gopinath, 2020). In contrast to centralized electronic money and centralised banking systems, Bitcoin and its derivatives employ decentralized control. Decentralized control is linked to the use of bitcoin's blockchain transaction database as a circulated ledger. Cryptocurrencies, too, must have security mechanisms in place to avoid tampering with the system's status and equivocating, or making contradictory assertions to various individuals. However, unlike fiat currencies, cryptocurrencies' security regulations must be maintained only through technological means, with no reliance on a central body.

Cryptocurrency investors are individuals who buy and sell various cryptocurrencies in the cryptocurrency market in order to profit. Some prefer to trade and profit in this more volatile market. While others invested in it for the long term, thinking the price would skyrocket in the long run. Both of them were taking a huge risk here in the form of legal and uncertain risk, such as the potential government regulations and some other risk normally related to the investment market, like price fluctuation and systematic and unsystematic risks. The authors were identifying potential factors that influenced respondents' cryptocurrency investment decisions.

INVESTOR'S PREFERENCES TOWARDS VARIOUS INVESTMENT AVENUES

Investment is an important habit that may help the economy grow faster by improving the financial system. The fundamental concept is to organize savings of funds and monetary assets and then efficiently invest them in an endeavour activity. An investment is an important decision that may be influenced by a number of variables (Gopinath, 2019a). Investor preference means how investors rank their investment items, from most wanted to least desired investment options. Demographic characteristics such as age, gender, education, employment, yearly income, and geographic location, according to economists, have an influence on investment decisions. Additionally, an investor's risk sensitivity might well be influenced by factors such as age, time frame, liquidity requirements, portfolio structure, income, taxes, and investment education (Gopinath, 2019b).

Money either increases or decreases in value. Money loses its worth when it sits idle. It only increases if it is decided to invest and found to be successful. The use of capital with the aim of generating additional revenue is referred to as investment. When you make an investment, you anticipate a return. To put it another way, an investment is anything that is acquired for the purpose of later growth or return.

In a financial sense, an investment is indeed a monetary item that, if acquired, will generate future economic benefits or may be sold for a profit at a higher price.

Money has a huge impact on one's life in these modern times. They must invest their money in order to overcome issues in the future. Every human being's action of investing their hard-earned money is critical. Investment is the obligation of money saved from present consumption in the hopes of receiving future rewards (Gopinath, 2019c). As a result, it serves as a form of compensation for the time spent waiting for money. People's savings are invested in assets based on their return and risk requirements, money safety, liquidity, investment options, financial institutions, and so on. An investment is defined as the purchase of an investment product or other valuable asset with the prospect of positive future returns. Investing is a sensitive subject that may have a significant influence on a person's future financial well-being. Investors have a variety of options for where to put their money. The risk and rewards associated with these investment options range from one to another.

While selecting the financial products and other investment opportunities, an individual must be recognizing the dynamic and competitive context of the investment instruments nature. Despite the fact that a range of investment choices are available, the majority of people still rely on the banking industry to invest their money utilizing the banking system's excess liquidity. An investor who sacrifices their present financial requirements and invests it into many investment avenues like share market, mutual funds, crypto exchanges etc., with the expectation of getting higher return in the future, is referred to as an investor. An investor is someone who invests money in the hopes of earning more money in the future. In other terms, an investor is a person who invests money. They seek to keep risk to a minimum while maximizing rewards. Some investors are unwilling to accept risks and choose low-risk investing opportunities. There are several sorts of investors in the market.

Every person's life is somehow influenced by technology nowadays. Today, investors can conduct a web search and select the best investment by simply clicking on it. Certain organizations offer applications or software that allow investors to monitor their portfolio. People who put their money in traditional investment avenues like retirement funds, mutual funds, fixed deposits, share markets, etc., are bound to pay taxes according to the nature of their investment and the tax liability and rules associated with the law. The current technological advancement and people's awareness of the latest investment and trading platforms mean there are certain kinds of innovative and advanced investment avenues there, like cryptocurrency trading or investment. Another one is called NFT, or "non-fungible token". These are the new and complex investment options. But the development of the technology helps investors buy or invest in these digital financial assets as easily as they buy a product online. We can invest in cryptocurrency by opening an account on a crypto exchange and paying the amount with the current digital banking facilities.

REVIEW OF LITERATURE

Dey (2018) analyses current cryptocurrencies, shedding light on many of the recent incidents and movements that may be affected if cryptocurrencies contribute to a revolution in economic paradigms. This article discusses the origins and rationale for bitcoin, as well as the manner of operation and potential uses of block chain technology. The author closed the article by stating that the future of cryptocurrency in India, as well as globally, is highly promising. (Dey, 2018)

Ismail Metin and Enis Yakut (2018) have presented a paper at the Fourth international Scientific Conference ERAZ on consumer perception towards cryptocurrencies. The study was conducted in Turkey through an online survey to collect data. Tools like factor analysis, correlation analysis, and linear regression analysis have been used to analyse the data and

concluded that there is an adverse relationship between the risk awareness of consumers and the supposed trust in cryptocurrencies. (Metin & Yakut, 2018)

OBJECTIVES OF THE STUDY

1. To know whether the age of the investor has any impact on the factors affecting investing decisions in cryptocurrencies
2. To find out the impact of occupation on the factors affecting the investment decisions of cryptocurrency investors.

STATEMENT OF THE PROBLEM

The development of digital banking and services related to finance in the online market place attracts more and more people to various investment avenues that weren't easily available or easily accessible to ordinary people in the past. The adventure investors were exploring these new opportunities to make a profit from these new investment areas. The profit from these cryptocurrencies and related trades is relatively large, but so is the risk. However, due to their increased internet participation, people, particularly millennials, are still drawn to it. Despite the fact that there are no official authorities to control the cryptocurrency market, individuals continue to use it.

The focus of the study was to understand the various factors affecting the investment decisions of the respondents in cryptocurrencies. The researcher identifies the major two factors which normally affect the investment decisions of investors in the crypto market, such as the uncertain legality and the risk and volatility of crypto market. The legality and uncertainty factors were identified as the first factors, as they're the first things that come to mind when we think about cryptocurrencies, like whether the government is going to ban them or regulate them. The other factor, which is the risk and volatility of cryptocurrencies. It's clear that the above-mentioned factors are influencing the investment decisions of cryptocurrency investors. Therefore, it's important to know the attitude of cryptocurrency investors regarding their investment decisions.

RESEARCH METHODOLOGY

This study is confirmatory by nature for proving the six variables' measurements of the two factors that influence the investment decisions of cryptocurrency investors. This research is based on primary data from various investors who were invested in cryptocurrencies. The information was gathered from investors in Kerala, the southern state of India, using a structured questionnaire.

While there isn't any publicly available database of cryptocurrency investors, the researcher used a convenient sampling method to choose the respondents for the study, specifically the snowball sampling method, where one respondent suggests or recommends the next one.

It is because identifying and selecting crypto investors on a random basis is an impossible task. One hundred and fifteen samples were collected through a structured questionnaire from the proposed study area. The tools used to analyse the data were confirmatory factor analysis. All the issued questionnaires were collected and scrutinised by using the SPSS statistical package to find out any missing data. It was found that no data was missing because the researcher used Google Forms to create the questionnaire. There are six major variables incorporated into the questionnaire to ask the respondents to match the two factors that were selected for the study.

LIMITATIONS OF THE STUDY

1. This analysis was based on the individuals who were invested in cryptocurrencies, identifying them were very difficult.
2. The place where the data was collected is from the state of Kerala and the generalization may not be that precise.
3. Only used demographic values to test the impact of the factors influencing cryptocurrency investment decisions.

ANALYSIS AND INTERPRETATION OF THE STUDY

Graphical Representation of Relationship Between Factors and Variables

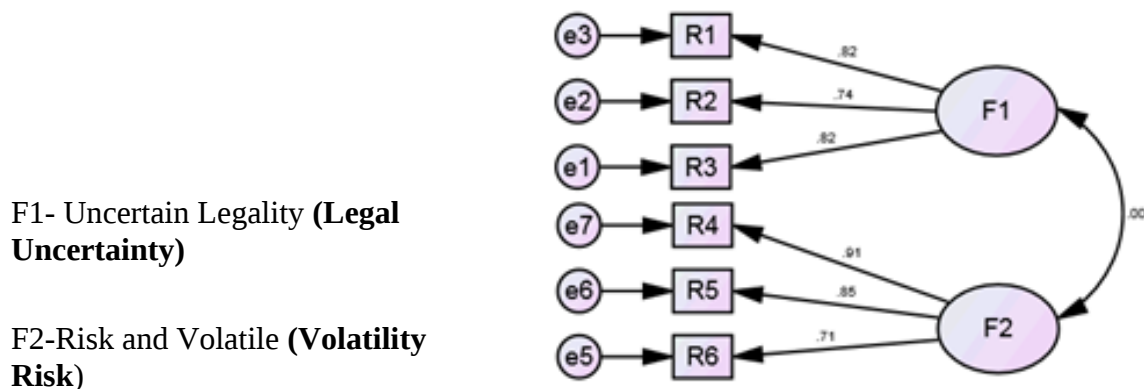


Table 1. Investors Attitude Towards Risks Associated with Cryptocurrencies

		Very Strong risk (%)	Strong risk (%)	Average risk (%)	Slight Risk (%)	No Risk (%)
R1	Government regulations	3.8	28.4	35.1	23.1	9.6
R2	Money laundering	13	38	37	10.1	1.9
R3	Manipulative trading of cryptocurrency	4.3	30.8	20.2	31.3	13.5
R4	Private key management	20.7	28.8	38.5	12.5	1.4
R5	Inability to remove content	24	31.3	26.9	15.9	1.9
R6	Cryptography vulnerability	16.3	32.7	31.7	17.3	1.9

Source: Primary data

Confirmatory factor analysis is used to determine whether construct measurements agree with the researcher's knowledge of the construct's nature (or factor). The researcher identified two factors relevant to crypto currency investment using various reviews of literature and verified those factors using six relevant questions in the questionnaire.

Here, factor 1 (F1) is identified as the uncertainty of legality regarding the cryptocurrency investment, and factor 2 (F2) is the risk and volatility of the cryptocurrency investment. Factor - 1 is tested with the 3 variables such as government regulations, money laundering, and manipulative trading of crypto-currency. These variables combined are identified as the "uncertain legality factor," and Factor 2 is tested with the other three variables identified as the risk and volatility factors. which are private key management, the inability to remove content, and cryptographic vulnerability. These three variables are considered collectively as the "risk and volatility factor".

Table 2. Testing of the Model Fit Indexes

Model Fit Index	Calculated Value	Accepted Value for good fit	References
CMIN/DF	1.768	Recommended level<5.0	Ganguli (2010), Marsh and Hocevar (1985)
GFI	.978	>0.9	Kline (2005)
CFI	.989	>0.9	Kline, (2005)
NFI	.975	>0.9	Bentler & Bonett (1980)
RMSEA	.061	<0.05 (Ideal) <0.08 (Acceptable) (Threshold level=0.10)	Browne, M. W & Cudeck, R. (1993)

The model fit was assessed using CMIN/DF, goodness-of-fit index (GFI), the comparative fit index (CFI) root means square error of approximation (RMSEA) and the normed fit index (NFI).

Factor 1 (F1) is identified as legal uncertainty regarding cryptocurrency investment.

Factor 2 (F2) is the cryptocurrency investment's risk and volatility.

Factor 1 is tested with the 3 variables such as government regulations, money laundering, and manipulative trading of crypto-currency. The combination of these variables is identified as the "uncertain legality factor." Factor 2 is tested with the other three variables identified as the "risk and volatility factors". It includes three variables, such as private key management, the inability to remove content, and cryptographic vulnerability. The confirmatory factor analysis found out that all the calculated values are within acceptable fit and concluded that these model fit indexes fall under the acceptable level and it is fit to take it further in the analysis process. And the confirmatory factor analysis found that all the calculated values are within an acceptable fit and concluded that these factors are considered for further study.

Table 3. Hypothesis Test Result - Regression Weights

Hypothesis			Factor	Standardized Estimate	Unstandardized Estimate	S.E.	C.R.	P
1	R3	<---	F1	.821	1.000			
2	R2	<---	F1	.738	.718	.070	10.291	***
3	R1	<---	F1	.822	.900	.083	10.806	***
4	R6	<---	F2	.708	1.000			
5	R5	<---	F2	.851	1.269	.114	11.120	***
6	R4	<---	F2	.905	1.255	.113	11.124	***

Source: primary data

The following hypotheses are used to test the factors to identify whether they are an acceptable fit or not with the help of the above table

1. H₁- There is a significant impact on uncertain legality, and government regulations towards cryptocurrency investments.
2. H₁- There is a significant impact on cryptocurrency investment in terms of uncertainty, legality, or money laundering.
3. H₁- There is an impact on cryptocurrency investment due to the uncertain legality and manipulative trading of crypto-currency.
4. H₁ - There a is effect on cryptocurrency investment risky and volatile and private key management.
5. H₁ - There is an impact on risky and volatile content, as well as an inability to remove content from cryptocurrency investments.

6. H_1 - There is a significant effect on risky and volatile cryptocurrency investments as well as cryptographic vulnerabilities.

All the six hypotheses were significant, and critical values were more than 1.96, and all of them were accepted. So, the researcher conducted a one-way anova to test these factors (F1 and F2) with the demographic values such as age and occupation of the respondents.

Table 4. Age Group of the Investors

Age Group					
	Age Group	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 25	61	53.0	53.0	53.0
	25-30	47	40.9	40.9	93.9
	30-35	7	6.1	6.1	100.0
	Total	115	100.0	100.0	

Source: primary data

Table 5 Age with F1 and F2 (Uncertain Legality and Volatility and Risk)

ANOVA							
		Sum of Squares	df	Mean Square	F	Sig.	Inference
F1	Between Groups	11.761	2	5.880	7.953	.001	Significant
	Within Groups	82.813	112	.739			
	Total	94.574	114				
F2	Between Groups	9.754	2	4.877	3.575	.031	Significant
	Within Groups	152.768	112	1.364			
	Total	162.522	114				

Source: primary data

TESTING THE HYPOTHESIS

The above ANOVA table was used to test the following hypothesis, which are based on the first objective of the study:

H_0 - There is no significant difference between the uncertain legality and the age of the respondents.

H_0 - There is no significant difference between the uncertain legality and the occupation of respondents.

The finding of the one-way ANOVA is that factor 1 (uncertain legality) is significant enough to influence the investment decision of the cryptocurrencies regarding the age of the respondent. In simple words, the age of the respondents has had a significant impact on the investment decision of the investor towards cryptocurrency, while the factor 2 (risk and volatility) are also influencing the investment decision of the respondents, considering the respondent's age.

Table 6. Occupation of the Investors

	Occupations	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Self Employed	21	18.3	18.3	18.3
	Entrepreneur	23	20.0	20.0	38.3
	Government Employee	10	8.7	8.7	47.0
	Private Employee	41	35.7	35.7	82.6
	Students	20	17.4	17.4	100.0
	Total	115	100.0	100.0	

Source: Primary Data

Table 7. Occupation with F1 and F2 (Uncertain Legality and Volatility and Risk)

ANOVA							
		Sum of Squares	df	Mean Square	F	Sig.	Inference
F1	Between Groups	2.021	4	.505	.601	.663	Not significant
	Within Groups	92.552	110	.841			
	Total	94.574	114				
F2	Between Groups	19.003	4	4.751	3.641	.008	Significant
	Within Groups	143.519	110	1.305			
	Total	162.522	114				

Testing of the Hypothesis

The above ANOVA table used to test the following hypothesis which are based on the second objectives of the study.

1. H₀ - There is no significant difference between uncertain legality (F1) compared with the occupation of the respondents.
2. H₀ - There is no significant difference between risk and volatility (F2) compared with the occupation of the respondents.

The finding of the one-way ANOVA is that factor 1 (Uncertain Legality) is not significant enough to influence the investment decisions of the cryptocurrencies regarding their occupation. In other words, the occupation of the respondent has not had a significant impact on the investment decision of the investor towards cryptocurrency considering the legal uncertainty factor, while the factor 2 (risk and volatility) are influencing the investment decision of the respondents considering the respondent's occupation.

FINDING AND SUGGESTIONS

From this study, it is understood that confirmatory factor analysis found that all the calculated values related to the six variables for testing the two factors are within an acceptable fit. The hypothesis used to test factor one (uncertain legality) with the three variables is within the acceptable range, and factor two (risk and volatility) is also tested with the three variables and falls within the acceptable range.

Demographic values like age have a significant impact on both factors, and other demographic measures like occupation have only a significant impact on factor 2 such as risk and volatility. And the researchers advise young investors as the age has a significant influence on the investment decision of cryptocurrencies, to be cautious about the risks and volatility of the price associated with cryptocurrency investment and to avoid falling into tricks and scams that are common in this new and unknown crypto exchanges and coins. They should also try to invest in well-known and reputable coins to avoid losing money with fraudulent cryptocurrencies.

CONCLUSION

It is concluded that confirmatory factor analysis finds out that the age of the respondent has a significant impact on the factors that affect the investment decision of the cryptocurrency. All of the respondents were below the age of thirty-five, and both the factors, such as uncertain legality and risk and volatility, had significant influence on the investment decisions of the respondents. While considering the occupation of the respondent, only second factor, such as risk and volatility, have a significant impact on the occupation of the respondent. The other factor (legal uncertainty) has no significant impact on the decision to invest in cryptocurrencies. Private employees prefer investing in cryptocurrencies, and legality and uncertainty have little impact on their decision, whereas risk and volatility have a significant impact on their investment decision in cryptocurrencies.

SCOPE FOR FURTHER RESEARCH

This article deals with the investor's awareness and attitude towards the major cryptocurrencies as an investment option. The confirmatory factor analysis was used to test the two major factors that affect the investment decision of a cryptocurrency. In the future, research may be done by adding more investment decision factors along with influence factors to draw a better construct. And also, more demographic factors like gender, educational qualification, marital status, etc. should be included in future studies. There is a wide range of related topics that may not be explored in this study, such as the general public's attitude or opinion towards cryptocurrency as a means of payment.

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