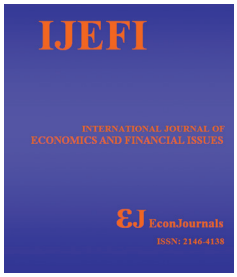

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A Study on Cryptocurrency Investors' Purchase Intentions: Revisiting the Brand Personality Theory

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ABSTRACT

This paper aims to identify the factors affecting the investment decision of retail investors to add crypto assets to their portfolios. The personality theory and the innovation diffusion theory are used in this study to understand the characteristics that influence investors' buying intentions. The study results show that the retail investors' purchase intentions are influenced by familiarity with the asset, trust, risk and return profile of the asset class, and the perceived security of the investor. The study also examines the role of innovativeness as a moderating variable in the relationship between purchase intentions and the primary variables. The study confirms that innovativeness has a significant mediating role in the relationship between purchase intentions and trust and also in the relationship between purchase intentions and perceived security. The results indicate that innovativeness has no significant moderating impact on the relationship between purchase intentions and familiarity and also on the relationship between purchase intentions and risk and return consciousness.

Keywords: Cryptocurrency, Structural Equation Model, Personality Theory, Innovative Diffusion Theory and Purchase Intention
JEL Classifications: G11, G14

1. INTRODUCTION

Since the introduction of the first cryptocurrency in 2008, the market has seen a boom in crypto assets. As of March 2nd, 2022 over 400 cryptocurrencies (https://coinmarketcap.com/all/views/all/) were trading on crypto exchanges, with a market capitalization of USD 2.04 trillion (https://www.coingecko.com/.

Bitcoin (BTC), Ethereum (ETH), Tether (USDT), Binance Coin (BNB), U.S. Dollar Coin (USDC), XRP (XRP), Terra (LUNA), Cardano (ADA), Solana (SOL), and Avalanche (AVAX) are the top 10 cryptocurrencies according to the market capitalization as of March 1, 2022. The prices and the trading volumes are exponentially growing but there is no consistency among the different brands of these crypto-currencies. There exists a positive correlation among a few currency brands such as BTC, ETH, BNB, and USDC and there is a negative association among the other cryptocurrency brands such as XRP, LUNA, and USDT.

Despite the fact that there is no regulatory body, it is not a legal tender in many more countries, and there is no underlying asset to drive the price of these assets, still cryptocurrency market is growing with an annual compounding growth of 150%. The investor's purchase intention is the driving factor for the growth of the cryptocurrency market. The bubble-like behavior exposes the need for research on determinants of investors' purchase intentions for cryptocurrencies. Banking is regulated by central banks, so people save their money at banks. Because the stock market is regulated by SEBI, people invest in it. A cryptocurrency market without a regulator or issuing authority is growing at a compounded annual growth of 150%.

This study investigates the determinants of the investor's investment intentions to invest in cryptocurrencies. The paper also examines the relationship between investors' trust, product familiarity, returns consciousness, and perceived security in the purchase intentions. Furthermore, this study aims to examine the role of investors' innovativeness as a moderating variable in the relationship between trust, familiarity, risk and returns consciousness, and perceived security concerns.

2. REVIEW OF LITERATURE

This section presents the earlier research studies conducted on cryptocurrency. Daniel et al. (2016), Kaiser and Stöckl (2020) investigated the investor's herding behavior and technology acceptance theory in the cryptocurrency market. Rubbaniy et al. (2021) conducted a study on 382 cryptocurrencies to understand the linkage between herding behavior and the investor's mood. A study by Telli and Chen (2021) examines the relation between cryptocurrency market performance and the public interest and attention. Rubbaniy et al. (2021), Yarovaya et al. (2021) conducted a study by using 100 cryptocurrencies to understand the investors' herd behavior during the covid19 lockdown period.

The other set of literature aims to understand the impact of social media posts, google search engine search keywords, new events, purchase intention, and the cryptocurrency market performance (Gurdgiev and O'Loughlin, 2020; Poongodi et al., 2021; Tandon et al., 2021; Al Guindy, 2021; Smales, 2022). Chuffart (2021) investigates the role of social media and the google search engine on the dynamics of conditional correlation among the cryptocurrency prices.

Recent literature focused on the investor's acceptance, sentiments, and buying intentions (Sun et al., 2021), Gaies et al. (2021), Jonker (2019), Alshamsi and Andras (2019). Flori (2019) Bitcoin's contribution to various portfolio construction strategies, along with other asset classes, others investigated the cryptocurrency price determinants.

Guizani and Nafti (2019), the economic benefit of cryptocurrency (Symitsi and Chalvatzis, 2019), volatility spillovers among different cryptocurrencies, determinants for volatility and the other macro-economic factors (Katsiampa, 2017). Kumar and Anandarao (2019), Guizani and Nafti (2019), policy uncertainty and its impact on bitcoin (Wang et al., 2020).

Most studies have used secondary data such as social media posts, search engine keywords, or fear indexes but few studies have been conducted on primary data to understand the cryptocurrency investors' purchase intentions. This present study aims to understand the purchase intention of cryptocurrency by employing personality theory, it is widely used in the marketing area to test purchase intentions. This study examines the brand personality theory and Innovation Diffusion Theory in the context of cryptocurrency purchase intention. The key components used in this study to understand the purchase intention are brand familiarity, brand trust, price consciousness, investor's awareness of the legal and regulatory compliances, and investor innovativeness.

3. THEORETICAL FOUNDATIONS

3.1. Familiarity

Familiarity defines the degree of association with a particular brand or product. A Familiarity comes with the previous purchase/usage experience or from the product promotional activity. Earlier research suggests that brand familiarity and purchase intentions are positively associated Dickinson and Barker, 2007). Investors who are more familiar with cryptocurrency brands, crypto exchanges, and trading processes will be more likely to purchase cryptocurrency.

H1: Familiarity positively affects the purchase intention

3.2. Trust

Cryptocurrency is an electronic currency, and there is no regulatory body or issuing authority for it, hence trust is considered to be the most important aspect to buy, hold and transact it as an asset class. Trust toward the cryptocurrency affect the purchase intention positively.

H2: Trust positively affects the purchase intention

3.3. Risk Return Awareness

Risk return consciousness indicates the investor's awareness of the risks associated with the asset class. Minimum risk for the expected return is the objective for the optimal portfolio selection. So, investors' awareness of expected returns and the associated risk is considered for the study. Therefore the hypothesis could be.

H3: Risk and returns awareness positively affects the purchase intention.

3.4. Perceived Security

Fiat currency is issued and regulated by the central banks, but there is no regulator or issuing authority for cryptocurrencies. It is created, stored, and transacted on the digital platform called the blockchain. Cryptocurrency has the properties of physical cash in a digital format, once lost, it is not easy to recover. As a result, security is foremost important for a service that is handling a significant amount of its customer's monetary value.

According to the earlier research (Ganguly et al., 2011), Consumer perception about technologies and their security influences their decision-making process. The following is the hypothesis for the same:

H4: perceived security positively influences the purchase intension.

3.5. Innovativeness

Innovativeness is the degree to which an individual is comparatively earlier in embracing new ideas than other members. Individuals' inclination to innovate influences the sources of information that they consider for the decision-making process.

According to the earlier research innovativeness influences the decision-making process (Dabholkar and Bagozzi, 2002).

Innovative people will have a more positive attitude toward accepting the technology and innovativeness acts as a moderating variable on brand familiarity, brand trust, and security concerns about the technology products such as cryptocurrency. The following are the hypotheses concerning the influence of innovativeness on purchasing intentions as a moderator.

H5: Innovativeness positively affects the purchase intention
H6: Innovativeness moderates the relationship between brand familiarity and purchase intention
H7: Innovativeness moderates the relationship between brand trust and purchase intention
H8: Innovativeness moderates the relationship between risk return consciousness and purchase intention
H9: Innovativeness moderates the relationship between perceived security and purchase intention.

4. METHODOLOGY

A structured questionnaire is used for data collection. The reliability of the measurement items' is tested using Cronbach's α and construct validity is tested using Barlett's test of sphericity and the Kaiser Meyer-Oklin (KMO) test is used to examine the validity of the constructs. The survey was conducted on cryptocurrency investors of the CoinDCX exchange. There were 1228 who participated in the survey, and 115 questionnaires were excluded from the analysis due to missing values. The results are based on data from 1113 participants.

Three items from Dickinson and Barker (2007) were used to measure familiarity. The statements are as follows:
1. "I am familiar with some of the cryptocurrency names"
2. "I know some of the cryptocurrency brand names"
3. "I can identify cryptocurrency logos"

Three constructs from Reast (2005) were used to measure the trust. The statements are as follows:
1. "I know some trust worthy cryptocurrency brands"
2. "I trust cryptocurrencies because they are built on blockchain technologies"
3. " I know some cryptocurrency brands keep promises"

The following are the statements used to measure the risk and return consciousness. These items are taken from Wakefield and Inman (2003).
1. "I keep searching for some cryptocurrency brands with good returns to include them my portfolio"
2. "I follow news articles to understand the risk and returns of cryptocurrencies"
3. "The time and cost spend reading the news about cryptocurrencies is worth"

To understand the effect of perceived security on purchase intension the following two statements are used:
1. "I believe that the blockchain technology is robust in all measures"
2. "I believe that my cryptocurrency transactions are safe"
3. "I belief that my crypto currency wallets is as safe as my physical wallet"

Three statements from San Martín and Herrero (2012) were used to test the effect of innovativeness. The following are the statements
1. "I like to try new things"
2. "I like to try out the new things"
3. "If there is any new investment avenue I would look for ways to experiment with it"

These three statements were taken from Sun, Dedahanov, Shin, Kim, and Trinidad Segovia (2020) to test the purchase intention construct. Listed below are the three statements used in the study.
1. "I am willing to purchase cryptocurrency"
2. "I plan to invest in cryptocurrency"

The responses were recorded on a seven point likert scale, 1 representing strongly disagree and 7 representing strongly agree. The proposed model is presented in figure 1.

5. DATA ANALYSIS AND RESULTS

The partial least square technique is used because it facilitates the analysis of constructs using formative indicators when computing path coefficients that are significantly different from zero. This technique avoids using rigid distributional assumptions. Therefore, PLS is an appropriate strategy for this investigation.

5.1. RESULTS

In this section, the survey results of 1113 participants are discussed. Among 1113 participants, 81.04% were males and 18.96% were females. The majority of respondents were aged between 30 and 40 (51.12%). Most of the respondents have a post-graduate degree (54.9%). The majority of the respondents have experience in trading activity and there are 40.43% of the respondents have more than 6 years of experience in equity trading. The proportion of cryptocurrency in the majority of the respondents' portfolios is 5-10% of their total portfolio value. The majority of the respondents bought cryptocurrency for a speculative purpose (67.38%) and only a few of the respondents bought cryptocurrency for other reasons.

The reliability of the measures is important to understand. The estimated Cronbach's alpha coefficient value was exceeded for all measures (0.68). The Cronbach's alpha coefficient values lie between 1 and 0.

If the test value exceeds 0.6, then it is considered that the reliability of the measurement scales is sufficient.

The composite reliability shows the internal consistency of variables and the results are presented in Table1. A composite reliability coefficient value greater than 0.7 indicates good internal consistency of the measures. The composite reliability estimated coefficient is higher than 0.811 for all the constructs.

The AVE is a measure to understand how far the statistical sampling result differs from the predicted value. The test AVE

Table 1: Confirmatory factor analysis results

Variables	Items	Factor loadings	AVE	Composite reliability	Cronbach's Alpha
Familiarity	Familiarity-1	0.753	0.788	0.895	0.851
	Familiarity-2	0.851			
	Familiarity-3	0.711			
Trust	Trust-1	0.862	0.845	0.912	0.789
	Trust-2	0.851			
	Trust-3	0.786			
Risk and Return consciousness	R&R conciousness-1	0.854	0.712	0.855	0.812
	R&R conciousness-2	0.954			
	R&R conciousness-3	0.912			
Perceived security	Perceived security-1	0.856	0.741	0.811	0.721
	Perceived security-2	0.874			
	Perceived security-3	0.954			
Innovativeness	Innovatiness-1	0.712	0.798	0.891	0.819
	Innovatiness-2	0.847			
	Innovatiness-3	0.765			
Purchase Intention	Purchase Intention-1	0.811	0.791	0.812	0.742
	Purchase Intention-2	0.874			

Table 2: Discriminant validity, correlation matrix among the constructs and AVE results

	Familiarity	Trust	Risk and Return consciousness	Perceived security	Innovativeness	Purchase Intention
Familiarity	0.856					
Trust	0.568	0.915				
Risk and Return consciousness	0.145	0.365	894			
Perceived security	0.384	0.452	0.156	0.912		
Innovativeness	0.651	0.495	0.254	0.451	0.861	
Purchase Intention	0.154	0.511	0.412	0.511	0.485	0.901
square root of AVE	0.856	0.915	894	0.912	0.861	0.901

Table 3: Structural model testing results

Hypotheses	β coefficient	T value	Result
Familiarity → Purchase intention (H1)	0.286 (***)	2.148	Significant
Risk and return consciousness → Purchase Intention (H2)	0.33 (***)	2.951	Significant
perceived security → Purchase Intention (H3)	0.389 (***)	3.478	Significant
Trust → Purchase Intention (H4)	0.128 (***)	2.15	Significant
Innovativeness → Purchase Intention (H5)	0.288 (***)	3.02	Significant
Innovativeness*familiarity → Purchase Intention (H6)	0.051	1.548	Not significant
Innovativeness*Risk and return consciousnesss → Purchase Intention (H7)	0.012	1.294	Not significant
Innovativeness*perceived security → Purchase Intention (H8)	0.225 (***)	0.254	Significant
Innovativeness*trust → Purchase Intention (H9)	0.254 (***)	0.219	Significant

***P<0.01

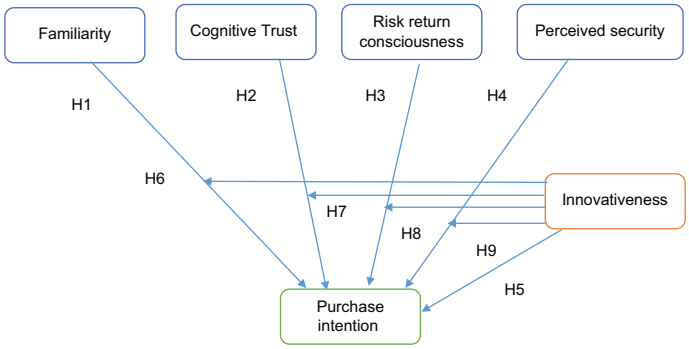
value exceeding 0.5 indicates a good convergent validity scale. In this study, all the AVE scores were higher than 0.712.

To test the discriminant validity, the square root value of the AVE is estimated. The results are presented in Table 2. If the estimated value is greater than the correlation coefficients between it and any other construct in the model, then it indicates that the discriminant validity is good for the selected model. The results (Table 3) indicate that the model has good discriminant validity.

5.2. Structural Equation Model

The reliability and validation test results show that the items used in the model are valid and reliable, hence the constructs are valid to be used in the structural model. The results are presented in Table 3. This shows that familiarity, trust, risk-return consciousness, perceived security, and innovativeness are statistically significant and have a positive effect on purchase intention. The result supports Hypotheses H1, H2, H3, H4, and H5. The moderating variable innovativeness has no significant effect in moderating the relationship between familiarity and purchase intention. The moderating effect of innovativeness between risk-

Figure 1: Structural equation model



return consciousness and purchase intention is not confirmed statistically. Hypotheses H6 and H8 are not supported by the path coefficients. The moderating role of innovativeness on trust and purchase intention is statistically significant. Innovativeness moderately affects the relationship between perceived security and purchase intentions. The results also supported H7 and H9.

6. SUMMARY AND IMPLICATIONS

This study investigates the psychological factors that influence the purchase intentions of cryptocurrencies. The constructs considered for the study are familiarity, trust, risk and return consciousness, and perceived security in the behavior of cryptocurrency investors' intentions. The model also investigates the moderating impact of innovativeness on the relationship between the primary constructs and purchase intention.

Cryptocurrency, which is on a technology platform in a digital form, is getting more attention from researchers, investors, fund managers, financial advisors, and policymakers with the hope that it will achieve mainstream usage. The empirical test result confirms the impact of primary constructs like familiarity, trust, risk and return intention, and perceived security on purchase intention. The empirical results support the earlier studies.

A study by Andrew (2018) shows that price consciousness plays an important role in the decision-making process. Daniel and Lennon (2016) provided pieces of evidence on the role of trust in the cryptocurrency market; Also, Lou and Li (2017) presented the role of innovativeness in accepting a new technology like blockchain. The model results partially confirm the moderating effect of innovativeness on the relationship between the primary constructs and purchase intention. The test result shows that innovativeness has a significant impact on the relationship between purchase intentions and trust. The study results also confirm that the moderating variable innovativeness impacts the relationship between purchase intention and perceived security. Contrary to this, the moderating variable innovativeness shows no statistically significant impact on the relationship between purchase intentions and familiarity. Innovativeness has no significant impact on the relationship between risk and returns consciousness and purchase intention. Lack of moderating effect of innovativeness on the relationship between familiarity and purchase intention and also the lack of moderating effect of innovativeness on the relationship between risk and return consciousness and purchase intentions can be justified in many viewpoints. Innovative investors always look for opportunities to get maximum returns by purchasing not so familiar but a potential brands. Furthermore, innovative investors are ready to take more risks by investing in cryptocurrencies to maximize returns. Innovative investors prefer to invest in initial coin offerings of Crypto brands (ICO) with the hope to receive higher returns even though cryptocurrency brands are unfamiliar.

To conclude, the study results are important for cryptocurrency developers and crypto exchanges. They need to conduct interactive chatbots and video links on the risk and return profiles of the cryptocurrencies on their websites. Using social media and digital platforms to make people aware of cryptocurrencies and their logos and brands makes investors familiar with the brands. Creating knowledge-sharing social media blogs to address security concerns will boost brand trust. This study is no exception to the limitations. The study was conducted on retail investors and the analysis was limited to 1113 responses from India. The results may vary if the study is conducted in some other country. A cross-country survey is more appropriate to generalize the results and get more insights into the behavioral factors. Further studies need to be conducted to consider the respondents from different nations and compare the differences in the behavioral factors between the emerging economies and developed economies.

REFERENCES

Al Guindy, M. (2021), Cryptocurrency price volatility and investor attention. International Review of Economics and Finance, 76, 556-570.

Alshamsi, A., Andras, P. (2019), User perception of Bitcoin usability and security across novice users. International Journal of Human-Computer Studies, 126, 94-110.

Andrew, U. (2018), What causes the attention of Bitcoin? Economics Letters, 166, 40-44.

Chuffart, T. (2021), Interest in cryptocurrencies predicts conditional correlation dynamics. Finance Research Letters, 2021, 102239.

Dabholkar, P.A., Bagozzi, R.P. (2002), An attitudinal model of technology-based self-service: Moderating effects of consumer traits and situational factors. Journal of the Academy of Marketing Science, 30(3), 184-201.

Daniel, F., Lennon, M. (2016), Braving Bitcoin: A technology acceptance model (TAM) analysis. Journal of Information Technology Case and Application Research, 18(4), 220-249.

Dickinson, S., Barker, A. (2007), Evaluations of branding alliances between non-profit and commercial brand partners: The transfer effect. International Journal of Nonprofit and Voluntary Sector Marketing, 12, 75-89.

Flori, A. (2019), News and subjective beliefs: A Bayesian approach to Bitcoin investments. Research in International Business and Finance, 50, 336-356.

Gaies, B., Nakhli, M.S., Sahut, J.M., Guesmi, K. (2021), Is Bitcoin rooted in confidence? Unraveling the determinants of globalized digital currencies. Technological Forecasting and Social Change, 172, 121038.

Ganguly, B., Dash, S., Cyr, D. (2011), The influence of website characteristics on trust in online travel portals in India: The moderating role of demographic and psychographic variables. Tourism Recreation Research, 36(1), 57-68.

Guizani, S., Nafti, I.K. (2019), The determinants of bitcoin price volatility: An investigation with ardl model. Procedia Computer Science, 164, 233-238.

Gurdgiev, C., O'Loughlin, D. (2020), Herding and anchoring in cryptocurrency markets: Investor reaction to fear and uncertainty. Journal of Behavioral and Experimental Finance, 25, 100271

Jonker, N. (2019), What drives the adoption of crypto-payments by online retailers? Electronic Commerce Research and Applications, 35, 100848.

Kaiser, L., Stöckl, S. (2020), Cryptocurrencies: Herding and the transfer currency. Finance Research Letters, 33, 101214.

Katsiampa, P. (2017), Volatility estimation for Bitcoin: A comparison of GARCH models. Economics Letters, 158, 3-6.

Kumar, A.S., Anandarao, S. (2019), Volatility spillover in crypto-currency markets: Some evidences from GARCH and wavelet analysis. Physica A: Statistical Mechanics and its Applications, 524, 448-458.

Lou, A.T.F., Li, E.Y. (2017), Integrating Innovation Diffusion Theory and the Technology Acceptance Model: The Adoption of Blockchain Technology from Business Managers' Perspective. In: ICEB 2017 Proceedings. p44.

Poongodi, M., Nguyen, T.N., Hamdi, M., Cengiz, K. (2021), Global cryptocurrency trend prediction using social media. Information Processing and Management, 58(6), 102708.

Reast, J.D. (2005), Brand trust and brand extension acceptance: The relationship. Journal of Product and Brand Management, 14(1), 4-13.

Rubbaniy, G., Polyzos, S., Rizvi, S.K.A., Tessema, A. (2021), COVID-19, Lockdowns and herding towards a cryptocurrency market-specific implied volatility index. Economics Letters, 207, 110017.

Rubbaniy, G., Tee, K., Iren, P., Abdennadher, S. (2021), Investors' mood and herd investing: A quantile-on-quantile regression explanation from crypto market. Finance Research Letters, 47, 102585.

San Martín, H., Herrero, A. (2012), Influence of the user's psychological factors on the online purchase intention in rural tourism: Integrating innovativeness to the UTAUT framework. Tourism Management, 33(2), 341-350.

Smales, L.A. (2022), Investor attention in cryptocurrency markets. International Review of Financial Analysis, 79, 101972.

Sun, W., Dedahanov, A.T., Shin, H.Y., Kim, K.S., Segovia, J.E.T. (2020), Switching intention to crypto-currency market: Factors predisposing some individuals to risky investment. PLoS One, 15(6), e0234155.

Sun, W., Dedahanov, A.T., Shin, H.Y., Li, W.P. (2021), Factors affecting institutional investors to add crypto-currency to asset portfolios. The North American Journal of Economics and Finance, 58, 101499.

Symitsi, E., Chalvatzis, K.J. (2019), The economic value of Bitcoin: A portfolio analysis of currencies, gold, oil and stocks. Research in International Business and Finance, 48, 97-110.

Tandon, C., Revankar, S., Parihar, S.S. (2021), How can we predict the impact of the social media messages on the value of cryptocurrency? Insights from big data analytics. International Journal of Information Management Data Insights, 1(2), 100035.

Telli, Ş., Chen, H. (2021), Multifractal behavior relationship between crypto markets and Wikipedia-Reddit online platforms. Chaos, Solitons and Fractals, 152, 111331.

Wakefield, K.L., Inman, J.J. (2003), Situational price sensitivity: The role of consumption occasion, social context and income. Journal of Retailing, 79(4), 199-212.

Wang, P., Li, X., Shen, D., Zhang, W. (2020), How does economic policy uncertainty affect the bitcoin market? Research in International Business and Finance, 53, 101234.

Yarovaya, L., Matkovskyy, R., Jalan, A. (2021), The effects of a "black swan" event (COVID-19) on herding behavior in cryptocurrency markets. Journal of International Financial Markets, Institutions and Money, 75, 101321.