
Political Economy Of Pakistan And Cryptocurrency

1. Dr. Karim Haider Syed
2. Dr. Imran Khan
3. Dr. Majid Ali

¹Assistant Professor, Pakistan Study Center, University of the Punjab email; haider.psc@pu.edu.pk

²Lecturer, Government Post Graduate College Hafizabad email; imrannews84@gmail.com

³ Assistant professor; Hailey College of Commerce University of the Punjab Lahore

Abstract

Cryptocurrency contests the basic hypothesis under which the existing financial organism rests: that currencies are dispensed by central administrations, and their stock is controlled by central banks. Share of Cryptocurrencies in political economy is increasing as these are gaining popularity. Pakistan first cryptocurrency was named Pakcoin and it was launched in 2015. Officially government of Pakistan refused to recognize any kind of digital currency to make it the part its political economy. State Bank of Pakistan sought help from FIA and FBR to take legal action against international and local trade in cryptocurrencies. How Cryptocurrency works and other accessible cryptocurrencies the technology and ideas behind them is important to explore the ideas behind Cryptocurrency and its future in the political economy of Pakistan. The study contains somewhat of the researchers' own study and understanding about Bitcoin and summaries of the articles composed from the published work of the prominent and well-informed professionals and writers and media on this subject. The features that make Digital Currency so innovative have also made it a bull's eye for financial watchdogs of Pakistan, who fear that the one-day cryptocurrency will help tax dodging and other financial crimes.

Key Words; Block-Chain, Cryptocurrency, Ether, Bank, Economy, Pakistan.

Article Received: 18 October 2020, Revised: 3 November 2020, Accepted: 24 December 2020

Introduction

A cryptocurrency has become popular digital currency for online trade in the world as it is an electronic cash system. It works on a peer-to-peer basis to simplify the exchange of funds between operators' minus of any financial intercessor or principal repository. This system has taken as challenge in the developed world alongside the developing nations being a source of tax evasion. All such kinds of virtual currencies are free-for-all and are not encouraged by financial institutions worldwide. International economic system run on the traditional fiat currencies under the supervision of the organized financial institution, which have been sponsored and controlled by administrations of the states. The government can deflate or inflate the

value of these currencies short of any democratic participation. This also meant an extraordinary parameter and government enquiry that directed to management, but then the time come to introduce the Bitcoin. Bitcoin has become known in the globe as a decentralized virtual currency that is not organized by anyone, and that does not need a third-party involvement. It was generated by a figure well-known as Satoshi Nakamoto in 2008 (Umit '2019) His personality is still mysterious, and he disappeared from the operational world a few years after familiarizing the people to the groundbreaking technology of Bitcoin. The value of Bitcoin has improved over the years for the reason that of its approval, and many people become rich and made a lot of money from it. No principal figure regulates Bitcoin, but it is controlled by a peer-to-peer complex

network that offers it with a serviceable base without the requirement of an outward figure. Bitcoin is an independent currency because it cannot be subjective or operated by a small number of wealthy people for their advantages and benefits. Most people have perceived about cryptocurrencies and Bitcoin. Still there is a lot of secret that backdrops this terminology. Therefore, most people are doubtful about participating in this profitable currency. Bitcoin has virtually become a catchphrase in the last few years, appreciations to its increasing approval (Sarel, 2020). But the significant query is, how does this Bitcoin function? Is it a comprehensive investment prospect? How can someone buy Bitcoin? Bitcoin is transforming the world of business and economic life, and it is completely conceivable that in the next two decades, it might develop the currency that everybody in the globe practices. The governments, like of Switzerland and Japan are willingly taking up it while others are firmly against its usage. Bitcoin is mounting every day, and those who are ready are earning thousands of dollars from it. As the first internationally devolved digital currency, in its place of using transitional mechanism of submitting credit card info to a third party or PayPal for verification equally of which regularly take in transaction fees and other limitations, Bitcoin tolerates people to pay each other directly at international level for services and goods. With the passage of time, every institution and everything is on the path of development. Humans have made great steps in every field over the last several centuries. Especially in the 21st century, there has been an endless stream of inventions, which are making human life easier and easier. Currency is also advancing on this path of development of the new era. Currency changes its status and value over time. When the barter system came to an end in the seventeenth century and banknotes were introduced, people could not accept them for a long time even though the real value behind the notes was in the form of silver.

However, these notes lasted until the twentieth century. But the real value of the note used today does not exist. In the early days, buying and selling was done through the barter system (ie, one thing for another). With the passage of time, buying and selling of gold and silver began to take place. Later, a receipt (token) was issued in exchange for gold and silver, which was equivalent to gold and silver. After

that, each country started making its own currency, which was first minted and then turned into paper. Thus different types of currency notes began to be made and each note was valued separately. Later, plastic currency was invented which is now available in the form of debit cards. It is now slowly being replaced by digital currency (also called electronic currency). In the current era, net banking is an important step towards this. The real value of this note is only the trust people place in financial institutions (Andrei, 2011). But that confidence was shattered when the global financial crisis hit in 2008, leaving governments and banks in financial and economic trouble. In particular, the US and European governments printed notes in droves to support financial institutions in crisis. As a result, many banks and thousands of businesses went bankrupt. Public confidence in banks continued to erode and a vacuum was created in the world of commerce, which introduced a dimension of 21st century currency that is called cryptocurrency. which is still in its infancy and financial institutions and governments are reluctant to stand behind it but there is no doubt that the next age is digital age and currency like everything else will also go digital, if Pakistan can show courage and take steps to start it at the official level, then it can become the member of the group that is going to control the global economy (Kar and Gupta, 2019).

Hypothesis A cryptocurrency has the prospective to transform online payments methods in a technique that profits businesses and consumers and can bring change in the nature of political economy of Pakistan.

Objectives; this research paper help to shed light on the

- Particulars of the cryptocurrency.
- Bitcoin and economic Prospective of Pakistan.
- Progress, usage and safeguards regarding the Bitcoin.
- Advantages and disadvantages of digital currency.

Literature Review

This authoritative text of professional author Pedro Franco provides a step-by-step sketch of how Bitcoin workings, beginning with public significant cryptography and moving on to elucidate business processing, mining technologies and the block-chain. since the introduction of fiat currency Bitcoin is perhaps one of the principal progresses in economics. Pedro Franco in his work *Understanding Bitcoin*, offers finance professionals with a comprehensive technical guide and source to the engineering, cryptography and economic progress of Bitcoin and new cryptocurrencies. This complete, yet reachable work effusively explores the backup economic authenticities and scientific developments of Bitcoin, and offerings negative and positive opinions from many economic schools about its constant practicability. This dynamic resource analyses Bitcoin from the larger outlook of digital currencies and discovers chronological efforts at cryptographic currencies. Bitcoin as currency is, all together, not just a digital currency; it's a contemporary method to the safe transfer of value by means of cryptography (Franco, 2015).

2. This work of Antony Lewis is very useful to study the basics and history of block chains and cryptocurrency. There is material on block chains and cryptocurrency out there. Nonetheless, for the amateur, most of this material can be incomprehensible. The Fundamentals of block chains and Bitcoins aims to offer a handy guide to this novel currency and the groundbreaking technology that controls it. Ethereum, Bitcoin, and other cryptocurrencies: Increase a thoughtful of a comprehensive field of Bitcoin topics. Things to identify afore buying cryptocurrencies: The Basics of Bitcoins and Block-chains bids reliable and balanced visions to those involved in Bitcoin financing or spending in other cryptocurrency. Realize the dangers and modifications, study how to recognize scams, and know cryptocurrency regulations, exchanges and digital wallets, with this work. The Basics of Bitcoins and Block-chains is very comprehensive work that covers subjects such as the account of Bitcoin and Bitcoin mining, buying and selling. It also responses in what way payments are made and in what manner transactions are kept protected. Additional cryptocurrencies and cryptocurrency valuing are studied, responding how

one places a price on digital tokens and cryptocurrencies (Lewis, 2018).

3 Benjamin Guttmann, who is editor of The Bitcoin Bible, has been among the principal experts concerning Bitcoins specifically and crypto currencies in common in the early second decade of 21st century. He has been a journalist, focused generally on economic and political issues. The book contains partially of his own study and understanding about Bitcoin and moderately of articles composed from the utmost projecting and well-informed professionals and writers and media on this subject. In this available work, it is defined how the digital currency the whole kit and caboodle and address many of the common misunderstandings about it. The author also investigates contemporary laws and protocols that may before now cover digital currencies and warn alongside tactically placing monitoring margins on Bitcoin that could suppress the novel technology before it has a coincidental to develop. In addition, this work provides numerous references approximately how to treat the new currency of Bitcoin going forward (Guttmann, 2013).

Research Methodology;

The qualitative method of research methodology is used to collect data from the secondary sources. The descriptive model of research is used to describe the facts and figures of cryptocurrency and share the details linked with this economic system. Historical of the research methodology is used to give the details of concept of BTC and Block-chain for the understandings of the newly emerged economic system that has potential to replace the existing and prevailing banking system. so this research paper is based on the produced data that is analyzed to answered the question of public and governmental' response to the digital currency. The changing nature of the modern business and use of BTC as method of payment is very interesting phenomenon emerging to challenges the banking system and governmental regulations in this regards help is taken from the books articles, newspapers and online martial for this research paper.

Block-chain

A human life travels from birth to death and perhaps even after death, as a record, from one register (account) to another. His personality, his needs and

problems related to him are due to some accounts. There is nothing wrong with believing that man is a unit in a chain of innumerable accounts. Innumerable and unlimited accounts that are linked together in a chain. One of the facts listed in them is called a unit of human being and he also requires the registration of these accounts to prove its existence. This is the way we live, and this is exactly what the block-chain is all about.

When we are born, a birth certificate is issued. Form "B" from the hospital or District Nazim Councilor's office and then a confirmed birth certificate or family certificate from NADRA as final proof. This certificate is proof that you are existed. Without it, your existence is not legally proven. Once you have been vaccinated, another register is entered. Getting home, having an ID card or passport, driving license, bank account, weapons license, marriage, childbirth, school enrollment, university degree and even death, you still get some certificate that somehow bears witness to the entry in account. this system is likening to an invisible block chain; and the book of deeds? That too is a register in which everything is being written. Valuables, natural resources, national resources and population census have always required accurate registration. After the Second World War, the Bretton Woods Conference was held in 1944, which resulted in the establishment of institutions such as the International Monetary Fund (IMF), the World Bank, and later the United Nations and the World Trade Organization (WTO) to control, run the economies under a central system and all the countries, big and small and all the people living in them, whether poor or powerful, all come under this central system (Cherunilam, 2014). If you look around; you will find your life connected to some central accounts. Bank, house papers, hospital, identity card, marriage office etc. Let's assume that you are always tied to some central account or system, so what is the end of it? Why do you need an alternative system? Why should you look for a new system when everything is going well?

There are three major drawbacks to trust (or blind trust) in the system:

1. Exclusion

This system or its operators can, whenever they want, in the name of competition or censorship or in the

wider interest of the country, remove whomever they want from the system; Put Pakistan on a terrorism watch list and impose restrictions on the movement of money and goods (Anderson, 2019). Eliminate or make it impossible for Iran, Venezuela, Palestine, North Korea and any other country, institution or person that is not surrendering to you under any other pretext. Pay-Pal is not in Pakistan. More than one billion people in the world do not have their personal identity documents, ie government assistance for immigration, employment to medical assistance, they cannot prove their existence.

2. Dishonesty

People trust you, but you keep the market of injustice, looting and corruption hot. People keep their life savings in an institution and that institution will destroy it as they wish, considering it as a trust (Brian, 2019). People pay taxes to the country and the rulers spend it on their luxuries instead of spending it on the welfare of the people.

3. Loss of Records

What if someone hacks the central bank or all accounts? What if a bank employee accidentally enters your account incorrectly or the record is lost in another natural or man-made accident? As files are usually set on fire in Pakistan, what is the guarantee of the right of the rightful owner in this case? Unjust distribution of resources, misuse of power are the reasons that gradually created an atmosphere of mistrust. A closer look at the last century reveals the greatest decline in human confidence (Kumar, 2018). People's trust has been shaken, whether it is an institution, a government, a court, a religion, a leader or any other guarantor, as a whole, human beings do not trust anyone. This is an issue that has been under discussion for the last fifty years, how can we finally build trust between two or more parties; And that too without a central character? Can we create a register (account) that can read / write so that all entries come into being transparently?

Types of Block-Chain

There are three types of block-chain:

Public Block China

As you can see, Bitcoin and Ethereum are examples. Anyone can join the network from anywhere and leave whenever they want. Nodes are paid to keep them honest, in the form of new coins and transaction fees, and complex mathematical functions make it hacking-proof.

Private Block China

An internal public ledger of a company can only be joined by those who are allowed by the company. Here, because people have mutual trust and in case of dishonesty legal action can be taken, the real identity of the node is known and who is running it, so the mining process here is not so difficult. Its speed and working capacity are thousands of times faster than public blockchain (Francis, 2019). For example, the bitcoin block-chain can make one transaction every seven seconds and one block is created in 10 minutes. In Ethereum, one block is formed every 15 seconds. But PayPal and credit card companies do millions of transactions per second. Lightning networks in cryptocurrency are being introduced for these capabilities.

Consortium Block-chain

Block-chain between a company or group of partners that only members can join. Here the rules of membership are set instead of Consensus. Block-chain is a special type of public ledger. And the basic technology is cryptocurrency (such as bitcoin). It is a data structure in which transactions are connected to each other like a chain link in the form of blocks (with the help of mathematical hash function). Block-chain types include public block-chain are open, which does not require any permission for entry and exit. Anyone can join and exit whenever they want. In order to maintain trust between unknown people and nodes, cryptocurrency is given as a reward and its management is made possible by the complex steps of mathematics. On the other hand, trust in private or close block-chain is usually made possible by the policies and agreements of the same company, so cryptocurrency is not offered here as a reward. All other stages, such as consensus and voting, are more or less the same (Zheng and Chang, 2020). Let us remind here that the origins and forms of money remained different, from salt to animal skins, and

from rye stone to tobacco, the same thing which was in supply and demand, was also used as currency. Along with the Internet came the existence of digital currency David Chaum introduced the concept of "blind signature" and E_Cash in 1982. Adam Back made Hash Cash in 1997, Wai Dai made B-Money in 1990, Nick Szabo made Bit-Gold in 1998 and Hal Finney presented theory of Reusable Proof of work in 2004 or R Pow. And with all these ideas and inventions, in 2008 Satoshi Nakamoto introduced the bitcoin to the world. At the moment, there is hardly a major bank in the world that is not studying block-chain in one way or another. IBM launched the Hyper Ledger Fabric Project in 2015 with the Lynx Foundation, which has been used by hundreds of companies so far. With an investment of billions of rupees, more than two and a half thousand patents and more than 800 crypto assets, the block-chain is going to bring about changes in the economic system that like the e-mail, bring in postal systems and cell phones, in ordinary landline telephones. According to a survey, at least 500,000 block-chain developers will be needed in the world by the end of 2020 and at this time they are not even 5,000 at the moment (Xhafa, Patnaik and Tavana, 2020). So it is a big opportunity of jobs for Pakistan if the government put intention to IT sector and educate the Pakistani national about the Block-Chain sector.

Bitcoin invention:

The concept of the bitcoin was introduced in 1982 by a computer scientist named "David Chaum".

The scientist published a research paper entitled "Blind Signature for untraceable Payment" in which he wrote about three features of bitcoin that were something like this.

Features of bitcoin

1. The third person will not know when transferring money.
2. There will also be proof of payment and the identity of the person being paid will be known.
- 3- Use of Stolen money can be prevented.

To turn this idea into reality, David Chaum even set up a company called "Diggy Cash" which was unsuccessful. Many people tried to make this idea come true but did not succeed. Then it was invented by a Japanese scientist named Satoshi Nakamoto in 2008 and introduced to the currency market on January 3, 2009. It is also called cryptocurrency because it is based on the principles of public cryptography. This currency calculation process works on the basis of a logarithm for which the computer can be connected to the Internet, using a computer processor (Mullan, 2019). The more powerful the processor of a computer, the faster the arithmetic process solves the logarithm question and creates a bitcoin.

How to get bitcoin

Traditionally;

There are only two ways to get a bitcoin - one is to sell one of your products on the internet and in exchange for a bit from the buyer you will get Coins - and the second method is known as bitcoin mining - for this method, very large mathematical acquisitions are solved by assembling a very powerful computer, in exchange for which the computer owner get some bitcoins as a reward - this method is very easy at first but later it becomes very difficult (Gonzalez, 2018).

Modern;

Now a day there are two simple methods

Principally in modern life there are two methods to get Bitcoin online: one is called fast method and other is called cheaper method. The fastest method to get Bitcoin (BTC) is using a credit card. This procedure proceeds only in a few minutes but there is a fee for this method (Stevenson, 2013). Another method to get BTC is cheaper method, though significantly more complicated method is to buy Bitcoin on an exchange.

1. Fast or credit card Method

- A. In the first step visit the Bitcoin.com to get Bitcoin using a credit card.

- B. In step two, visit the buy or get Bitcoin page. In this page enter the amount of bitcoin wish to purchase and after it require the address on the purchased Bitcoin will be sent. Before this you download Bitcoin wallet for free.
- C. After it open Bitcoin Wallet, copy the Bitcoin address and paste it into the "Bitcoin address" field. By doing this Bitcoin that was purchased will be sent automatically to this address.
- D. Once it inputted the Bitcoin address and selected a purchase amount, the continue button will appear after it click the button to proceed (Miller, 2015). From this stage it will be directed to a form that is Simplex's checkout form. input the required information, and voila just by Simply following the steps,! When it completed the purchased Bitcoins will be sent to into the Bitcoin Wallet address. This is easy and fast but it may take from ten minutes to more than an hour but fee can be charged.

2. Cheaper or exchange Method

To buy or get Bitcoin on an exchange is cheaper method.

- A. In first step, choose an exchange by entering the country of residence and then selecting from the given list of sanctioned exchanges.
- B. In second step, setup an account on the exchange. This will be depending on the exchange; many forms of identification may be required.
- C. In step three, it is required to connect one or more bank accounts to the exchange account. Anything buys or sells will be deducted from connected bank account or deposited to the connected bank account.
- D. In the fourth step, select amount to the purchase once have created an account on selected exchange and also added a bank account (Janniro, 2015). it navigate to the exchange that has Buy feature: select an amount of bitcoin to purchase, enter the bitcoin address, confirm the purchase, and wait for a while so that the purchased Bitcoin to reach in wallet.

Advantages of BTC

1. Sending money is taxed at zero.

2. You do not have to change money when sending money to another country.
 3. A bank or any other money transfer company has to provide its personal information, but there is no such system in Bitcoin.
 4. Anyone who has access to the Internet is a bitcoin.
 5. Bitcoin will not have to handle things like credit cards, debit cards, notes and coins.
 6. Your money is always safe.
 7. There is no third party between the sender and the receiver.
 8. You don't have to go anywhere for payment (Dynamic Bit Coin Value Prediction, 2019).
2. Bitcoin is a completely open source non-sensory currency with no powerful central or government agency behind it. Therefore, the US Treasury Department has declared it decentralized.
 3. This currency does not require any mediation like the note in the agreement between two people.
 4. Like most currency notes, the bitcoin has no gold backing.
 5. The demand for bitcoin in the market is very high and the trend of people, especially traders, towards bitcoin transactions is increasing.
 6. Bitcoins are being used like other popular currencies such as the dollar and the euro (Brito and Castillo, 2016)

Disadvantages of BTC

1. The value of a bitcoin is not always the same. Depending on the circumstances, it may lose its value and gain more than ever.
2. If you don't have internet, you don't have bitcoin.
3. Bitcoin is a difficult link from earning to collecting and using it. Educational skills, hard work, and the use of the Internet are essential to understanding bitcoin.
4. There are very few businesses and banks that use bitcoin, which makes the scope for bitcoin users very small (Benson, 2018).

Bitcoin in the eyes of economists

An article presented by a well-known congressional research service in the US upper house examines bitcoin in its entirety.

To find out the true meaning of bitcoin, here are a few things to consider:

1. Bitcoin is a non-sensory currency that has no physical existence, and is based entirely on the Internet.

Analyzing the bitcoin market

Initially, it was considered a form of fraud, but most people withdrew, while others invested little. Little did anyone know at the outset that in a few years, the bitcoin would become the world's largest digital currency. Because in 2010 an offer of up to ten thousand bitcoins was offered for a pizza. But over time, its value skyrocketed. Even in 2013, its price reached Rs 200,000. Thus, the people who had invested in it, their money at that time was worth several hundred times more. Its strength can be gauged from the fact that it was introduced in 2009 and in February 2011 the value of a bitcoin reached to one US dollar (Combs and Mitsoff, 2014). Then this emerging digital currency did not look back and began to grow by leaps and bounds. By late 2013, its value had risen so much that it was possible to buy 25 grams of gold with just one bitcoin (equivalent to 5 1,151). As of December 2013, the number of bitcoins was 10,000 and their value in Pakistani currency reached Rs 1.5 billion. Bitcoin's popularity grew steadily as shopkeepers and merchants began to accept it as a currency. And it has reached the peak of popularity in a short period of time. Today, the price of a bitcoin has exceeded 1.9 million Pakistani rupees. About 16 million 78 thousand bitcoins are currently in circulation and their number is increasing on a daily basis. According to experts the market capitalization of the cryptocurrency will reach one trillion dollars (Stevenson, 2013). Bitcoin's

accounting firm is currently a block chain, a new type of Internet in which everyone can view but not copy digital information.

Conclusion

Although it is factual that cryptocurrency can be used for wicked drives, the similar can be said of note currencies. But, dissimilar to cash, the transactions of Bitcoin are documented in an online account books. The Bitcoin market is massive, increasing rapidly, and full with potential. There are also some hazards, so everyone need to go in effusively learned and take steps to accomplish risk intelligently in Pakistan and in the world. The comprehensive guide to what bitcoin is, what its mechanism is, and how it just may momentum a revolution in the way digital value modifications hands is important (Advantages & Disadvantages of Using Bitcoin (Diginomics, 2019). As a comprehensive guide to what bitcoin is, what is its mechanism, and how it just may momentum a revolution in the way digital value modifications hands is useful. All the data is on the network so everyone can see it. The US Federal Reserve recently announced that it would launch its own cryptocurrency. China initially promoted bitcoins but then banned the acquisition of coins through exchanges, which caused a stir in the cryptocurrency exchange. The People's Bank of China announced in late December said that it had also formed a team to design its own independent cryptocurrency (Sunyaev, 2020). Governments and corporations want to launch their own digital currencies and there is no doubt that e-money will take on a whole new look. However, the government of Pakistan has outlawed bitcoins and the official position of the State Bank of Pakistan is that it has no intention of legalizing bitcoins or cryptocurrencies in the future. But it has not made any difference to the flourishing of underground exchanges in Pakistan. Anyone can still buy and sell bitcoins through Facebook, WhatsApp, websites and other means (Talib, 2018). No person or bank has any right to earn or acquire BTC till now, it is no less than a blessing for countries like Pakistan, which are free from the sanctions of world powers and monopoly of World Bank Unlike traditional currencies, no government or central bank issues cryptocurrencies at the moment, but this situation will probably not last long. Pakistan has a chance to become the first country to own it, otherwise one or the other country will soon adopt it.

If Pakistan adopts this and joins the Asian bloc, it will be possible to end the monopoly of Western currencies, at least in the Asian bloc, and later the same Asian currency bloc can emerge as a new economic power on a global scale.

References

- Advantages & Disadvantages of Using Bitcoin – Diginomics. (2019). Retrieved June 9, 2020, from <https://diginomics.com/2013/02/07/advantages-and-disadvantages-of-bitcoin/>
- Andrei, L. C. (2011). *Money and Market in the Economy of All Times: another world history of money and pre-money based economies*. London, UK: Xlibris. <http://doi.org/10.1007/978-1-4568-6559-7>. P 333
- Anderson, T. J. (2019). *Money without boundaries: how blockchain will facilitate the denationalization of money*. Hoboken, NJ: John Wiley & Sons, Inc. P 97
- Brian, O. (October 30, 2019) “The Shady Cryptocurrency Boom on the Post-Soviet Frontier.” *KYC360*, Riskscreen, www.riskscreen.com/kyc360/news/the-shady-cryptocurrency-boomon-the-post-soviet-frontier/.
- Benson, J. (2018). *Cryptocurrency investing for dummies: Top 20 cryptocurrencies 2018: Main disadvantages of Bitcoin, Blockchain revolution bounty & ICO, tips and strategies for trading*. London: CreateSpace Independent Publishing Platform. P 32
- Brito, J., & Castillo, A. M. (2016). *Bitcoin: A primer for policymakers*. Arlington, VA: Mercatus Center, George Mason University. PP 33-34
- Combs, B., & Mitsoff, T. (2014). *Bitcoin decoded*. United States: Propellerhead Marketing Group. PP87
- Cherunilam, F. (2014). *International Business: Text and Cases*. New Delhi: Prentice-Hall of India. P 179
- Dynamic Bit Coin Value Prediction. (2019). *International Journal of Engineering and Advanced Technology Regular Issue*, 9(2), 3702-3707. doi:10.35940/ijeat.e7838.129219
- Francis, J. C. (2019). Bitcoins, Cryptocurrencies and BlockChains. *SSRN Electronic Journal*, 5-7. doi:10.2139/ssrn.3371051
- Franco, P. (2015). *Understanding bitcoin: cryptography, engineering and economics*. Chichester, West Sussex: John Wiley & Sons Ltd.

Guttmann, B. (2013). *The Bitcoin bible: all you need to know about bitcoins*. Norderstedt:

Books on Demand.

Gonzalez, M. (2018). *The Bitcoin Investor: A Complete Guide to Cryptocurrency*. Milan: Michael Gonzalez. P 77

Hacıoğlu Ümit. (2019). *Blockchain economics and financial market innovation: financial innovations in the digital age*. Cham, Switzerland: Springer. doi: <http://doi.org/10.1007/978-3030-25275-5>. P 5

Janniro, M. (2015). *The black book of Bitcoin: a step-by-step Bitcoin guide on everything you need to know about this new currency*. United States: Alura Publishing. P 21

Kar, A. K., S. S., & Gupta, M. G. (2019). *DIGITAL INDIA: Reflections and practice*. New

Dehli: SPRINGER.. doi: <http://doi.org/10.1007/978-3-319-78378-9> P 100

Kumar, A. T. V. (2018). *E-Democracy For Smart Cities*. New Dehli: SPRINGER. P 230

Lewis, A. (2018). *The basics of bitcoins and blockchains: an introduction to cryptocurrencies and the technology that powers them*. Coral Gables: Mango Publishing.

Miller, M. (2015). *The ultimate guide to Bitcoin*. Indianapolis: QUE. PP 34-35

Mullan, P. C. A. R. L. (2019). *History Of Digital Currency In The United States: new technology in an unregulated market*. S.l.: palgrave macmillan. P207

Sarel, R. (2020). Your Bitcoin Is Mine: What Does Law and Economics Have to Say about

Property Rights in Cryptocurrencies? *SSRN Electronic Journal*, 5–7. doi: 10.2139/ssrn.3542545

Stevenson, J. (2013). *How to earn Bitcoins - Step by Step*. London: John Stevenson. PP 13-23

Stevenson, J. (2013). *How to earn Bitcoins - Step by Step*. London: John Stevenson. P 33

Sunyaev, A. (2020). *Internet computing: Principles of distributed systems and emerging internet-based technologies*. Cham, Switzerland: Springer. doi:<http://doi.org/10.1007/978-3-030-34957-8>. P21

Talib, A. A. (2018). Is bitcoins the gateway to currencies of the future. *Journal of Finance and Marketing*, 02(01). doi:10.35841/finance-marketing.2.1.40-19

Xhafa, F., Patnaik, S., & Tavana, M. (2020). *Advances in intelligent systems and interactive applications: proceedings of the 4th International Conference on Intelligent, Interactive Systems and Applications (IISA2019)*. Cham, Switzerland: Springer.P 359

Zheng, & Chang. (2020). *Blockchain and Trustworthy Systems*. Singapore: Springer . PP 241243