



Investor Perception of Cryptocurrency: A Moderating Role of Social Media on Decision-Making



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Abstract *In all probability, the field of finance has been studied at great length. Still and all, the behavior aspect of finance is relatively new; wherefore, it remains wide open for great exploration. Over the years, social media has grown taller by leaps and bounds. This served as the main spark plug for this study to explore the field of behavioral finance in the light of social media. Thence the aim of this research is to study the impact of information flowing from social media (SM) on investment decision-making and to see whether social media acts as a moderator between risk perception and decision-making. The study is quantitative in nature, and the data was culled using an adapted questionnaire. The sample size of this study, as computed through G power, was 64, and 102 investors actually recorded their responses. The data was analyzed through SPSS software using Ordinary Least Square (OLS).*

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Introduction

Investment in some kind of instrument has been popular since the early 1900s. In all likelihood, bonds and stocks have been around since the dawn of time, and more advances have been made since then. Derivative markets, options, and futures are a few cases in point. And with these advancements cropped up new opportunities and cravings to obtain more returns. All the same, with opportunities, the risks coexisted. The latest addition to

these investment alternatives is cryptocurrency. Cryptocurrency is a cryptography-based digital currency, which is commonly used for buying and selling goods and services through the internet without the need for a third party. Apart from this, cryptocurrency is highly popular as an investment and is mainly used for hedging and speculation activities ([Trimborn et al., 2020](#)). The cryptocurrency began its journey with

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bitcoin; the first cryptocurrency ushered in 2008. Since then, many cryptocurrencies have been introduced, coming to a total of 5558 cryptocurrencies (coin market cap).

Bitcoin started at a price of \$0.008 back in 2009 and reached its all-time high in mid-April 2021, touching a price of \$64,805. This is some extraordinary return. Bitcoin increased by 810,062,400%, and this is not the only cryptocurrency that gained this unprecedented value. There is a range of altcoins that have seen this similar mode of growth. The cryptocurrency has been following the inclination of the economic world for the last eight years, typifying the seamless acceptance on the part of investors. To all intents and purposes, this can be credited to the massive price fluctuation. It's a digital gold that represents the medium of exchange. Every individual coin ownership exists in a ledger - a form of a computerised database being secured by cryptography from all kinds of interventions. Essentially, cryptography controls & secures the transition records, creation of additional coins, and verification of the transfer of coin ownership. At the bottom, neither does it exist in a physical form nor being issued by a central authority. The cryptocurrencies are decentralised control as opposed to a central bank digital currency (CBDC). If the cryptocurrency is issued or created by an issuer, it is called centralised. In cryptocurrency, the security is well known (blockchain), which has attracted investors and brought them together while providing dominant security to the transactions of the investors. This private digital currency involves miners and mining, which is a satisfactory console to the investors ([AL-MANSOUR, 2020](#)).

For a fact, cryptocurrency has become increasingly popular in the financial market. This has goaded an array of

investors towards investing in the crypto market. Generally, the investor interpretation about the crypto that which factors affect an investor's decision making tends to be ignored. Hence, our main focus in this research is to identify how knowledge through social media affects an investor's decision-making of selling and buying coins. Clearly, the highly influential social media are Twitter, Telegram, and Reedit. Without question, these platforms are the best source of information for the investor. In particular, Twitter is a social media platform where people interact through tweets and share short messages known as tweets. This type of activity is also known as microblogging. Remarkably, Twitter is the 6th well-liked social media platform in the world. Broadly, Twitter is used by a whole raft of entities such as news channels, advertisers, celebrities, political figures, and business organizations. Generally, crypto has a very volatile market. Strictly speaking, it is quickly affected by any news which has anything to do with crypto, positive or negative. Thence, investors mostly prefer to make trading decisions in tandem with the information circulating in social media. Secondly, Reddit is a social media where different forums have been created. In other words, it's a collection of forums like /r/ (Reddit). Essentially, cryptocurrency is a forum where people share their views and experiences about crypto and provide suggestions in relation to the investment. Thirdly, Telegram is another social media that is mainly used for communication. Precisely, groups related to crypto have been created on Telegram, in which professionals tend to give signals to investors about buying and selling of coins ([Rothman & Yakar, 2019](#)).

Cryptocurrency is seen as inimical to the position of the existing currency and increases market impact, which is expected to replace the present currency

(fiat). In effect, one distressing demerit of the fiat payment system is the high transaction fee with a long payment period. This prompted the individuals to turn to alternative currencies that allow for quicker peer-to-peer (P2P) processing time with no intermediaries. This explains the compelling success of digital markets with lesser payment risk.

That said, risk perception for cryptocurrency is really important, for plenty of investment decisions are based on that perception. So, the focus of the study is whether social media affects the perception of investors and does it lead them to buy/sell their cryptocurrencies.

Problem Statement

Significantly, the unprecedented growth and involvement of Social Media (SM) in the normal routine of life is recognized, and SM analysis has become a topic of interest. Correspondingly, customers rely less on competent advice and increasingly turn to other customers when making product decisions, made easier by the development of social media. Notwithstanding, one area that still leaves room for exploration is the impact of SM content on other weather-dependent events in real life ([Chen et al., 2014](#)).

Agreeably, the most popular social media platforms these days are Facebook, Whatsapp, Twitter, etc. Come what may, social media is also a good opportunity for companies to improve their internal and external communication and also collaborate and communicate with their consumers, partners, and other stakeholders, especially investors ([Siikanen et al., 2018](#)). Taking into account how vital this tool of social media is, figuring out the future outcomes has become all the more necessary.

Despite being cognizant of the fact that social media has a far-reaching impact on the lives of individuals, not

much research work has been done that touches upon the investor's behavior when it comes to investment decision-making.

Research Questions

- a) Does the information from SM affect the investor's decision-making?
- b) Is the effect of social media on the investor's decision-making significant?

Research Objective

This study aims to assess whether the continuous flow of knowledge from social media and news affects the investor's decision-making of buying and selling cryptocurrencies. Further, it aspires to ascertain if social media and news have a bearing on the risk perception of investors, which ultimately may affect their decision-making.

Literature Review

Risk Perception

Humans the world over do encounter uncertain events day in and day out. This common occurrence has prompted researchers to go on to understand how do people perceive risk? Every day, we toil to deal with risk, but all we can do is speculate. The simple reason is if we knew things with certainty, we wouldn't be worrying about grappling with the factor of risk ([Adams, 1995](#)).

[Rosa \(2003\)](#) outlined risk as an occurrence where something of human value (including humans themselves) is at stake and where the outcome is hazy. This signifies that risk, by all means, is related to uncertainty. In many theories of behavior and psychology, uncertainty is assumed to be an important mediator of human reactions to situations where outcomes are uncertain. In essence, uncertainty is a construct of our psychology. It exists only in our minds;

because if a person's knowledge was complete, there wouldn't be any uncertainty for him ([Windschitl & Wells, 1996](#)).

[Ostern \(2018\)](#) studied the shift of an individual's and company's trust in technology. The study identified a range of factors that relate to trust in cryptocurrency. These include security, data protection, convenience, privacy, lack of knowledge, and external factors such as news and opinions of others.

The literature identified that lack of knowledge, news, and opinion of others bear upon the cryptocurrency trust. This brings social media into the picture for the overt reason that knowledge, news, and opinions of others emanate from social media.

Social Media

The world is experiencing a new age of social media ([Kavitha & Bhuvaneswari, 2017](#)). Social media has now become a popular platform to easily communicate and share ideas, news, opinions, and much more. Social media is witnessing promiscuous usage by all and sundry-profitable or non-profitable organizations, students, professionals all use it. Media is becoming a popular platform to communicate and share pertinent investment information because, for investors, eliciting timely information is indispensable. The common platforms in social networking are youtube, Telegram, Facebook, Google, Whatsapp, etc. Investment is letting go of some present benefits or values in order to get rewarded in the future ([Kavitha & Bhuvaneswari, 2017](#)).

A more straightforward approach to social media is that it is an online tool where news, opinions, content, insights, and media is shared. It helps people and organizations engage with each other and forge strong relations ([Nair, 2011](#)).

Another view typifies social media as something more than just another type of media. This view asserts it as "a movement where consumers and businesses engage in unstructured dialogue, discovery, and dissemination of information, and make decisions to purchase ." Social media is a complexity that engages technology and sociology. Keeping this in view, the organizations have recognized it as a tool that can transform organizations ([Nair, 2011](#)).

Over the last few years, SM has experienced staggering growth, and its usage has extended to billions of people. The estimated number of people who use SM is around 3.6 billion people ([Forbes 2013](#)). SM has distinct and varied expressions such as podcasts, email subscriptions, wikis, blogs, and vlogs, all of which serve purposes of different sorts ([Nair, 2011](#)).

A study focusing on the impact of SM on the consumer's buying behavior was carried out. For this study. Two hundred forty-nine candidates who were all e-shoppers were interviewed. These shoppers based their buying decisions on recommendation, price, analysis of the types of products purchased, and a range of other product-related dimensions. One of the aims of this study was to understand the role of social media in the recommendation process ([Forbes, 2013](#)).

The conclusion drawn from this study was that most consumers were buying either very cheap or very expensive items off the internet, and their decisions were influenced by people they never viewed as leaders or influencers. These results pointed to the fact that organizations can influence future purchases, especially if they can find a way to make the users posts about their products on various social media platforms. Another pivotal finding of the same study was that people use less Facebook compared to Twitter

because twitter's format is much faster when it comes to information sharing. This suggested that firms should shift to formats like Twitter because that allows individuals to have access to the internet, who then can broadcast their opinions about the projects and operations of the firm ([Forbes, 2013](#)).

The Link Between Social Media and Investor's Decision Making

Most investors have this belief that a combination of factors assists the market movement. The perception about the market they have is summarized by the term 'market sentiment'. This means markets have their own way of thinking, and it aids traders to predict the market movement, hence the term 'market psychology' ([Baker et al., 2017](#)).

Investors in the financial market have this understanding that the information is valuable and acquiring the information constantly about publicly traded entities is valuable as it will help them in making sound financial decisions. Nevertheless, seldom do people with great knowledge also make wrong investment decisions. People with adequate knowledge can still have a difference of opinions and can disagree about the entity's value ([Tetlock, 2015](#)).

In research, "examining how a firm's reaction to the negative attention on Twitter can affect investor's perceptions," it was depicted that while a negative tweet could precipitate wreckage to the perception of investors, this wreckage could get multiplied if the tweet is retweeted ([Cade, 2018](#)). This research also focused on some strategies to implement if negative attention was received on social media. These strategies included refusing

to be a part of that conversation, addressing the issue publicly, and trying to redirect the attention of the people toward the positive information. Expectedly, these strategies could only lessen the damage, not eliminate it ([Cade, 2018](#)).

Theoretical/practical Significance

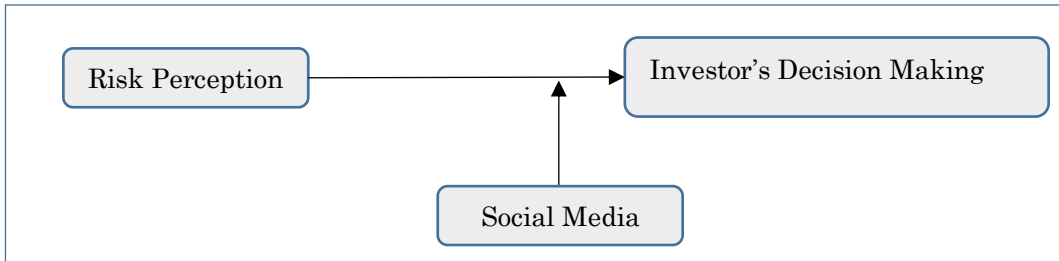
This research is hoped to contribute to the future literature of related topics. The research focus was on cryptocurrency, unlike the authors mentioned above, whose studies surrounded stockmarkets.

As the crypto market is wholly a digital market, the SM has a strong impact on decision-making. So, it could help the investors and traders to revise their decisions and consider SM as a decent wellspring of information about cryptocurrency. The study in hand can also be used by the legislators and policymakers to frame rules and regulations for putting information upon SM because it can be used to deceive investors and traders.

Limitations and Further Research Suggestions

The present research attempted to assess the impact of SM on decision-making. By virtue of the constraint of time, the researchers only did a quantitative study with closed questions. As the quantitative method needs lesser time for data collection and analysis compared to a qualitative study. The researchers suggest that further studies can include qualitative methods and interview investors to get more insightful knowledge and more authentic data to make out how exactly SM bears on investment decisions.

Conceptual Framework



Research Hypothesis

- H₁:** The risk perception impacts the decision-making of investors.
- H₂:** The information from social media bears upon the decision-making of investors.
- H₃:** Social media has a moderating role in the relationship between risk perception and investment decision-making.

Research Methodology

Population and Sample

The nature of this research is quantitative. The mode of data collection was an online questionnaire. The target population for the survey was crypto investors. The sample target was a minimum of 68 subjects (through G-power), in which 104 responded to our questionnaire, and two responses were

rendered invalid. The Snowball sampling technique was used because it was hard to find potential participants.

Questionnaire Design and Measurement

The questionnaire used for this study was adopted from prior studies of authors ([Abu-Taleb & Nilsson, 2021](#)) and ([Le Luong & Thi Thu Ha, 2011](#)). The questionnaire was then modified to suit the purpose of this study. The scale used was Likert.

Regression Analysis

Ordinary least squares (OLS) is a statistical method that one can employ to assess a relationship between DV and IDV. This relationship is linear in nature. The OLS is best used for estimating an unbiased estimate of relationship between variables ([Ezell & Land, 2005](#)).

Table 1. Descriptive Statistics

Demographics	
Age	Frequency
15-25 years	57
26-35 years	34
36-45 years	9
46-55 years	2
Total	102
Marital Status	
Single	72
Married	30
Total	102
Years of Experience	
<1 year	61
1 - 2 years	16

Demographics	
Age	Frequency
2 - 3 years	9
3 - 4 years	9
4 - 5 years	4
5 - 10 years	3
Total	102
Monthly Income	
Less than 10,000	30
10,000 - 30,000	22
30,000 - 50,000	15
50,000 - 70,000	9
70,000 - 90,000	9
more than 90,000	17
Total	102

Background of the Data

The data was collected using questionnaires filled through google forms, and the response rate was 102 investors. The sample was hard to find. Most of the participants (55.9%) were young adults aged between 15-25 years old, as exhibited by Table 1. The same table depicts that 70.6% of the participants were single while only 29.4% of participants were married. Most of the participants were undergraduate and graduate with a percentage of 45% and 36.3%, respectively. The intermediate and post-graduates were only 6.9% and 10% respectively. The years of experience were highly unequal, with 59% of investors having experience of 1 year and 15.7% of investors having 1-2 years of experience. 50% of the investors were students, 17.6% of the investors were doing part-time jobs,

25.5% of the investors were doing full-time jobs, and 6.9% were unemployed. The monthly income of 29.4% of the participants was less than Rs. 10,000, 21% had an income of between 10,000 to 30,000. 14.7% had income of 30,000 to 50,000. The percentage of those falling in the bracket of 50,000 to 90,000 income was 17.6%, while 16.7% people earned more than 90,000.

From the survey, the majority of the people got their investment information from facebook about 66.3% participants use facebook for such information as shown in the figure 1. 55.8% of the investors use twitter and 42.3% of the investors use Youtube, 36.5% use Instagram, 50% of the participants use Telegram, 35.6% use Discord, 19.2% people use Reddit and 37.5% people use Whatsapp for investment information.

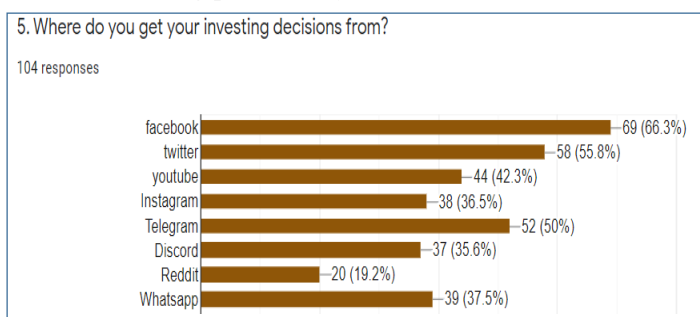


Figure 1: Source of Information

Risk Perception (RP) and Decision Making (DM)

The questions of the questionnaire from 1 through 12 are for risk perception in cryptocurrency. The questions were tested by running a linear regression on them. The SPSS software was put to use for the statistical tests. This regression tells us if the risk perception has any impact on the decision-making of investors. The Risk perception about cryptocurrency is an independent variable, while decision making is a dependent variable. Table 8 depicts that in this regression analysis, the R square is 0.277, which implies that the IDV explains 27.7% of the variance in the DV. We can also see that the coefficient of risk perception is 0.684, which basically means that a 1 unit change in the risk perception will impact

the decision-making by 0.684. we can also see the p-value to be less than 0.001, which is highly significant. The exact p-value is 1.3779E-8, which means H1 is accepted.

To put it into perspective, we can say that the risk perception attached to the cryptocurrency has an impact on an investor's decision-making process.

Information from Social Media and Decision-making

The survey revealed that 48.1% of investors said they read about cryptocurrency and investment in general from social media and only 1.9% of the participants said they never used social media to read about investment and cryptocurrency, as is exhibited by figure 2.

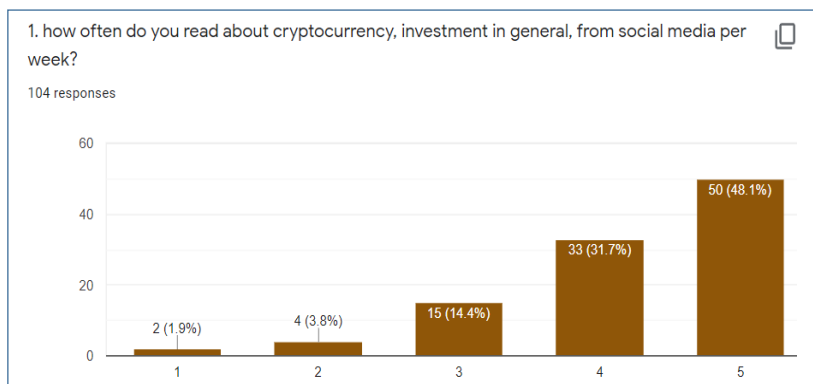


Figure 2: How often Investors read about Cryptocurrency on Social Media

In the questionnaire, questions 13 to 17 are about information from social media. These questions will answer our question and will decide if the null hypothesis is rejected or accepted. Linear regression was used to determine whether it was significant or otherwise. The investment decision-making is DV, while the information from social media is the independent variable. Table 5 depicts that the R square is 0.551. This implies that the IDV is responsible for 55.1% of the variance in the DV, which is decision-

making. This value is highly acceptable. After that, we will look at coefficient B, which is 0.764. This means that a 1 unit increase in the information from SM will impact decision-making by 0.764. Then we will look at the significance level or p-value, which in this case is less than 0.001, which is also highly acceptable. The exact p-value is 3.0091E-17 which is not zero.

In effect, the information from SM greatly influences the decision-making of an investor. Simply put, the study findings submit that the investors in a measuring

factor in SM as a conduit of information in relation to their investment decisions.

The Study Model

The ordinary least square method of analyzing linear regression was used to run the analysis on the collected data, and results manifest that the null hypothesis on a 5% significance level stands rejected.

This implies that all alternative hypotheses H_1 (Risk perception), H_2 (information from social media), and H_3 (social media being a moderator) are accepted with a significance level of 5%. In simple terms, it can be speculated that the independent variable bears on the decision making, and SM has a moderating role in relation to decision making.

Table 2. Correlation

Correlations			1	2	3
1	DM	Pearson Correlation	1	.526**	.715**
2	RP	Pearson Correlation	.526**	1	.495**
3	SM	Pearson Correlation	.715**	.495**	1

As the multiple linear regression was run, it came to light that there is still an impact of risk perception and social media, but that impact is negative due to the negative coefficient. We can see in the statistical model (Table 4) of moderation the coefficient of RP is -0.807, and the coefficient of SM is -0.444. These were positive when we ran an analysis for the risk perception and social media independently because, without social media or risk perception, each variable has a positive and significant impact on the decision making (DM), but in the moderator analysis, they are negative. It means when information from social

media is a moderator to the risk perception, their individual impact turns negative, but the thing is that their p-values are more than 0.05. Hence, in this case, their negative impact is not significant

Our main focus is on the interaction (B_3XM), which is the moderating impact of social media. In Table 4, we can see the coefficient of interaction is 0.285 with a confidence level of 95%, and the p-value is 0.042. The results identify social media as a positive moderator of the relationship between risk perception and decision making. So, the H_3 is accepted.

Table 3. ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	42.870	2	21.435	60.694	.000 ^b
Residual	34.963	99	.353		
Total	77.833	101			
Regression	44.319	3	14.773	43.199	.000 ^c
Residual	33.514	98	.342		

Total	77.833	101
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Table 4. Results of Multiple Regression Analysis

		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.036	.359		-.099	.921
	Risk perception	.296	.101	.228	2.937	.004
	Information from social media	.643	.083	.603	7.774	.000
2	(Constant)	4.092	2.036		2.010	.047
	Risk perception	-.807	.545	-.620	-1.481	.142
	Information from social media	-.444	.534	-.416	-.830	.408
	Interaction term	.285	.139	1.622	2.059	.042

Table 5. Coefficient of Determination

Model	R	R Square	Adjusted R Square
1	.742 ^a	.551	.542
2	.755 ^b	.569	.556

Note. 55.6% of the variability in the decision-making is explained by our model.

Reliability Analysis

The questionnaire accounted for 3 sections. The first section was about risk perception having 12 items. The section focusing on information from social media had 6 items, and the last section was about decision making, which had 8 items.

The first 8 questions were taken from (Deb & Singh, 2017). The 9th and 10th items were taken from (Sindhu and Kumar, 2014). And the last two items were taken from (Rana, 2019).

When we did a reliability analysis on these items, we got Cronbach's alpha of 0.807, which is above the .700 range and is acceptable to be reliable.

The next section was about social media, which had 5 items. All of the items were adapted from (Abu-Taleb & Nilsson, 2021). The reliability analysis shows a Cronbach's alpha of 0.792, which is above the acceptance level of 0.700 and therefore reliable.

The third section was about decision-making, which had 8 items. The 1st two items were from (Abu-Taleb & Nilsson, 2021) the last 6 items were from (Le Luong & Thi Thu Ha, 2011). The reliability of these items was checked using Cronbach's alpha, and Cronbach's alpha was 0.855, which is acceptable because it is > 0.700.

Table 6. Reliability Analysis

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Risk perception	.807	.806	12
Social media	.792	.788	5
Decision making	.855	.848	8

Note. The Cronbach's Alpha is more than 0.700 in all of the constructs.

Analysis and Discussion

The primary purpose of the present study is to witness the existence or non-existence of the moderating impact of SM, which explains the relationship between risk perception and decision making. The risk perception about cryptocurrency is an independent variable, while the decision-making about investment is dependent. This study was done in order to find if the effect of risk perception on decision-making depends upon social media.

From the analysis results, we found out that the risk perception and information from social media has an impact on the decision-making of investors, and there is a positive correlation. The independent impact of these variables was strongest for social media on decision making while the risk perception also had a positive impact on the decision making, but that impact was weaker as compared to the impact the social media had on the decision making.

When we ran the moderation analysis on the SPSS, we found that social media had a moderating effect on the relationship between risk perception and decision making. It proves our Ha3 which suggests social media as a moderator.

This result matches with Kadous and others' study outcome ([Kadous et al., 2019](#)) in which there is a sign that most investors depend on the guidance directed to them by social media in making their investment decisions, and they believe that that guidance is directed to them forecasts the future incomes of securities. Therefore, it must be used to make the decision to buy or sell or not to trade. This result also is reliable with ([Bollampelly, 2016](#)) study outcome (2016), which indicates that many investors depend on news from non-traditional bases, for instance, financial news sites and social media from the internet when making

their investment decisions. These findings are different from Abu Hamad and Ali study's (2015), where it presented that most of the findings sample have faith in that the impact of the internet on their investment decisions is not strong because of the incomplete coverage and the want for technical expertise using it, which could not be accessible to several investors.

Despite the presence of a wealth of information an investor needs about an investment or cryptocurrency, investors still tend to make irrational decisions, which may be because of potential or emotional outcomes. This puts them at risk of being influenced by the perception of friends and families. However, it must be kept in mind that this study is not 100% on this line of thinking because 13.7% of the participants said that their investments decisions did not meet their expectations, while 18% of the participants were neutral about their investment decisions. Other than that, 14.7% of the participants were not satisfied with their investment decisions, and 22.5% remained neutral. 72.6% of the participants said that they read about cryptocurrency and investment in general per week; that is one of the reasons they are aware of the risk involved, and the satisfaction level is high. Despite this, the influence of SM on cryptocurrency is all but a blur.

Conclusion

The principal purpose of the present research was to see whether risk perception and social media have any influence on the investment decisions of crypto investors and whether or not social media explains the relationship between risk perception and decision making. This will add more knowledge to the field of behavioral finance.

The result of this research was that

risk perception coupled with social media has a bearing on the decision making while social media has a moderating role also. The researcher used risk perception (X) and social media (W) as independent and social media also as a moderator variable while the decision-making acted as dependent variable (Y).

The study posits that the information about various cryptocurrencies online does have an impact on investment decisions.

This means the probability of investing in specific coin increases if there is an increase in the amount of news about it on SM. The confidence interval of 95% suggested that the null hypothesis is rejected and alternative hypotheses are accepted. This study provides support to all other studies that concluded the same results, but this study was conducted on cryptocurrency, unlike all other studies which were about stock markets and other forms of investment instruments.

References

- Abu-Taleb, S. K., & Nilsson, F. (2021). Impact of Social Media on Investment Decision: A quantitative study which considers information online, online community behaviour, and firm image.
- Adams, J. (1995). *Risk* UCL Press. London, UK.
- AL-MANSOUR, B. Y. (2020). Cryptocurrency Market: Behavioral Finance Perspective. *The Journal of Asian Finance, Economics and Business*, 7(12), 159–168.
<https://doi.org/10.13106/jafeb.2020.vol7.no12.159>
- Baker, H. K., Filbeck, G., & Ricciardi, V. (2017). How behavioral biases affect finance professionals. *The European Financial Review*, 25–29.
- Bollampelly, N. (2016). Understanding role of social media in investor reactions [Dublin Business School].
- Cade, N. L. (2018). Corporate social media: How two-way disclosure channels influence investors. *Accounting, Organizations and Society*, 68, 63–79.
- Chen, H., D. P., Hu, Y. J., & Hwang, B. H. (2014). Wisdom of crowds: The value of stock opinions transmitted through social media. *The Review of Financial Studies*, 27(5), 1367–1403.
- Deb, S., & Singh, R. (2017). Influence of demographic and socio-economic variables on investors' risk perception towards mutual fund: A study on bank employees of Tripura. *Bank Parikrama a Journal of Banking & Finance*, 42(1), 94–116.
- Ezell, M. E., & Land, K. C. (2005). *Ordinary least squares*.
- Forbes, L. P., & Forbes, L. P. (2013). Does Social Media Influence Consumer Buying Behavior? An Investigation Of Recommendations And Purchases. *Journal of Business & Economics Research (JBER)*, 11(2), 107.
<https://doi.org/10.19030/jber.v11i2.7623>
- Kadous, K., Mercer, M., & Zhou, Y. D. (2019). Do Individual Investors Understand How Social Media Advice Influences Their Investment Decisions? SSRN 2968407.
- Kavitha, S. (2017). Usage of Social Media among the Equity Investors with Special Reference to Selected Stock Broking Firms in Coimbatore. *Management Today*, 7(4), 214–221.
<https://doi.org/10.11127/gmt.2017.12.04>
- Le Luong, P., & Thi Thu Ha, D. (2011). Behavioral factors influencing individual investors decision-making and performance.: A survey at the Ho Chi Minh Stock Exchange. In.
- Nair, M. (2011). Understanding and measuring the value of social media. *Journal of Corporate Accounting & Finance*, 22(3), 45–51.
<https://doi.org/10.1002/jcaf.20674>

- Ostern, N. (2018). Do you trust a trust-free transaction? Toward a trust framework model for blockchain technology.
- Rana, S. B. (2019). Factors Affecting Individual Investors' Stock Investment Decision in Nepal. *Tribhuvan University Journal*, 33(2), 103–124. <https://doi.org/10.3126/tuj.v33i2.33615>
- Rosa, E. A. (2003). The logical structure of the social amplification of risk framework (SARF): Metatheoretical foundations and policy implications. *The social amplification of risk*, 47, 47-49.
- Rothman, T., & Yakar, C. (2019). Empirical Analysis Towards the Effect of Social Media on Cryptocurrency Price and Volume.
- Siikanen, M., Baltakys, K., Kanninen, J., Vatrapi, R., Mukkamala, R., & Hussain, A. (2018). Facebook drives behaviour of passive households in stock markets. *Finance Research Letters*, 27, 208-213.
- Tetlock, P. C. (2015). The role of media in finance. *Handbook of media Economics*, 1, 701-721.
- Trimborn, S., Li, M., & Härdle, W. K. (2020). Investing with cryptocurrencies—A liquidity constrained investment approach. *Journal of Financial Econometrics*, 18(2), 280-306.
- Windschitl, P. D., & Wells, G. L. (1996). Measuring psychological uncertainty: Verbal versus numeric methods. *Journal of Experimental Psychology: Applied*, 2(4), 343.