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## Article

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## Perception of social media users regarding cryptocurrency investment adoption: a case of social media platform – Reddit

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### ABSTRACT

With retail investors playing a significant role in driving market adoption, cryptocurrency investment has gained widespread popularity recently. However, the perceived value of cryptocurrency investments and the perceived risk associated with investments have not been thoroughly examined. To address this gap in this research field, we surveyed 200 social media users active on social networking platform - Reddit to unravel the intricate interplay of perceived value, perceived risk, and demographic factors that shape the decision-making process among social media users engaged in cryptocurrency investments. Our findings suggest that the acceptance of cryptocurrency investments is positively influenced by perceived value, whereas perceived risk exerts a negative influence. We also found that certain demographic elements which include age, education, gender, monthly income, and investment experience can moderate the relationship between perceived value, perceived risk, and the adaptation of cryptocurrency investments. The findings from our study offer valuable perspectives for retail investors and industry stakeholders aiming to enhance their understanding of the determinants that impact the acceptance of cryptocurrency investments among social media users.

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## Introduction

Cryptocurrency, a digital asset that uses cryptography for security, has gained popularity in recent years. It was first introduced in 2009 with the launch of Bitcoin, and since then, numerous other cryptocurrencies have emerged. While individual investors have widely adopted cryptocurrency, there is still a lack of understanding about the elements that impact an individual's acceptance of cryptocurrency investments.

Perceived value and perceived risks are important elements influencing an individual's adoption of a new product or service. Perceived risk refers to an individual's evaluation of the likelihood and consequences of potential losses or negative outcomes associated with a decision (Gratt, 1987). On the other hand, perceived value is the overall assessment of the benefits and costs of a product or service with the individual's goals and values (Bojanic, 2008). Previous research has examined the influence of these factors on the adoption of new products and services in various industries such as the hotel industry (Bojanic, 2008), mobile commerce (Dastane et al., 2020), and online shopping (Fang et al., 2016).

In the context of cryptocurrency adoption, perceived risk and perceived value can also play a significant role. Cryptocurrency is a relatively new and innovative investment option and individuals may perceive it as a risky investment due to its volatility and lack of regulation (Fang et al., 2022). On the other hand, the perceived value of cryptocurrency can be influenced by its potential for high returns, ease of access, and the ability to make transactions anonymously (Arias-Oliva et al., 2019).

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Apart from perceived risk and perceived value, an individual's inclination toward cryptocurrency investments can be shaped by demographic elements like gender, age, educational background, monthly income, and prior investment experience. Previous research has found that these factors can play a role in an individual's investment decision-making (Felton et al., 2003; Fisher & Yao, 2017).

The relevance of cryptocurrency adoption is underscored by its transformative potential in financial markets and investment landscapes. Previous research has elucidated the significance of perceived risk and perceived value in consumer decision-making processes across various industries (Bojanic, 2008; Fang et al., 2016). However, despite the burgeoning interest in cryptocurrency investments, empirical research on the specific impact of these factors in this domain remains limited (Fang et al., 2022). Furthermore, while demographic elements such as gender, age, education, income, and investment experience have been identified as influential in investment decisions (Felton et al., 2003; Fisher & Yao, 2017), their role in cryptocurrency adoption among social media users is still underexplored.

The identified gap lies in the lack of comprehensive empirical research focused on the intersection of perceived risk, perceived value, and demographic factors in cryptocurrency adoption, particularly among social media users. Despite the growing interest in cryptocurrency investments, the decision-making processes of this specific demographic group remain poorly understood. Therefore, it is imperative to investigate the nuanced relationship between perceived risk, perceived value, and demographic characteristics to enhance our understanding of cryptocurrency adoption among social media users.

To address these gaps, the study employs quantitative methods to gather data from a diverse sample of social media users. By analyzing the interplay between perceived risk, perceived value, and demographic factors such as age, education, income, investment experience, and gender, the study aims to provide a comprehensive understanding of the determinants driving cryptocurrency adoption.

The primary contribution of this study lies in its elucidation of the factors influencing cryptocurrency adoption among social media users. By shedding light on the role of perceived risk, perceived value, and demographic characteristics, the study offers valuable insights for stakeholders such as cryptocurrency investors and exchanges. Additionally, by focusing specifically on social media users, the study expands the scope of existing research on cryptocurrency adoption, thus enriching the literature on consumer perceptions in this domain.

This study deepens our understanding of cryptocurrency adoption by examining the interaction of perceived value, perceived risk, and demographic factors. Our study reinforces the theoretical perspective that positive perceptions of value are crucial for adoption decisions – thus, directly addressing our research question on how perceived value impacts cryptocurrency investment behavior.

Our study suggests that in the cryptocurrency market, the allure of high returns may outweigh concerns about volatility, thereby prompting a reconsideration of risk perception models in this context. This contribution is particularly relevant to our research question about the role of perceived risk in cryptocurrency adoption.

Furthermore, the significant influence of education on cryptocurrency adoption highlights the importance of integrating socio-demographic factors into theoretical frameworks. Our study elaborates that educational background enhances an individual's ability to understand and engage with cryptocurrency investments, providing new insights into how demographic variables shape investment behavior. By emphasizing the role of education, our study adds to the literature on financial literacy and investment decisions, thus addressing our research question regarding the moderating effects of demographic factors.

## Literature review

Perceived value is a phenomenon that has been widely studied in consumer behavior. It is defined as the overall assessment of the utility and worth of a product or service by a consumer (Dastane et al., 2020). Previous research has shown that perceived value is a key determinant of consumer adoption, as it influences consumer decision-making and repurchase intentions (Bojanic, 2008; Demirgüneş, 2015). In the context of cryptocurrency investments, perceived value is believed to be influenced by factors such as the potential for financial gain, the perceived usefulness and convenience of the investment, and the perceived reputation and trustworthiness of the cryptocurrency in question (Fang et al., 2022).

On the other hand, perceived risk is defined as the subjective assessment of the probability and severity of negative outcomes associated with a particular course of action (Gratt, 1987). In the context of financial investments, perceived risk can refer to concerns about the stability and security of the investment, as well as the potential for financial loss (Burns et al., 2012). Previous research has suggested that perceived risk can have a significant impact on consumer decision-making with consumers generally being more risk-averse when it comes to financial investments (Fisher & Yao, 2017). However, some studies have found that perceived risk may not always have a negative influence on adoption with some consumers being more willing to take on higher levels of risk in pursuit of potential financial gain (Mendoza-Tello et al., 2019).

A study suggests that males are more likely to take financial risks than females (Fisher & Yao, 2017). Another study finds that younger individuals are more likely to adopt new financial technologies, such as cryptocurrency investments (Khan et al., 2021). Education level may also play a role in an individual's adoption of cryptocurrency investments as those with higher levels of education may be more knowledgeable about financial technologies and more comfortable with taking risks (Arias-Oliva et al., 2019). Similarly, monthly income and investment experience may influence an individual's adoption of cryptocurrency investments as those with higher income may be more able to take on financial risks and those with more investment experience may be more familiar with the financial industry and comfortable with taking on new investments.

However, the purpose of this study is to investigate the influence of perceived value, perceived risk, and several demographic factors on the adoption of cryptocurrency investments among users of this social networking platform. To achieve this aim, the following research questions have been formulated:

1. To what extent do perceived value and perceived risk influence the adoption of cryptocurrency among social media users associated with this social networking community, and if so, what is the nature of their impact?
2. Are there notable variations in the adoption of cryptocurrency investments among members of this social networking platform members based on factors such as investment experience, age, education level, monthly income, and gender, and if present, what are the underlying patterns?

To answer these research questions, a structured questionnaire has been used to collect data from members using this social networking platform. The questionnaire is designed to measure perceived value, perceived risk, and demographic factors. The data collected then will be analyzed using Structural Equation Modeling with Partial Least Squares (SEM-PLS). The analysis results will provide insights into the adoption of cryptocurrency investments among members of this social community and contribute to the formulation of adoption intention factors, providing insights into the decision-making process of investors from the perspective of consumer behavior analysis.

## Methodology

This study employed a quantitative research design using a survey method. The survey is conducted online using a self-administered questionnaire. The sample for this study consisted of 200 individual adopters of cryptocurrency investments who are members of the social networking platform - Reddit community which is a popular social media platform for discussing various topics, including cryptocurrency investments. The sample was selected through convenience sampling, where the first 200 qualified responses were chosen as a sample. Repeated IP addresses and emails were disqualified and omitted from the selected sample. The sample consisted of individuals from various age groups, genders, education levels, monthly incomes, and investment experiences.

The utilization of a quantitative research design via a survey method was deemed appropriate for several reasons. Firstly, surveys allow for the efficient collection of data from a large and diverse sample, facilitating the exploration of complex relationships between variables (Hair et al., 2017). Additionally, the self-administered questionnaire format employed in this study enhances participant anonymity, potentially mitigating response bias (Dillman et al., 2014).

The survey was conducted online using Google Forms. The questionnaire was composed of three main sections: demographic questions, perceived value and perceived risks scales, and the adaptation of cryptocurrency investments scale. The questionnaire was administered to the social networking platform members through a link posted on various cryptocurrency-related subreddits. The link was also disseminated on social networking platforms, including Twitter and Facebook. The survey was completed from October to November 2022.

This study was approved by the International Program Office at the Faculty of Communication Arts, Chulalongkorn University, in October 2022. The purpose of the questionnaire was to examine the influence of Perceived Risk and Perceived Value on Consumer Adoption of Cryptocurrency.

Written informed consent was obtained from all participants prior to their involvement in the study. The questionnaire included a statement informing participants about the purpose of the study, the voluntary nature of their participation, and their right to withdraw at any time without consequences. By proceeding with the questionnaire, participants provided their written consent to take part in the study.

To ensure the privacy and confidentiality of the participants, no personally identifiable information was collected during the survey. The data were anonymized and stored securely, with access restricted to the researchers directly involved in the study. The study adhered to the ethical guidelines and principles set forth by Chulalongkorn University and the Faculty of Communication Arts, ensuring the protection of participant privacy and confidentiality throughout the research process.

The study was approved by Research Ethics Review System for Research Involving Human Participants (CU-REC), Chulalongkorn University, Bangkok, Thailand.

The selection of this social networking site - Reddit as the platform for data collection was based on its popularity among cryptocurrency enthusiasts and its capacity to reach a sizable and diverse audience. Previous studies have successfully utilized this forum as a means of gathering data on various topics, including cryptocurrency (Ludwig et al., 2019). The relevance of this methodology is bolstered by prior research that has employed similar approaches to investigate consumer behavior and decision-making in the context of financial investments. For instance, studies examining investor behavior in traditional financial markets have utilized surveys to investigate factors such as risk perception and investment decision-making (Chen et al., 2016).

The survey instrument comprised three main sections: demographic questions, scales measuring perceived risk and perceived value, and an adaptation of a cryptocurrency investment scale. The selection of these variables was informed by insights from prior literature, which have identified perceived risk, perceived value, and demographic characteristics as key determinants of investment behavior (Bojanic, 2008; Fisher & Yao, 2017). Demographic questions were implied to gather information on the participants' gender, age, education, monthly income, and investment experience. The perceived risk scale consisted of five items adapted from Burns et al. (2012) and measured the participant's perceptions of the risk associated with cryptocurrency investments. The perceived value scale consisted of six items adapted from Bojanic (2008) and measured the participants' perceptions of the adaptability of investments in cryptocurrencies. The cryptocurrency investments scale consisted of six items adapted from Arias-Oliva et al. (2019) and measured the participants' adoption of cryptocurrency investments. All scales used a five-point Likert scale, with 1 indicating 'strongly disagree' and 5 indicating 'strongly agree'.

Data analysis has been conducted using the Structural Equation Modeling - Partial Least Squares (SEM-PLS) method. This method is a multivariate statistical technique that is used to analyze relationships between latent (unobservable) variables and their indicators (observable variables). SEM-PLS is particularly useful for analyzing complex models with multiple latent variables and their relationships.

Firstly the validity and reliability of the measures have been assessed. Validity refers to the extent to which the measures used in the study accurately reflect the concept being studied. Reliability refers to the consistency of the measures or the degree to which they produce the same results over time. To assess the validity and reliability of the measures, several tests have been conducted including confirmatory factor analysis, composite reliability, and Cronbach's alpha.

Later, the relationships between the latent variables (perceived value, perceived risk, and adoption) and the demographic elements such as monthly income, age, gender, educational level, and investment experience) have been examined using the path coefficient analysis. The path coefficient analysis

estimates the strength and significance of the relationships between the variables. A t-value above 1.96 and a p-value below 0.05 indicate a significant relationship.

Finally, moderation analysis has been conducted to examine the influence of demographic factors on the relationships between perceived value, perceived risk, and adoption. Moderation analysis allows for the examination of whether the effect of one variable (e.g. perceived value) on another variable (e.g. adoption) is different depending on the level of a third variable (e.g. education level). A significant moderation effect is indicated by a p-value below 0.05.

All statistical analyses have been conducted using the PLS-SEM (Partial Least Squares Structural Equation Modeling) software. This software is chosen due to its ability to analyze the relationships between the latent (unobserved) variables and the observed variables in the model.

The first step in the data analysis process is to test the validity and reliability of the measures used in the study as showed in Table 1. This is done using several measures including the average variance extracted (AVE), the composite reliability (CR), and the Cronbach's alpha coefficient. AVE and CR values above 0.5 indicate that the measure has good reliability, while Cronbach's alpha values above 0.7 indicate good internal consistency.

Later, the path coefficients for the relationships between the latent variables (perceived value, perceived risk, and adoption) and the demographic elements including investment experience, gender, age, educational level, and monthly earnings were calculated. The significance of these relationships has been tested using t-tests and ANOVA analysis.

Finally, the overall fit of the model is assessed using the goodness-of-fit indices, including the root mean square error of approximation (RMSEA), the standardized root mean square residual (SRMR), and the comparative fit index (CFI). Values below 0.08 for RMSEA, values below 0.1 for SRMR, and values above 0.9 for CFI indicate a good fit for the model.

In addition to the statistical analysis, a thematic analysis has also been conducted on the open-ended responses provided by the respondents. This is done to gain a deeper understanding of the reasons behind the potential adoption or non-adoption of cryptocurrency investments among the study participants.

## Results

The results of the analysis of the demographic information of the participants carried out through frequency distribution are presented in Table 2. SPSS has been used for the calculation of data presented in Table 2. The total number of respondents studied is 200 from a sample size of 1444.

200 responses have been analyzed to acquire data on the demographic variables. There are more female respondents than males, with 103 respondents (51.5%) being female while 97 respondents (48.5%) were male. Most respondents are 35–44 years old, with 75 (37.5%) coming from this group, closely followed by the 25–34 age group with 70 (35%) respondents. Only 10 respondents (5%) are from the age group of 45–54, with no respondents over the age of 54. Regarding education, most of the respondents are bachelor's degree holders, with 78 (39%) coming from this group. This is followed by master's degree holders, with 43 respondents (21.5%). Only three respondents (1.5%) have a Doctoral degree.

In terms of income, the majority earned \$3,501–\$4,500, with 96 respondents (48%) belonging to this income group. This is followed by respondents from the \$2501–\$3,500 income group with 36 respondents (18%), closely followed by the highest income group of Above \$4,501, with 33 respondents (16.5%). Only two respondents (1%) reported being from the Below \$500 income group.

Concerning investment expertise, 61% of the 122 respondents indicated possessing an investment background spanning 1–3 years. Subsequently, 25% of respondents reported having over three years of investment experience, while 14% had less than one year of investment involvement. The examination

**Table 1.** Variables, number of items, and Cronbach's alpha.

Variables	Number of items	Cronbach's alpha
Adoption	4	0.772
Perceived Risk	3	0.797
Perceived Value	5	0.911

**Table 2.** Respondents profile.

Characteristics	Respondent's profile	Frequency	Percentage (%)
Gender	Male	97	48.5
	Female	103	51.5
Age	18–24	45	22.5
	25–34	70	35
	35–44	75	37.5
	45–54	10	5
	55+	0	0
Education level	Highschool	22	11
	Diploma	18	9
	Professional degree	36	18
	Bachelor's degree	78	39
	Master's degree	43	21.5
	Doctoral degree	3	1.5
Monthly income	Below \$500	2	1
	\$501–\$1,500	5	2.5
	\$1,501–\$2,500	28	14
	\$2,501–\$3,500	36	18
	\$3,501–\$4,500	96	48
	Above \$4,501	33	16.5
Investment experience	Less than 1 year	28	14
	1–3 years	122	61
	More than 3 years	50	25

**Table 3.** Investment profile of the respondents.

Portfolio of investment	Respondents	Percentage (%)
<b>Experience in investment (cryptocurrencies)</b>		
Less than a year	31	15.5
From 1–2 years	60	30
From 2–3 years	64	32
Over 3 years	45	22.5
<b>Portfolio allocation</b>		
0–20%	65	32.5
21–40%	67	33.5
41–60%	51	25.5
61–80%	15	7.5
81–100%	2	1
<b>Level of knowledge of cryptocurrency</b>		
A little	74	37
A moderate amount	71	35.5
A lot	50	25
Expert	5	2.5
<b>Cryptocurrency investment</b>		
Bitcoin	140	70
Ethereum	63	31.5
Litecoin	46	23
Tether	48	24
XRP	46	23
Uniswap	26	13
Binance	21	10.5
Polkadot	19	9.5
Dogecoin	21	10.5
Other	5	2.5

of the respondent's investment characteristics will be expounded upon in the subsequent section. The information depicted in Table 3 demonstrating the outcomes of the frequency analysis regarding the investment profile of the participants was calculated utilizing SPSS.

A total of 64 respondents (32%) reported having 2–3 years of investment experience in cryptocurrencies, followed by 60 respondents (30%) reported investment experience spanning 1–2 years. A total of 45 respondents (22.5%) had the most cryptocurrency investment experience with over three years of experience. The smallest sample of respondents belongs to the 'Less than a year' of investment experience in the cryptocurrencies group, with 31 respondents (15.5%) belonging to this group. When it comes to portfolio allocation, most of the respondents, i.e. 67 respondents (33.5%), reported having 21–40% of their investments in cryptocurrency. A total of 65 respondents (32.5%) designated between 0 and 20%, 51 respondents (25.5%) designating 41–60%, 15 respondents (7.5%) stating between 61–80%, and two respondents (1%) identifying 81–100% of investment in their portfolio. When questioned about their

level of knowledge of cryptocurrency, 74 respondents (37%) reported having a little amount of knowledge of cryptocurrency, closely followed by 71 respondents (35.5%) having a moderate level of knowledge of cryptocurrency. On the other hand, only five respondents (2.5%) claimed to be cryptocurrency experts.

The association between the two independent variables i.e. perceived value and perceived risk and the dependent variable (investment adoption) underwent examination through SmartPLS 4 using SEM-PLS analysis. A reflective measurement model has been employed for all the items. Single-item constructs were utilized to measure the control variables including age, gender education, investment experience, and income. The measurement model of the gathered data is illustrated in Figure 1.

In this model, potential adoption serves as the endogenous latent variable, while perceived value and perceived risk are the exogenous latent variables. Control variables encompass investment experience, age, education, income, and gender. The perceived value variable included five items i.e. PV1, PV2, PV3, PV4, and PV5 while the perceived risk latent variable comprised three items i.e. PR1, PR2, and PR3.

The reflective measurement models underwent assessment through the evaluation of the measurement model. Table 4 showcases the outcomes related to internal consistency, indicator reliability, discriminant validity, convergent validity, and the VIF.

The internal consistency, indicator reliability, discriminant validity, convergent validity, and the VIF were evaluated. The value of outer loadings has been used to calculate the indicator's reliability. Most of the values obtained are above 0.700, which implies a strong correlation. Items PR3 and PV4 have outer loading readings at 0.603 and 0.689 respectively, which imply moderate correlation.

Composite reliability (CR) has been employed to gauge internal consistency with higher CR values signifying an elevated reliability. All items exhibited CR values exceeding 0.7 in this model showcasing a shared variance of at least 50% among the measurement items. Regarding convergent validity, the average variance extracted (AVE) values surpassed 0.5 for all constructs, signifying that a minimum of 50% of the variation in their items is accounted for by the constructs.

Subsequently, discriminant validity has been assessed using the Fornell and Larcker criterion (1981) as cited in Sukumaran et al., (2022). As per this guideline, the correlation of each element with others should not surpass the square root of its AVE. The loadings on the constructs are higher than any loadings with other constructs, confirming discriminant validity. Since all VIF values are below two, there were no collinearity concerns in this model.

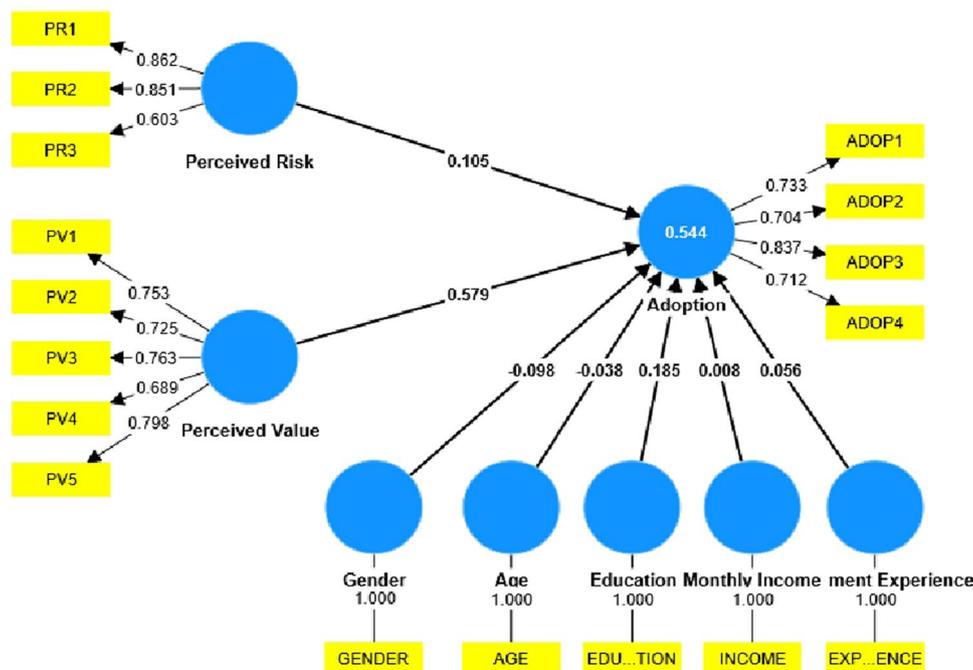
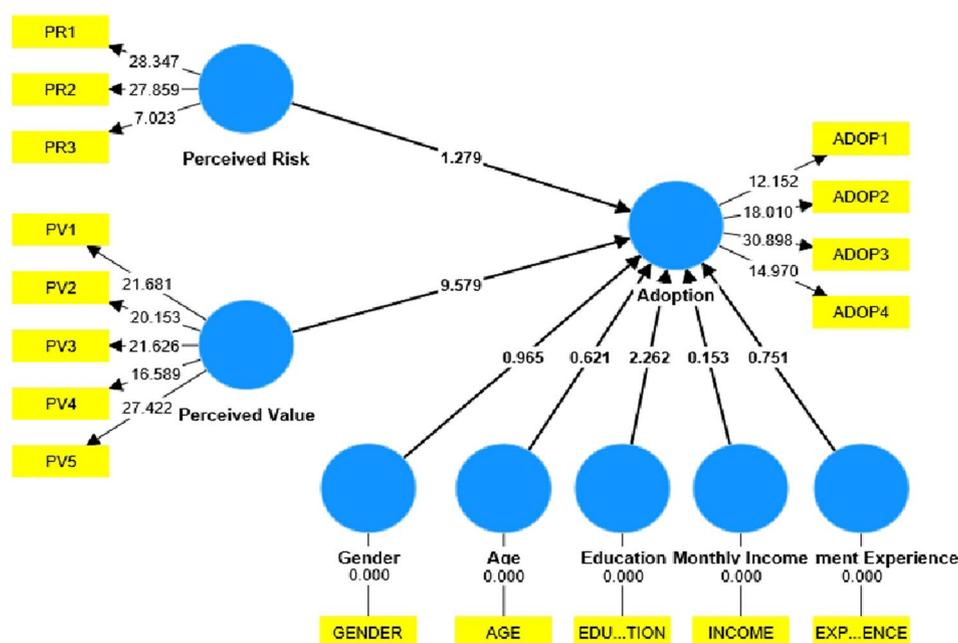


Figure 1. Measurement model assessment.

**Table 4.** Evaluation of reliability and validity.

Construct	Items	Outer loading	Composite reliability (CR)	Average variance extracted (AVE)	Discriminant validity	VIF
Potential adoption	AC1	0.733	0.835	0.560	Established	N/A
	AC2	0.704				
	AC3	0.837				
	AC4	0.712				
Perceived risk	PR1	0.862	0.821	0.610	Established	1.548
	PR2	0.851				
	PR3	0.603				
Perceived value	PV1	0.753	0.863	0.557	Established	1.339
	PV2	0.725				
	PV3	0.763				
	PV4	0.689				
	PV5	0.798				
Gender	GENDER	1	1	1	Established	1.070
Age	AGE	1	1	1	Established	1.438
Education	EDUCATION	1	1	1	Established	1.614
Monthly income	INCOME	1	1	1	Established	1.301
Investment experience	EXPERIENCE	1	1	1	Established	1.618

**Figure 2.** Assessment of the structural model.

The structural model assessment is conducted as part of the analysis and the results are shown in Figure 2.

Following the completion of validity, reliability, and collinearity assessments (VIF), an examination of the structural model was conducted. It involved establishing the structural model coefficients to delineate the relationships between the constructs. The p-value and t-value for the two hypotheses proposed in this study are presented in Table 5.

The obtained t-value exceeded 1.96 while the p-value was below 0.5 indicating a significant relationship between the variables. This further reveals that perceived value significantly influences potential adoption, while perceived risk does not. The examination of control variables i.e. investment experience, education, age, gender, and income is outlined in Table 5. From the analysis results, it has been observed that education significantly impacts cryptocurrency adoption, whereas gender, age, monthly income, and investment experience do not exhibit a significant difference. Table 6 details the outcomes of the structural model assessment, including F2, R2, Q2, and SRMR.

F<sup>2</sup> is calculated to analyze the size and effect of the path coefficient. Perceived value (0.550) is found to have a large effect size. Education (0.046), perceived risk (0.016), gender (0.005), investment experience (0.004), and age (0.002) are found to have a small effect size. Monthly income (0) is found to have

**Table 5.** Evaluation of path coefficients.

Hypotheses	Relationships	t-value	p-value	Decision
<b>H1</b>	PERCEIVED RISK -> ADOPTION	1.279	0.201	Not supported
<b>H2</b>	PERCEIVED VALUE -> ADOPTION	9.579	0.000	Supported
<b>Control variables</b>				
GENDER		0.965	0.335	Not significant
AGE		0.621	0.535	Not significant
EDUCATION		2.262	0.024	Significant
MONTHLY INCOME		0.153	0.879	Not significant
INVESTMENT EXPERIENCE		0.751	0.453	Not significant

**Table 6.** F2, R2, Q2, and SRMR assessment of structural model.

RELATIONSHIP	F <sup>2</sup>	R <sup>2</sup>	Q <sup>2</sup>	SRMR
PERCEIVED RISK -> ADOPTION	0.016	0.544	0.477	0.075
PERCEIVED VALUE -> ADOPTION	0.550			
GENDER -> ADOPTION	0.005			
AGE -> ADOPTION	0.002			
EDUCATION -> ADOPTION	0.046			
MONTHLY INCOME -> ADOPTION	0.000			
INVESTMENT EXPERIENCE -> ADOPTION	0.004			

no effect size on the path coefficient at all. The  $R^2$  is 0.544 which indicates that the independent variables can explain dependent variables by 54.4%. The  $Q^2$  value was 0.477 which is greater than 0.35, indicating that the model has substantial predictive relevance and higher predictive precision. The resultant SRMR value is 0.075.

The results offer valuable insights into the factors influencing cryptocurrency potential adoption among social media users. As hypothesized, perceived value emerged as a significant positive predictor of adoption (H2 supported). This aligns with theoretical frameworks emphasizing the role of perceived benefits in investment decisions (Chang et al., 2018). Users who perceive cryptocurrencies as offering potential for high returns, diversification benefits, or technological advancement are more likely to adopt them.

This finding resonates with prior studies on technology adoption, where perceived value has been identified as a key driver of user behavior (Venkatesh et al., 2003). In the context of cryptocurrencies, further research could explore the specific aspects of perceived value that most influence adoption intentions. For instance, future studies could differentiate between the perceived value associated with potential financial gains and the perceived value associated with the underlying technology or its ideological principles.

Contrary to the hypothesis (H1 not supported), perceived risk was not found to have a significant influence on adoption. This finding is somewhat surprising, as risk aversion is often considered a major factor influencing investment decisions (Guiso et al., 2008). However, it's possible that the user base in this study exhibits a higher tolerance for risk compared to the general population. Additionally, perceived value may have overshadowed the influence of perceived risk in this specific context. Users who hold strong beliefs in the potential benefits of cryptocurrencies may be willing to overlook the associated risks.

It is important to acknowledge that perceived risk might still play a role in influencing the level of investment for those who choose to adopt cryptocurrencies. Future studies could explore this possibility by examining how perceived risk affects the allocation percentages within cryptocurrency portfolios.

The analysis revealed that education level was the only demographic variable with a significant impact on potential adoption. Individuals with higher education were more likely to adopt cryptocurrencies when they perceived them as valuable. This suggests a potential interplay between educational background, risk tolerance, and investment knowledge. Those with higher education may be better equipped to understand and assess the potential risks and rewards associated with cryptocurrency investments.

The lack of significant influence from other demographic variables (age, gender, income, investment experience) warrants further investigation. It's possible that the specific sample used in this study may have a more homogenous demographic profile compared to the broader population of cryptocurrency investors. Future research could explore these relationships in more diverse samples to gain a more comprehensive understanding.

The model demonstrated good fit indices, with an R-squared value of 0.544 indicating that the independent variables explain over half of the variance in adoption intentions. The Q-squared value exceeding 0.35 suggests substantial predictive relevance, and the SRMR value of 0.075 falls within the acceptable range. These findings suggest that the model provides a good foundation for understanding the factors influencing cryptocurrency potential adoption among social media users active on this social networking platform.

## Conclusion

The purpose of this study was to examine the influence of perceived value and perceived risk on the potential adoption of cryptocurrency investments among social media users active on this social networking platform with the moderating effect of several demographic factors including gender, age, education level, monthly income, and investment experience. Results of the study indicate that perceived value has a significant positive effect on the adoption of cryptocurrency investments while perceived risk has no significant effect. Additionally, results suggest that education level has a significant positive effect on the adoption of cryptocurrency investments, while gender, age, monthly income, and investment experience have no significant effect.

These findings add to the existing literature on the adoption of cryptocurrency investments by providing insight into the attitudes and behavior of online adopters, specifically those on social media platforms like this being studied. The finding that indicates that perceived value has a significantly positive effect on adoption is consistent with previous research (Arias-Oliva et al., 2019; Demirgüneş, 2015), but the finding that perceived risk has no significant effect is in contrast to some previous studies that have found a negative relationship between perceived risk and adoption (Sukumaran et al., 2022). This difference may be due to the specific context of the study as well as the characteristics of the sample, which in this case was made up of social media users.

The finding that education level has a significant positive effect on the adoption of cryptocurrency investments is also noteworthy, as previous research has not consistently found this to be the case (Sukumaran et al., 2022). This suggests that education may play a more important role in the adoption of cryptocurrency investments among online adopters.

The study contributes valuable insights into the factors influencing cryptocurrency potential adoption among online users and highlights the significance of perceived value and education in shaping investment decisions.

## Policy implications

In light of the study's findings on the factors influencing cryptocurrency adoption among social networking platform users, there are several policy implications that merit attention. While the study primarily focused on understanding the attitudes and behaviors of online adopters, it's essential to translate these insights into actionable recommendations for policymakers. Here, we outline specific areas where existing policies may fall short and propose recommendations to address these deficiencies, along with implementation strategies and potential benefits for policymakers and society.

### *Financial literacy and education initiatives*

The study highlights the significant positive effect of education level on cryptocurrency potential adoption. However, it also underscores the need for enhanced financial literacy and education among potential investors.

Policymakers should prioritize initiatives aimed at improving financial literacy, particularly concerning cryptocurrency investments. This could include integrating cryptocurrency education into school curricula, offering workshops and seminars for investors, and providing accessible resources for learning about blockchain technology and digital assets.

Policymakers should collaborate with educational institutions, financial regulators, and industry experts to develop standardized cryptocurrency education programs. Utilize online platforms, social media, and community outreach programs to disseminate information and resources to a wide audience. Enhanced

financial literacy can empower investors to make informed decisions, mitigate risks, and navigate the complexities of cryptocurrency markets. By promoting education and awareness, policymakers can foster a more knowledgeable and resilient investor base, ultimately contributing to financial stability and inclusion.

### ***Regulatory frameworks and investor protection***

The study underscores the importance of perceived value in driving cryptocurrency adoption, highlighting the potential for speculative behavior and market volatility. Policymakers should prioritize the development of comprehensive regulatory frameworks to protect investors and ensure market integrity in the cryptocurrency space. This includes measures to combat fraud, mitigate risks, and promote transparency. They should collaborate with international regulatory bodies, industry stakeholders, and law enforcement agencies to develop standardized guidelines and best practices for cryptocurrency regulation. Enhance enforcement mechanisms and surveillance capabilities to detect and deter illicit activities in digital asset markets.

Robust regulatory frameworks can enhance investor confidence, reduce market manipulation, and foster sustainable growth in the cryptocurrency ecosystem. By promoting investor protection and market integrity, policymakers can mitigate systemic risks and safeguard financial stability.

### ***Technological innovation and research funding***

The study emphasizes the role of perceived value in driving cryptocurrency adoption, highlighting the importance of technological innovation and research in shaping investor attitudes and behaviors. Policymakers should prioritize investments in technological innovation and research to support the development of blockchain technology and digital assets. This includes funding for research institutions, startups, and industry consortia working on cutting-edge blockchain projects.

Policy makers should establish public-private partnerships to fund research and development initiatives in blockchain technology, digital currencies, and decentralized finance (DeFi). Foster collaboration between academia, industry, and government agencies to address key challenges and opportunities in the cryptocurrency space. Strategic investments in technological innovation can drive economic growth, spur job creation, and strengthen national competitiveness in the digital economy. By supporting research and development in blockchain technology, policymakers can unlock new opportunities for innovation, entrepreneurship, and sustainable development.

### ***Implications for retail investors and industry stakeholders***

The findings of this study offer several actionable insights for retail investors and industry stakeholders. For retail investors, the significant positive effect of perceived value on cryptocurrency adoption highlights the importance of understanding and assessing the intrinsic benefits of digital assets. Investors should focus on educating themselves about the technological and financial advantages of cryptocurrencies to make informed investment decisions. Moreover, as education level was found to significantly impact adoption, investors may benefit from seeking additional resources and learning opportunities to enhance their knowledge of the cryptocurrency market. Industry stakeholders, including financial institutions and cryptocurrency platforms, can leverage these insights to develop targeted educational programs and user-friendly tools that emphasize the value proposition of digital assets. Additionally, stakeholders should consider addressing perceived risks through transparent communication and robust security measures to build trust and confidence among potential investors. By focusing on the perceived value and enhancing investor education, both retail investors and industry players can contribute to a more informed and resilient cryptocurrency investment ecosystem.

### ***Practical applications***

The study's findings offer actionable insights for retail investors, industry stakeholders, and policymakers. Retail investors are encouraged to enhance their understanding of cryptocurrency's intrinsic value and

seek further education to make informed investment decisions. Industry stakeholders should develop targeted educational programs and transparent tools to highlight the benefits of their offerings, while also addressing perceived risks to build trust. Policymakers are advised to integrate cryptocurrency education into curricula and public initiatives, and to create robust regulatory frameworks to protect investors and ensure market integrity. These steps can help foster a more knowledgeable and resilient cryptocurrency investment ecosystem.

### Limitations and future recommendations

While the study provides valuable insights into the factors influencing cryptocurrency potential adoption among online users, there are several limitations that need to be acknowledged. Firstly, the modest sample size of 200 participants may limit the generalizability of the findings to the wider community of cryptocurrency investors. Future research could aim for larger sample sizes to enhance the robustness and applicability of the results.

Secondly, the study focuses solely on social networking platform - Reddit users, which may not fully represent the attitudes and behaviors of cryptocurrency investors across various online platforms. Different platforms may attract distinct user demographics and engagement patterns, potentially influencing investment decisions differently. Future studies could explore the attitudes of cryptocurrency investors on a broader range of social media platforms to capture a more comprehensive understanding of their behaviors.

Additionally, the study primarily examines the general concepts of perceived value and perceived risk without delving into more specific dimensions of these constructs. Further research could delve deeper into these constructs to uncover nuanced insights into how different aspects of perceived value and perceived risk influence potential cryptocurrency adoption.

While expanding the sample size and diversity could enhance generalizability, our study focused specifically on Reddit users to provide targeted insights within a specific online community. This approach allowed for a deeper understanding of potential of cryptocurrency adoption trends within this context. Due to logistical constraints, we were unable to collect qualitative data through interviews or focus groups, which are acknowledged as valuable methods for exploring nuanced factors influencing adoption. Future research should aim to include a broader range of demographic factors, such as geographic location and cultural background, to uncover additional insights into the adoption process across diverse populations.

In light of these limitations, several recommendations can be proposed for future research in this area. Firstly, researchers should strive to increase the sample size to ensure greater representation and generalizability of findings. Utilizing larger and more diverse samples would enhance the validity of the results and allow for more robust conclusions regarding potential cryptocurrency adoption.

Secondly, future studies should consider exploring the attitudes and behaviors of cryptocurrency investors across a variety of online platforms. Comparing and contrasting the behaviors of investors across different platforms could provide valuable insights into the role of social media in shaping investment decisions.

Furthermore, the perception of risk and value among cryptocurrency users is undoubtedly influenced by whether individuals regard crypto assets as investments or speculative gambles. While both activities entail a degree of uncertainty and risk-taking, investing and gambling represent distinct behavioral paradigms with unique psychological underpinnings. Integrating insights from relevant literature on the psychology of investing and gambling into future research endeavors could provide valuable context for understanding the nuances of cryptocurrency perceptions (Andrade & Newall, 2023; Grubbs & Kraus, 2023). By acknowledging the interconnected yet distinguishable nature of investing and gambling, future research in this domain can offer a more holistic understanding of the complexities inherent in cryptocurrency user attitudes and behaviors (Steinmetz, 2022).

Furthermore, researchers should aim to investigate the specific dimensions of perceived value and perceived risk in greater detail. By examining the various facets of these constructs, researchers can gain a more nuanced understanding of how different factors influence cryptocurrency adoption. This could involve conducting qualitative interviews or surveys to explore the subjective perceptions of investors in more depth.

### ***Additional future research directions***

To further enhance our understanding of cryptocurrency adoption, future research could explore several additional questions and avenues:

#### ***Impact of technological advances***

How do emerging technological advancements in blockchain and cryptocurrency influence investor perceptions and adoption? For example, what role does the development of layer-2 solutions or new consensus mechanisms play in shaping adoption trends?

#### ***Behavioral segmentation***

How do different investor segments, such as casual users versus experienced traders, perceive cryptocurrency value and risk? Research could examine whether behavioral differences between these segments lead to varying adoption patterns.

#### ***Cultural and regional variations***

What are the cultural and regional differences in cryptocurrency adoption? Investigating how cryptocurrency perceptions and adoption vary across different geographic regions and cultural contexts could provide valuable insights.

#### ***Longitudinal studies***

How do attitudes toward cryptocurrency change over time? Longitudinal studies could track shifts in perceived value and risk as market conditions and regulatory environments evolve.

#### ***Impact of regulatory changes***

How do changes in cryptocurrency regulations affect investor behavior and adoption rates? Research could explore the impact of regulatory announcements or policy shifts on investor confidence and market dynamics.

### **Author contribution**

Athit Rodpangtiam: Conceptualization, Formal analysis, Investigation, Writing - original draft.

Smith Boonchutima: Conceptualization, Supervision, Writing - review & editing.

Ibtesam Mazahir: Data Interpretation, Writing - review & editing.

### **Data**

#### ***Nature and source of data***

The data for this research was obtained through an online questionnaire survey. The survey questions focused on measuring the consumer perception of cryptocurrencies through the influence of perceived risk and perceived value on consumer adoption, with five demographic factors (gender, age, monthly income, education level, and investment experience) acting as control variables.

#### ***Sample size and data collection***

The population for this study comprised active members of the Cryptocurrency News & Discussion subreddit who were at least 18 years old. Purposive sampling was used to select respondents with prior investment knowledge of cryptocurrencies. Data was collected in October 2022 by distributing the survey questionnaire to members of the Cryptocurrency News & Discussion subreddit with the authorization of the subreddit moderators. In total, data was collected from 1,444 respondents, out of which 200 qualified responses were selected as the final sample for analysis. Repeat IP addresses and emails were disqualified to ensure each response in the final sample of 200 was from a unique respondent.

## Data accessibility

The survey data collected from the 200 respondents is not publicly available as it was collected solely for the purpose of this research study. The researchers have not provided any means to access the raw survey response data.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## Ethics approval

The authors declare that the principles of ethical and professional conduct have been followed and all participants have read and signed the informed consent before participating in this research. The study was approved by Research Ethics Review System for Research Involving Human Participants (CU-REC), Chulalongkorn University, Bangkok, Thailand.

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## Data availability statement

The data that support the findings of this study are available on request from the corresponding author.

## References

- Andrade, M., & Newall, P. W. S. (2023). Cryptocurrencies as gamblified financial assets and cryptocasinos: Novel risks for a public health approach to gambling. *Risks*, 11(3), 49. <https://doi.org/10.3390/risks11030049>
- Arias-Oliva, M., Pelegrín-Borondo, J., & Matías-Clavero, G. (2019). Variables influencing cryptocurrency use: A technology acceptance model in Spain. *Frontiers in Psychology*, 10, 475. <https://doi.org/10.3389/fpsyg.2019.00475>
- Bojanic, D. C. (2008). Consumer perceptions of price, value and satisfaction in the hotel industry. *Journal of Hospitality & Leisure Marketing*, 4(1), 5–22. [https://doi.org/10.1300/J150v04n01\\_02](https://doi.org/10.1300/J150v04n01_02)
- Burns, W. J., Peters, E., & Slovic, P. (2012). Risk perception and the economic crisis: A longitudinal study of the trajectory of perceived risk. *Risk Analysis: An Official Publication of the Society for Risk Analysis*, 32(4), 659–677. <https://doi.org/10.1111/j.1539-6924.2011.01733.x>

- Chang, L.-W., Huang, Y.-C., & Hsu, C.-C. (2018). Factors affecting investors' decisions in a stock market: A real-coded genetic algorithm approach. *Journal of Business Research*, 117, 534–543. <https://www.sciencedirect.com/science/article/abs/pii/S1042443121002031>
- Chen, Y., Kim, K. A., & Nofsinger, J. R. (2016). *Behavioral finance: Theories and evidence*. Routledge.
- Dastane, O., Goi, C. L., & Rabbane, F. (2020). A synthesis of constructs for modelling consumers' perception of value from mobile-commerce (M-VAL). *Journal of Retailing and Consumer Services*, 55, 102074. <https://doi.org/10.1016/j.jretconser.2020.102074>
- Demirgüneş, B. K. (2015). Relative importance of perceived value, satisfaction and perceived risk on willingness to pay more. *International Review of Management and Marketing*, 5(4), 211–220. <https://www.econjournals.com/index.php/irmm/article/view/1465>
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed-mode surveys: The tailored design method* (4th ed.). John Wiley & Sons.
- Fang, F., Ventre, C., Basios, M., Kanthan, L., Martinez-Rego, D., Wu, F., & Li, L. (2022). Cryptocurrency trading: A comprehensive survey. *Financial Innovation*, 8(1), 1–59. <https://doi.org/10.1186/s40854-021-00321-6>
- Fang, J., Wen, C., George, B., & Prybutok, V. R. (2016). Consumer heterogeneity, perceived value, and repurchase decision-making in online shopping: The role of gender, age, and shopping motives. *Journal of Electronic Commerce Research*, 17(2), 116–131.
- Felton, J., Gibson, B., & Sanbonmatsu, D. M. (2003). Preference for risk in investing as a function of trait optimism and gender. *Journal of Behavioral Finance*, 4(1), 33–40. [https://doi.org/10.1207/S15427579JPFM0401\\_05](https://doi.org/10.1207/S15427579JPFM0401_05)
- Fisher, P. J., & Yao, R. (2017). Gender differences in financial risk tolerance. *Journal of Economic Psychology*, 61, 191–202. <https://doi.org/10.1016/j.joep.2017.03.006>
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 382–388. <https://doi.org/10.1177/002224378101800313>
- Gratt, L. B. (1987). Risk analysis or risk assessment; a proposal for consistent definitions. In V. T. Covello, L.B. Lave, A. Moghissi & V. R. R. Uppuluri (Eds.), *Uncertainty in risk assessment, risk management, and decision making. Advances in Risk Analysis* (Vol. 4; pp. 241–249). Boston: Springer. [https://doi.org/10.1007/978-1-4684-5317-1\\_20](https://doi.org/10.1007/978-1-4684-5317-1_20)
- Grubbs, J. B., & Kraus, S. W. (2023). Cryptocurrency and addictive behaviors in a census-matched U.S. Sample. *International Gambling Studies*, 1–15. <https://doi.org/10.1080/14459795.2023.2273995>
- Guiso, L., Sapienza, P., & Zingales, L. (2008). Patience and financial decisions. *Journal of Monetary Economics*, 55(5), 787–801. <https://www.sciencedirect.com/science/article/abs/pii/S1544612321001264>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.
- Khan, A., Anjum, R., & Khan, M. (2021). Investor perception of cryptocurrency: A moderating role of social media on decision-making. *Global Economics Review*, VI(IV), 136–149. [https://doi.org/10.31703/ger.2021\(VI-IV\).11](https://doi.org/10.31703/ger.2021(VI-IV).11)
- Ludwig, M., Conway, M., & Laranjo, L. (2019). The prevalence and impact of misinformation in cryptocurrency markets. *Journal of the Association for Information Science and Technology*, 70(7), 823–834.
- Mendoza-Tello, J. C., Mora, H., Pujol-López, F. A., & Lytras, M. D. (2019). Disruptive innovation of cryptocurrencies in consumer acceptance and trust. *Information Systems and e-Business Management*, 17(2–4), 195–222. <https://doi.org/10.1007/s10257-019-00415-w>
- Steinmetz, F. (2022). The interrelations of cryptocurrency and gambling: Results from a representative survey. *Computers in Human Behavior*, 138, 107437. <https://doi.org/10.1016/j.chb.2022.107437>
- Sukumaran, S., Bee, T. S., & Wasuzzaman, S. (2022). Cryptocurrency as an investment: The Malaysian context. *Risks*, 10(4), 86–102. <https://doi.org/10.3390/risks10040086>
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3375136](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3375136) <https://doi.org/10.2307/30036540>