Moderated Mediation Model of the Factors Influencing Intention to Invest in Cryptocurrency among Millennials and Generation Z

Dr Debora Dhanya
Assistant Professor, Christ (Deemed to be University),Kengeri Campus, Bengaluru
Dr Babita Jha
Associate Professor, Christ (Deemed to be University), Delhi, NCR
Dr Deepak Jha
Assistant Professor, Christ (Deemed to be University), Delhi, NCR

Abstract

The purpose of this research is to find out what people think about cryptocurrencies and what they think about cryptocurrencies. Respondents were chosen using purposive sampling targeting z generation and analyse using Structural Equation Modelling - Pooled Least Square (SEM-PLS). The 436 respondents took part in this study. The result of this study indicates that perceived behavioural control, subjective norms and financial literacy have a significant influence on intention to use cryptocurrency while Attitude has a positive effect on intention to use cryptocurrency. The other finding of this study hypotheses about the moderating effect of fear of missing out as well as the mediator attitudes towards using cryptocurrency, were not statistically proven. The finding of the study found that the millennials are found to have more fear of missing out compared to Generation Z. Testing the model and the resulting results provide a number of managerial and theoretical implicationsfor increasing the willingness to adopt cryptocurrency.

Keywords: Cryptocurrency, Perceived Behavioural Control, Perceived Risk, Financial Literacy, Fear of Missing Out and Intention to invest.

Introduction

The first cryptocurrency Bitcoin was first introduced by an anonymous developer, Nakamoto (2009). Bitcoin is a communication protocol that facilitates the use of "virtual currencies", including for financial Transactions. The main motive behind creating bitcoin and other cryptocurrencies, was freedom from the control of centralized institutions such as banks, regulatory agencies and the government. Bitcoin completely removed the role of any mediators and replaced it with cryptographic proof. This system has the added benefits of having anonymity, low transaction fees, illegal transactions, money laundering, tax evasion and speculation and low latency. It is Basically a peer-to-peer version of the electronic cash which allow online payments to be sent or received directly from one party to another without the need for an intermediary. World Economic Forum report reveals that 10% of the

global gross domestic product (GDP) will be kept through blockchain technology by the year 2025 (White, 2017; Sawar et al., 2019). Therefore, this study was conducted to know the intentions of individuals investment behaviour towards cryptocurrencies. Several studies have measured individuals' intentions to use cryptocurrencies in different contexts (Alqaryouti et al., 2019); Abramova & Böhme, 2016; Gazali et al., 2018; Walch, 2015); however, there is a lack of research in cryptocurrency on the perception and motivational factors that may influence an individual's behavioural intention to use cryptocurrencies.Therefore, the proposed study aims to investigate the factors influencing the behavioural intentions of individuals and their knowledge of cryptocurrencies in India. The study also aimed to empirically test the conceptual model developed by(Esmaeilzadeh et al., 2019). The conceptual model is based on Theory of Planned behaviour (TPB). provides a comprehensive view by enabling conditions such as social influence, fear of missing out and perceived risks and perceived benefits in the context of cryptocurrencies. currencies. The major objectives of the study is to measure the impact of behavioural factors on the intention to invest in cryptocurrencies (Ajzen, 1991). To construct a behavioural framework to predict the investment behaviour in cryptocurrency markets. In this regard, the current study has a new contribution that provides insight into the intentions and attitudes ofusers towards the use of cryptocurrencies.

Cryptocurrency in India

Literature Review

Theory of Planned behaviour (TPB) and the intention to investment

The theory of planned behaviour is extension of the Theory of Reasoned Action (TRA). It has been frequently used in a lot of behavioural research related to investment behaviour, such as stock markets, capital markets, etc. and other finance related research such as for anticipating intentionality of customer to choose banking products, household financing, consumer intentions etc.The theoretical model proposed by (Fishbein, 1978) serves as the foundation for the current study. Subjective norms, Perceived risks, financial literacy, perceived behavioural control, structural provisions, personality traits (innovativeness and self-efficacy), attitude, and intention to adopt bitcoin were all included in the model. The model, which is based on utility theory and the unified theory of acceptance and use of technology (UTAUT), gives a comprehensive overview of the factors that can affect the adoption of bitcoin, or cryptocurrency.

Subjective norms

An individual's perception of social pressure from people who can influence him/her like family, friends, colleagues etc. while intending to pursue an action is known as subjective norm(Ajzen & Fishbein,1980 ; Md Husin et al., 2022). Prior research on subjective norm and the intention to pursue an action reveal that subjective norms significantly influences the intention. An individual's social identity and the peer group they identify themselves with may encourage certain behaviour traits or discourage others deemed less socially acceptable within that particular group with their accepted behavioral norms. Therefore, the higher the evaluation of subjective norm (significant others have a positive opinion towards

cryptocurrency usage), the higher the intention to use(Yoopetch&Chaithanapat,2021; Adam &Shauki, 2014)

Perceived Behaviour Control

It is an individual's perception of how well he/she can perform a specific action. PBC comprises the issues of not being able to perform an action despite of the individual's attitude and subjective norm being in favour of the action (Hastings et al., 2013; Terry & O'Leary, 1995). Therefore, a Higher PBC can may be reflective of high self-confidence in doing a specific action (in this case use of cryptocurrency) and, vice-versa (Kraft et al., 2005; Tian et al., 2022; Yee et al., 2022). Therefore, it can be hypothesized that PBC will positively affect the intention to invest in cryptocurrencies.

Financial Literacy

Financial Literacy refers to being proficient in financial matters. It is a must for everyone to avoid any financial problems because individuals are often faced with financial decision in which they might face a trade-off situation where it is important to take the right decision (Gerrans et al., 2023; Jariyapan et al., 2022; Alomari & Abdullah, 2023). So, it becomes important that an individual is able to make informed financial decisions. Which means if a person is sufficiently financial literate, his/her financial will have a positive influence on his/her financial behaviour(Koeswandana& Sugino, 2023; Lestari et al., 2022). Therefore, we can hypothesize that financial literacy is positively correlated to the intention to invest in cryptocurrencies.

Perceived Risk:

Risk perception is a way for someone to interpret risks that are different from estimates or thoughts and reality. Risk perception is a part of cognitive bias (Jariyapan et al., 2022;).The higher the bias in a person's behaviour, the lower the person's perception of risk (Namahoot, &Rattanawiboonsom, 2022) Perception of risk plays an integral role in the human behavior, especially related to investment decisions making. Different people have different perception about the same situation or activity (Hasan et al., 2022). Someone tends to define a situation to be risky if he experiences a loss because of a decision he/she made in the past, especially if the loss has an impact on its financial condition (Basha et al., 2022). But a study comparing the investment behavior of stock market investors and cryptocurrency investors shows that cryptocurrency investors take morerisk in comparison to their counterparts and, their behaviour can be can be characterized as "excitement Seeking" (Huang et al., 2023).

Fear of missing out

The Self Determination Theory (SDT) that served as the foundation for the development of Fear of Missing Out (FoMO) Using Przybylski et al.(2013) as an example SDT is a perspective that uses self-regulation and mental health to better understand FoMO so that it can be reduced to three fundamental psychological needs of individuals: ability, independence, and contentment with connections. According to this theory, the FoMO phenomenon is thought to be caused by poor self-regulation that leads to a lack of satisfaction with psychological needs. The overabundance of information resulting from the use of

online-based technology (the internet) is one of the main causes of FoMO (Przybylski et al.,), which manifests itself as an unpleasant experience that is ignored by those around (Przybylski et al., 2013). FoMO is being categorized as a brand-new symptom of internet use disorder as it develops. The internet makes it simple for people to find and share information, and actual activities and events provide support (Akbari etal., 2021; Argan et al., 2022; Gupta & Sharma, 2021). According to Herman (2000), investor decision-making is influenced by cognitive and environmental factors, which is consistent with the FoMO concept. Argan and others, 2022) Cipriani and Guarino (2005) which found that financial backers overlook their insight.

Attitude towards the potential outcome of the action – It is the first of the three components of TPB and, it is supposed to have the strongest influence on the intention to do an action. The influence of attitude has been extensively researched and it was found that attitude is one of the most significant factors influencing behavioural intention to pursue an action. An individual's belief about a behaviour's consequences and the evaluation of those consequences comprise attitude (Hasan et al., 2022; Khan et al., 2022). Therefore, in a nutshell it can be said that, if a person thinks or believes that cryptocurrency is risky or the consequences of transacting in cryptocurrency is risky, it is more likely that the intention to transact in cryptocurrency of the individual is lower (Martin et al., 2022; Nandal & Jora, 2020;). Similarly, if a person believes that cryptocurrency is not risky or the consequences are not severe, it is more likely that the intention to transact in cryptocurrency is higher (Gagarina et al., 2019; Soomro et al., 2022) Thus, it can be hypothesized that attitude is positively correlated to the intention to invest in cryptocurrency.

Accordingly, we hypothesize the following:

H1: Subjective norms will have a significant effect on the Intention to invest in cryptocurrencies

H2: Perceived Behavior Control is positively correlated to Intention to invest in cryptocurrencies.

H3: Financial Literacy is positively correlated to Intention to invest in cryptocurrencies.

H4: Perceived Risk negatively influence intention to invest incryptocurrencies.

H5: Attitude is positively correlated to the Intention to invest in cryptocurrencies

H6: Fear of missing out positively moderates the relationships between attitudes towards using cryptocurrency and behavioural intention to invest in cryptocurrency

H7: Attitudes mediates the relationship between the perceived value from cryptocurrency and individuals' behavioral intention to adopt cryptocurrency with a moderating role of fear of missing out.
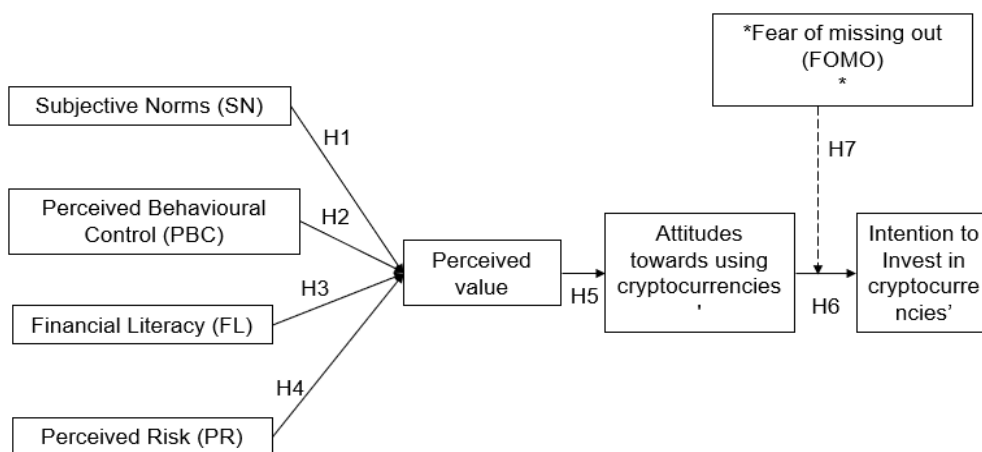
Fig.1 Conceptual Framework

Research Methodology and Data Analysis

This study aims to determine how behavioral factors impact the investors' intention to invest in cryptocurrencies using the theory of planned behaviour (TPB). It also aims to determine the relevance of two other factors – financial literacy and perceived risk on the intention to invest in cryptocurrency. Out of the 550 people, only 463 responses could be obtained. There was no specific age bracket, but all the respondents are above the age of 18. All the respondents were made aware about the research subject to get accurate answers from them.

Table: Research instruments.

Variables	Items	Sources
1 Subjective Norms	4	(Ajzen, 1991)
2 Perceived risks	5	Chan et al., 2018; Mendoza-Telloet al., 2019; Arias-Oliva et la., 2019
3 Financial Literacy	3	Hastings et al. (2013b).
4 Perceived behavioral control	3	(Ajzen, 1991)
5 Perceivedvalues from cryptocurrency	4	(Kim et al., 2007)
6 Attitude towards cryptocurrency	4	Schaupp & M. Festa, 2018; Alaeddin and

		Altounjy, 2018; Walch 2015
7 Fear of missing out	4	Gerrans et al., 2023
9 Behavioral intentions to invest in cryptocurrency	3	Arias-Oliva et la., 2019; Mendoza-Telloet al., 2019; Schaupp and Festa, 2018; .Alaeddin&Altounjy, 2018)

Research Methods

Sample Selection

Tabel1. RespondentsDemographic

Constructs	Frequency	Percentage
Gender		
Male	244	53%
Female	199	47%
Age		
17-20	42	5%
21-23	158	57%
24-26	263	38%
Monthly pocket money received(in rupee) 6,100-9,000	243	30
Above9,000	220	9.43
BusinessAdministration	102	29.14
Computer&IT	128	30.86
Engineering	170	20
EnvironmentalSciences	53	14.29
Others	20	5.71

In this study, purposeful sampling was used to select the sample. The following criteria were used in the selection of the sample: a) Who have an exposure towards crypto currency b) belongs to the millennial and z generation. The required economic education because

financial literacy towards crypto serves as one of our predictor variables. The z generation was then used because many of them only follow the trend without knowing it and are more likely to be influenced by social pressure (Lubis et al., 2022). The survey was made utilizing google structure and disseminated internet based through virtual entertainment like WhatsApp and Instagram. We use Kline's (2005) recommendation for the sample size more than 200 sample size for structural equation modeling (SEM). 463 respondents comprise the majority of this study's respondents. The majority of respondents are between the ages of 21 and 23 (57 percent), followed by those between the ages of 24 and 26 (34 percent) and 17 to 20 (9%).

		1	2	3	4	5	6	7	8	α	M	SD
1	SN	—								.71	3.91	.824
2	PR	.443**	—							.87	3.63	.833
3	PV	.456**	.233**	—						.72	3.44	1.35
4	FL	.638**	.264**	.630**	—					.79	3.61	.956
5	PBC	.782**	.427**	.764**	.786**	—				.82	3.89	.889
6	AT	.801**	.434**	.646**	.779**	.875**	—			.79	3.55	.921
7	FOMO	.663**	.299**	.798**	.699**	.846**	.743**	—		.84	3.45	1.44
8	IIC	.735**	.343**	.657**	.673**	.759**	.892**	.814*	—	.78	3.67	.978

**Correlation is significant at the 0.01 level (2-tailed). Note. PBC: perceived behavioral control; PR: perceived risks; SN: subjective norms; FL: Financial Literacy; PVC:perceived value from cryptocurrency; AT: attitudes towards using cryptocurrency; FOMO: Fear of missing out;IIC: Intention to invest in crypto currencies.

Hypothesis Testing

The study highlights the impact of behavioral factors on the intention to invest in cryptocurrencies. It adds to the existing research to help better predict investment behaviour in cryptocurrency markets. The recent rise in financial awareness of people and, subsequently in the investment volumes of cryptocurrency markets have made the market volatile so the results of this study will help researchers, cryptocurrency companies and government etc. in predicting the behaviour of investors in committing resources to cryptocurrencies. Hypothesis Testing Regression analysis was used to test the hypothesis with linear relationships (H1, H2, H3, H4, H5, and H6). Preacher and Hayes tested the moderated mediation hypotheses H7 with the help of the process macro model. The regression analysis that was carried out to investigate the effect of independent variables on dependent variables. The findings indicate that financial literacy significantly increase perceptions of cryptocurrency's perceived value (β = :572, t = 13:686, p = :000). In an ensuing step, the positive effect of perceived value on attitude at a significant level (0. 845, t =9:355, p =: 00). To examine the moderation effects, a moderation mediation analysis was per- formed by using process macro model by Preacher and Hayes. The results indicate that perceived value from cryptocurrency has a positive significant influence on the mediator variable attitudes towards using cryptocurrency (β = 0:77, SE = 0:01, 91% CI = 0:70, 0:51) and also on the dependent variable   behavioral

intention to use cryptocurrency (β = 0:35, SE = 0:08, 95%CI = 0:19, 0:51). Furthermore, the mediator variable attitudes towards using cryptocurrency also have a positive significant impact on the dependent variable behavioral intention to invest in cryptocurrency (β = 0:68, SE = 0:06, 95% CI = 0:42, 0:44). Similarly, the moderator variable fear of missing out has a positive significant impact on dependent variable behavioral intention to use cryptocurrency (β = 0:43, SE = 0:04, 95%CI = 0:01, 0:17). However, the interaction moderating effect (M × W) shows that the moderating effect is not significant, as there is a negative and positive interval (β = −0:02, SE = 0:05, 95%CI = −0:09, 0:04). So, hypothesis 7 is rejected. Results shows the index of moderated mediation in which the index is negative and close to zero (-.0308); also, the lower and upper limits of the confidence interval are opposite in direction. It indicates that the mediation is not significant upon the level of moderator. Therefore, hypothesis 7 (a) is rejected.

Table6:Hypothesestesting.

	Predictors	β	t	Sig	R^2	F
H1	Subjective Norms →Perceived Value	.692	17.87	.000	0.479	319.53
H2	Perceivedbehavioral Control→ Perceived Value	.194	3.63	.000	0.613	108.80
H3	Financial Literacy → Perceivedvalue	.337	6.66	.000	0.113	44.46
H4	Perceived Risk → Perceivedvalue	-.077	-1.912	.057		
H5	Perceivedvalue→ Attitudestowardsinvestingcryptocurrency	.845	29.48	.000	0.714	869.37
H6	Attitudes→ Behavioralintentionto investcryptocurrency	.024	.651	.516		
H7	Structuralprovision→behavioralintentiontousecryptocurrency	.142	2.794	.005		

Table 7: Moderated mediation analysis (FOMO)

	Attitude towards using crypto currency(M)			BI towards usage of cryptocurrency (DV)		
Model	ß	SE	95% CI ß SE 95% CI LLCI (ULCI) LLCI (ULCI)	ß	SE	95% CI ß SE 95% CI LLCI (ULCI) LLCI (ULCI)
Constant	-1.5467	.1557	-4.3216(-4.1014)	1.9685	.20487	1.33965 (2.4354)
Perceived value	.68743	.0167	.5986(.7154)	.3567	.1488	.1524 (.3560)
Attitudes towards Usage of Cryptocurrency				.3125	.2674	.2481 (.4986)
FoMO (W)				.7463	.3478	0169 (.1891)
M × W				-.6571	-.4163	-.0164 (.0177)
	R2	0.54		R2	0.47	
	F(df)	F(1,1278) 1200.46,p<0.000)		F(df)	F(2,4623) =156.23,p<0.000)	
	Index	Boot SE		BootLLCI	BootULCI	
FoMO	-.0283	.0114		-0.7834	0.03486	

In the analysis, moderated mediation analysis was also done. The findings of hypotheses 6 and 7 of this research revealed that FoMO, do not have any moderating effect on the mediated path of attitude and behavioral intention towards the usage of cryptocurrency. The explanation for this could be that as users are well knowledge about the use cryptocurrency the values of FoMO are insignificant. Therefore, FoMO as a moderator could not yield the desired results. On the other hand, a significant positive impact of FoMO on behavioral intention to use cryptocurrency was evident which supports the findings. Findings of hypothesis 7 of the study revealed that attitude does not have a significant mediating effect,

through the moderated mediation model, on behavioral intention to use cryptocurrency. However, the mediator variable attitudes towards using cryptocurrency have a positive significant effect on the outcome variable behavioral intention to use cryptocurrency which is consistent with the findings of previous research [15, 20, 63, 64].
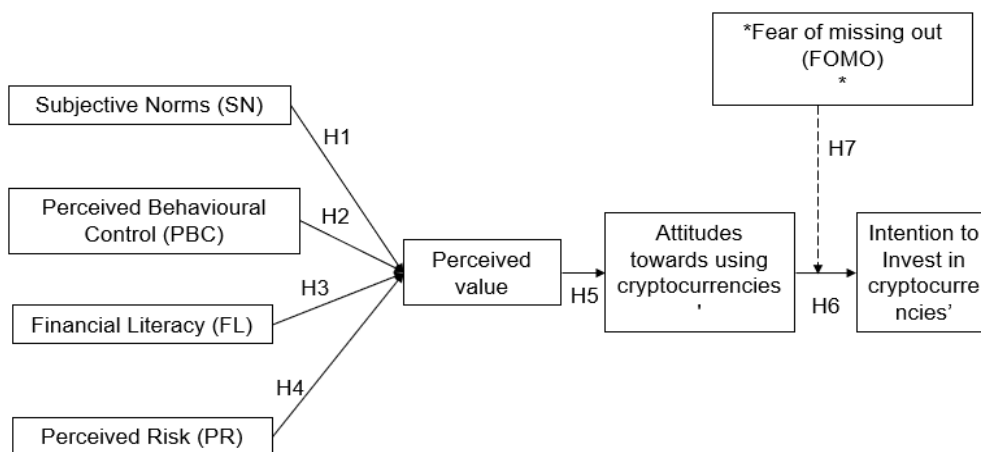
Findings

All behavioral factors – Attitude, subjective norms and perceived behaviour control have been found to have a positive impact on the intention to invest in cryptocurrencies. Other factors – financial literacy and perceived risk were also found to have a positive influence on the intention to invest in cryptocurrencies. Although perceived risk has a positive behavioral impact on the intention to invest in cryptocurrencies, the correlation between the two was substantially lower than other factors involved in the study.

With regard to the components of TPB, we can see after analyzing the results of the Karl Pearson Correlation test; how the three components of TPB interact with the intention to invest in cryptocurrencies. The positive impact of attitude (AT) explains that investors are more likely to invest in cryptocurrency when they expect some positive outcome from the investment such as the opportunity to achieve important goals or raise their standard of living etc. Similarly, perceived behavior control (PBC) also positively influences the intention to invest in cryptocurrency as people who have the positive perception of control of necessary resources, knowledge, and technology are more likely to invest in cryptocurrencies. Further, we found that the intention to invest in cryptocurrencies is also stimulated by the social group of an individual. Results from the correlation analysis show that people who have a perception of support (subjective Norm) from their social have stronger intention in invest in cryptocurrency.Financial Literacy (FL) was positively correlated to the intention to invest in cryptocurrencies, indicating that people who are financially educated and consider themselves to be good investors are much more likely to invest in cryptocurrencies in comparison to those who perceive themselves as financially unaware. An insignificant positive correlation was also found between perceived risk and the intention to invest in cryptocurrencies, depicting there is almost no difference in the investment intention of an individual based on the perception of risk. Overall, it was found that the following factors –

Attitude (AT), Subjective Norms (SN), Perceived Behaviour Control (PBC) and financial literacy (FL) have a significant influence on the intention to invest in cryptocurrencies, and Perceived risk (PR) was the only factor that was found to be insignificant in the study.

Conclusion & Suggestions

This study investigated the relationship between the behavioral factors and the intention to invest in cryptocurrency using the theory of planned behaviour as the basis for the study. It also took into consideration the impact of financial literacy and perceived risk. And after analysing the collected data, it was confirmed that TPB and financial literacy do have a positive impact on the intention to invest in cryptocurrency. Therefore, it can be concluded that TPB and other financial behaviour variable provide a framework for predicting investment behaviour in cryptocurrency. Most of respondent in study were young, educated individuals who had relevant education to understand significance of cryptocurrencies in today's world, therefore a more heterogenous sample in terms of socio -demographic factors will be more useful for further analysis of investment intention. Also, another variable that can be investigated in future studies is Digital literacy. Technology plays an important role in intention to invest in cryptocurrency. An examination of the relationship between digital literacy and the intention to invest in cryptocurrencies will understand if people who are more digitally-skilled are prone to invest in cryptocurrency in comparison to those with poor digital skills.

References

1. Abramova, S., & Böhme, R. (2016). Perceived benefit and risk as multidimensional determinants of bitcoin use: A quantitative exploratory study.
2. Abramova, S., & Böhme, R. (2016). Perceived benefit and risk as multidimensional determinants of bitcoin use: A quantitative exploratory study.
3. Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211.
4. Ajzen, I. (1991). The theory of planned behavior. Organizational behavior and human decision processes, 50(2), 179-211.
5. Akbari, M., M. Seydavi, S. Palmieri, G. Mansueto, G. Caselli, and M. M. Spada. 2021. "Fear of Missing Out (FoMO) and Internet Use: A Comprehensive Systematic Review and Meta-Analysis." Journal of Behavioral Addictions 10(4): 879–900.
6. Alomari, A. S., & Abdullah, N. L. (2023). Factors influencing the behavioral intention to use Cryptocurrency among Saudi Arabian public university students: Moderating role of financial literacy. Cogent Business & Management, 10(1), 2178092.
7. Alqaryouti, O., Siyam, N., Alkashri, Z., & Shaalan, K. (2019, December). Cryptocurrency usage impact on perceived benefits and users' behaviour. In European, Mediterranean, and Middle Eastern Conference on Information Systems (pp. 123-136). Cham: Springer International Publishing.
8. Argan, Metin, VahdetAltundal, and Mehpare Tokay Argan. 2022. "What Is the Role of FoMO in Individual Investment Behavior? The Relationship among FoMO, Involvement, Engagement, and Satisfaction." Journal of East-West Business: 1–28.

9. Basha, D. A., Vasani, D. S. A., Narayanan, R., BM, C., Khan, D. S., Rajath, M., & Soni, A. (2022). The Mediating effect of investors awareness and perceived risk in relationship between facilitating factors of Crypto-currency Investments and investment decision market growth using structural equation model Algorithm.

10. Esmaeilzadeh, P., Hemang, S., & Cousins, K. (2019). Individuals' cryptocurrency adoption: A proposed moderated-mediation model.

11. Gagarina, M., Nestik, T., &Drobysheva, T. (2019). Social and psychological predictors of youths' attitudes to cryptocurrency. Behavioral Sciences, 9(12), 118.

12. Gazali, H. M., Ismail, C. M. H. B. C., &Amboala, T. (2018, July). Exploring the intention to invest in cryptocurrency: The case of bitcoin. In 2018 International Conference on Information and Communication Technology for the Muslim World (ICT4M) (pp. 64-68). IEEE.

13. Gerrans, P., Abisekaraj, S. B., & Liu, Z. F. (2023). The fear of missing out on cryptocurrency and stock investments: Direct and indirect effects of financial literacy and risk tolerance. Journal of Financial Literacy and Wellbeing, 1-35.

14. Gupta, M., and A. Sharma. 2021. "Fear of Missing Out: A Brief Overview of Origin, Theoretical Underpinnings and Relationship with Mental Health." World Journal of Clinical Cases 9(19): 4881–4889.

15. Hasan, S. Z., Ayub, H., Ellahi, A., & Saleem, M. (2022). A moderated mediation model of factors influencing intention to adopt cryptocurrency among university students. Human Behavior and Emerging Technologies, 2022, 1-14.

16. Hastings, J. S., Madrian, B. C., &Skimmyhorn, W. L. (2013). Financial literacy, financial education, and economic outcomes. Annu. Rev. Econ., 5(1), 347-373.

17. Huang, C. K., Lee, N. C. A., & Chen, W. C. (2023). Dilemmatic dual-factor determinants of discontinuous intention in cryptocurrency usage. Information Technology & People, 36(2), 564-594.

18. Jariyapan, P., Mattayaphutron, S., Gillani, S. N., & Shafique, O. (2022). Factors influencing the behavioural intention to use cryptocurrency in emerging economies during the COVID-19 pandemic: Based on technology acceptance model 3, perceived risk, and financial literacy. Frontiers in Psychology, 12, 5935.

19. Jariyapan, P., Mattayaphutron, S., Gillani, S. N., & Shafique, O. (2022). Factors influencing the behavioural intention to use cryptocurrency in emerging economies during the COVID-19 pandemic: Based on technology acceptance model 3, perceived risk, and financial literacy. Frontiers in Psychology, 12, 5935.

20. Khan, Y., Hameed, I., & Akram, U. (2022). What drives attitude, purchase intention and consumer buying behavior toward organic food? A self-determination theory and theory of planned behavior perspective. British Food Journal, (ahead-of-print).

21. Koeswandana, N. A., & Sugino, F. A. (2023). Intention to use cryptocurrency: Social and religious perspective. Jurnal Ekonomi &Keuangan Islam, 91-103.

22. Kraft, P., Rise, J., Sutton, S., &Røysamb, E. (2005). Perceived difficulty in the theory of planned behaviour: Perceived behavioural control or affective attitude?. British journal of social psychology, 44(3), 479-496.

23. Lestari, D. M., Sadalia, I., &Silalahi, A. S. (2022, December). The Effect of Financial Literacy, Risk Perception, Overconfidence, and Investment Experience on

Cryptocurrency Investment Decision. In 19th International Symposium on Management (INSYMA 2022) (pp. 158-164). Atlantis Press.

24. Martin, B. A., Chrysochou, P., & Strong, C. (2022). Crypto freedom! Effects of trait reactance and regulation content on intention to buy cryptocurrency. Personality and Individual Differences, 194, 111659.

25. Nakamoto, S. (2009). Bitcoin open source implementation of P2P currency. February, 11(2009), P2P.

26. Namahoot, K. S., &Rattanawiboonsom, V. (2022). Integration of TAM Model of Consumers' Intention to Adopt Cryptocurrency Platform in Thailand: The Mediating Role of Attitude and Perceived Risk. Human Behavior and Emerging Technologies, 2022.

27. Nandal, N., & Jora, M. N. (2020). Impact of household income on investors attitude towards crypto currency. Annals of the Romanian Society for Cell Biology, 449-458.

28. Sarwar, M. I., Nisar, K., & Khan, A. (2019, September). Blockchain-from cryptocurrency to vertical industries-a deep shift. In 2019 IEEE International Conference on Signal Processing, Communications and Computing (ICSPCC) (pp. 1-4). IEEE.

29. Soomro, B. A., Shah, N., & Abdelwahed, N. A. A. (2022). Intention to adopt cryptocurrency: a robust contribution of trust and the theory of planned behavior. Journal of Economic and Administrative Sciences.

30. Terry, D. J., & O'Leary, J. E. (1995). The theory of planned behaviour: The effects of perceived behavioural control and self-efficacy. British journal of social psychology, 34(2), 199-220.

31. Tian, Y., Yoo, J. H., & Zhou, H. (2022). To read or not to read: An extension of the theory of planned behaviour to food label use. International Journal of Consumer Studies, 46(3), 984-993.

32. Vetrichelvi, M. S., & Priya, A. S. (2022). A Study on awareness and attitudes towards Crypto currency among college students. SpecialusisUgdymas, 1(43), 6488-6496.

33. Walch, A. (2015). The bitcoin blockchain as financial market infrastructure: A consideration of operational risk. NYUJ Legis. & Pub. Pol'y, 18, 837.

34. White, G. R. (2017). Future applications of blockchain in business and management: A Delphi study. Strategic change, 26(5), 439-451.

35. Yee, C. H., Al-Mulali, U., & Ling, G. M. (2022). Intention towards renewable energy investments in Malaysia: extending theory of planned behaviour. Environmental Science and Pollution Research, 29, 1021-1036.