



# Awareness of blockchain technology and FOMO on Crypto investment: An empirical study

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**Citation:** Sankha Subhra Deb et al. (2024), Awareness of blockchain technology and FOMO on Crypto investment: An empirical study, *Educational Administration: Theory And Practice*, 30(4), 1746-1750, Doi: 10.53555/kuey.v30i4.1744

## ARTICLE INFO

### Abstract

Humans termed as social beings tend to discuss their feelings and opinions with their family members, friends, and colleagues. Crypto investment is the most crucial. If it is done with proper fundamental and technical analysis may lead to profits, but if it is influenced by FoMO, it may cause unpleasant situations regarding investments. Hence it is important to manage this behavioral factor to avoid losses due to decisions not made independently. On the other hand, awareness of blockchain technology is also the main criterion if people want to analyze investment choices independently have an awareness of basic financial terms, and use financial products.

So, it is essential to study how this FoMO impacts investor decision-making and how awareness of blockchain technology plays a moderating role. This study mainly focuses on studying how FoMO influence Crypto investment and effect of awareness of blockchain technology as a moderating role. The primary data is collected through structured questions which include 5- point Likert scale questions. The data consists of 306 responses and descriptive statistics, correlation, and regression are calculated using SPSS software. The study concludes that there is moderating role of awareness of blockchain technology in assessing the effect of FoMO on Crypto investment and impact of FoMO on Crypto investment decreases as awareness of blockchain technology increases.

**Keywords:** *Financial Literacy, FoMO Behavior, Crypto investment, Behavioral Finance, Retail Investors*

## Introduction

The emergence of blockchain technology and its derivative financial products, most notably cryptocurrencies, has revolutionized the financial market landscape, presenting new opportunities and challenges for investors worldwide. This novel technological paradigm has garnered widespread attention, not only for its potential to disrupt traditional financial systems but also for the psychological impacts it exerts on investment decisions. Among these, the Fear of Missing Out (FoMO) and the varying levels of awareness and understanding of blockchain technology stand out as significant factors influencing investor behavior towards cryptocurrencies.

Cryptocurrencies, digital or virtual currencies that use cryptography for security, are decentralized and thus, not subject to governmental or financial institution control. This independence from traditional financial systems, combined with the potential for high returns, has attracted a diverse range of investors. However, the decision to invest in such a volatile market is not solely based on the lure of high returns; it is also significantly influenced by psychological factors such as FoMO and the investor's awareness and understanding of blockchain technology.

The study by Sagheer et al. (2022) utilized the Technology Acceptance Model (TAM) to explore factors affecting the adaptability of cryptocurrency. Their research highlights how perceived ease of use and perceived usefulness, both central constructs of the TAM, are crucial in shaping an individual's attitude towards and intention to use cryptocurrencies. This insight suggests that an investor's awareness and understanding of blockchain technology can directly influence their perception of cryptocurrencies' utility and, consequently, their investment decisions.

Moreover, Parashar and Rasiwala (2018) delved into investors' awareness and perception regarding investment in cryptocurrency, specifically focusing on Bitcoin. Their findings underscore the significant role

that awareness plays in shaping investment decisions. Investors who are more knowledgeable about blockchain technology and its applications tend to have a more positive perception of the risks and benefits associated with cryptocurrency investments.

This awareness can mitigate the impact of FoMO by enabling investors to make more informed and rational decisions, rather than being swayed by the fear of missing out on potential gains.

The impact of media as a factor in crypto investments, explored by Waghmare, Bansod, and Patil (2022), further complicates the relationship between blockchain awareness, FoMO, and investment decisions. The media's portrayal of cryptocurrencies can significantly influence public perception and awareness. Sensationalized media reports about rapid gains in cryptocurrency markets can exacerbate FoMO, driving uninformed investment decisions. Conversely, educational content about blockchain technology can enhance awareness and understanding, enabling investors to assess the risks and benefits more accurately.

The comprehensive study by Gapurbaeva et al. (2023) on the impact of cryptocurrency on the investment market sheds light on the broader implications of these technologies. The authors argue that the disruptive potential of cryptocurrencies extends beyond individual investment decisions, affecting the entire financial market structure. This perspective highlights the importance of developing a deep understanding of blockchain technology and its applications, as it not only influences individual investment decisions but also has the potential to reshape the financial market landscape.

In synthesizing these perspectives, it becomes evident that the interaction between an investor's awareness of blockchain technology, the psychological influence of FoMO, and the mediating role of media coverage forms a complex framework that drives investment decisions in the cryptocurrency market. This research aims to dissect these interrelated factors, providing insights into how they collectively influence the propensity to invest in cryptocurrencies. By bridging the gap between technological understanding and psychological factors, this study seeks to offer a comprehensive analysis of the motivators behind cryptocurrency investment decisions.

As the cryptocurrency market continues to evolve, understanding these dynamics becomes increasingly important. This study not only contributes to academic knowledge by elucidating the impact of awareness and psychological factors on investment decisions but also offers practical implications for investors, financial advisors, and policymakers. By enhancing our understanding of the factors that drive investment decisions in the cryptocurrency market, we can better navigate the opportunities and challenges presented by this rapidly changing financial landscape.

## Review of Literature

The intersection of psychological factors and financial decision-making has been an area of growing interest within the field of behavioral finance. Recent literature has increasingly focused on the Fear of Missing Out (FoMO) and its impact on investment decisions, particularly in the volatile and burgeoning domain of cryptocurrency investments. This literature review explores seminal works that have contributed to our understanding of how FoMO influences cryptocurrency investment behaviors, drawing on findings from a variety of studies.

Gerrans and Liu (2023) provide a foundational understanding of FoMO's implications for cryptocurrency and stock investments, highlighting the mediating role of financial literacy and risk tolerance. Their study underscores the complexity of FoMO's impact, suggesting that higher financial literacy can mitigate the impulsive investment decisions often associated with FoMO, while risk tolerance levels can either amplify or dampen its effects. This dual pathway provides a nuanced perspective on the mechanisms through which FoMO influences investment behaviors.

Katsoulis (2023) delves into the specific context of digital assets, offering insights into how FoMO can drive individuals towards making investment decisions in the digital asset space, including cryptocurrencies. This work posits that the unique characteristics of digital assets, such as their high volatility and the rapid dissemination of information through social media, create an environment particularly susceptible to FoMO-driven investment decisions.

Waghmare, Bansod, and Patil (2022) explore the role of media in shaping investor perceptions and behaviors in the cryptocurrency market. Their findings indicate that media coverage can exacerbate FoMO by highlighting stories of rapid gains, thus influencing investors to make hurried decisions based on a fear of missing out on lucrative opportunities. This study emphasizes the power of media in influencing investment landscapes and the need for investors to cultivate media literacy.

Similarly, Karkkainen (2021) investigates FoMO in the context of digital assets, providing empirical evidence on the psychological drivers of investment decisions in the cryptocurrency market. Karkkainen's work complements the broader discussion by situating FoMO within the unique dynamics of the digital asset ecosystem, reinforcing the need for a better understanding of the psychological factors at play.

Together, these studies present a comprehensive view of FoMO's impact on cryptocurrency investment decisions, highlighting the importance of financial literacy, the influence of media, and the psychological underpinnings that drive investor behavior in the digital asset space. This literature review underscores the complexity of investment decision-making processes and the multifaceted role of FoMO in shaping investor actions and attitudes towards cryptocurrencies.

## Research Methodology

To study the relationship between FoMO and Awareness of blockchain technology in Crypto investment the quantitative research approach is used, which focuses on measuring FoMO Behavior and Awareness of blockchain technology among investors. The structured questionnaire is used to collect data, where two sections namely demographic details, and five- point Likert scale questions comprising of 30 questions which access awareness of blockchain technology, FoMO and Crypto investment. 5-point scale specifies, 1- Strongly disagree. 2- Disagree, 3- Neither agree nor disagree, 4- Agree, 5- Strongly agree.

Google forms were used to collect data along using random sampling technique. Computer science and MBA students from universities and colleges from Agartala city were targeted, 450 were questionnaires distributed from which 341 were returned and 306 responses were considered for study after cleaning data.

### Objectives of the study

Following are the objectives of the study.

1. To study the effect of FoMO on Crypto investment
2. To analyze the influence of awareness of blockchain technology on Crypto investment
3. To study the effect of awareness of blockchain technology as moderating variable concerning Crypto investment and FoMO behavior

### Hypothesis

H1: There is an impact of FoMO on Crypto investment

H2: Crypto investment has an influence of Awareness of blockchain technology

H3: Awareness of blockchain technology plays a moderating role in assessing the impact of FoMO on Crypto investment.

### Conceptual Framework:

This study examines how awareness of blockchain technology moderates the relationship between FoMO and Crypto investment. The moderation effect is reviewed to confirm if it presents a consistent impact across separate groups. FoMO is an independent variable related to mimicking others, while Crypto investment is the dependent variable. Blockchain awareness is a moderating variable that influences both FoMO and Crypto investment, as investors' financial knowledge affects their preferences. The model explores the connection between these variables to understand their relationship. Statistical analysis is used to assess the association between FoMO and Crypto investment, as well as the impact of blockchain awareness on Crypto investment. The model also includes moderation analysis to examine the relationship between blockchain awareness, FoMO, and Crypto investment. This structured statistical approach helps in achieving the research objectives by analyzing the relationships among independent, dependent, and moderating variables.

## Results & Analysis

Reliability is the measure of internal consistency among the variables. Construct is reliable if the Alpha( $\alpha$ ) value is more than .70 (Hair et al., 2013). Item's reliability is assessed using Cronbach's Alpha. The results revealed that the items showed Alpha ( $\alpha = 0.715$ ). The calculated Cronbach's value indicates a moderate level of internal consistency among the different items of the scale.

**Table I: Reliability Statistics**

N of Items	Cronbach's Alpha	F statistics	Significance
30	.715	13.297	.000*

\* $p < .01$

As shown in Table I, the F statistics ( $F = 13.297$ ,  $P < 0.001$ ) indicate that internal consistency among different items is not due to random chance and they are different from items obtained from random chance.

### Descriptive statistics

Descriptive statistics of three variables explain the characteristics and distribution of scores of each variable. A minimum score of 1 for awareness of blockchain technology represents a low score that indicates low awareness of blockchain technology among some respondents, whereas a 6.50 score represents there are relatively higher financially literate respondents in study. The mean score of 3.6871 represents an average level of literacy in the respondents with the degree of variability in awareness of blockchain technology among respondents given by a standard deviation of 0.58978.

**Table II :Descriptive statistics**

Items	N	Minimum	Maximum	Mean	Std. Deviation
Awareness of Blockchain tech.	306	1.00	6.50	3.6871	.58978
Investment decisions	306	1.00	5.50	3.1453	.48547
FoMO behavior	306	1.00	3.50	3.3125	.51187

**Note.** N represents the number of respondents

Minimum score of 1 for investment decisions represents that there are some respondents who are cautious about their investment decisions whereas a 5.50 maximum score suggests that some respondents make riskier investment decisions. A mean score of 3.1453 represents the average level of decision-making, a standard deviation of 0.48547 indicates the degree of variability among respondents. A mean value of 3.3125 for FoMO indicates the average level of FoMO in the sample with a maximum level of 3.50 representing data of some respondents exhibiting higher levels of FoMO with a minimum score of 1 indicating very low FoMO in some respondents under study.

**Table III: Correlation**

	FIN	IND	FOMO
AWA	1		
IND	.518**	1	
FOMO	.319**	.283**	1

\*\* . Correlation is significant at the 0.05 level (2-tailed).

**Note:** AWA, IND, FOMO represents Awareness of Blockchain Technology, Crypto investment and FoMO Behavior.

The positive correlation between awareness of blockchain technology and Crypto investment, indicated by a correlation coefficient of 0.518, underscores that individuals with financial literacy tend to make more informed investment decisions. This highlights how a higher level of awareness of blockchain technology contributes to improved decision-making in investments.

A weak positive link, with a correlation coefficient of 0.319, can be identified between awareness of blockchain technology and the Fear of Missing Out (FoMO). This relationship suggests that those well-versed in blockchain technology may occasionally succumb to FoMO, relying on external factors for investment decisions.

The correlation between FoMO and Crypto investment, displaying a weak positive correlation of 0.283, implies that individuals utilizing traditional decision-making methods may at times display characteristics of FoMO.

Not only does awareness of blockchain technology positively relate to investment choices and FoMO behavior, but there is also a mild correlation between FoMO and decision-making in investments. This hints that individuals with strong decision-making skills may occasionally exhibit behaviors associated with FoMO.

### Regression

The dependent variable Crypto investment was regressed on predicting variable FoMO to test H1, FoMO significantly predicted Crypto investment, Beta coefficient of 0.379 indicates positive impact of FoMO on Crypto investment, that implies Crypto investment tends to change in a certain direction with increase in FoMO behavior. There is approximately 20.8% variability in Crypto investment due to FoMO with an R-value of 0.208. The relationship between FoMO and Crypto investment is statistically significant with  $F=24.178$ ,  $p=0.000$ . hence H1 is accepted.

**Table IV regression analysis**

Hypothesis	Beta coefficient	R <sup>2</sup>	F	t	p	Conclusion
H1	.379	0.208	24.178	5.038	0.000*	Supported
H2	.299	0.316	27.147	5.402	0.004*	Supported
H3	-0.214	0.354	22.314	-3.161	0.001*	Supported

\* $p < .05$

The regression analysis of H2 examines the impact of Crypto investment through predictive variables, revealing that individuals with a more profound understanding of blockchain technology tend to engage in more informed decision-making processes. A positive correlation between the two factors is evident, as indicated by a beta coefficient of 0.299, suggesting that an enhanced awareness of blockchain technology leads to improved investment decisions.

The calculated r-squared value of 0.316 signifies that 31.6% of the variability in Crypto investment can be attributed to the influence of financial literacy. The relationship between awareness of blockchain technology and Crypto investment is deemed statistically significant, supported by an f-statistic of 29.09 and a p-value of 0.004, ultimately accepting H2 due to the positive impact of blockchain technology awareness on Crypto investment.

The significance of the moderating role of blockchain technology awareness in evaluating the impact of Fear of Missing Out (FoMO) on Crypto investment is underscored by a statistically significant F-statistic of 22.314 and a p-value of 0.001. With a beta coefficient of 0.214, the awareness of blockchain technology moderates the association between FoMO and Crypto investment, wherein the negative coefficient indicates a less positive shift in investment decisions resulting from the interplay between FoMO and financial literacy. The variability in Crypto investment attributed to FoMO and blockchain technology awareness stands at 35.4%, reflected in an R-square value of 0.354. Furthermore, the statistically significant moderating role of blockchain technology awareness on FoMO and Crypto investment is reaffirmed by a negative t-value of -3.161.

H3 is affirmed as the awareness of blockchain technology moderates the impact of FoMO on Crypto investment, with a negative beta coefficient for the moderating variable elucidating that a heightened awareness of blockchain technology weakens the relationship between FoMO and Crypto investment. This suggests that a higher level of blockchain technology awareness has the potential to mitigate or even eradicate the influence of FoMO behavior on Crypto investment, thereby exerting a negative moderating effect on the relationship between FoMO and Crypto investment.

### Conclusion

The research concludes that there exists a positive relationship between Crypto investment and Fear of Missing Out (FoMO) with a lower level of significance. The impact of FoMO on rational decision-makers is evident. The results of the regression analysis indicate that a greater understanding of blockchain technology leads to improved Crypto investment, while FoMO also plays a significant role in this context. The awareness of blockchain technology is crucial in lessening the influence of FoMO on Crypto investment among individual investors, affecting both the independent and dependent variables negatively.

Despite the influence of FoMO on Crypto investment among individual investors, the awareness of blockchain technology serves to mitigate the impact of FoMO on decision-making by acting as a moderator between FoMO and Financial Literacy. Hence, it is important for different stakeholders to implement effective strategies aimed at enhancing public awareness of blockchain technology. This, conversely, will aid individuals in forming logical investment choices and alleviate the influence of prejudices and shortcuts on their decision-making procedures.

### Scope for further study

As this study do not take into consideration demographic factors and other behavioral factors, further studies can be done using the Awareness of blockchain technology as a moderating variable that impacts Crypto investment making and also study the level of Awareness of blockchain technology in different groups of investors which is important for both the investment industry and government to form and come up with strategies to improve and involve the general public in capital market investments. The mediating role can also be studied using different demographic factors and behavioral factors.

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