

Research Article

Awareness and Attitude towards Cryptocurrency Adoption among Business Students in Bhutan

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Abstract: The purpose of the study is to assess students' level of awareness and attitude toward the intention to adopt cryptocurrency among the students of business colleges at the Royal University of Bhutan. Also, to examine the variables (awareness and attitude) that influence the intention to adopt cryptocurrency among business students. A quantitative questionnaire on cryptocurrency was distributed to business students in Bhutan, and 256 quantitative responses were received. A study framework based on the Technology Acceptance Model (TAM) has been designed to test the presented hypotheses. The overall agreement levels suggested that there is somewhat agreement on the statements about business students' awareness, attitude, and intention to use cryptocurrency. The findings revealed that awareness positively predicted intention to adopt cryptocurrency. Similarly, perceived usefulness and ease of use positively influenced the intention to adopt cryptocurrency. However, the findings revealed that perceived risks negatively predicted the intention to adopt cryptocurrency. This research contributes to the body of knowledge on cryptocurrency by providing insights into factors that affect the intention to adopt cryptocurrency. It raises the level of awareness, attitude, and intention to invest in cryptocurrency at a time when financial literacy is a crucial issue in Bhutan.

Keywords: cryptocurrency; awareness; attitude; intention; business students; perceived ease of use; perceived usefulness; perceived risks; Bhutan

1. Introduction

1.1 Background of the study

The advancement in information technology (IT) has brought enormous growth and changes in the world's payment system of economic activity (Holl et al., 2020). Some of the innovations seen in payment systems are

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mobile phone payments, online payments, and card payments (Ali et al., 2014; Holl et al., 2020), and the most recent one is cryptocurrency payments (Kayani, Mehmood, Haq, & ..., 2021; Taylor, 2022). However, the crypto payments system is very different from other payment systems. Cryptocurrencies are rapidly gaining interest among developed countries (Ashraf et al., 2021; Doblaz, 2019; Morisse, 2015; Spengelink, 2014). The increasing significance of blockchain technology is evident in findings from esteemed institutions like the World Economic Forum. A recent report predicts that blockchain-related technologies, including cryptocurrency, will account for 10% of global economic output in the future (Bhardwaj & Kaushik, 2018). When the first cryptocurrency, Bitcoin, was launched in 2009, it was just a topic of discussion (Royal & Beers, 2023). In the span of a few years, cryptocurrencies have grown from digital novelties to trillion-dollar technologies (Royal & Beers, 2023; Siripurapu & Berman, 2023). From its inception, more than 21000 different cryptocurrencies have evolved with Bitcoin, Ethereum and Tether as top three cryptocurrencies in the world (CoinMarketCap, 2023; Royal & Beers, 2023; The Economic Times, 2023; Tretina, 2023; Tretina & Schmidt, 2023).

As of 2023, over 420 million crypto users are estimated worldwide (TripleA, 2023) with the global crypto market value of more than 1.15 trillion (CoinGecko, 2023; CoinMarketCap, 2023), which is predicted to reach 10% of global GDP in future (Bhardwaj & Kaushik, 2018; Mohmad, 2023). In the early stage, many individuals and organizations were hesitant to adopt of crypto because of its legitimacy and acceptance (Disrupt Africa, 2022), even seen strict crypto regulations in some countries (like China, Egypt, etc), but in some countries, cryptocurrency took a more relaxed approach and allowed to thrive (like USA, Canada, Philippines etc)(Arti, 2022).

Bhutan falls in latter one. Crypto investment discussions occurred since 2020, but the government had never disclosed its plan to the public until 2022(Martin, 2023), but importance of block chain was considered much early in 2019 by His Majesty the 5th King. During the 14th RUB Convocation on 24th May 2019, His Majesty the King highlighted that emerging artificial intelligence, quantum Computing, Blockchain, Machine Learning etc are immense opportunities for the future (Royal University of Bhutan, 2019) and on the 113th National Day (17th December 2020), His Majesty again address the importance of artificial intelligence, robotics, automation, big data, and blockchain, while digital currency, digital wallet, digital banking, and quantum computing as a drive for economic growth and part of civil service reform(Kuensel, 2021). This statement highlights how important blockchain is, digital currency, and digital banking in the 21st century, therefore it is seen there is a need for Bhutanese people to be more exposed to blockchain and cryptocurrency, to adapt to change.

Moreover, with the great initiative of The Honorable Dasho¹ Penjore, Governor of Royal Monetary Authority of Bhutan (RMA), the financial literacy and FinTech Certificate Program was launched at the Gedu College on 24th March 2021 coinciding with the Global Money Week, to create awareness of the importance of financial literacy and financial inclusion among business students and institutions (GCBS, 2021). Also, blockchain and cryptocurrencies like Bitcoin, Ethereum, and Litecoin are revolutionary financial technologies that are rapidly infiltrating the finance market and altering the global economy's power (Albayati et al., 2020). Therefore, it is important to assess whether business students in Bhutan are aware of cryptocurrency, their attitude towards cryptocurrency, and their intention to adopt cryptocurrency.

Thus, the objective of this study is ;

To assess the awareness of cryptocurrency among business students in Bhutan.

To examine the attitude of business students towards cryptocurrency.

To assess the level of intention to adopt cryptocurrency among business students in Bhutan.

To evaluate how awareness and attitude influence the intention to adopt of cryptocurrency.

1.2 Literature Review

Bitcoin is a peer-to-peer payment network, which was created in January 2009 using open-source software, it is created within the network and is tightly regulated without the intervention of a central bank (Dodd, 2018). He also

¹ Dasho is a title given by His Majesty the King to the people who have been recognized for their service to the country (<https://www.triptobhutan.com/language-of-bhutan.html>).

claimed that the Bitcoin network is the most widely used alternatively money system as various retailers of materials goods, music, game providers, gambling sites, software providers, and high-profile online businesses such as Expedia, WordPress, Reddit, Namecheap, and Mega also accept Bitcoins. Despite its growing acceptance, the awareness of cryptocurrencies, including Bitcoin, remains relatively nascent, particularly in developing countries (Ku-mahamud et al., 2019).

A comprehensive study on the Bitcoin market and its characteristics were conducted by Ayedh et al. (2020) which attempted to determine that increased awareness and knowledge of Bitcoin, as well as its working and management strategies, would have a significant impact on the investment behavior. In addition, the study covered that compatibility, awareness, and facilitating conditions have a significant impact on Malaysian Muslim communities' investment in the Bitcoin market. The findings from another study conducted in Malaysia by Ku-mahamud (2019) claimed that the awareness level of the respondents concerning FinTech is at the intermediate level and the same awareness level also applies to Blockchain technology and cryptocurrency. Moreover, the study has obtained information that Blockchain and cryptocurrency awareness has recently increased geometrically, but in different directions depending on the users' perspectives in Malaysia. Therefore, the study expects that the authorities of Malaysia and other Muslim countries should increase awareness of cryptocurrencies among all age groups.

A study conducted among college students in a private tertiary institute in Cagayan De Oro City, Philippines, by Doblaz (2019) revealed that, firstly, the number of consumers who are highly aware of the existence of cryptocurrency desire to have more awareness of the subject. Secondly, he mentioned that cryptocurrency acts as a potential medium of exchange, however, it is still uncertain that it will be positively accepted to function as an investment vehicle primarily due to its volatility. Shukla (2019) found that the people of Bangalore are aware of the cryptocurrency and they are looking forward to being part of their investment portfolio as it offers a good return. However, since there is a lack of regulation from government and regulatory authorities, people in that place have reduced their willingness to invest in cryptocurrency. Therefore, attitude towards cryptocurrency and level of awareness significantly influence an individual's willingness to adopt cryptocurrency.

Alzahrani and Daim (2019) interviewed to secure the opinions and suggestions of Bitcoin users. In that study, he did an explanatory interview with Bitcoin users which showed a positive attitude towards making use of cryptocurrency as a payment system in the future. He also mentioned that usability, effectiveness, and subjective norms are vital factors for the adoption of cryptocurrency. Knezevic et al., (2020) have shown that most of the surveyed students are familiar with the concept of cryptocurrencies, however, over half of the students stated themselves to be familiar with Blockchain technologies based on cryptocurrency. Therefore, these findings indicated that using cryptocurrencies showed a positive attitude towards Bitcoin and most of them use it as a regular payment option.

Gagarina et al., (2019) argues that the group of young students are worried regarding the development of cryptocurrency in which some of them are frightened of criminal structures even though they have greater degree of understanding of the concept of cryptocurrency. Eigbe (2018) revealed that there is a low level of awareness of cryptocurrency, unlike other countries which explained its low level of adoption or awareness in Nigeria. It is because most of the people in Nigeria lacks a proper understanding of the concept of Bitcoin.

According to Walton and Johnston (2018), bitcoin adoption in South African VCs (Virtual Communities) and VICs (Virtual Interaction Configurations) are significantly and directly influenced by the perceived behavioral control, subjective norm, attitude, and perceived benefit of exploring perceptions of Bitcoin adoption. Moreover, it occurs that Bitcoin's volatility and complex nature are the dominant barriers to Bitcoin adoption in South African VCs and VICs. The popularity of TAM has been cited in most of the research that deals with user's acceptance of technology (Lee et al., 2003). Therefore, this theory has been taken into consideration by many researchers as the most used framework in forecasting information technology adoption (Legris et al., 2003).

Cryptocurrency awareness and adoption are observable trends in the South Asian region too. For instance, research conducted by Islam et al. (2023) in Bangladesh highlights the significance of factors such as knowledge of cryptocurrency, perceived usefulness, attitude, and challenges in influencing the adoption process. These findings highlight the intricate interplay between individual perceptions and external circumstances in shaping adoption

decisions. Similarly, a study by Shukla (2019) revealed that approximately 75% of respondents in Bangalore are aware of cryptocurrency, indicating a widespread recognition of digital currencies among the city's residents. Additionally, research conducted in Pakistan by Kayani et al. (2021) indicated that around 67% of Pakistanis are familiar with Bitcoin, with notable variations in awareness levels between genders, with males exhibiting higher awareness compared to females. Furthermore, Ashraf et al. (2021) found that personal characteristics significantly influence both awareness and adoption rates of cryptocurrencies, suggesting the importance of individual traits in shaping attitudes towards digital currencies.

2. Conceptual Framework of the Study

Most research on cryptocurrency adoption has relied on Technology Acceptance Model (TAM) as a primary framework (Al-Amri et al., 2019). TAM, originally proposed by Davis in 1989, focuses on two main beliefs: Perceived Usefulness (PU) and Perceived Ease of Use (PEU). Perceived Usefulness is defined as the potential user's subjective likelihood that the use of a certain system will improve his or her action and Perceived Ease of Use refers to the degree to which the potential users expects the target system to be effortless (Davis, 1989).

For instance, a study conducted among college-educated adults in Spain analyzed key factors influencing cryptocurrency adoption using TAM (Arias-Oliva et al., 2019). This study investigated the effects on bitcoin usage intentions of perceived risk, performance expectancy, enabling conditions, effort expectancy, social influence, and financial knowledge. Notably, perceived utility was found to be a major factor driving the adoption of Bitcoin, whereas perceived risk was not.

However, it is crucial to highlight that TAM may not fully handle certain elements, such as taking into account the financial risk involved with bitcoin adoption (Sohaib et al., 2020). Additionally, Nadeem et al., (2021) have extended TAM by include perceived usefulness as a mediator between perceived ease of use and intention to utilize cryptocurrencies. This shows that simplicity of use influences perceived usefulness, which in turn affects adoption intentions. Their findings demonstrate that simplicity of use has a significant impact on both adoption intention and perceived usefulness.

Despite its extensive use, TAM's limitations in addressing certain dimensions demand a more thorough understanding. Nonetheless, TAM is still employed in technology adoption research, as evidenced by numerous studies on user acceptability of technology (Lee et al., 2003 ; Legris et al., 2003). As a result, this study uses TAM as its major theoretical framework to analyze levels of awareness, attitudes, and their impact on bitcoin adoption.

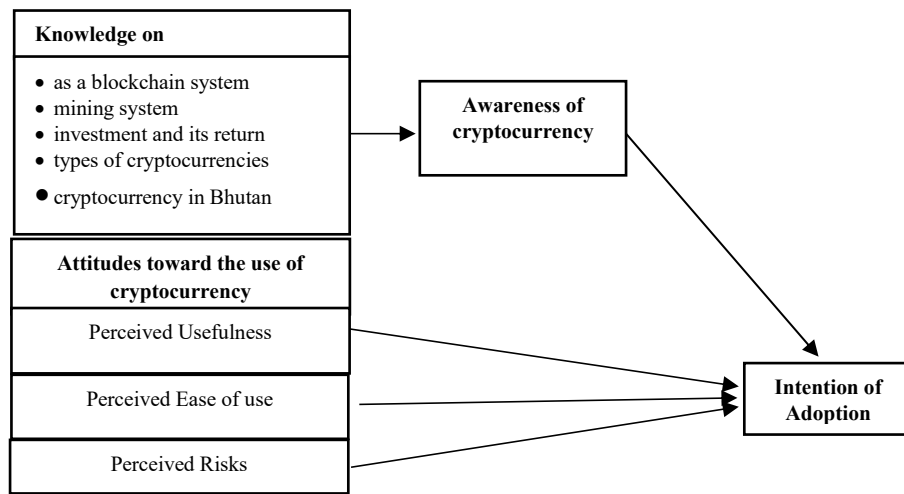


Figure 1. The proposed model
Source: Davis (1989)

According to the above literature, the following hypotheses were developed:

H1. Cryptocurrency awareness positively influences the intention to adopt cryptocurrency among business students under RUB.

H2. Attitude towards cryptocurrency has influence on intention of adoption.

H2a. Perceived usefulness positively influences attitudes towards the intention to adopt cryptocurrency.

H2b. Perceived ease of use positively influences attitudes towards the intention to adopt cryptocurrency.

H2c. Perceived risks negatively influence attitudes towards the intention to adopt cryptocurrency.

3. Materials and Methods

3.1 Research Design

The study adopted a quantitative method, as the research objectives are to assess the level of awareness, attitudes and intention to adopt cryptocurrency. To examine how awareness and attitude influence the intention to adopt cryptocurrency, assessment is done using regression analysis. The mean score of awareness, attitude, and intention to adopt cryptocurrency is analyzed using descriptive analysis. In the light of the TAM model, the research implemented linear regression analysis to investigate the influence of awareness and attitude on intention to adopt cryptocurrency of three colleges' students through three TAM factors; Perceived usefulness, Perceived ease of use and perceived risks towards cryptocurrency.

There are three major variables in the study (awareness, attitude and intention to adopt cryptocurrency) measured by multiple items. Items for these variables were adapted from (Mazambani & Mutambara, 2020; Alaeddin & Altounjy, 2018; Walton & Johnston, 2018; Shahzad et al., 2018). To analyze each factor of the questionnaire, the study used a scale of seven points (Likert scale) with 1 expressing the strongest disagreement and 7 the highest level of agreement.

3.2 Population and Sample Frame

For this study, the target population is final year students of Gedu College of Business Studies² (GCBS), Norbuling Rigter College³ (NRC), and Royal Thimphu College⁴ (RTC). Researchers have selected these three colleges because when the students reach final year, the students are exposed to more knowledge related to digital currency. For instance, in GCBS the students are provided the opportunity to take a FinTech course and they are expected to know about cryptocurrency. There are a total of 704 final year students (GCBS-516, RTC-113, and NRC-75). Sample size determination for our study is done using Yamane Taro formula (Israel, 1992):

Where:

$$n = \frac{N}{1+Ne^2} \quad (1)$$

n signifies = Sample size

N signifies = Population under study

e signifies = Margin of error, which is 0.05

Sample size calculation for our study;

$$n = \frac{704}{1+704(0.05)^2} \quad (2)$$

$$n = 255 \quad (3)$$

Out of 704, the sample size calculation is 255. Researchers adopted a stratified random sampling method to collect data from GCBS, NRC and RTC.

Table 1. Sample size

College	Sample Number
GCBS	516/704 *255 = 187
RTC	113/704 *255= 41
NRC	75/704 *255= 27

3.3 Data Collection

The study relies on original primary data where the studies are gathered using survey questionnaire sent through online Google forms. An online survey was created with two parts; Demographic questions and knowledge profiles on cryptocurrency. The second part contains the Likert scale questions for studying the research objectives. Demographic questionnaires are measured using nominal scale and the rest of the questionnaires are measured using 7-point Likert scale where 7- point rated as Strongly agree and 1-point rated as Strongly Disagree.

3.4 Measurement

The study adopted a Likert scale that represents respondents' level of awareness, attitude, and intention to adopt cryptocurrency. The second part of the questionnaire consists of 20 items, 5 of which measures the respondents' level of awareness, 10 items covers their attitudes towards the cryptocurrency, and last 5 items

² GCBS is the only premier college under the Royal University of Bhutan that offers full-time contemporary business and management education in the country (<https://www.gcbs.edu.bt/>).

³ NRC is the second and recently affiliated private college to RUB. Out of two private colleges in Bhutan, NRC is the country's newest private college that provides business and management education (<https://www.nrc.bt/>).

⁴ RTC is the first affiliated private college to RUB. Out of two private colleges in Bhutan, RTC is the country's first private college that provides business and management education (<https://www.rtc.bt/>).

pertained to the respondents' intention to adopt cryptocurrency of the respondents. The items are mentioned in Table 2.

Table 2. Variables and items of the study

Variables and items	Source
Awareness	
I know cryptocurrencies as a blockchain system.	(Doblas, 2019; Eigbe, 2018)
I have seen people doing mining on cryptocurrency.	
I have heard about cryptocurrency investment.	
I know the types of cryptocurrencies.	
I have heard about people getting return from cryptocurrency investment.	
Attitude Perceived usefulness	
I consider that crypto currencies can be used as a medium of exchange.	(Doblas, 2019)
Using cryptocurrencies in my buying and selling activities would enable me to accomplish task more quickly.	
I believe that cryptocurrencies can be used for investment purposes.	
Perceived Ease of use	
Learning to operate cryptocurrencies would be easy for me.	(Walton & Johnston, 2018; Doblas, 2019)
It is possible to carry on business online using cryptocurrencies.	
I believe cryptocurrencies would be much easy to use in exchange than present medium of exchange.	
I believe investment process in cryptocurrencies is easier than other investment avenues.	
Perceived Risks	
I am certain that cryptocurrency is a secured to invest in.	(Shahzad et al., 2018)
I believe there will be no online theft while transacting cryptocurrencies.	
I believe that the cryptocurrency will be popular medium among nations of the world in future.	
Intention of adoption	
I will use Cryptocurrency in the future.	(Mazambani & Mutambara, 2020; Alaeddin & Altounjy, 2018)
I will recommend others to use Cryptocurrency.	
I plan to use Cryptocurrency if they are made available.	
I expect to buy and sell using Cryptocurrency in the future.	
I want to use the services where we can pay using Cryptocurrencies.	

3.5 Data Analysis

The collected data is analyzed by SPSS software. To measure the level of awareness we used Likert scale in the questionnaire which includes strongly agree=7; Agree=6; somewhat agree=5; neutral=4; somewhat disagree=3; disagree=2; strongly disagree=1; these rating scales are used to calculate the mean scores of the various statements. A 7 point scale were chosen for the study as it provides more varieties of options which increases the probability of meeting the objectives reality of people and the dilemma of choosing between two equally undesirable point imposed by the 5-point Likert scale, may be addressed up to an extent by offering more choices by a 7-point scale (Joshi et al., 2015). These ratings scales were used to calculate the mean scores (M) and standard deviation (SD) of the various items. To determine the overall ratings, the interval mean mid-scores were calculated, based on the number of interval levels each Likert-type rating scales were composed of, by using the following equation:

$$\text{Interval level} = \frac{\text{Highest level score} - \text{lowest level score}}{\text{Number of levels}} \quad (4)$$

Source: Rigyel (2013) (5)

Regression analysis is used to represent the relationship between independent and dependent variables. Moreover, regression analysis focuses on how the dependent variable (intention to adopt cryptocurrency) changes in relation to changes in independent variables (level of awareness and attitude).

4. Results

4.1 Reliability

In order to assess the reliability constructs of the mode, reliability is measured through Cronbach's alpha and Composite reliability. The values range from 0 to 1, with a greater number indicating a higher level of reliability. Values of composite reliability and Cronbach's alpha between 0.60 and 0.70 are acceptable in research, whereas values greater than 0.70 are required in more advanced stages (Hamid et al., 2017). In this model, Cronbach's alphas and composite reliability are higher in all cases than 0.7 which is the acceptable level, the minimum recommended (Table 3).

Table 3. Reliability of the constructs

Constructs	Items	Composite reliability	Cronbach's alpha
Awareness	5	0.959	0.848
Perceived usefulness	3	0.877	0.915
Perceived ease of use	4	0.939	0.905
Perceived risks	3	0.926	0.784
Intention to adopt	5	0.979	0.963

Note. Overall Composite reliability: 0.936; Cronbach's alpha: 0.883

4.2 Descriptive analysis: general demographic

The students' demographics and cryptocurrency awareness profiles were analyzed using descriptive statistics. The sample size of the study was 255 delivered to the students however 256 questionnaires were received, out of which 23 questionnaires were removed as 23 students responded that they do not know about cryptocurrency and thus they were not able to answer the questions mentioned under awareness, attitude and intention to adopt cryptocurrency construct. After data-cleaning, 233 completed questionnaires were useful of which 171 were from GCBS, 23 from NRC and 39 from RTC. The sample consist of 134 (57.5 percent) males and 99 (42.5 percent) females. Looking further, of 233 respondents finance students represents 95 (40.8 percent), accounting students represents 67 (28.8 percent), while marketing students represents 35 (15.0 percent), human resources management students represent 15 (6.4 percent) and general management students represents 21 (9.0 percent). With regard to the knowledge about cryptocurrency, the majority reported having knowledge (91.01 percent), however only (8.98 percent) claimed to have no knowledge on cryptocurrency. 38.6% of students heard about cryptocurrency from more than one source while remaining students has heard about cryptocurrency from social media, lecturers/ teachers, friends and family, the percentage were 33%, 10.7%, 15.5% and 2.1% respectively (annexure, table 4).

4.3 Awareness of cryptocurrency

Annexure, Table 5 shows the level of awareness of business students towards cryptocurrency based on the mean scores indicated that the three most agreeable items under construct awareness presented were: I have seen people doing mining on cryptocurrency (M=5.59); I have heard about cryptocurrency investment (M=5.69); I know the types of cryptocurrencies (M=5.33). The other findings suggest that the items: I know cryptocurrencies as a blockchain system (M= 4.74); I have heard about people getting return from cryptocurrency investment (M=5.14) depicts that there is the least agreeable awareness level. Therefore, the overall agreement levels indicated that there is somewhat agreement on the statements under the level of awareness towards cryptocurrency (M= 5.2961).

4.4 Attitude towards cryptocurrency

As shown in annexure table 6, the attitude of business students towards cryptocurrency based on the mean scores indicated that the agreeable item under construct attitude presented was: I believe that cryptocurrencies can be used for investment purposes (M=5.39). The other findings suggest that the items: I consider that cryptocurrencies can be used as a medium of exchange (M=5.24); Using cryptocurrencies in my buying and selling activities would enable me to accomplish task more quickly (M = 5.09); Learning to operate cryptocurrencies would be easy for me (M = 5.03); It is possible to carry on business online using cryptocurrencies (M=5.19); I believe cryptocurrencies would be much easy to use in exchange than present medium of exchange (M=4.95); I believe investment process in cryptocurrencies is easier than other investment avenues (M=4.91); I am certain that cryptocurrency is a secured to invest in (M=4.75) and I believe that the cryptocurrency will be popular medium among nations of the world in future (M=5.30) indicates that there is the least agreeable attitudes towards intention to adopt cryptocurrency. Nevertheless, the item: I believe there will be no online theft while transacting cryptocurrencies (M = 4.39) clearly shows that the attitudes of business students towards intention to adopt cryptocurrency is neither agreeable nor disagreeable. Hence, the overall agreement levels indicated that there is somewhat agreement on the statements under the attitude of business students towards cryptocurrency (M= 5.024).

4.5 Intention to adopt cryptocurrency

In annexure table 7, the intention of business students to adopt cryptocurrency based on the mean scores indicated that the agreeable item under construct intention to adopt cryptocurrency presented was: I plan to use cryptocurrency if they are made available (M=5.39). The other findings suggest that the items: I will use cryptocurrency in the future (M = 5.16); I will recommend others to use cryptocurrency (M = 5.11); I expect to buy and sell using cryptocurrency in the future (M = 5.27) and I want to use the services where we can pay using cryptocurrencies (M = 5.27) shows that there is the least agreeable intention towards cryptocurrency. Therefore, the overall agreement levels indicated that there is somewhat agreement on the statements under intention to adopt cryptocurrency (M= 5.244).

4.6 Regression Analysis

Table 8. Overall regression model

Control Variables	Model 1		Model 2		Model 3	
	β	Sig.	β	Sig.	β	Sig.
Awareness	.572	.000				
Attitudes						
Perceived usefulness			.559	.000		
Perceived ease of use			.182	.047		
Perceived risks			.040	.590		
Awareness and attitudes						
Awareness					.195	.000
Attitudes						
Perceived usefulness					.464	.000
Perceived ease of use					.162	.069
Perceived risks					.036	.620
Constant	1.580		.904		.316	
R2	.327		.565		.589	
Adjusted R2	.324		.559		.582	
p-value (Anova)	.000		.000		.000	
F	112.178		99.002		81.797	

Source: survey data

Table 8 shows the regression analysis of awareness and attitude influence on the intention to adopt of cryptocurrency. Model 1 shows that awareness influences the intention to adopt cryptocurrency. The R² value of 0.327 revealed that the predictor variable explained 32.7% variance in the outcome variable with F (1, 112.178), p < 0.05. The findings revealed that awareness positively predicted intention to adopt cryptocurrency ($\beta = .572$, p < 0.05).

Model 2 shows that attitude influences the intention to adopt cryptocurrency. The R^2 value of 0.565 revealed that the predictor variable explained 56.5% variance in the outcome variable with $F(3, 99.002)$, $p < 0.05$. The findings revealed that perceived usefulness ($\beta = .559$, $p < 0.05$) and perceived ease of use ($\beta = .182$, $p < 0.05$) positively predicted intention to adopt cryptocurrency. However, perceived risks negatively predicted intention to adopt cryptocurrency ($\beta = .040$, $p > 0.05$).

Model 3 shows the awareness the attitudes which influences the intention to adopt cryptocurrency. The R^2 value of 0.589 revealed that the predictor variable explained 58.9% variance in the outcome variable with $F(4, 228)$, $p < 0.05$. The findings revealed that awareness ($\beta = .915$, $p < 0.05$) and perceived usefulness ($\beta = .464$, $p < 0.05$) positively predicted intention to adopt cryptocurrency.

5. Findings and Discussions

The sample profile consists of 57.5% male and 42.5% female and showed balance representation of both males and females. The major status of the respondents has been categorized into five: finance 40.8%, accounting 28.8%, marketing 15.0%, human resources management 6.4% and general management 9.0%.

The descriptive statistics presents means, standard deviation, and Cronbach's α reliability value is 0.956 indicating a reliable measurement instrument. The overall agreement levels of awareness ($M = 5.2961$), attitude ($M = 5.024$) and intention to adopt cryptocurrency ($M = 5.244$) depicted that there is somewhat agreement on the statements.

Table 9. Hypotheses Testing

No.	Hypotheses	Results
H1	Cryptocurrency awareness positively influences the intention to adopt cryptocurrency among business students under RUB.	Supported
H2a	Perceived usefulness positively influences attitudes towards the intention to adopt cryptocurrency.	Supported
H2b	Perceived ease of use positively influences attitudes towards the intention to adopt cryptocurrency.	Supported
H2c	Perceived risks negatively influences attitudes towards the intention to adopt cryptocurrency.	Rejected

The present study examined how awareness and attitudinal dimensions of TAM (perceived usefulness, perceived ease of use and perceived risks) directly influenced the intention to adopt cryptocurrency. The study aims to develop a conceptual model to assess how awareness and attitudes of business students towards cryptocurrency are associated with the intention to adopt cryptocurrency. As shown in table 10, when evaluating how awareness influences the intention to adopt cryptocurrency, the results showed the significant effect of awareness on the intention to adopt cryptocurrency (H1). This finding is in line with Ayedh et al., (2020) where their respondents perceived themselves to have a good level of awareness and knowledge about blockchain technology and Bitcoin currency investment. Different research done by Gupta et al., (2020) addressed that ease of use have been found significant impact on cryptocurrency investment. The practitioners reported that the technology will be perceived more useful if it is easy to use and security risks are significant concerns regarding adoption of Bitcoin as a digital cryptocurrency (Nadeem et al., 2021). According to Davis (1989), perceived usefulness is one of the motivators than ease of use when deciding about the adoption of new technology.

In addition, a study conducted on the awareness and perception of cryptocurrency in Bangalore revealed that 69.81% respondents are aware of Cryptocurrency and among all 106 respondents, 20 respondents have shown their interest to invest in Cryptocurrency, 51 respondents are not in favor of investing in Cryptocurrency and 35 respondents are not sure about investing in Cryptocurrency, which shows an 52% intention of adoption among the

respondents (Shukla, 2019). The study's findings showed a positive influence of awareness on the intention to adopt cryptocurrency which aligns with the findings of our study.

Another research conducted by Alaklabi and Kang, (2021) claims that as for privacy risks and financial risks which are the dimensions of perceived risks, they were not associated with the intention to adopt cryptocurrency. Our findings are consistent with past literature as H2a and H2b results have shown that perceived usefulness and ease of use positively influences the intention to adopt cryptocurrency.

However, perceived risks showed insignificant influence on the intention to adopt cryptocurrency (H2c).

6. Conclusion

This study aimed at determining the level of awareness and attitude of business students towards cryptocurrency as well as how these factors (Perceived ease of use, perceived usefulness and perceived risk) influence their intention to adopt cryptocurrency using TAM model. Based on our findings, the level of awareness in our study showed that there is a significant influence on intention to adopt cryptocurrency. Similarly, perceived ease of use and perceived usefulness have significant influence on intention to adopt cryptocurrency. However perceived risk shows insignificant influence on intention to adopt cryptocurrency. It can also be concluded that business students are aware of cryptocurrency and they would like to see it as a part of their investment portfolio, nevertheless they are not willing to adopt and invest in cryptocurrency due to lack of proper regulation and regulatory authorities. RMA may start FinTech courses in all colleges to spread awareness about cryptocurrency, the Ministry of Education may incorporate a fundamental cryptocurrency in schools and this study opens the door for upcoming researchers to adopt the proposed model.

7. Limitations and future research

The research has some limitations. The study concentrates on a very specific demographic: college-educated individuals taking business courses. Future research should focus on other segments or groups of students from diverse areas and educational domains. Second, the study allows future researchers to adopt the proposed model and apply it to various categories of respondents, or to investigate the effect of variables such as perceived ease of use, perceived usefulness, and perceived risks in collaboration on the intention to adopt cryptocurrency. Third, the study's cross-sectional design limits the capacity to determine causal correlations between factors. Future studies using longitudinal studies may provide more insight into the dynamics of bitcoin uptake over time. Lastly, the study focuses on business students in Bhutan.

Recommendation

Royal Monetary Authority: Looking at study's results and findings, there is good level of awareness among business students of NRC, RTC and GCBS. Therefore, RMA may start FinTech courses in RTC and NRC like RMA has initiated in GBS to further increase the awareness regarding cryptocurrency.

Ministry of Education: The awareness mean level was only found at somewhat agree. To increase awareness, the Ministry of Education may incorporate a fundamental cryptocurrency and blockchain learning as supplementary learning in the school curriculum (table 5).

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Conflict of interests

All the members have no conflict of interests.

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Annexures

Table 4. Demographic profile of respondents

Demographic		Frequency	%
Gender	Male	134	57.5
	Female	99	42.5
College	GCBS	171	73.4
	NRC	23	9.9
	RTC	39	16.7
Major	Finance	95	40.8
	Accounting	67	28.8
	Marketing	35	15.0
	Human Resources Management	15	6.4
	General Management	21	9.0
Do you know what cryptocurrency is?	Yes	233	91
	No	23	8.9
Heard cryptocurrency from	Family	5	2.1
	Friends	36	15.5
	Lecturers/ Teachers	25	10.7
	Social Media	77	33.0
	Others	90	38.6

Source: survey data

Table 5. Awareness of cryptocurrency

Id.	Item	Mean	SD	Level
A1	I know cryptocurrencies as a blockchain system.	4.74	1.828	SWA
A2	I have seen people doing mining on cryptocurrency.	5.59	1.574	A
A3	I have heard about cryptocurrency investment.	5.69	1.483	A
A4	I know the types of cryptocurrencies.	5.33	1.678	A
A5	I have heard about people getting return from cryptocurrency investment.	5.14	1.722	SWA
	Overall mean	5.2961	1.657	SWA

Source: survey data

Table 6. Attitude towards cryptocurrency

Id.	Item	Mean	SD	Level
UF1	I consider that crypto currencies can be used as a medium of exchange.	5.24	1.643	SWA
UF2	Using cryptocurrencies in my buying and selling activities would enable me to accomplish task more quickly.	5.09	1.619	SWA
UF3	I believe that cryptocurrencies can be used for investment purposes.	5.39	1.583	A
UF Mean		5.24	1.615	SWA
E1	Learning to operate cryptocurrencies would be easy for me.	5.03	1.590	SWA
E2	It is possible to carry on business online using cryptocurrencies.	5.19	1.626	SWA
E3	I believe cryptocurrencies would be much easy to use in exchange than present medium of exchange.	4.95	1.574	SWA
E4	I believe investment process in cryptocurrencies is easier than other investment avenues.	4.91	1.653	SWA
E Mean		5.02	1.611	SWA
R1	I am certain that cryptocurrency is a secured to invest in.	4.75	1.717	SWA
R2	I believe there will be no online theft while transacting cryptocurrencies.	4.39	1.854	N
R3	I believe that the cryptocurrency will be popular medium among nations of the world in future.	5.30	1.606	SWA
R Mean		4.81	1.726	SWA
Overall mean		5.024	1.647	SWA

Source: survey data

Table 7. Intention to adopt cryptocurrency

Id.	Item	Mean	SD	Level
IUT1	I will use cryptocurrency in the future.	5.16	1.736	SWA
IUT2	I will recommend others to use cryptocurrency.	5.11	1.720	SWA
IUT3	I plan to use cryptocurrency if they are made available.	5.41	1.692	A
IUT4	I expect to buy and sell using cryptocurrency in the future.	5.27	1.663	SWA
IUT5	I want to use the services where we can pay using cryptocurrencies.	5.27	1.679	SWA
Overall mean		5.244	1.698	SWA

Source: survey data

Note. Mean scores: 6.17 – 7.00 = strongly agree (SA); 5.31 – 6.16 = agree (A); 4.45 – 5.30 = somewhat agree (SWA); 3.59 – 4.44 = Neutral (N); 2.73 – 3.58 = somewhat disagree (SWD); 1.87 – 2.72 = Disagree (D); 1 – 1.86 = strongly disagree (SD)