



# Cryptocurrency and Its Regulatory Issues, Considering Bitcoin & Ethereum: A Case of Pakistan

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## ABSTRACT

Cryptocurrency is a peer-to-peer and decentralised network-based currency. After the introduction in 2009, it faced criticism and favouritism and is still developing and reshaping. So far, it is being evaluated from many aspects like financial, economic, social, political and legal. The legal aspect plays a significant role in implementing any new technology. In the context of the regulation of cryptocurrency, its market is under constant flux, and regulatory authorities engage in monitoring its trade across borders. Fintech services are ironically bridging the gaps in cryptocurrency-related financial and investment services offered by blockchain. This study highlights the cryptocurrency movement across the world, acceptance, analysing the factors that affect its transaction. Scenarios have been explained in brief under the shadow, understanding the regulatory possibilities in Pakistan and the reasons creating hurdles for cryptocurrency regulation.

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## INTRODUCTION

In factual retrospective, general market and particularly financial market have passed through huge development stages. This development made as per the requirement needed, time to time. The instruments used for the exchanges of instruments moulded in accordance to market need (Butt et al., 2023). These instruments used for the exchange of goods and services, commonly known as money. Money stands in sense that, people take for their daily transaction. It is still up grading, and changing its name and shape. In 21<sup>st</sup> century, development in financial and economic sector is consistent and balanced in the way involving the new

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technology in the financial instruments. Cryptocurrency and its substitutes are new economic and financial era that rising from last decade and become the matter of study from many aspects.

In previous studies cryptocurrency is comparatively measured with fiat money (Gangwal, 2016) and the portfolio creation by adding the only Bitcoin. Here I am going to highlight the reason why it is not openly used in Pakistan describing Regulation policies that has been declared by policy makers overview and regulation issues in Pakistan highlighting the advantages and people. Competition between the currencies and between the exchanges markets both play an important role in the above context. Increase in product and services and the increase in user's number that give a positive relation. Currency is considered to be more acceptable as much the user welcomes it or accept to use it. The more buyer and seller with respect to demand and supply the exchange would be more liquid. Positive factor cause increase in value of currency; it also effects the demand of currency. On the other hand, legitimate and government policies always give a new face to currency (restrictions or acceptance) (Verzhevsky, 2018). It effects the miners (cryptocurrency developers).

Digital currencies have been gaining attention from last decades despite the fact that bitcoin was introduced in 2009 by mysterious person Satoshi Nakamoto (Lemieux, 2013). It gained the attention in 2012, although it is electronic money having no face value it successfully starts its journey. The First popular currency created by the usage of blockchain is bitcoin, however, blockchain technology is used in broader aspects. Ethereum Bitcoin and currencies are considered simultaneously to cash, in contrast, these currencies are digital used online, being able to compete for online payment, Like PayPal and credit/debit cards (Ghaiti, 2021). If we talk about any electronic transaction, based on peer to peer, there would be several questions arises in our mind, related to not only its security but also for its process, till the satisfaction level that starts from its generation till the process of security step.

The whole phenomena associate with blockchain technology, Blockchain is where the records kept and the transaction being controlled and stored across the network of computers and decentralized in the way that the no one owns but everyone can use. Data can be tracked at any step anywhere in the world at any time. Bitcoin and other cryptocurrencies affecting the currencies it would be possible that effect will be long-term and try to take its strong share, but it is difficult to say that it can take the place of currency. However, bitcoin and other digital currencies' supporting infrastructure and growing competition within currencies, leads to having a successful future of the technology. Our focus it to decentralized the currency rather than centralization, so the transaction cost can decrease also to make the transaction quickly within few seconds or minutes rather than days or months. From 2017 there is tremendous growth in the popularity and the value of the cryptocurrencies it has performed extraordinary attention of stake holder and government especially Japan, China and other countries Increase its growth level (Papadimitriou et al., 2020).

Implementation of financial technology(fintech) is not new in Pakistan. Pakistan is still in developing country though fintech has been introduced in Pakistan like 3G 4G, mobile banking, ATM, Smart phones, Finja app lets user to add their money in mobile wallet and so on, But Pakistan is bit slow in adaptation the new technology, there are many reason that cause to proscribe. These causes have utmost effect on economy. The major issue in Pakistan faces is over check and balance, controlling. Cryptocurrency is circulating around the world and has been accepted by countries. But in Pakistan, there are many issues that cause the restriction.

## **BITCOIN**

Gangwal (2016) conducted the study on the effects by adding bitcoin in stock market and analysing its worth as an asset. The objective of his research is to emphasize on bit coin as currency and why people fascinated by defining its generating process. Researcher compare the co relation of bit coin with five asset classes and analysis comprises that the lower the value of correlation reduces the risk chances. And results reveal that despite of high fluctuation adding the bitcoin in assets class gives the positive impact. Verzhevsky (2018) discusses the issues and aims to give the possible outcomes for its potential users. Cryptocurrency and its monitoring surrogates are become the matter of studies and keen analysis. Government and other financial institution are taking interest in the arising issues, its

result says that the reasons like high fluctuation, transaction time, legal vagueness security issues are the main problems that cryptocurrency is facing. The three types of cryptocurrency drivers, divided into internal and external factors (Poyser, 2017).

Cryptocurrency supply and demand are internal factors that influence the price beside its popularity/ attractiveness, legalization and microeconomic factors like interest rate, gold price. Stock market, on the other hand, are considered as external factors. Jiang et al. (2018) aimed to investigate the existence of long-term dependence in the Bitcoin market, the applied estimation techniques of the index to yield results. Using Hurst R/s analysis, they used the fluctuation from 2010 to 2017 especially the fluctuation in 2017. Lack of price mechanism cause the fluctuation in bitcoin and due to an emerging market, it has long term memory. Legal Risks of owning cryptocurrencies, the author studies the legal aspects and associated risk by taking the real-life examples, and highlighted that fraudulent and hacking cause problem on the large-scale adaptation of cryptocurrency. Low and Teo (2018) emphasize on caution that user must understand before to invest in it. Relationship analysis of the bitcoin price and supply and demand pf bitcoin, including the economic indicators like macro financial and its effect on attractiveness for investor.

Ciaian et al. (2016) targeted the daily transaction data from 2009 to 2014 and use the applied the time series analytical mechanism. It suggests that bitcoin price and other variable are interdependent. As per there results bitcoin price has highest relation with investor attractiveness, while other economic parameters like supply and demand under theoretical prediction, in a long run relation with price also has strong relation. Price and people interest growing day by day that make the bitcoin high volatile. Some stylized facts of the Bitcoin market analyse the trend for 2011 to 2017. Makarov and Schoar (2021) identify the statistical properties for the its market, compared with some major cryptocurrency like BTC, ETH, LTC, XRP, XMR, ETC, DASH and other use the hurst analysis exponent by means of 342 the Detrended Fluctuation Analysis, that is used to find the trends. Analysis concluded that significant changes has been observe during first year. Cryptocurrencies as a new global financial asset, in general cryptocurrency market does not correspond with the distribution of fiat currency. Al-Mansour (2020) identifies that it has own exchange and does not affect the fiat currency. The author compares it and defines that crypto market identifies mainly in three currencies US dollar, Japanese Yen and South Korean Won. It measures in the 24 hours transaction of cryptocurrency 26 fiat currencies is used .it conclude that only bitcoin is not representation of whole crypto-market and the mention three currencies are providing good linkage between the world economies over 90% of transactions made in USD, JPY and KRW.

## Blockchain Technology

Currently, researchers and cognizant human beings around the world are striving to understand the consequences of a protocol that will allow laypersons to build trust by using advanced code (Don Tapscott, 2016). Blockchain is an open source that anyone can change the concealed code everyone can see what going on. Block chain is a big concept that runs millions of computers and connect them internally. It is distributed protocol that creates number of ledgers that being transfers the data in the form of blocks, it enables to transfer money safely from one owner to other from banks, PayPal's etc., Well block chain does not end simply on transfer or exchange of money it is beyond it. The information we see ever updated on internet. It is the Internet that value the money, It is a platform within which all the stakeholders are able to determine veracity, at least the data recorded in a structured form (Don Tapscott, 2016).

When we sent any word, PPT or PDF file it's a copy not original one, that means sender also have same thing after sending it to other. But in case of money if I send some money to 2nd party it is compulsory that I do not have one copy of that money. There are two ways to generate any currency miner buy the hash from the developer and then further process second miner itself generates the hashes and then use it. Blockchain Technology can play a crucial role in betterment of Pakistan-Technology that works behind blockchain can help to solve the problems and issues arising in Pakistan. It can help to automate solve the problems that are untraceable manually or difficult to trace. It can help us to develop a better environment with innovation and accountability structure. Its software implementation in organizations and financial institutions prevalent from many disorders.

## Cryptocurrency Influencing Factors

If the government policies are in favour, then the demand of currencies increases and the mining area (miners) try to meet the demand. Any currency demanded or could be affected by its security aspect, for example if the currency is secure enough from hackers such currency rapidly capture the eyes, this is the art of making it secure specifically known as cryptography. It is considering illegal in many countries like Australia, India, China. It is also not legal in Pakistan, although there is no any frame work in discussing this information does not mean that one should use or not. According to Saeed and Sial (2023), government has declared that cryptocurrencies like Bitcoin, Litecoin, Pakcoin, OneCoin, DashCoin, Pay Diamond or Initial Coin Offerings (ICO) tokens is not issued by government so government is not responsible for any fraudulent or misshapen. Its acceptance at merchant level in Pakistan is negligible. On the other government did not utter words for the cryptocurrency exchanges and developers. However, London has succeed legalize and provide the frame work for regulation of cryptocurrency, and Argo (cryptocurrency mining company) is listed in London stock exchange (Pala, 2024).

In European Union it is under consideration and vary case to case every cryptocurrency is examining whether initial coin offering (ICO) should be regulated or not (Kochergin, 2022). Canada has created the compliance program and reporting requirements named as Money Service Bus (MSBs) it is for virtual money dealers. They need to register with Financial Transactions and Reports Analysis Centre of Canada (FINTRAC). One can sale and purchase goods and services in cryptocurrency (digital currency) through internet, also deal crypto currency in open exchange (crypto currency exchange) (Ahmad et al., 2025). It is treated as commodity. If any person mining it as hobby or commercially the income included in taxpayer income further if any losses occur due to fraudulent or scam the losses is deductible from income that earns for through the cryptocurrency business. It is a Digital currency Releasing method is Genesis Block Mined Created to fix the global financial problems No need of third party Considering as an alternate of fiat money (USD, Euro, JPY etc) It can be used for household transactions like purchasing of goods and services. Transaction can have made in few minutes.

## Cryptocurrency and its Market

Crypto currency is become easy to access just on one account creating distance, in all around the world different brokers or companies are running, these companies may be virtual it requires general information of users like Facebook Twitter, Instagram, LinkedIn etc. Initially we need to purchase the coins or currency through paper currency after entering or having access to currencies we can easily, we take the advantage of selling purchasing of other currencies; after owning the coins we can use them in commodity market for sale and purchase of any goods and products. Binance, Bitmex, Kucoin, Huboi, YoBit, and Changeilly these are few names of bitcoin exchanges (Yahia et al., 2025).

Mainly the work is done with comparing the bit coin with fiat money or commodity like USD and gold (Gangwal, 2016) bitcoin volatile aspect are being monitor. In South America the bitcoin usage increases after the hyperinflation and investor start choosing the alternate options for investment. And it added up in investment portfolio. Now 13.4-million-bit coin is circulating with the total market value of 4.3 billion market value thousands of businesses are accepting cryptocurrency as payment (Mnif et al., 2024).

## CONCLUSION

One of the facts that financial innovation is leading and developing in our country one of its examples is easy paisa that has been regulating since 2009 and it becomes the largest mobile banking service its serving all around the Pakistan. Cryptocurrency price is high volatile due to interest among people academics especially youth is taking more interest. My empirical analysis shows that current regularize has significant impact in terms of its security. The more the currency secure the more people trust increase over it. Crypto currency though working around the world and Pakistani people are in favour but Pakistan is not in position to regulate it. There are some issues like its high volatility it may use for illegal means or money laundering unlike banks it has not

central authority. Untraced, hacking and security issues. However, people are using it at their own risk. We can hope for better future in Pakistan. Fintech is drifting globally but in Pakistan it is facing many challenges that can be overcome with the proper training, arranging association to monitor the activities, further strict accountability on dishonesty and special memorandum to regulate or launch it. Cryptocurrency Exchanges can be licensed to operate.

## Competing Interests

The authors declared no competing interests.

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