

IMPACT OF MOBILE AND ONLINE BANKING ON THE ACCESS OF CRYPTO CURRENCY ON TERTIARY LEVEL STUDENTS

Laila Ferdousy¹

Hasan Al Zubayer Rony²

ABSTRACT

This study explores the impact of online banking in the access of crypto currency among the tertiary level of students in the context of Bangladesh. Though Bangladesh Bank doesn't allow holding and trading any kind of virtual currency like Bitcoin, Ethereum, Ripple, and Litecoin, moreover it is illegal in Bangladesh. Many people in our country, especially students from the tertiary level trade in cryptocurrency. Most of them use mobile transactions and online banking like Bkash, Rocket, Nagad, etc. to make the transaction on Cryptocurrency though the total numbers of users are unidentified. This study aims to find out the impact of mobile and online banking on the accessibility to cryptocurrency. Mixed method research has been conducted for exploring the impact of mobile and online banking on access to cryptocurrency through various online platforms of students from the tertiary level, age group ranging from 18-30 years. This study shows that despite the ethical issues, the youth of Bangladesh are investing their own country's assets in cryptocurrency. Also, there is a bit of confusion about the exact amount of assets that have been or are being invested in this cryptocurrency. This study has some limitations the cryptocurrency is still treated as a new type of trade in Bangladesh. Yet it shows the access and interest of tertiary-level students in crypto platforms. As this virtual currency is the world's future, we Bangladeshis have to cope with this virtual currency by solving this issue.

Key Words: Cryptocurrency, Online Banking, Mobile Transaction, Mobile Banking, Centralized Authority.

INTRODUCTION

Cryptocurrency is a system of electronic money, used for buying and selling through online crypto hashes with time stamped cryptography without the need of a central bank to monitor the transaction system (Maese, 2016). The information and communication technology are raising; the potential of cryptocurrency is also raising simultaneously. The world is becoming virtual as day by day everything is getting computerized. Presently, most of country's currency system is centralised which means every country has its own desire to monitor and regulate the currency of people (Peters, 2015). Tomorrow is not like today and will have to be better. People hardly thought about that they could communicate without wire or from the

¹Green Business School, Green University of Bangladesh.

²Galaxy Flying Academy.

distance place. But nowadays unbelievable things are happening such as cryptocurrency. In cryptocurrency the currency will be decentralised and no one has the authority to access and impose threat to others money.

In future there will be better system for monitoring and regulating currency which will help the banking system of the world. Cryptocurrency is one of the tools which will play the vital role in transaction and usability of the currency (Eskandari, 2018). Bangladesh is a developing country and cryptocurrency is neither illegal nor legal in Bangladesh ("Cryptocurrency trading not allowed" 2021). The government is considering the introduction of a regulatory regime for virtual or crypto-currencies such as Bitcoin that would enable the collection of goods and services tax on their sale. One bitcoin today is worth as much as 60 grams of gold. The market cap for all crypto-currencies has just crossed \$100 billion, with most of the increase coming in the past few months. On April 1, 2017, the total market cap was just over \$25 billion, representing a 300% rise in just over 60 days, said a senior government official. According to Coin Market Capacity, the total number of crypto currencies is 7,812 with a total market cap of \$324.716 billion as of January 20, 2021.

LITERATURE REVIEW

Vincent and Evans (2019) conducted research on use of cryptocurrency, mobile phones, and internet for sustainable financial sector development in emerging markets by paying attention on the relation between Cryptocurrency, Internet, Mobile Phones, Financial Inclusion and Financial Sector Development in China, India, Nigeria and South Africa 2009-2017 where it depicted the positive outcome of cryptocurrency usability and popularity. A research conducted in the context of Bangladesh have identified the perceived risks, convenience and comparative advantages which are the factors that influence the use of mobile users to adopt mobile banking services in Bangladesh. (Reyan, 2014).

A study in the context of the Vietnam showed using cryptocurrency increased student motivation (Adamu 2022). Another study argued that cryptocurrency can be used as a tool to motivate and increase student representation in higher education. (Dauda 2020)

Vishrut & Fazalbhoy (2022), conducted a study on Impact of Covid-19 on Investment Education and Behaviour in Cryptocurrency and Stock Market. They focused on the after the outbreak of the pandemic, there was considerable hype around financial literacy and easy investment education has been promoted, particularly online through firms such as Money control Grow etc. This trend led to

a possible positive or negative development of the investment behaviour of undergraduate students.

Barna & Rahman (2019) worked on The Potential of Block chain Technology and Digital Economy of Bangladesh. They try to explain about the future acceptance on technology and digital economy.

OBJECTIVE

The objective of this study is:

- (1) Finding the Accessibility of Crypto Currency among the Tertiary Level Students
- (2) What extent students are using mobile and internet banking for the access of cryptocurrency

RESEARCH QUESTION

- (1) To What extent the cryptocurrency is available towards the tertiary-level students of Bangladesh?
- (2) How the mobile and internet banking helping the tertiary-level students to access, trade and transact cryptocurrency in Bangladesh?
- (3) What are the challenges in the cryptocurrency transaction with the help of mobile and internet banking?

METHODOLOGY

Research design

The Three Research Questions are the exploratory type which demands an in-depth analysis of the present situation so the study has been conducted in mixed method research. Mixed method of research both qualitative and quantitative methods has been used in this study, where quantitative data have been collected through the questionnaire and qualitative data have been collected through KII and FGD (Mertens, 2014; Denzin & Lincoln, 2011).

This study needs to cover the relationship between how students get access to cryptocurrency and what barriers they have faced through online and mobile banking when making transactions on cryptocurrency. Mixed method allows researchers to explore diverse perspectives and uncover relationships that exist between the intricate layers of our multifaceted research questions

This study is based on the collection of primary data. The primary data have

been collected using sample questionnaires from the users of cryptocurrency and cryptocurrency-related applications. The sample size is 155. The study has used a purposive sampling technique to select participants (Leedy & Ormrod, 2014; Trochim & Donnelly, 2008). The selection criteria was included the following:

- (i) private universities in Dhaka
- (ii) students currently enrolled in private universities in Bangladesh;
- (iii) for KII and FGD, students who have some knowledge about cryptocurrency.

The sample population is the students from the tertiary level, with age groups ranging from 18-30 years. Mixed Method both qualitative and quantitative data have been collected through the questionnaire based on the RQ1 and RQ2. For the primary research question of the study (RQ1 and RQ2), the first sorting has been made from the first part of the questionnaire RQ1, and later sample to get a deeper understanding of the RQ2.

Data collection method

The study has used three data collection instruments:

- i. Questionnaire: A structured questionnaire has been used to collect quantitative data from the participants (Bryman, 2016). The questionnaire consists of both open and closed-ended questions (Kothari, 2004), which has been used to collect data on the participants' demographics, awareness of crypto currency, usage of crypto currency, and perception of crypto currency.
- ii. Key Informant Interviews (KII): Key Informant Interviews have been conducted with those students who have knowledge about crypto currency. The KII have been conducted to gain an in-depth understanding of the current state of crypto currency in Bangladesh (Denzin & Lincoln, 2011).

Data analysis method

The quantitative data collected from the questionnaire will be analyzed using descriptive statistics, such as frequencies, percentages, means, and standard deviations (Creswell & Creswell, 2017; Kothari, 2004). The qualitative data collected from KII and FGD will be analyzed using thematic analysis (Denzin & Lincoln, 2011). The themes will be identified and analyzed inductively to gain an in-depth understanding of the participants' perception of crypto currency (Silverman, 2016).

FINDINGS AND DISCUSSION

Demographic information of the respondents:

Serial no.	Characteristics	Component	Frequency	Percentage
1.	Gender	Male	119	76.8%
		Female	36	23.2%
		Prefer not to say	0	0
		Total	155	100%
2.	Age	18-20 years	7	4.5%
		21-23 years	105	67.7%
		24-26 years	33	21.3%
		27-29 years	5	3.2%
		30-32 years	2	1.3%
		32+ years	3	1.9%
3.	Educational Qualification	SSC	0	0
		HSC	30	19.4%
		Bachelors	123	79.4%
		Masters	1	0.6%
		MPhil	0	0
		PhD	1	0.6%
4.	Department	Computer Science and Engineering (CSE)	43	27.7%
		Electrical and Electronic Engineering (EEE)	26	16.8%
		Textile Engineering	15	9.7%
		Business Administration	54	34.8%
		Social Science	3	1.9%
		English	3	1.9%
		Journalism and media communication	0	0
		Law	8	5.2%
		Others	3	1.9%

Data Collection Process

The data has been collected using Google forms with the survey questionnaire prepared in light of the research question and distributed among the student through Google classroom, emails, and social media platforms.

Figure- 1: Accessibility of Crypto Currency of the respondents

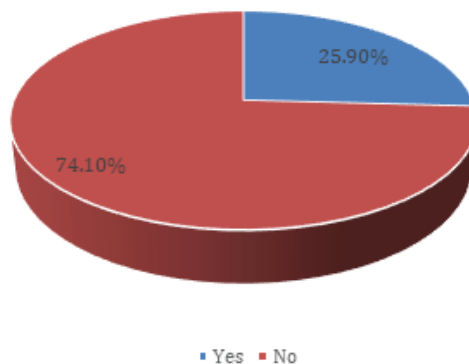


Figure- 1 shows that our total number of respondents was 155. Among those only 85 respondents have ideas about crypto. Our fellow findings and discussion will be described based on these 85 respondents and among these 85 respondents, only 22 respondents are accessible using crypto. It means around 26% of respondents are accessible in using crypto. Responses can get accessed easily through different apps and they can be used in any country without any tax.

Crypto Currency can be exchanged to local currency BDT by using mobile Banking-

This Study finds that the crypto currency can be easily converted into money through Bkash, Nagad which is done through P-to-P from buying and selling options. They also use Bank Transaction which is not under monitor of Bangladesh Bank.

Crypto Currency is used to escape from the monitoring of the government due to lack of trust to the government-

The participants replied that “it (crypto currency) can be used in the investment sector. Besides many other sectors which also help to give access crypto access. The reason behind why crypto currency is not as access as other country are many. People thought it is very hard to access, very expensive, some are afraid to tread in it, lots of exchange procedure to convert it to Dollar into taka in Bangladesh. Some of one said, ‘Because it is a conspiracy of deep and politically powerful countries. Where real money will be exchanged for an imaginary number of money. Which the powerful country can order to destroy at any moment if they want to evaluate it. Then it will be seen that they are the owners of the goods, the goods which they traded in the name of unreal money with numbers. And there is a big conspiracy around it’.

The Main Risk of crypto currency in Bangladesh is Trust

This study finds that the Main Risk in P2P through platforms are Trust. The users have to trust the counterpart considering the security risk

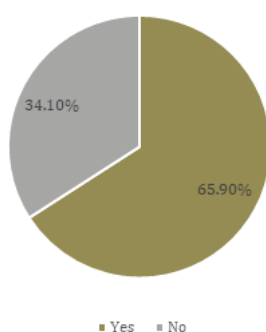
The main platform for crypto currency in Bangladesh is Binance and Coinbase-

This study finds out that the main platform for crypto currency other platform are not legal in Bangladesh or Bangladeshi people don't have access to the accounts.

People are thinking that crypto is the future currency for all countries-

Besides various obstacles many of us, our responses use cryptocurrency and tread on it. The reasons behind using it are many as the perspective of our responses. Many of them said that they use cryptocurrency because they thought crypto will lead the world economy in the future. The global economy is inevitably moving towards a digital ecosystem. From investment to money transfer, everything is going paperless. The newest and most promising addition to the digital payment sector is cryptocurrency. Many of them use crypto for personal work. Here we can say they use it for profit or to buy something. But personal use may vary from person to person. From these data we can say that the responses mainly use it not as their main earning source, they use it only as their secondary earning source. Because the value of cryptocurrency is not fixed and it's a volatile currency system. A huge number of people have crypto wallet despite of legal barriers-

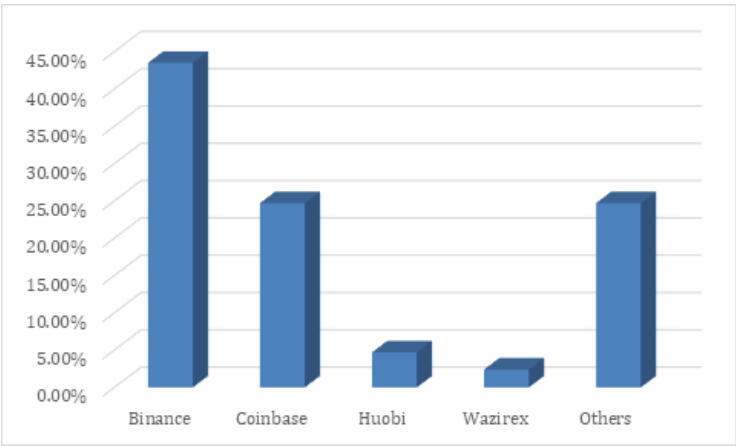
Figure- 2: Percentage of respondents who have crypto wallet.



It's a very shocking findings from figure-2 that only 34.10% responses have crypto wallet. The amount is too little according to the whole responses. It shows that people don't have frequent access to invest in crypto. In crypto wallet the majority responses have around 10 thousand taka. Among 29 responses only 3-5 responses have 10 thousand taka in crypto wallet. Here a great conspiracy come. Does crypto

refer as gambling? Many of us thought that investing in crypto is a kind of gambling. Which is absolutely not. Investing on crypto currency is sometimes act like stock market. Investing in stock market can bring someone more payoff and vice versa. Before investing in any stock market, one has to get enough information and perfect prediction. Treading in crypto currency is also just like this. For this reason, the amount of investment in crypto in little bit smaller than any other investing sector.

Figure- 3: User platforms of Crypto currency

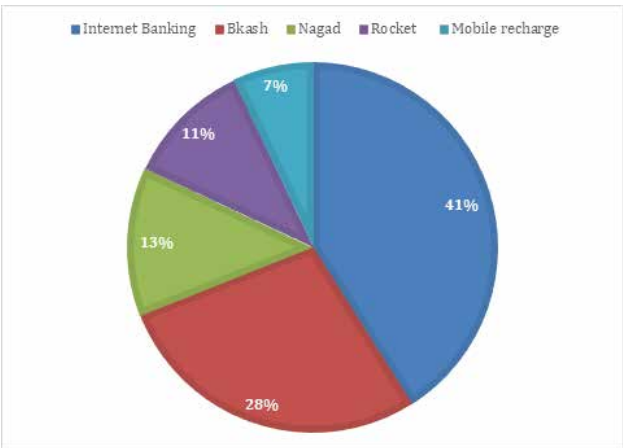


Binance, Coinbase, Wazirex, Huobi, Trust wallet, nine, Local Bitcoin, Coinbase, and Solana are some commonly used platforms. Binance, Coinbase are the most commonly used method as a crypto platform. Around 37 responses use Binance and 21 responses use Coinbase. Among 85 responses 58 responses use these two platforms.

Majority use internet banking and mobile banking for crypto currency-

43.5% responses invest in crypto currency through internet banking. Dutch Bangla, Mutual Trust Bank, Standard Chartered Bank, City Bank are some commonly used bank though which they invest in crypto. Besides Bkash, Nagad, Rocket and mobile recharge are also used in investing in crypto.

Figure- 4: The investment platforms in crypto currency.



Major challenges of crypto currency are legal barrier and threat of hacking

Many of the responses mentioned that they face challenges of government permission, the government of Bangladesh they are not permitted to use cryptocurrency. One respondent also mentioned, he or she faces a problem that a digital dollar, euro or sterling would provide all the functionality of stablecoins but with almost no liquidity or credit risk. Transaction processing speed is too slow, Transaction fees are too high, Hacking, and Instability are some of the major challenges of using crypto.

Fear of using crypto currency is higher in Bangladesh

Figure- 5: Fear Index of Crypto users

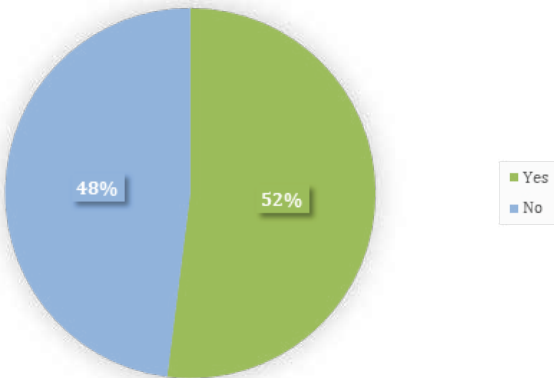
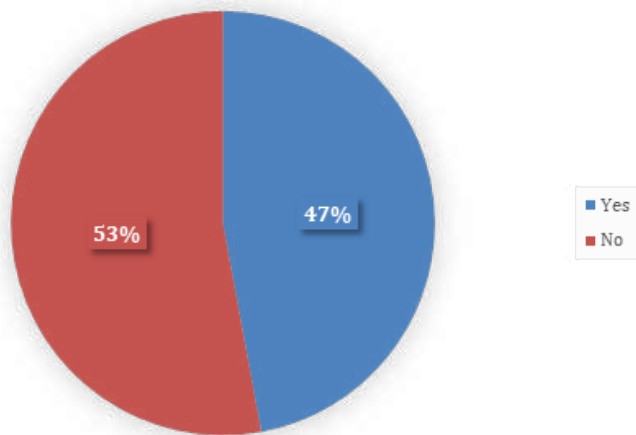


Figure- 5 shows, It is a very shocking finding that though the respondent faces lots of challenges using crypto but around 50% of respondents are afraid of mobile and

online transactions for cryptocurrency. It means above 50% of total responses use mobile and online transactions for cryptocurrency. The reason behind it is many. Some of the responses said, 'Scaling Problems, lack of proper regulation, and Worries about changing technology'. One of the major reasons behind it is Security. Because as we know that we can't undo the transaction and the government have no authority to take any legal action.

Huge percentile is willing to invest in the crypto currency in Bangladesh

Figure- 6: The percent of responds invest more on crypto currency.



The rate of planning to invest more in crypto currency is little bit different against other country in the world. Only 47.1% people are planning to invest in crypto.

Majority of the population want crypto currency to be legalized through a framework

Bangladesh is one of the few countries in the world that considers Bitcoin and all other types of cryptocurrencies to be "hostile". Bangladesh Bank considers Bitcoin and other cryptocurrencies illegal under the Foreign Exchange Regulation Act 1947 and the Prevention of Money Laundering Act 2012. Our many responses want crypto as a legal currency. Because they thought the people of the country will be able to profit from investing in crypto and freelancers will be able to earn foreign currency through it. They will easily get foreign currency through any bank in Bangladesh or through other mobile banking as money on our mobile.

Some of them also disagree with the statement. They, mentioned the reason behind disagree are, It requires lots of energy and the planet needs the energy to

support our daily life also the global warming issue in concern, I also want the whole planet to ban this cryptocurrency and also provide mobile bank transactions without charge. Because cryptocurrency markets are notoriously volatile, and the price we pay for an item today may not be what we purchase is worth tomorrow. Cryptocurrency does not have any stabilization and it's a vulnerable currency. So, I never prefer crypto currency approved in Bangladesh.

LIMITATION

This study has some major limitations, our total number of respondents was limited. The data collection process only used online platforms, if we could use both online and offline platforms like face-to-face meetings, and FGDs then the finding process would be more accurate. If we could work with a larger sample size and collect data face-to-face, then the finding process would be more accurate.

- i. Sample size and representativeness: The study may have a small sample size, which could limit the generalizability of the findings to a larger population of tertiary level students. Additionally, the sample might not be representative of the broader student population, potentially introducing bias.
- ii. Sample selection and response bias: There could be a bias in how the sample was selected or in the willingness of participants to respond truthfully. For example, students who are more interested or engaged in cryptocurrency may be more likely to participate, leading to an overrepresentation of certain groups.
- iii. Self-reporting and reliability of data: The data collected may rely on self-reporting through surveys or interviews, which can be subject to response bias and inaccuracies. Participants may not accurately recall or report their experiences with mobile and online banking or cryptocurrency usage.
- iv. Causation versus correlation: The study might establish a correlation between mobile and online banking and cryptocurrency access, but it may not be able to definitively establish a causal relationship. Other variables or factors could be influencing the access to cryptocurrency among tertiary-level students, and the study might not account for all confounding factors.
- v. Timeframe and generalizability: The research may have been conducted within a specific timeframe, and the dynamics of mobile banking, online banking, and cryptocurrency can evolve rapidly. Therefore, the findings might not be applicable to different periods or contexts.
- vi. Lack of control group: The study may lack a control group, making it challenging to assess the specific impact of mobile and online banking on cryptocurrency access. Without a control group, it becomes difficult to determine whether any observed differences are solely due to mobile and online banking or influenced by other factors.
- vii. Limited scope and depth: The study may provide a surface-level analysis of the

impact of mobile and online banking on cryptocurrency access among tertiary level students. It may not thoroughly explore the underlying motivations, attitudes, or behaviors related to these phenomena, limiting the depth of understanding.

viii. Lack of longitudinal data: The study might not have gathered data over an extended period, limiting the ability to track changes or trends in cryptocurrency access among tertiary-level students. Longitudinal data could provide more insights into the dynamics and fluctuations of this phenomenon.

It is important to consider these limitations when interpreting the findings of the research article, as they can impact the validity, reliability, and generalizability of the study's conclusions.

CONCLUSION

The assess ability of crypto currency is getting higher and students have much interest on it. So, Bangladesh Bank should have clear that the crypto currency is legal or illegal and if they make it legal, implement proper regulation system.

RECOMMENDATION

These study puts the following recommendation for the policy makers

- i. Bangladesh Bank should clear whether crypto is legal or illegal and the government may make strong policy against various Financial sectors.
- ii. Online and mobile banking should be monitored by Banks properly in case of using crypto currency.
- iii. And lastly, universities should give proper guidance to students about crypto currency.

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