

# Behavioral Intentions Toward Cryptocurrency Transactions: Exploring Through Snowball Sampling Among Users

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## Abstract

**Background:** Cryptocurrency is a digital decentralized currency that enables peer-to-peer transactions without the involvement of intermediaries, using blockchain technology to ensure security and transparency. These emotions can help understand when and what behavioral intentions toward cryptocurrency adoption are necessary. These insights contribute to the growing literature on fintech adoption in emerging economies and provide valuable guidance for policymakers and investors formulating cryptocurrency regulations in Nepal.

**Objectives:** It aims to investigate the influence of perceived usefulness, perceived ease of use, trust, and perceived risk constructs attached to an individual's intention to be involved in cryptocurrency transactions. It finally aims to study the relationships among these variables and their effect on cryptocurrency adoption in the Nepal context.

**Methods:** The study uses a quantitative descriptive design and snowball sampling alone to extract information from cryptocurrency users in Nepal. A structured online questionnaire was used to gather 272 responses and analyzed using correlation and regression to investigate the significance of the proposed hypotheses.

**Results:** Findings show that perceived usefulness, ease, or trust significantly and positively influence behavioral intention toward cryptocurrency adoption, while perceived risk harms adoption because users worry about market volatility, regulatory uncertainty, and security threats. Despite the government's legal restrictions, many Nepalese citizens are still involved in cryptocurrency transactions, seeing it as a source of financial benefit and investment opportunity.

**Conclusion:** The study attests that perceived usefulness, perceived ease of use, and trust motivate behavior toward adopting cryptocurrency, while perceived risk provides a barrier. This enlightens policymakers on balanced regulatory measures that address risks while encouraging innovation in digital finance. These findings would provide valuable implications for policymakers, financial institutions, and technology developers in outlining the future of cryptocurrency regulation and adoption strategies.

**Keywords:** Behavioral intention, cryptocurrency, perceived usefulness, trust, perceived risk

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## Introduction

The fast development of financial technology has largely transformed the world's financial landscape, with cryptocurrencies being a disruptive innovation. Cryptocurrencies such as Bitcoin and Ethereum use decentralized blockchain technology, thereby doing away with the use of intermediaries such as banks and financial institutions (Nakamoto, 2008). Cryptocurrencies have increasingly become popular since their introduction, owing to their anticipated advantages, which are lower transaction costs, improved security, as well as anonymity. But the use of cryptocurrencies varies significantly in different parts of the world, depending primarily on regulatory environments, levels of technological awareness, and perceived risk (Böhme et al., 2015). The current study investigates users' behavioral inclinations regarding cryptocurrency transactions, with specific reference to the context of Nepal, where user attitudes and regulatory hurdles are key determinants.

The history of cryptocurrency can be traced to the year 2009 when Bitcoin, a decentralized peer-to-peer payment network (Nakamoto, 2008), was introduced. In comparison to conventional banking systems, cryptocurrency transactions are processed using blockchain technology, which makes them transparent, secure, and immutable (Antonopoulos, 2017). Whereas electronic payment systems enabled by conventional financial institutions tend to have intermediaries, cryptocurrencies provide a cheaper and more inclusive alternative that eliminates intermediaries (Fauzi et al., 2020). But the fluctuation in the price of cryptocurrencies, security concerns, and the possibility of illicit activities have prompted skepticism and regulatory actions in most nations, including Nepal (Houben & Snyers, 2018).

In Nepal, cryptocurrency transactions are prohibited under the Foreign Exchange Regulation Act (2019), classifying them as illegal financial instruments. Despite such legal restrictions, the number of people in Nepal getting involved in cryptocurrency transactions is growing, indicating a gap between regulatory systems and user activities (Nepal Rastra Bank, 2021). The prevailing regulatory ambiguity poses immense challenges to investors, policymakers, and financial institutions in ascertaining the legality and way forward of cryptocurrencies within the nation. Moreover, the absence of tools meant for consumer protection, as well as a lack of knowledge about the risks associated with cryptocurrencies, increases their adoption (Kshetri, 2021). Explaining the behavioral intentions of cryptocurrency transactions entails examining key psychological and technological variables that shape user decision-making behavior. The Technology Acceptance Model (TAM) posits that perceived usefulness and ease of use are important predictors of technology adoption (Davis, 1989). Specifically, users will adopt digital currencies when they find them easy to use and useful for enabling financial transactions (Venkatesh et al., 2003). Further, trust and perceived risk play an incredible role in the rates of adoption. Based on studies, individuals with greater trust in blockchain technology and less perceived risk are more likely to use cryptocurrencies (Gefen et al., 2003).

Although numerous studies have concentrated on the adoption of cryptocurrencies in developed economies, studies targeting emerging economies like Nepal are scarce. Existing studies have also centered primarily on technological and regulatory dimensions, with less attention to consumer attitudes and behavioral drivers that affect cryptocurrency adoption (Folkinshteyn & Lennon, 2016). The purpose of this research is to fill the existing gap by examining the behavioral intentions of the users of cryptocurrencies in Nepal, thereby offering information that can assist policymakers, financial institutions, and technology developers in making future adoption strategies and regulations.

In Nepal, cryptocurrency usage is presently categorized as illegal pursuant to the Foreign Exchange Regulation Act of 2019 that imposes a ban on foreign currency along with non-sovereign digital asset-based transactions. There have been various advisories issued by the Nepal Rastra Bank to strengthen this ban (Dhungana, 2022). Notwithstanding the prevailing regulatory approach, cryptocurrencies continue to gain appeal among Nepali people, particularly young and technologically literate citizens. A large

number of them are actively involved in peer-to-peer transactions and investment through decentralized platforms (Paudel & Baral, 2023). Such a paradoxical situation invites some pertinent questions: why would individuals use a financial instrument without legal status, and why would they want to circumvent traditional banking channels for interaction with crypto-assets? Research undertaken at an international scale has identified that behavioral aspects, including perceived usefulness and ease of use, are significant determinants of individuals' intention to use cryptocurrencies (Arias-Oliva et al., 2019). Furthermore, trust in the system and the technology underpinning it is critical in influencing individuals' decisions to invest or make payments using cryptocurrencies, particularly in settings where there is limited regulatory clarity (Alqaralleh et al., 2021).

In the Nepalese context, where there are legal restrictions coupled with growing popular interest, the issue is whether users see these risks and whether trust and perceived utility overcome the challenges. This study attempts to investigate such behavioral dynamics through the following research questions: (1) Do perceived ease of use and perceived usefulness influence users' intentions to use cryptocurrency? (2) Does perceived risk have an impact on investment in cryptocurrency? (3) Does trust have a strong relationship with behavioral intentions towards cryptocurrency?

This study will evaluate the attitudes of the public regarding cryptocurrency adoption in Nepal's illicit environment, with three primary objectives. First, it will establish the position of behavioral intentions of Nepalese users towards cryptocurrency transactions, addressing a significant gap in the literature of emerging economies (Kshetri, 2021). Second, extending the Technology Acceptance Model (Davis, 1989), this research explores the influence of perceived usefulness (PU) and perceived ease of use (PEU) on informing adoption choices in a setting with legal limitations (Folkinshteyn & Lennon, 2016). Furthermore, it looks at the dual function of trust (T) in blockchain networks (Gefen et al., 2003) and perceived risk (PR) under market fluctuation and regulation uncertainty (Xie, 2022) in influencing users' behavior. By exploring such interconnected drivers through snowball sampling - a necessity owing to Nepal's crypto ban (Nepal Rastra Bank, 2021) - the study provides evidence-based recommendations for developing holistic regulatory frameworks in light of both technological potential and financial issues.

The global advancement of cryptocurrency has had a contradictory impact in Nepal, where they are prohibited in the Foreign Exchange Regulation Act (Nepal Rastra Bank, 2019), yet it is gaining massive traction. While various other countries have begun adopting cryptocurrency as money and an asset in the world of the web (International Monetary Fund, 2023), Nepal's tradition-oriented approach has created a unique platform where its users are at a state of legal ambiguity. This study stems from interrogating questions regarding this paradox: Why are Nepalese citizens still adopting cryptocurrency despite legal prohibition? Could regulated integration improve individual economic status and national income (World Bank, 2022)? The study is particularly urgent given the democratizing potential of cryptocurrency in a nation where 45% of adults remain unbanked (Asian Development Bank, 2023). Through examining socio-economic reasons for taking up crypto - e.g., work for cerebral returns rather than usual labor (Tapscott, 2022) - this study provides essential data for policymakers to weigh whether current bans are effective, or whether a controlled strategy may be able to harness the potential of crypto with less risk (Gurung et al., 2023). The findings will inform existing global debates about how best to harmonize financial innovation with consumer protection in emerging markets.

## **Review of Literature**

A comprehensive review of the literature is crucial in understanding the behavioral intentions that are manifested by cryptocurrency users and the determinants that drive their adoption. This chapter provides a conceptual framework, presents empirical evidence, and establishes gaps in the literature that warrant the undertaking of this research.

The Technology Acceptance Model (TAM), created by Davis in 1989, explains that there are two significant determinants of technology adoption: perceived usefulness (PU) and perceived ease of use (PEU). PU is the individual's perception that using a technology will enhance his or her performance or bring substantial advantages, whereas PEU is the degree to which he or she perceives the technology as being easy to use. There have been various attempts to apply TAM in cryptocurrency, with studies showing that people are more likely to use digital currencies if they perceive them as useful and easy to use (Kim, 2017).

Building on the Technology Acceptance Model (TAM), Venkatesh et al. (2003) constructed the Unified Theory of Acceptance and Use of Technology (UTAUT), integrating other variables like social influence and facilitating conditions. Social influence describes the degree to which individuals perceive that others expect them to use technology, whereas facilitating conditions describe the external resources and infrastructure conducive to adoption. Both social and regulatory contexts are found to have a significant impact on cryptocurrency adoption (Gupta, 2022).

Featherman and Pavlou (2003) described various kinds of perceived risks, such as financial, security, and legal risks, all of which are especially relevant in the context of cryptocurrency transactions. Because of the intrinsic volatility, decentralization, and prevalent lack of regulation in most areas, investment loss concerns, scams, and regulatory fines have a strong influence on user adoption (Xie, 2022).

Gefen et al. (2003) suggested that technology trust, service trust, and transaction security influence adoption decisions. For cryptocurrency, trust is associated with blockchain security, exchange websites, and government oversight (Humayun & Belk, 2024). Individuals will engage in digital cash if they find the system transparent, secure, and free from manipulation (Krombholz, 2021).

Folkinshteyn and Lennon (2016) discovered that most individuals take up cryptocurrency mainly for investment potential and financial freedom, but are deterred by security concerns and legal uncertainty as significant barriers. Kim (2017) demonstrated that perceived usefulness plays a fundamental role in the adoption of cryptocurrency, particularly in areas with poor access to conventional banking services. Mazambani and Mutambara (2019) noted that perceived ease of use is a key determinant because cumbersome platforms discourage novice users from participating in cryptocurrency transactions. Humayun and Belk (2024) emphasized that blockchain technology and crypto exchange trust are essential adoption drivers. (Krombholz, 2021) surveyed 1,775 Bitcoin users and stated that although the majority of users have trust in the security of the blockchain, there are still vulnerabilities on exchange sites and hacking activity issues. Xie (2022) juxtaposed regulations in China and the USA of cryptocurrencies and concluded that regulatory uncertainty significantly increases perceived risk and causes discouragement of adoption. Gupta (2022) studied the adoption of cryptocurrency in India, where there are regulatory ambiguities, and established that the majority of users continue to be active in cryptocurrency despite hazards, driven by prospective earnings. Sas and Khairuddin (2016) clarified that early adopters of cryptocurrency value financial autonomy and decentralization, yet price fluctuations and lack of consumer protection hinder widespread adoption. The Nepal Rastra Bank (2021) has explicitly banned cryptocurrency transactions; however, the illicit trade is ongoing via peer-to-peer (P2P) platforms, which reflects the presence of an unsafe and unregulated black market.

These works demonstrate that while the adoption of cryptocurrency is led by perceived benefits and technological ease, trust and risk considerations remain crucial. However, there has been scant research on Nepalese users, particularly in an environment where cryptocurrency is prohibited by law.

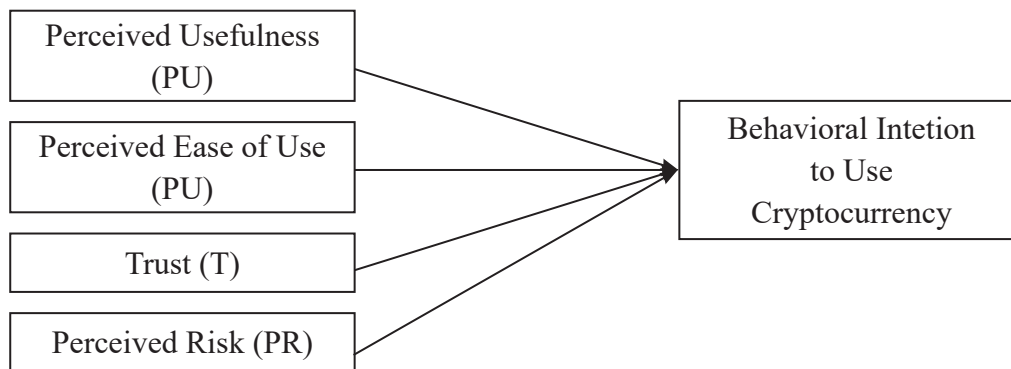
Despite extensive studies on cryptocurrency adoption worldwide, there remain some research gaps that this research attempts to bridge. Lack of sufficient studies on the users of cryptocurrency in Nepal. Most studies have touched on cryptocurrency adoption among countries where cryptocurrencies are



either legal or at least partially regulated. Cryptocurrency trading is strictly forbidden in Nepal, thereby presenting a unique adoption scenario that has been less studied. There is a scarcity of research that employs snowball sampling. Most of the existing studies have utilized random or convenience sampling, usually in environments where cryptocurrency trading is prevalent. Given the clandestine nature of Nepal's cryptocurrency market, snowball sampling is a better approach to access genuine users. Limited integration of risk and trust considerations in legal limitation markets, as numerous studies have tested perceived ease of use and perceived usefulness, but few have addressed the relationship between trust, perceived risk, and adoption in legally constrained contexts. The analysis of how Nepalese users view these aspects can provide fresh insight into trends in cryptocurrency adoption. By examining these limitations, this research provides novel evidence on the behavioral intentions of Nepalese crypto-users, thereby contributing to the wider literature on digital financial technologies in constrained economies.

### Theoretical Framework in Cryptocurrency Adoption

Various theoretical models account for the adoption of cryptocurrencies; for example, the Technology Acceptance Model (TAM) is based on the notions of perceived usefulness (PU) and perceived ease of use (PEU) (Davis, 1989). Trust and social influence were therefore added to it by the contemporaries: Venkatesh et al. (2003). Further on, that is, in the immediate past, as cited by Venkatesh et al. (2012), the introduction of effort expectancy and the facilitating conditions into the Unified Theory of Acceptance and Use of Technology (UTAUT) emerged. One of the ground-breaking theories of adoption is the Diffusion of Innovations (DOI), which considers early adopters to be influential (Rogers, 2003). Finally, it is possible to view the adoption intent through the Theory of Planned Behavior (TPB). Here, the argument is that the three components of attitude, subjective norm, and perceived behavioral control can predict the intention to adopt (Ajzen, 1991).



### Behavioral Intention to Use Cryptocurrency

The perception of trust and risk, usefulness, and ease of use influence users' behavioral intentions toward cryptocurrency adoption or rejection for transactions. Perceived usefulness is a perception that cryptocurrency would help users financially by keeping transaction costs low and providing global access (Davis, 1989). Perceived ease of use plays an equally important role in determining whether the users consider cryptocurrency a convenient way to do transactions or whether they associate it with difficulty—thereby affecting adoption (Venkatesh & Davis, 2000). It is, however, trust that bridges these two behavioral constructs; trust in blockchain security and trust in platform reliability foster usage (Gefen et al., 2003). These models face contextual limitations. While TAM (Davis, 1989) effectively explains individual adoption in open markets, Nepal's legal prohibition creates unique systemic barriers (Shrestha & Dhakal, 2023). Similarly, UTAUT's 'facilitating conditions' (Venkatesh et al., 2003) assume institutional support—a mismatch with Nepal's criminalized environment, where users rely on peer networks (Khatiwada et al., 2023). This study adapts these frameworks by incorporating prohibited-

context moderators. In contrast, perceived risk is an opposing force negatively impacting behavior due to risks of volatility, fraud, and regulatory uncertainties (Featherman & Pavlou, 2003). Despite legal restrictions in Nepal on the use of cryptocurrency, a large group remains to weigh its benefits versus the risks (Folkinshteyn & Lennon, 2016). These sets of factors are therefore essential to give an insight into the forecasts on adoption and factors that influence regulation in the future.

### **Perceived Usefulness (PU)**

Perceived usefulness refers to the degree to which a user believes that using a particular technology enhances their performance. Research shows that users adopt cryptocurrencies due to their ability to facilitate low-cost, borderless transactions (Fauzi et al., 2020). Studies by Kshetri (2021) indicate that cryptocurrency adoption is driven by its potential to provide financial inclusion in unbanked regions. Furthermore, recent studies highlight that the adoption of cryptocurrency in e-commerce and cross-border remittances is increasing due to its speed and cost-effectiveness (Gomber et al., 2018).

***H1:** There is a significant relationship between the perceived usefulness and intentions of users toward cryptocurrency.*

### **Perceived Ease of Use (PEU)**

The perceived ease of use relates to the level of effort to use cryptocurrency. More user-friendly interfaces and simplified transaction processing favorably influence adoption rates (Gefen et al., 2003). However, research shows the technicalities remain a hindrance for novice users (Folkinshteyn & Lennon, 2016). The research also shows that a lack of educational resources and technical support can inhibit new users from using cryptocurrency platforms (Mallat, 2007). To overcome these obstacles, developers of cryptocurrencies have begun implementing mobile-friendly apps with simpler user experiences to better enhance accessibility.

***H2:** There is a significant relationship between Perceived Ease of Use and the intention of users toward cryptocurrency.*

### **Trust (T)**

The adoption of cryptocurrencies is heavily reliant on trust in terms of security, fraud, and undefined regulatory criteria (Houben & Snyers, 2018). Those who trust the technology of blockchain and decentralized finance processes are likely to be more willing to trade in cryptocurrencies (Gefen et al., 2003). According to research (Nakamoto, 2008), the transparency and immutability of the blockchains increase user confidence. Lastly, trust is molded also by media coverage and governmental attitudes toward cryptocurrency regulation affecting public perception (Lustig & Nardi, 2015). Studies believe that an institutional adoption of blockchain technology could serve to create greater trust and wider acceptance (Walch, 2017).

***H3:** There is a significant relationship between Trust and the intention of users toward cryptocurrency.*

### **Perceived Risk (PR)**

Risk as perceived is defined as the likelihood of a negative event that, among other things, threatens security for the user, with price volatility and legal uncertainty following close behind (Kim, 2018). Empirical evidence, on the other hand, states that adoption intent is negatively affected by high levels of perceived risk (Kshetri, 2021). Furthermore, some studies point out, for example, that a lack of insurance cover for cryptocurrency investments and hacking incidents serve to amplify risks in the minds of potential investors (Böhme et al., 2015). Then again, some investors are willing to adopt cryptocurrencies due to their high return potential and the diversification benefits they offer in the investors' portfolios (Corbet et al., 2019).

**H4:** There is a significant relationship between Perceived Risk and the intention of users toward cryptocurrency.

It can be gathered from the literature that perceived usefulness, ease of use, trust, and perceived risk are some of the critical factors influencing the adoption of cryptocurrencies. Though blockchain technology promises security and efficiency, regulatory challenges and security issues have been critical determinants of adoption trends. The current study endeavors to empirically test the above hypotheses in the context of Nepal, thus providing some insights for policymakers and financial institutions. Future studies should assess regulatory clarity, technological updates, and demographics as other evaluating factors for cryptocurrency adoption.

## **Materials and Methods**

The methods used to carry out this study on behavioral intention toward cryptocurrency transactions in Nepal. The research design, sources of data, procedures for data collection, sampling techniques, research instrumentation, and procedures for data analysis are discussed. While keeping in view the legal restrictions on cryptocurrency transactions in Nepal, this study uses a descriptive research design to explore user perceptions and behaviors in an unregulated financial environment.

### **Research Design**

The descriptive research design is used to study the behavioral intentions of Nepalese cryptocurrency users. It consisted of a survey method through a structured questionnaire to measure key variables like perceived usefulness, ease of use, trust, and perceived risk. To maintain anonymity and accessibility, the online questionnaire was used via Google Forms. A total of 272 responses were received from people with prior experience in cryptocurrency transactions. Given the illegal nature of cryptocurrency transactions in Nepal (Nepal Rastra Bank, 2021), a non-probability sampling technique was applied in snowball sampling where respondents are reached through referrals. This allowed access to participants who were trading in cryptocurrency while maintaining confidentiality.

### **Population and Sample**

As individuals residing in Nepal with experience in using cryptocurrency for trading, investing, or digital transactions, this study's targeted population involves 272 respondents who have been sampled through snowball sampling and are involved in cryptocurrency transaction activities. The approximate total population of cryptocurrency users in Nepal is currently unknown, due to the absence of official data or registry, as the Nepal Rastra Bank prohibits cryptocurrency transactions. However, estimates suggest a growing underground community, particularly among youths and digital entrepreneurs (Dhungana, 2022). Users are identified through referrals within cryptocurrency communities and online groups.

### **Nature and Sources of Data**

The study mainly relies on the primary data in the form of a structured close-ended questionnaire and data sources have also been consulted to enhance the validity of the study, including Cryptocurrency-related research articles and journals, Coin Market Cap and security token databases, Blockchain and crypto-wallet transaction records, and Regulatory guidelines from Nepal Rastra Bank (NRB, 2021).

### **Sampling Method**

Due to the legal constraints on cryptocurrency transactions, it was found that the non-probability sampling technique was preferable in Nepal. Snowball sampling was the most suitable method of involving respondents, whereby they referred other users of cryptocurrency in their network to participate. This was needed since the peer-to-peer and encrypted online groups are exposing the cryptocurrency traders in Nepal to operate discreetly. Concerning access to the research study, it can also be said that

it is quantitative and that data was collected through the use of questionnaires that were given to the respondents in the survey for purposes of identification.

### Data Collection Procedure

Data collection was conducted exclusively online to ensure participant anonymity and security. The structured questionnaire was distributed via Encrypted email referrals, Cryptocurrency discussion forums, and Private online messenger groups (Telegram, WhatsApp, TikTok, Instagram, LinkedIn). All 272 participants had direct experience in cryptocurrency trading, blockchain transactions, or digital asset management. Responses were collected over three months, ensuring sufficient sample representation.

### Data Analysis

It was analyzed using statistical quantitative methods. Demographic analysis analyzed respondents based on age, sex, family type, profession, monthly income, and marital status as factors in exposure to cryptocurrencies. Correlation analysis looks at the interaction among dependent and independent variables, while regression and ANOVA analysis test for influence. Data processing and hypothesis testing were done using SPSS and Excel.

### Reliability and Validity

Validity and reliability of the survey questionnaire were ensured through a systematic process. Internal consistency was established using Cronbach's alpha, with all constructs meeting the minimum threshold of 0.70, indicating reliable measurement (Hair et al., 2019). For content validity, the questionnaire was expert-checked by industry and academic experts, and it was ensured that the items accurately represented the conceptual framework of the study.

### Results and Discussion

This section presents the data analysis of the study's conclusion. Demographic details and content analysis are presented here.

**Table 1**

*Demographic Profile of Respondents*

Demographic variable	Classification	Frequency	Percentage
Family Type	Nuclear	188	69.1
	Joint	84	30.9
Monthly Income	Below 25000	72	26.5
	25000-50000	64	23.5
	50000-75000	106	39.0
	75000 above	30	11.0
Gender	Female	110	40.4
	Male	162	59.6
Marital Status	Married	242	89.0
	Unmarried	30	11.0
Occupation	Business	72	26.5
	Employee	64	23.5
	Self-Employee	106	39.0
	Student	30	11.0



*Note:* Online survey data collection by snowball sampling.

Table 1, 69.1% of respondents belong to nuclear families, while 30.9% belong to joint families, therefore, nuclear family individuals are believed to exercise financial autonomy in cryptocurrency acceptance. In income brackets, 39.0% are between NPR 50,000-75,000 incomes, which makes them the largest group of cryptocurrency users, while 26.5% earn below NPR 25,000. This shows that the middle-income group is more into cryptocurrency investments. Gender-wise, 59.6% are male and 40.4% female, indicating greater male participation, though female participation is commendable. In terms of marital status, it is hinted that 89.0% of users are married, whereby the adoption may be driven by long-term financial planning. Data on occupation reveals that 39.0% there to be self-employed, with preference given to business owners at 26.5%, and employees at 23.5%, which suggests that entrepreneurs and professionals view cryptocurrencies as avenues for investment. In conclusion, it can be noted that, in Nepal, the most active cryptocurrency users are middle-income people, self-employed males from nuclear families.

**Table 2**

*Correlation matrix of dependent variables and independent variables*

		agg_PU	agg_PEU	agg_T	agg_PR	agg_BI
agg_PU	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	272				
agg_PEU	Pearson Correlation	0.725**	1			
	Sig. (2-tailed)	0.000				
	N	272	272			
agg_T	Pearson Correlation	0.700**	0.685**	1		
	Sig. (2-tailed)	0.000	0.000			
	N	272	272	272		
agg_PR	Pearson Correlation	0.051	0.228**	0.087	1	
	Sig. (2-tailed)	0.403	0.000	0.153		
	N	272	272	272	272	
agg_BI	Pearson Correlation	0.502**	0.503**	0.512**	0.357**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	
	N	272	272	272	272	272

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* A correlation is statistically significant if it's "Sig. (2-tailed)" < 0.05.

The correlation matrix presents an understanding of how dependent variables (behavioral intention) relate to independent variables (perceived usefulness, perceived ease of use, trust, and perceived risk).

The results indicate a strong positive correlation between PU and BI ( $r=0.502$ ,  $p<0.01$ ) because the more useful it is perceived, the more probable it will be adopted by users, while the PEU score has a correlated result with BI ( $r=0.503$ ,  $p<0.01$ ) wherein users adopt cryptocurrencies for being easily understandable and operable. User confidence in blockchain security, crypto exchanges, and financial transactions has the most effect on this adoption because trust (T) has the strongest correlation with BI ( $r=0.512$ ,  $p<0.01$ ). However, participation in perceived risk (PR) has a negative but moderate correlation with BI ( $r=0.357$ ,  $p<0.01$ ), which means that if an individual understands risky factors, such as security, fraud, and regulation concerns, the chances of adoption are lower.

Thus, it can be understood that PU and PEU are extremely correlated, with PU correlating with PEU at  $r=0.725$ ,  $p<0.01$ ; that is to say, those cryptocurrencies perceived as useful are also perceived as easy to use. Trust has a strong correlation with PU ( $r=0.700$ ,  $p<0.01$ ) and PEU ( $r=0.685$ ,  $p<0.01$ ), indicating a tendency that when they find cryptocurrencies beneficial and simple, users will be open to the adoption of cryptocurrencies. The correlation analysis endorses perceived usefulness, perceived ease of use, and trust as determinants of behavioral intention, while perceived risk exhibits a negative influence on adoption. These results reiterate the need for an adoption-ready, secure, user-friendly, and trustworthy cryptocurrency platform.

**Table 3**

*Regression between independent variables and dependent variables*

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate
1	0.636a	0.405	0.396	0.55806

a. Dependent Variable: agg\_BI

b. Predictors: (Constant), agg\_PR, agg\_PU, agg\_T, agg\_PEU

The proper analysis shows the correlation to be moderate to strong ( $R = 0.636$ ) between the independent variables, i.e., perceived usefulness, ease of use, trust, and perceived risk, and behavioral intention to adopt cryptocurrency. The model accounted for 40.5 percent variance in behavioral intention, with an R-squared value of 0.405, further confirming what has been significantly influential in the making of the decisions by users. The adjusted R-squared of 0.396 would also add weightage for the model, and the standard error of 0.55806 indicates reasonable prediction accuracy. Overall, findings show that usefulness, ease of use, and trust are positively influencing adoption, while risk perceptions are negatively influencing user intention, thus pointing toward the construction of secure and user-friendly cryptocurrency platforms.

**Table 4**

*ANOVA between independent and dependent variables*

	Model	Sum of Squares	DF	Mean Square	F	Sig.
1	Regression	56.582	5	14.145	45.420	0.000b
	Residual	83.154	267	0.311		
	Total	139.735	272			

a. Dependent Variable: agg\_BI

b. Predictors: (Constant), agg\_PR, agg\_PU, agg\_T, agg\_PEU

The ANOVA test finds the overall significance of the regression model in explaining behavioral intention (BI) with respect to cryptocurrency adoption. The F-statistic 45.420 with a p-value of 0.000 confirms the significance of the model very highly and states that there is a joint effect of all the independent variables (perceived usefulness, ease of use, trust, and perceived risk) on behavioral intention. The regression sums of squares 56.582 implies that the model accounts for a considerable share of variance in behavioral intention, and the residual sum of squares 83.154 stands for the unexplained variance. The mean of squares for regression 14.145 was substantially larger than the residual mean of square 0.311, reinforcing the model's effectiveness.

**Table 5***Coefficients between dependent and independent variables*

	Model	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
		B	Std. Error	Beta			
1	(Constant)	0.724	0.230			3.148	0.002
	agg_PU	0.230	0.069	0.252		3.328	0.001
	agg_PEU	0.068	0.071	0.073		0.955	0.341
	agg_T	0.257	0.071	0.259		3.649	0.000
	agg_PR	0.298	0.048	0.305		6.203	0.000

a. Dependent Variable: agg BI

b. Predictors: (Constant), agg\_PR, agg\_PU, agg\_T, agg\_PEU

Model Fit Equation:  $Y = a + bx$ 

$$Y = 0.724 + 0.230X_1 + 0.068X_2 + 0.257X_3 + 0.298X_4$$

Where,

a = Behavior Intention,       $X_1$  = Perceived usefulness,     $X_2$  = Perceived ease of use  
 $X_3$  = Trust,       $X_4$  = Perceived risk

Perceived Usefulness has a positive and statistically significant impact on Behavioral Intention ( $B=0.230$ ,  $p = 0.001$ ), suggesting that the more useful people perceive cryptocurrency transactions to be, the more likely they are to use them. Perceived Ease of Use has a positive but insignificant effect on Behavioral Intention ( $B = 0.068$ ,  $p=0.341$ ). This implies that ease of use does not strongly influence users' intention to engage in cryptocurrency transactions. Trust has a strong positive and statistically significant effect on Behavioral Intention ( $B=0.257$ ,  $p=0.000$ ), indicating that trust in cryptocurrency systems significantly enhances users' intention to transact. Perceived Risk has the highest impact on Behavioral Intention ( $B=0.298$ ,  $p=0.000$ ). This insight is critical for policymakers, fintech developers, and marketers aiming to enhance cryptocurrency adoption.

Hypothesis testing summary

Hypotheses	Result
H1: There is a significant relationship between perceived usefulness and behavioral intention toward cryptocurrency.	Accepted
H2: There is a significant relationship between perceived ease of use and behavioral intention towards cryptocurrency.	Rejected
H3: There is a significant relationship between trust and behavioral intention toward cryptocurrency.	Accepted
H4: There is a significant relationship between perceived risk and behavioral intention toward cryptocurrency.	Accepted

The present research endeavored to study the factors affecting the adoption of cryptocurrency in Nepal and generated multiple important insights. Initially, one remarkable finding was the huge gap in public awareness and understanding of cryptocurrency in Nepal. Many respondents were curious about cryptocurrencies but had no sound knowledge, hence the need for education. Sharma et al. (2020), among others, have highlighted that the absence of financial literacy among people acts as a barrier

to the adoption of this and other emerging technologies. Other than the knowledge barrier, regulatory concern has come up as another major barrier for adoption. Participants expressed that they were uneasy with the existing unclear regulatory environment in Nepal.

Gupta and Singh (2019) stated that generally lacking clarity on regulations inhibits adoption, particularly in emerging markets. Concerning trust and security, respondents were apprehensive about the risk of hacking and fraud—an observation similar to the findings of Lee and Choi (2021), where security grounds remained the major reason preventing potential users. Participants from this study suggested that in addressing security concerns, infrastructure and support systems should be put in place to cultivate trust in the cryptocurrency ecosystem. Economic motivations, especially the possibility of high returns, are a strong driver of usage. The promise of high returns is the main attraction to most respondents for digital currency, as is confirmed by Zhang and Li (2020), who stated that speculation on returns is often a major factor in driving adoption in similar markets. Social networks were finally big influencers in the decision-making processes of participants when deciding to work with cryptocurrency. A majority of the respondents asserted to have been convinced by already existing peers or relatives already dealing in online money, consistent with previous findings by Bista and Shrestha (2018), wherein peer influence is a leading force in using cryptocurrencies, particularly in emerging economies. Generally, the findings suggest that even though there is potential for high uptake of cryptocurrency in Nepal, filling knowledge gaps, demystifying the regulations, ensuring security, and leveraging social networks will be crucial in overcoming the barriers to mass adoption.

## **Conclusion and Suggestions**

To increase the adoption of cryptocurrencies in Nepal, the biggest hurdle that needs to be addressed is the level of public awareness, which can be done through educational endorsements. Government agencies, educational institutions, and cryptocurrency platforms should organize workshops, online courses, and seminars introducing the basics of cryptocurrencies, how they can benefit people, and what the potential risks of using them. To give further legal assurance to uncertain elements regarding digital wallets, exchanges, and ICOs, an explicit regulatory framework has to be formed. It would facilitate better protection for users on one side and businesses on the other. Security needs to be given utmost importance; hence, the platform and exchange should be put in place topmost security measures, such as two-factor authentication and encryption, while also instilling in their users' consciousness how to protect their assets. The social network channel also needs to be harnessed, whereby these platforms can promote adoption through referral programs and online communities consisting of users able to share their experiences. Future research should also examine the social and cultural factors that curtail adoption, such as distrust of financial institutions and family influence. Furthermore, government-issued initiatives, i.e., a national digital currency or partnerships with blockchain firms, would give further credibility and elevate acceptance of cryptocurrencies across Nepal.

This study is an additional piece in the expanding induced knowledge of the phenomenon, cryptocurrency adoption in Nepal. Any forthcoming study may look at the potential effect of regulatory policies on the adoption of cryptocurrencies. How does the restriction by law affect user behavior and market structuring? One may consider some comparative studies between Nepal and other emerging economies confronting almost the same hurdles in regulation, to have an overall notion of how different jurisdictions conceive one aspect of the field of cryptocurrency. Other future directions could then come about by considering the users' demographic and adoption trends to widen the understanding of how age, income level, and technological know-how differ, among others, in feature involvement in the cryptocurrency space. The collaborative research shows that social, cultural, and psychological peculiarities to risk profile, financial literacy, cognitive biases, etc., are strong contributors to investment decisions and thus deserve serious attention from research. Our studies have highlighted several key implications



for policymakers, cryptocurrency platforms, and the financial sector. Policymakers should build clear regulations to form a secure and confident environment for cryptocurrency to be adopted, coupled with the promotion of financial literacy. Cryptocurrency platforms should build confidence by putting user security first through adequate security measures and education resources. For the financial sector, initiating integration of cryptocurrency and traditional banking could make it possible to enhance financial inclusion and especially.

**Author contribution statement**

The author solely conducted conceptualization, data collection, analysis, writing tasks, addressing the comments of reviewers, and finalizing the manuscript.

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