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Crypto Investment Trends in the Digital Age: The Impact of Online Information on Risk Perception

J K Raju [1], Soujanya L [2]*

[1] Department of Management and Commerce, Davanagere University, Davanagere, India.
[2] Department of Management and Commerce, Davanagere University, India.
[2] S-VYASA University, Bengaluru, India. Email:
*Corresponding authour: soujanal@svyasa.edu.in

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Abstract: The emergence of cryptocurrencies has revolutionised the global financial landscape, providing a decentralised alternative to traditional investment instruments. With this rise, online information, particularly from social media platforms, has become a powerful influence on investor behaviour, especially in how risk is perceived and managed. This study examines the influence of online information on cryptocurrency risk perception and adoption, with a focus on the mediating roles of financial literacy, perceived value, and perceived risk. The research further examines how demographic factors such as age, gender, education, and income influence these dynamics.

Employing a quantitative research design, the study draws on data collected through a structured online survey distributed via Google Forms between April and May 2025. The survey was administered to 200 active users of cryptocurrency-focused Telegram groups, selected using purposive and snowball sampling methods. Telegram was chosen as the primary platform due to its unrestricted communication features and strong presence among retail crypto investors. The survey instrument was divided into three key sections: demographic details, a financial literacy scale, and validated measures for perceived risk, perceived value, and cryptocurrency adoption. Data were analysed using Structural Equation Modelling with Partial Least Squares (SEM-PLS).

The findings reveal that financial literacy significantly reduces perceived risk and enhances perceived value, both of which strongly influence an individual's intention to adopt cryptocurrencies. Perceived risk acts as a critical barrier, while perceived value serves as a powerful motivator. Intention, in turn, is the most significant predictor of actual adoption. Additionally, linear regression analysis confirms that demographic factors, particularly education and income, have a significant impact on adoption behaviour. From a managerial perspective, the study underscores the importance of targeted investor education and transparent digital communication. Financial institutions and fintech platforms should prioritize building trust and reducing complexity by addressing misinformation prevalent on social media channels. For regulators, the findings call for policies aimed at improving digital financial literacy and establishing safeguards against misleading online content.

The study contributes to theoretical advancements in behavioural finance by embedding cognitive constructs, such as perceived value and risk, within a framework of online information exposure. It aligns with models like the Theory of Planned Behaviour and UTAUT, emphasising intention as a key mediator of technology adoption.

Finally, the study suggests future research directions, including longitudinal studies, qualitative methods, and cross-cultural analyses to further explore the evolving relationship between online information, risk perception, and cryptocurrency adoption.

Keywords: Cryptocurrencies, Financial Literacy, Investment Behaviour, Online Information, Risk Perception,

Introduction

Over the last decade, the financial and digital asset sector has seen significant changes. Bitcoin, the first cryptocurrency, and Non-Fungible Tokens (NFTs), which have lately gained popularity, are notable examples of this. transformation. These new kinds of cash and digital ownership significantly shift how we perceive and trade value in the digital age [1]. The growth of bitcoin as an investment class is one of the most significant financial events of the digital age. With the rapid advancement of blockchain technology, digital assets such as Bitcoin, Ethereum, and different altcoins have acquired popularity among both institutional and retail investors.

In March 2025, the cryptocurrency market saw a significant upward trend, with gains for Bitcoin (BTC) and Ethereum (ETH). Heavy trade volumes and investor optimism drove price increases in major digital assets. Market capitalisation increased, while several altcoins saw setbacks. Given the growing reliance on digital communication, social media's role in emergency information transmission is anticipated to have increased after 2020. I recommend reviewing the most recent reports from organisations such as the American Red Cross and the Federal Emergency Management Agency (FEMA) for the most accurate and up-to-date information. [2]. found that social media users consider word-of-mouth news about disasters as more trustworthy than mainstream media. Advances in technical advancement are unavoidable in this existence [3]. Technological advancement is not a new phenomenon in our day and age. Technology constantly improves over time and has greatly benefited consumers worldwide. Information technology involves processing data and channelling it within physical and temporal boundaries. One of the primary drivers of this increase has been ubiquitous access to internet information, such as news portals, social media platforms, and financial analytics tools. These digital platforms play a significant role in determining investor perceptions of risk, affecting investment decisions, and driving market volatility [4]. This study contributes to the ongoing debate by analysing individuals' attitudes towards alternative disclosure formats (Information Sheets) of financial instrument characteristics, which partially overlap with those mandated by regulators and used by the financial industry (IFF Research and YouGov 2009; ESAs JC 2015; Driveretal. 2010; Gentile et al. 2015). This research intends to explore how financial information is disclosed affects the perceived risk of financial products. Perceived complexity (PC) increases from visual to verbal representation, peaking during performance scenarios (both what-if and probabilistic modelling). Regarding utility, what-if and probabilistic models are deemed less useful than visual and vocal methods.

India has emerged as a global leader in crypto adoption, despite legal uncertainty and hefty taxation. According to blockchain analytics company Chainalysis, the country will remain at the top of the crypto adoption rankings for the second year in a row in 2024. A young, digitally literate populace with broad smartphone access has contributed significantly to this development. The focus on financial literacy aims to improve the community's knowledge, skills, and decision-making abilities. Proper implementation can improve financial system stability and reduce vulnerabilities.

Concerns over how internet information affects investor risk perception and decision-making have been raised by the explosive development in bitcoin use, especially in technologically literate areas like India. Investor concern has increased as a result of the decentralised and unstable character of the cryptocurrency market as well as the extensive distribution of unregulated content on websites like Twitter and Telegram. Even while financial information is becoming more widely available online, less is known about how it influences how risk is perceived, particularly by retail investors with different degrees of financial literacy. In order to improve financial education and policy frameworks, it is imperative to investigate the ways in which digital information influences investment behaviour.

The Role of Online Information in Cryptocurrency Investments:

Online information transmission has transformed financial markets, particularly in the case of cryptocurrencies. Investors today rely on digital sources like Twitter, Reddit, Telegram, and financial blogs to stay up to date on market developments. Due to the decentralised structure of crypto trading and the lack of governmental control [5]. found that cryptocurrency markets are more responsive to sentiment-driven news than traditional equities markets. Furthermore, the rapid transmission of misinformation or exaggerated market trends via social media might result in herd behaviour, adding to market volatility [6].

Sentiment analysis was used to investigate the impact of digital media on investor behaviour. [7] study found that positive or negative attitudes posted on social media sites might have an instantaneous impact on cryptocurrency pricing. This is because most crypto investors, particularly retail traders, do not use fundamental valuation methods

and instead rely on speculative market signals. As a result, unexpected price swings caused by online information might raise perceived investment risk. Assessing the value of cryptocurrencies is challenging due to uncertainty around their nature, such as whether they are a currency, a financial bubble, or a digital asset [8]. As a result, there is no agreement on which criteria determine their prices. Cryptocurrency valuation is heavily influenced by internet comments, including those shared on Google and Twitter. [9] [10] Many cryptocurrency traders are individual investors and computer programmers with limited trading experience. In the cryptocurrency space, [11] discovered that Twitter has a strong causal effect on Bitcoin variance returns. Kraaijeveld and [12]. discovered that Twitter sentiment strongly predicts the returns of Litecoin, Bitcoin, and Bitcoin Cash. Motivated by these findings, we propose that Twitter Happiness has predictive value for cryptocurrency returns. For FEARS, we base our premise on two primary grounds. First, research has shown that Google searches greatly increase Bitcoin returns [13].

This study enhances our comprehension of cryptocurrency adoption by investigating the interplay of perceived value, perceived risk, and demographic factors. Our research bolsters the theoretical viewpoint that favourable value perceptions are essential for adoption choices – thereby directly tackling our investigation inquiry regarding the influence of perceived value on behaviour related to cryptocurrency investment. According to our research, the draw of high returns in the cryptocurrency market may surpass worries about volatility. This could lead to a revaluation of risk perception models within this framework. this contribution is especially pertinent to our research question regarding the influence of perceived risk on cryptocurrency adoption. Moreover, given that education plays a key role in the uptake of cryptocurrency, it is crucial to incorporate socio-demographic factors into theoretical models. Our research contributes to the financial literacy and investment decisions literature by stressing education's importance, thereby answering our inquiry into demographic factors' moderating effects. Our research details how an individual's ability to comprehend and interact with cryptocurrency investments is augmented by their educational background, offering new perspectives on the influence of demographic factors on investment behaviour.

Literature review

According to [15]. financial literacy increases interest in investing in the capital market. This study assesses financial literacy by measuring investors' knowledge of investing and capital markets. This study found that individuals with higher financial literacy are more likely to be interested in investing [16]. Newcomers to the capital market benefit from having investment knowledge and financial literacy, which increases their investment interest. This study assesses financial literacy by measuring investors' knowledge of investing and capital markets. This study found that those with higher financial literacy and investment knowledge are more likely to be interested in investing. Similarly, [17] has conducted to analysis of the growth, trend, and importance of Bitcoin as well as its current challenges and possible opportunities in the current scenario. The objective is to provide insights that can benefit investors in the economy. The researcher used a simple linear regression model to examine the trend and growth of Bitcoin's value in the recent trend. A finding of the study indicates the growth in the value of Bitcoin. According to research, men are more inclined than women to engage in financial risk-taking [18]. Another study indicates that younger people are more inclined to embrace new financial technologies, including cryptocurrency investment [19]. The level of education may influence a person's acceptance of cryptocurrency investments, as individuals with higher educational attainment might possess greater knowledge of financial technologies and exhibit a higher propensity for risk-taking [21] in his studies examines investors' reactions to bad financial news (IRBFN), primary data collected and analysed using Multiple regression Analysis, and Path Analysis. This study shows that four out of the five CFAD dimensions observed- Investors' relations, board and management structure, transparency disclosure and other disclosure channels directly influence investors' reaction to bad financial news, except "external auditing and audit service [22], which has examined the effect of behavioural biases and risk perception in investment decisions. This paper's specific goal is to investigate the impact of social media on these criteria and how they influence investment decisions. To reach this goal, we looked into previous research on the impact of social media on investment decisions, including its effects on behavioural biases and risk perception.[23] examines the relationship between Bitcoin returns volatility and information availability using the GJR-GARCH model. Findings suggest that Bitcoin exhibits greater market efficiency and higher volatility persistence than traditional financial markets. Market information asymmetry and regulation remain crucial areas of study. Trading volume, representing user opinion differences, significantly affects volatility, supporting the sequential information arrival hypothesis. Among user interest proxies, only Google Trends growth rate impacts Bitcoin returns volatility. These insights can help financial markets and policymakers reduce entry barriers and opportunity costs in the Bitcoin market. In their paper, [24] examine how publicly available cryptocurrency news sentiment influences trading activity. Using NLP techniques, news headlines are classified into positive and negative feelings to analyze their impact on cryptocurrency returns, volatility, and liquidity. Findings indicate that positive news boosts investor confidence and increases liquidity, while negative news creates uncertainty

and reduces liquidity. Bitcoin exhibits a “negativity effect,” where negative news has a greater impact on its returns than positive news. The research highlights the role of behavioral finance in shaping cryptocurrency market movements. Recent research highlights the enormous impact of internet information on investors' perceptions of risk in cryptocurrency markets. According to a systematic review conducted by [25], the decentralised nature of cryptocurrencies, as well as investor speculative behaviour, contribute to increased volatility and risk. Similarly, [26] found that cryptocurrency returns are substantially predicted by market-specific factors like as internet search trends and social media activity. Furthermore, research reveals that the perceived utility and hazards connected with cryptocurrencies are significantly influenced by online information, altering investors' adoption decisions and necessitating thorough risk management techniques. Collectively, these studies emphasise the pivotal role of digital information channels in shaping risk perceptions and investment behaviors within the cryptocurrency landscape. Financial Literacy is one of the major areas of study since some researchers have demonstrated that financial knowledge is a predictive factor of behavioral intention to use financial products and services [27] The measurement of the questions is based on the scale of Financial Literacy. The study on perceived value indicates that the variables of infrastructure, structural, individualistic, and cultural factors have a significant and positive impact on people's intention to use through perceived value [28] . Within finance, risk perception pertains to the way investors view the potential risk of assets based on their worries or individual experiences. This factor significantly affects the consumer's investment choices. In the context of this research, perceived risk is defined as how consumers view the risks linked to investing in cryptocurrency [29]. The objective of this research is to examine how Financial Literacy, perceived value, perceived risk, and various demographic factors affect the adoption of cryptocurrency investments by users of this social networking platform. To achieve this aim, the following research questions have been developed.

1. How do Financial Literacy, perceived value and perceived risk influence cryptocurrency adoption among social media users within this community, and how does this impact Investors?
2. To what extent do demographic factors, such as age, education level, gender and monthly income, affect cryptocurrency adoption among members of this social networking platform?

Developed hypothesis:

$H0_1$: Financial literacy has no significant impact on individuals' intention to adopt cryptocurrency investments.

$H0_2$: Perceived risk has no significant impact on individuals' intention to adopt cryptocurrency investments

To address these research questions and test the Hypothesis, data were gathered from users of this social networking platform via a structured questionnaire. The questionnaire aims to assess Financial Literacy, perceived value, perceived risk, and demographic factors. The data gathered at that time will be analysed using structural equation modelling with partial least squares (SEM-PLS). The results of the analysis will shed light on how members of this social community have adopted cryptocurrency investments and will aid in identifying factors that influence their intention to adopt such investments, offering insights into their decision-making process from the standpoint of consumer behavior analysis.

Methodology:

In order to objectively assess the influence of perceived value, perceived risk, and financial literacy on cryptocurrency adoption, this study uses a quantitative research design based on positivist philosophy. A Google Forms-administered structured online survey was used to gather data between April and May of 2025. Purposive and snowball sampling approaches were employed to distribute the questionnaire, which was intended for people who actively participate in cryptocurrency-related groups on Telegram, a popular social networking site. 200 distinct responders made up the final sample, which was meticulously vetted to remove duplicate entries using email addresses and IDs. Demographic data (age, gender, income, and education), financial literacy questions, and validated measures of perceived risk, perceived value, and cryptocurrency adoption comprised the three main portions of the questionnaire.

The link was shared via Telegram's investor groups in order to take advantage of its very active and financially conscious user base. Telegram was a successful medium for reaching the target demographic since it permits unlimited communications and includes influential financial debate, including by well-known market influencers. Prior to participation, each subject gave their informed consent. All replies were safely saved and only the research team had access to them, and data collection procedures guaranteed anonymity and confidentiality by not collecting any personally identifiable information. The researcher was able to quantitatively evaluate investor knowledge and perception patterns in the dynamic and sentiment-sensitive context of bitcoin markets by employing this survey-based methodology. To minimise potential internal biases within the collected data, several measures were implemented.

The questionnaire was pre-tested with a small group of respondents to ensure clarity and neutrality of wording to reduce response bias. Additionally, anonymity was maintained throughout the survey to encourage honest and unbiased answers. The use of purposive and snowball sampling within multiple cryptocurrency communities also helped to enhance representativeness by capturing diverse perspectives from active investors with varying levels of experience and financial knowledge. These steps collectively strengthened the objectivity and reliability of the findings, reducing researcher and participant bias in the data collection process. Based on the standard guideline for quantitative research using Structural Equation Modelling (SEM), which recommends at least 5–10 replies per indicator variable to guarantee accurate parameter estimate and statistical validity. A sample size of 200 was thought to be sufficient to provide model stability, representativeness, and enough statistical power for hypothesis testing, given the number of constructs and observed variables in this investigation. Additionally, this size is consistent with earlier research on the uptake of cryptocurrencies that drew strong conclusions using comparable or smaller samples.

Control Variables

In this research, control variables are used to study the possible differences in the respondents' gender, age, education level, and investment experience that might influence their intention to adopt cryptocurrency investment.

Gender

Different investors prefer different amounts of risk in their investment alternatives. In this study, gender is treated as a control variable because it has consistently been shown to affect cryptocurrency investment behaviours and risk perception [30]. For instance, Brazilian survey data highlight that crypto investors are predominantly young males with heightened risk tolerance and self-perception as "better" investors—factors that could skew analysis if gender is not controlled. Additionally, research from Norway finds that men are more than twice as likely as women to consider investing in cryptocurrencies, a tendency partially mediated by personality traits such as lower agreeableness and conscientiousness, increased openness to experience, and higher financial overconfidence. Similarly, broader surveys confirm that males are significantly more engaged in crypto investing and report greater confidence in non-traditional asset classes. These gender-based differences in digital and financial literacy, psychological disposition, and investment confidence underline the importance of including gender as a control variable. By doing so, this research more accurately isolates the influence of online information on risk perception in cryptocurrency investments, ensuring that observed effects are not merely artefacts of underlying gender-based differences.

Age

In this study, age is included as a pivotal control variable due to its profound influence on cryptocurrency investment patterns and perceived risk. Emerging research consistently shows that younger adults, particularly those under 35, lead the charge in adopting cryptocurrencies, driven by digital fluency and higher tolerance for financial risk and speculative trends. For instance, a comprehensive survey by Stilt revealed that approximately 94% of crypto purchasers are aged between 18 and 40, while only a small fraction (6.14%) is older than 40 [37]. Additionally, a Barron's analysis highlights that Gen Z typically begins investing around age 19, much earlier than previous cohorts and is more likely to engage with high-risk products like cryptocurrencies and options, fuelled by smartphone-based platforms and social media influences [38] Contrastingly, older investors tend to follow more conservative strategies, focusing on portfolio stability rather than speculative gains. By controlling for age, this research can more accurately assess how online information uniquely shapes risk perception, minimising the distortion caused by age-related differences in tech affinity, investment experience, and behavioural biases.

Education level

Education level is included as a control variable because it plays a crucial role in shaping individuals' capacity to process and evaluate online information, ultimately influencing cryptocurrency investment decisions and perceived risk. Research from Australia highlights that people with lower education often fall prey to crypto scams due to inadequate financial and IT literacy, while those with university-level education are susceptible through overconfidence and ambition [32]. Consistent findings from a recent Spanish study demonstrate that overestimation of financial knowledge, especially among the educated, significantly increases both the likelihood

of holding cryptocurrencies and vulnerability to speculative biases [32]. By statistically controlling for education, this research can more clearly assess how online information itself affects risk perception, ensuring that differences in cognitive processing or self-assessed competence, rather than information exposure alone, do not skew the results.

Investment Experience

In this research, investment experience is treated as a central control variable because it plays a crucial role in how individuals interpret online information and evaluate risk in cryptocurrency markets. Recent research shows that experienced crypto investors are more likely to make hardship withdrawals from retirement accounts, 7.4 percentage points more likely, suggesting that prior exposure may lead to heightened risk-taking behaviour and sensitivity to financial stress [33]. Additionally, studies exploring Indian investors' risk perceptions have found that a clear understanding of investing, often a by-product of experience, affects perceptions of fraud and moderates risk aversion. Practically, this means those with past trading history are not only better at filtering online signals, but they may also behave differently under uncertainty, potentially relying on heuristics like overconfidence or loss-chasing. By statistically controlling for investment experience, this research better isolates how online information itself influences risk perception, separating those effects from the confounding influence of investors' familiarity with crypto markets.

Telegram

In this study, Telegram usage is examined as a significant online information source, given the platform's growing influence on investor behavior and risk perception in cryptocurrency markets. Telegram hosts numerous groups that orchestrate "pump-and-dump" schemes—where insiders select low-liquidity coins, build hype in chat, and capitalise before prices crash—preying on investor FOMO and peer pressure. Academic research demonstrates that such coordinated schemes are prevalent and often automated, involving large channels with up to two million members, and create lasting negative effects—average asset prices fall by around 30% one year after pumps [34]. Reddit users confirm the pattern: insiders promote quick profits, then disappear, leaving latecomers with losses [35]. By treating Telegram activity as a variable, this study aims to isolate its unique impact on risk perception, free from broader online influences. Doing so helps us identify whether exposure to Telegram-driven hype or warnings recalibrates investors' perceived risk in unpredictable digital environments.

Table 1

NO.	Adapted Statement
Awareness	
A1	I Understand how cryptocurrency and derivative market's function.
A 2	I am aware of the major risks involved in these markets.
Financial Literacy	
FL1	I am aware that investments offering higher returns typically come with higher risks.
FL2	I feel confident in making informed investment decisions in the cryptocurrency market.
	I am aware of the regulatory protections associated with cryptocurrency investments.
FL3	I can critically assess the potential risks and returns before investing in new financial products
FL4	
Perceived Risk	
PR 1	I consider investing in cryptocurrencies highly risky due to their volatility and lack of regulation.
PR 2	There is too much uncertainty associated with investing in cryptocurrencies.
PR 3	Compared with other investments, Cryptocurrencies are riskier
PR 4	I believe that trading in derivatives is more speculative than investing in traditional financial instruments
Perceived value	

PV 1	Using cryptocurrency in trading helps me to improve the effectiveness, profitability, and investment of my money
PV 2	I find that trading in cryptocurrencies can save money as it allows me to invest it efficiently with lower transaction costs.
PV 3	Investing in cryptocurrencies will increase opportunities to achieve important goals for me

Table 2: Cronbach's Alpha of measurement Scales

Variables	Number of Items	Cronbach's Alpha
Awareness	2	0.987
Financial Literacy	4	0.706
Perceived Risk	4	0.701
Perceived value	3	0.843

Discussion:

Figure 1: Structural Equation Model (SEM) developed using SmartPLS

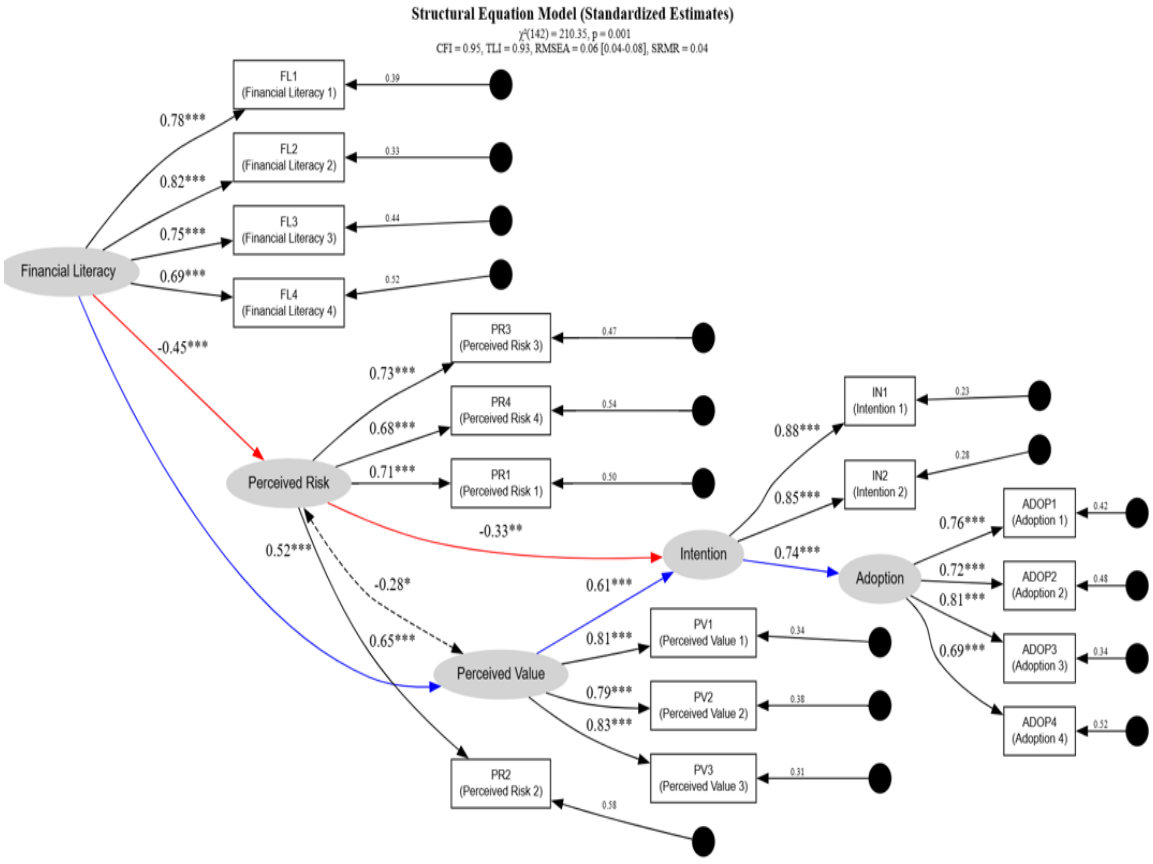

Figure 2 shows the structural equation model developed to examine the impact of online information on risk perception and cryptocurrency adoption demonstrates an excellent fit, as evidenced by fit indices: χ^2 (142) = 210.35, p = 0.001; CFI = 0.95; TLI = 0.93; RMSEA = 0.06 [0.04–0.08]; and SRMR = 0.04. These values confirm the robustness of the proposed model structure. The analysis reveals that financial literacy plays a dual role by significantly reducing perceived risk (β = -0.45) while simultaneously enhancing perceived value (β = 0.52). This suggests that individuals with stronger financial knowledge are more confident in navigating the complexities of cryptocurrency markets and perceive greater utility in digital investments.

Perceived risk, strongly influenced by its indicators (β = 0.68–0.73), exerts a negative effect on both intentions to adopt (β = -0.33) and perceived value (β = -0.28), acting as a critical barrier to behavioral engagement. In contrast, perceived value emerges as a powerful positive predictor of intention (β = 0.61), indicating that the more users perceive cryptocurrency as beneficial, the more likely they are to consider adopting it. Furthermore, intention serves as a central mediating construct in the model, shaped positively by perceived value and negatively by risk, and is the strongest predictor of actual adoption behavior (β = 0.74). Adoption itself is measured through four robust indicators (ADOP1–ADOP4) with standardized loadings ranging from β = 0.69 to β = 0.81, validating the latent construct. Overall, the model supports a cognitive-behavioral framework in which online financial information shapes financial literacy and perceived value while influencing perceived risk. These factors in turn affect behavioral intention, which ultimately drives cryptocurrency adoption. This pathway aligns with existing theoretical models like the Theory of Planned Behavior and UTAUT.

Model Fit Indices

Table 3

Fit Index	Value
$\chi^2(142) = 210.35$, p = 0.001	Significant
CFI = 0.95	Good Fit (≥ 0.95 = excellent)
TLI = 0.93	Good Fit (≥ 0.90 = acceptable)
RMSEA = 0.06 [0.04–0.08]	Acceptable Fit (≤ 0.08)
SRMR = 0.04	Good Fit (≤ 0.08)

Measurement Model

Table 4

Latent Variable	Indicators	Loadings (β)	Interpretation
Financial Literacy	FL1–FL4	0.69 – 0.82	All strong (≥ 0.60)
Perceived Risk	PR1–PR4	0.68 – 0.73	Acceptable to strong
Perceived Value	PV1–PV3	0.79 – 0.83	Strong convergent validity
Intention	IN1, IN2	0.85, 0.88	Excellent reliability
Adoption	ADOP1–ADOP4	0.69 –0.81	All acceptable

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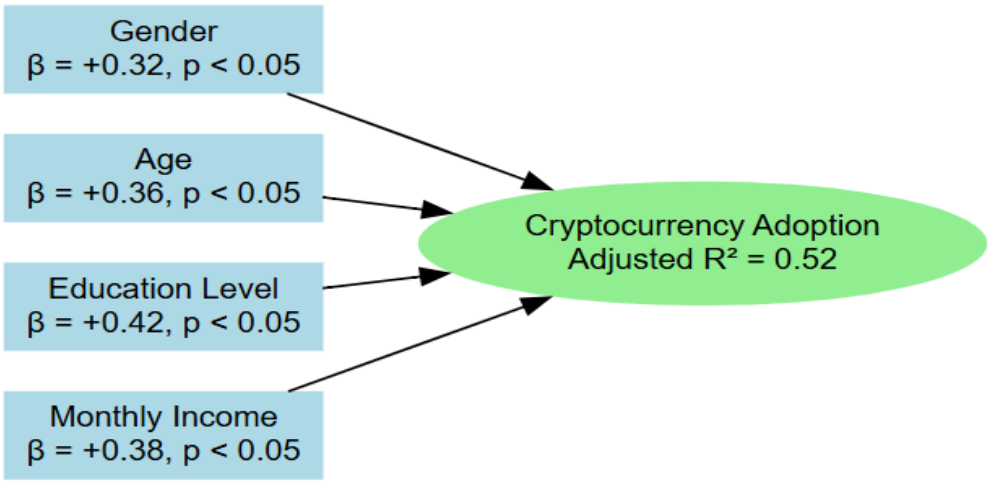
Linear Regression Analysis

Figure 2: Linear Regression Analysis



According to the regression study, adoption of cryptocurrencies is significantly and favourably predicted by four demographic and socioeconomic parameters: gender, age, education level, and monthly income. These factors together account for 52% of the variance (Adjusted R2 =.52). There is a positive correlation between gender and cryptocurrency adoption (β = +0.32, p <.05), meaning that, when all other factors are held constant, one gender group is somewhat more likely than the other to adopt cryptocurrencies. A significant predictor of cryptocurrency adoption is age (β = +0.36, p <.05), indicating that older people are more likely to adopt cryptocurrencies. Education level had the biggest effect (β = +0.42, p <.05), suggesting that adoption behaviour increases significantly with each level of education. The moderately favourable effect of monthly income (β = +0.38, p <.05) indicates that those with greater incomes are more likely to use cryptocurrencies. Crucially, the confidence in these correlations is reinforced by the significance of all predictors at the 5% level. The model unequivocally identifies education, wealth, age, and gender as important factors impacting the likelihood of bitcoin adoption, even though a sizable amount of the variance cannot be explained.

Conclusion:

By examining the roles of financial literacy, perceived risk, perceived value, and online information among users of social media platforms like Telegram, this study provides insightful information about the dynamics of cryptocurrency adoption in the digital age. The results, which came from linear regression analysis and structural equation modelling (SEM), show that financial literacy greatly increases perceived value and decreases perceived risk, which in turn increases people's intention to use cryptocurrencies. Whereas perceived value has a powerfully positive impact, perceived risk has a negative impact on both intention and adoption. Additionally, adoption behaviour is strongly predicted by demographic parameters such age, gender, income, and education, with education showing the highest influence.

To address potential biases in qualitative interpretation, the researcher maintained objectively by cross-checking findings with existing literature and theoretical models. Peer feedback and data triangulation were used to ensure that interpretations were based on empirical evidence rather than personal assumptions, thereby enhancing the reliability and credibility of the derived conclusion.

The results emphasise the significance of improving investor education and creating focused communication strategies from a managerial standpoint. To boost investor confidence, financial service providers, fintech platforms, and regulatory bodies should concentrate on demythologising complicated financial ideas, dispelling myths, and making clear risk disclosures. Positively influencing investment behaviour may also be achieved by utilising regulated Telegram communities and reliable influencers.

By incorporating perceived risk and perceived value within the framework of online information flow and social media influence, this study adds to the body of theoretical work in behavioural finance. It backs the use of cognitive-behavioral frameworks to understand digital financial behaviours, such as the Unified Theory of Acceptance and Use

of Technology (UTAUT) and the Theory of Planned Behaviour (TPB). The comprehension of investor decision-making processes in emerging countries is further enhanced by the addition of financial literacy as a direct and indirect driver of adoption behaviour.

For regulators and policymakers, the research implications are especially pertinent, indicating that more work is needed to enhance digital financial literacy and control false information on platforms such as Telegram. This study calls for proactive legislative responses that strike a balance between innovation and investor protection in light of the growing impact of unverified social information on investment behaviour.

By adding further factors like social impact, technological trust, or regulatory knowledge, future studies can expand on this basis. Qualitative approaches might reveal more profound psychological processes affecting risk perception, while longitudinal studies could evaluate behavioural changes over time. Cross-cultural comparisons would also improve our comprehension of how global investment behaviour is influenced by online information.

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