

**Economics of Crypto currencies**

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## **Abstract**

Cryptocurrency is a digital asset, which is used as the medium of exchange for the purpose of secured financial transaction and also for transferring the assets. This paper has shown the effect of Cryptocurrency on the global economics. In this regard, the researcher has set four research objectives, which have been addressed at the end of the research. With the help of this study, the researcher is able to identify the future of Cryptocurrency and also highlighted the risk of using Cryptocurrency. In order to generate the conclusion, the researcher has conducted the secondary research and collects the required information from different articles, books, journals and from newspapers. It is noted that the source of collected data is required to keep safe and private. After the analysis, it can be observed that Cryptocurrency has strong influence on the emerging economies, from this point it can be inferred that it will have a wide future growth. On the contrary, it can be observed that due to scam, the privacy of the users would not be maintained. Conversely, the transaction process is irreversible, after making the transaction; it would not be possible to pay back the money. However, exchange through these digital currencies is able to prevent the circulation of black money across the country, which has a positive effect on the economy.

**Key words:** Crypto currency, Bitcoin, Block Chain, Emerging economy, Digital currency, Trade, Security, Secondary analysis etc.

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## **Chapter 1: Introduction**

### **1.1 Introduction**

Cryptocurrency is referred as the digital asset, which is designed and is used for the purpose of medium exchange and also for the strong cryptography. Crypto currency is beneficial for decentralising the central banking and electronic money systems. Cryptocurrency can protect the financial transactions and can verify the transformation of assets. In the opinion of Narayanan et al., (2016), it can be stated that crypto currency is identified as the virtual currency or digital currency. For instance, Bitcoin is the first released open-source software of the year 2009, which is referred as the decentralized Cryptocurrency. Bitcoin was introduced by Satoshi Nakamoto.

The prime aim of crypto currency is to contain the total amount of the transferring of coins and also consist of both the recipients' and the senders' public keys. On the other hand, Cryptocurrency is the absolute consensus, which shows the legitimacy of the transactions and the balances. This is the reason, why Cryptocurrency is known as the consensus-keeping procedure. It is known that crypto currency is also helpful to the investors since it makes the payment easier. In a nutshell, it can be mentioned that under the traditional business dealings such as the brokers and the agents would get the utmost benefits from crypto currency during the straightforward transaction. In addition, Delmolino et al., (2016) cited that Cryptocurrency is able to cut out the intermediaries or the middle man and make the peer-to-peer network structure very easy. In turn, Cryptocurrency leads to achieve the greater accountability. The investors can easily transfer the assets with the help of property right database of the Cryptocurrency.

In the opinion of Delmolino et al., (2016), Cryptocurrency can keep the privacy for maintaining the confidentiality of the transactions only among the two parties. As a result, it

can be inferred that the privacy in the financial history enables to keep away the threats under the traditional exchange system. However, Gandal and Halaburda (2014) argued that very few people across the world have idea and access regarding the traditional banking or the exchange system, Cryptocurrency can successfully increase the awareness of the people about these traditional systems, so that they can easily transfer assets to the sender and make the entire transaction approach easier. Cryptocurrency can successfully increase the awareness of the people. This paper will highlight how the Cryptocurrency is beneficial for the business and is also significant to the global economy.

## **1.2 Aim of the Research**

The primary aim of the study is to identify the effect of Cryptocurrency on the global economy. In this context, the researcher would try to find out the influence of crypto currency on the businesses and also on the traditional banking and exchange system. On the other hand, how the factors of Cryptocurrency would make an impact on the economy would also be demonstrated. Apart from this, the researcher would like to mitigate the gap among the prior literatures and the current study, with which the researcher can explore new findings in the future.

## **1.3 Rationale of the research**

It is known that Cryptocurrency is referred as the blockchain technology, since it is operated in the decentralised networking system. According to Park et al., (2015), Cryptocurrency that is the digital currency can generate money as well as can verify the transaction process. More specifically, it can be inferred that Cryptocurrency enable to prevent cheating and can also track the digital exchanges. As a result, the world can move towards the transparent, secure and the trustful digital currency. From this point, it can be mentioned that in today's era, Cryptocurrency is important for protecting the wealth of the world, which has a positive effect on the economy. This is the reason, why the researcher has chosen this topic for



accomplishing the study. On the other hand, Cryptocurrency is highly beneficial since with the help of this digital exchange system, both the sender and the receiver can conduct the transaction transparently. In addition, the transaction is non-disclosure to the third party and the privacy can also be maintained. Conversely, Cryptocurrency is also referred as the low-cost banking process, where the customers have access on the exchange of money.

#### **1.4 Research Objectives and Research Questions**

The objectives of the research are as follows:

- The researcher aims to identify the factors, which affect the transaction through Cryptocurrency.
- To find out the risk of loss under Cryptocurrency.
- The researcher aims to find out the future of Cryptocurrency.
- To evaluate the effect of Bitcoin on the economy.
- To measure the effect of Cryptocurrency on the economic well-being of the people.

The entire paper is developed based upon these major questions:

- What are the major factors, which influence the transaction through Cryptocurrency?
- What are the major risks under Cryptocurrency?
- What is the future of Cryptocurrency?
- How Cryptocurrency affect the bitcoin of the economy?
- What is the effect of Cryptocurrency on the economic well-being of the people?

#### **1.5 Structure of the research**

The present study is categorised into six chapters, and the content of the chapters can be explained briefly in the following:

Chapter 1:

The introduction of the research paper can be explained briefly in this section. In this context, the rationale that is the reason of choosing the topic would be discussed. Apart from this, the rationale would be beneficial for identifying the issues and challenges of crypto currencies on the economies from the prior literatures and resources. With the help of these prior researches, the researcher will be able to get a clear idea, in what way the research will need to be accomplished for deriving the conclusion. In order to derive the conclusion, the researcher would develop the relevant research aim and objectives, which are required to be address for deriving the conclusion.

#### Chapter 2:

In this section, the researcher would highlight details description on literature review. In order to complete the chapter, the researcher will depend upon the relevant scholarly journals. More specifically, the researcher will discuss about several models and theories for recognising the effect of crypto currencies on the global economy. Conversely, conceptual framework would help the readers to understand the flow of the study.

#### Chapter 3:

In the chapter 3, the researcher would describe the research methodology in a detailed manner, which would be followed by the researcher to accomplish the paper. In this context, the researcher would highlight the problem statement as well as then data collection method apart from the research methodology process. More specifically, the research approach, sampling technique would be analysed.

#### Chapter 4:

In this chapter, the researcher would highlight the data analysis of the paper based on the accumulated information. This is chapter is very important since the next chapter such as the

conclusion of the research would be derived depending on this. In this context, it can be stated that the researcher would perform the qualitative analysis and the secondary research.

#### Chapter 5:

In this chapter, the researcher would be capable to identify the effect of the outcome. In addition, the validity of the research hypothesis can be measured. In this context, it can be stated that outcome can be generated based on the qualitative research analysis. Apart from the qualitative research analysis, the essential theories and models are used for generating the probable output.

#### Chapter 6:

This is the last and ultimate section of the research, where the researcher would be able to briefly analyse the effect of crypto currency on the global economy. Apart from this, the objectives of the research would be linked with the outcome of the paper. Conversely, some essential recommendations would be mentioned after identifying the loopholes of the paper, which would be beneficial for the further research. In addition, some limitations would be highlighted, which would face by the research for accomplishing the paper.

## **Chapter 2: Literature Review**

### **2.1 Introduction**

The researcher of this study will highlight the effect of Cryptocurrency on the global economy. From the above mentioned topic, it can be stated that the effect of Cryptocurrency is considered as the independent variable whereas the performance of the global economy is treated as the dependent variable. In order to successfully accomplish the paper and for getting a clear idea, the researcher has discussed several and relevant models and theories in this literature section. More specifically, it can be inferred that the theories and the models are essential for deriving the conclusion on the effect of Cryptocurrency on the broad aspect. Apart from this, the advantages of Cryptocurrency would also be described, so that the researcher can identify how the factor influences the global economy.

### **2.2 Theories and Models on Crypto currency**

In the opinion of Hayes (2017), it can be mentioned that Cryptocurrency is referred as the digital currency, which is developed and is managed with the help of advanced encryption process, which is called the cryptography. In the book of Nassim Nicholas Taleb, he explained that Crypto currency makes the overall digital exchange process economically safe. As a result, fraud during the transfer of money can be avoided with the help of credit card charge-backs procedure. Before describing the benefits of crypto currency in a detailed approach, it is necessary to analyse the models and theories of crypto currency.

**Traditional Valuation Model:** The valuation of classifying the traditional assets can be categorised into two, and these are absolute model and the relative model. Both the models enlighten their focus on the inputs and outputs are used. Absolute valuation model aims to focus on the intrinsic value of the investment, with which the fundamentals such as dividends, cash flow and the asset holding etc. can be evaluated. As opined by Fry and Cheah

(2016), two of the popular absolute valuation models are such as the discounted cash flow model as well as the dividend discount model. With the help of these models, high level overview on the crypto currency.

The discounted cash flow analysis is a process of valuing the asset by leveraging the time valuation of money. In terms of the discounted cash flow analysis, the cash flows investment would be projected for highlighting the organisational capacity, with which the performance of the business can be forecasted. Simultaneously, with the help of this forecasted performance of an organisation, crypto currency enables to convert the performance into the generation of the organisational cash flow. From the point of view of the public company, the revenues, growth margin as well as the capital expenditure can be predicted. Apart from this, Net present value calculation is one of the essential models of Cryptocurrency. According to Hayes (2017), it can be stated that the resultant of the net present value helps the investors to identify their willingness towards the receivables future cash flows. On the other hand, the dividend discount model enables to provide a clear idea to the public company regarding the future dividend payments and about the discounted back on the present valuation. It can be mentioned that the dividend discount model is working similarly with the discounted cash flow model.

**Relative valuation models:** Fry and Cheah (2016) opined that the approach of the relative valuation model is on the opposite direction of the absolute valuation model. It is relied upon the precedent transaction analysis. However, Li and Wang (2017) argued that both the traditional valuation models such as the relative and the absolute valuation models are not very helpful for Cryptocurrency since Cryptocurrency do not completely fit with the traditional asset such as the real estate property, bond or the stock neither it is dependent on the recurring cash flows, terminal value or on the dividend payments. In turn, it is highly fitted for the global transactions. However, Gandal and Halaburda (2016) argued that the

relative valuation model for Cryptocurrency can find out the mass consumer adoption and can measure the trading volume on the distribution or on the exchanges.

**Equation of exchange monetary model:** From the above analysis, it can be observed that the traditional valuation model is not very appropriate for the crypto currency. However, the models are beneficial for deriving the value of Cryptocurrency instead of providing the justifications over the investment. The Equation of exchange monetary model is significant for finding out the value of crypto currencies. The model is able to attempt and can evaluate the value provision of the users, so that the valuation of coin supply Cryptocurrency can be estimated. In the opinion of Abraham et al., (2016), the equation of exchange monetary model is considered as the macroeconomic model, with which the money supply, the index of expenditures, the price level and the velocity of money of the economy can be measured. Therefore, more specifically, it can be inferred that the model is composed based on the concepts of two building blocks such as the quantity theory of money and the theory of money supply. The model enables to estimate the velocity of the Cryptocurrency with the help of the reasonable discount rate and also with the high degree of uncertainty.

### **2.3 Factors Influence the Bitcoin Prices**

Bitcoin is referred as the decentralised digital currency, with which the sender can send money to the target receiver without the involvement of the third party. In order to conduct or initiate a bitcoin transaction, both the sender and the receiver need to have the computer or mobile phones. As opined by Ametrano (2016), in the banks or in the other financial institutions, the block chains are used as blocks. It can be stated that the bitcoin can solve two major problems in the digital transactions such as it can avoid the duplication and can operate the essential information. For instance, in case of transaction, all of the information are recorded and can be sent from one computer to the others in the global market. The legality of Bitcoin is dependent upon the person, where they are located. After identifying the

importance of bitcoin, Japan had legalised the uses of bitcoin for the purpose of international trade.

According to Kim et al., (2016), the price of Cryptocurrency is differed or is fluctuated and therefore, bitcoin has an effect on the other currencies. The factors which affect the bitcoin prices can be described in the following:

**Hacking:** It is noted that hackers has negative influence as well as can disrupt the spreading of Cryptocurrency. For instance, the hacking of Gox in the year 2013 had brought down the price of the currency. Simultaneously, it had affected the public trust towards the exchange of currency. As a result, it can be interpreted that the continuous threats from the hackers has adverse effect on the price of bitcoin.

**Affirmation by nations:** After the acceptance of bitcoin as the exchange of medium by Japan and Australia, the demand for the currency to surge has increased. It can be speculated that the countries like India, Bitcoin would also be accepted and therefore, therefore, demand for bitcoin has been rising. In the opinion of Ametrano (2016), it can be stated that with the rise of the acceptance of currency, the price level of the exchange rate would be increased as well. For instance, Affirmation is one of the appropriate example, with which it can be explained that how the prices for bitcoin has been rising.

**Illegal activities:** Bitcoin needs to follow lots of operations. According to Geoffrey (2018), it can be stated that the illegal activities such MLM and the Ponzi schemes have influential effect on the prices of bitcoin. International government has been playing the role of intermediaries and this is one of the major reasons why the prices of bitcoin would rise or fall with the passage of time. Kim et al., (2016) argued that hackers have adverse effect on the authorised access of the price level of bitcoin. More specifically, bitcoin would gain the

unauthorised access through the ransom payments by the hackers on the computer system. Consequently, the users would suffer from the problem of data breaches.

**Awareness and recognition:** With the passage of time, the awareness regarding the investment in currency has been rising. Gandal and Halaburda (2016) stated that the older people along with the young IT geeks have been showed their interest towards the investment in the bitcoin and hence, the value of bitcoin has been fluctuating. Apart from the benefits, there are some uncertain challenges in this kind of trade. The reason of this uncertainty is the oscillation of bitcoin in the digital market. Under this circumstance, some of the investors aim to make a large percentage of profitability.

Apart from the above mentioned uncertainty, it can be stated that after making the transaction and after the investment in bitcoin, the market would have been crushed. Li and Wang (2017) cited that there are several reasons behind the market crush. For instance, the merchants aim to invest more for increasing the share of profitability percentage within the shorter period of time. This is the reason why the market of bitcoin uses to be crushed. From this point, it can be inferred that the market of Cryptocurrency has been adversely affected due to the uncertainty of the market.

On the other hand, media has negative impact on the market of bitcoin. If the investors incur massive loss after the investment in bitcoin, then media tries to cover the incident with all other pitfalls. It is known that a large number of people are relied upon the primary sources of information. In this context, if media would represent the negative consequences of bitcoin, then it would create an adverse effect on the minds of the people. Nevertheless, it can be mentioned that though media tries to spread scarcity among the people, the potential investors and the merchants would like to still explore the advantages of Cryptocurrency and would like to enjoy it.



**FOMO:** In the opinion of Fry and Cheah (2016), it can be stated that FOMO or “Fear of Missing Out” has been playing an essential part in the market of bitcoin. This arises when the large investors or the merchants try to gain huge benefits from double, triple or more quadruple within short period of time. More specifically, it can be mentioned that fear of missing out is suitable in the bitcoin economy since the economy may experience from the exponential growth rate. In turn, it may increase the rate of occurring of risks.

**Public sentiment:** It refers the inclination of the people towards the bitcoin. Hayes (2017) cited that the image or goodwill of bitcoin is attributed towards the people under the involvement of media platforms and the investors. On the other hand, it can be added that the public sentiment has a strong influence on the bitcoin platforms. From this point, it can be inferred that crypto industry has a strong and substantial effect on both the potential investors and on the merchants.

**Regulations by the Government:** Government intervention can exaggerate the level of success for the Bitcoin enthusiasts. The prime objective of the government is to keep the track record regarding the transaction of the credibility of Bitcoin traders. As per the statement of Park et al., (2015), it can be mentioned that government intervention is beneficial for reducing the crime rate. In addition, regulations by the government are able to end up the movement of the discouraging traders, who mainly aim to transact anonymously. It helps to minimise the occurrence of risks in the business or in the transaction.

**Public confidence in the FIAT currency:** The value of the fiat money is completely dependent on the experience of the issuer and also on the faith of the investors. It is noted that the FIAT currency is very accurate, which has intrinsic values for the measurement. The fluctuation in the public confidence on the fiat money has rendered the fiat currency worthless. On the other hand, the commodity money enables to retain the value based on fiat

money since it is known that fiat money has been facing the risk of inflation due to the non-intrinsic value.

**BTC whales:** In terms of economics, it can be stated that the value of Bitcoin is affected due to the fluctuation of price. Conversely, Bitcoin has the potentiality in the traditional online payment structure and these are VISA/Master Card, and PayPal etc. However, Cryptocurrency has also been suffering from the wild fluctuations along with the fluctuations of the price level. More specifically, if the price level goes up and down by the 5 percentage within the 24 hours, then the market of Cryptocurrency would also differentiate. Gandal and Halaburda (2014) cited that the price rate of BTC Whales and the Crypto altcoins are moving in the opposite directions, however, the rate of fluctuation is similar of these, which is dependent on the 24-to-48 hours oscillation cycles. This oscillation rate can be anticipated by the well-financed speculators, who are referred as whales. For instance, the world popular BTC Whale is Nobuaki Kobayashi of Japan. He is the trustee of the Mt. Gox exchange, which is known as the largest Bitcoin exchange. Nonetheless, the Cryptocurrency exchange, Polinies, Kraken, Bitfinex, Bittrex is considered as the BTC whales during the public exchanges.

## **2.4 Future of Bitcoin Exchange**

In the opinion of Denham (2018), it can be mentioned that due to have some specific limitations of the exchange of virtual currencies, transaction through the bitcoin exchange brings new medium of exchange. Since, it is different from the financial institutions and uses the decentralized database for preventing any external manipulation. With the passage of time, the demand of Bitcoin exchange has been rising successfully. More specifically, with the rise of international trading relationship, the traders are dependent upon the fiat currencies (such as USD, PLN and EUR etc.). Apart from this, bitcoin exchange has flexibility during the transaction since the traders are allowed to trade or invest 24/7 as per their reliability.

This is one of the main reasons of dynamic currency. From this point, it can be anticipated that the exchange through Bitcoin will get more success in the future. Bitcoin debuts the largest future exchange of the World, which is named as CME Bitcoin (CNBC, 2018). In turn, the launching of Bitcoin will be beneficial for the exposure of Cryptocurrency.

## **2.5 Benefits of Investing in Bitcoin**

In terms of economics, it can be stated that Bitcoin has significance for the investors, who aim to invest in the long-term ventures for the reason of economic deflation. More specifically, under the deflationary situation, the consumers will be capable to purchase a product by providing same amount of coins and can get high quantity of goods and services. This is the reason, why the organisations are willing to make transaction through digital currency. The benefits of investing in Bitcoin can be described briefly in the following manner:

**Irreversibility of the transactions:** Unlike the banking transfer, Bitcoin transaction is irreversible. Therefore, before transferring the amount or before conducting the operations, the senders need to check several times. Transaction through Bitcoin exchange allows the immediate transfers to any corner of the world. Apart from this, due to the blockchain, both the sender and the receiver would get the access on information openness. In addition, Li, X. and Wang (2017) cited that Bitcoin exchange enables to resist the currency to debt. This is the major reason, why the investment in digital currencies across the world has been rising. For instance, the worth of Bitcoin in the year of 2014 was 1200 PLN and after the 3 years, the investment has increased to 200000 PLN. This refers that the investors are satisfied with the Bitcoin transaction and therefore, the rate of investment in the digital currency over the years has been increased.

**Evading fraud:** Since the transaction under the Cryptocurrency is digital, therefore, it would not be counterfeited. In spite of this, from the above discussion it can be observed that the sender would not be capable to reverse arbitrarily in case of the transaction through credit cards. Therefore, the Bitcoin transaction ensures that the participants into the trade would not be defrauded their money. Scammers would get the opportunity to get huge amount of money. Conversely, the scammers would be able to tap out the money from the Bitcoin enthusiasts. In addition, through Bitcoin, the scammers can easily keep the track of the entire transaction. However, Narayanan et al., (2016) argued that if the Bitcoin as well as Cryptocurrency are stolen, then it would not possible to return to the actual owner.

In order to avoid the fraud, the Bitcoin users need to be concerned on regular basis. More specifically, the Bitcoin users can take precautions against the malware downloads and virus, scam attempts, imitation wallets and scam attempts. Moreover, the scammers of Cryptocurrency are capable to make their money with the help of malware campaign. For instance, sometimes the users receive emails from the unknown sources, and if the users would click on the malicious link then the malware would be downloaded. Consequently, the account details of the users can be hacked. Likewise, the a number of people are dependent on the Cryptocurrency and Bitcoin exchange websites, however, the users do not need to completely keep trust on the strange links blindly. From this, it can be stated that the malware campaigns are effective to protect the users from the hacking of account details. Therefore, it is significant to maintain good reputations in the name of legitimacy. As opined by Delmolino et al., (2016), cold storage offline wallet is the other security tip against the Cryptocurrency scam.

**Avoiding identity theft:** It is one of the important aspects of Cryptocurrency exchange and the merchants have very less access on the credit lines. This is also useful for conducting the small amount of transactions. Under the credit cards work, the store initiates both the

payment and pull of currency from the Cryptocurrency account. Furthermore, Cryptocurrencies can operate the push mechanism.

**Immediate settlement and the lighting network:** In order to the purchasing of property or physical assets under the Cryptocurrency exchange, third parties such as the notaries or the lawyers have been playing an essential role. On the other hand, blockchain is working as the property rights database. Blockchain database enables to eliminate the third parties' approval. By the end of 2017, most of transactions under Bitcoin exchange are done by the speculators, traders and by the investors. Over the years, both the fiat currencies and Bitcoin have become the reserve currency. The net impact on both the speculators and the traders were that Bitcoin has been experiencing the big push in the transactions. As a result, it can be concluded that the online adoption of Bitcoin has been rising randomly.

**Easy to access:** Approximately 3.5 billion people are connected with internet and therefore, it can be stated that Bitcoin exchange is easier to access. The mobile based transactions through Bitcoin make the transaction also very easy. For instance, at the end of 2017, one-third of the Kenyans that is the residents of the underdeveloped countries get the benefits through the transaction of Bitcoin (Geoffrey, 2018).

**Lower Fees:** Under the Cryptocurrency transactions, the users do not need to pay additional transactional fees like to the credit cards since the networks try to compensate the miners. Nonetheless, Denham (2018) argued that Coinbase that is a third party service that is involved in the Cryptocurrency transactions and it usually charge its service fees from the users. In order to make the transaction among two parties easy, Bitcoin Blockchain uses to take the help of Lightning Network. On the other hand, the payment channel and the entire procedure of the transaction would be terminated or closed by either the sender or by the receiver. Conversely, the Lightning model is also beneficial permit the transaction efficiently

among the participants instead of considering the broadcast business with the rest of the world.

Bitcoin is also accessible and can track the payment transaction of both the parties. This is the reason, why both the parties try to avoid the time-consuming and the expensive transactions with the help of Blockchain. In this context, it can be mentioned that the Blockchain cannot be corrupted or cannot be bribed, therefore, it is fair. According to Gandal and Halaburda (2014), the Lightning Network is highly significant for both the senders and the receivers since both the parties do not need to wait for a long. In addition, one of the major benefits of the Lightning Network model is, it enables to charge very low transaction cost in turn of the instant payments. It is also capable to raise the privacy of the transaction. In the comparison with low-fee altcoins, the Lightning Network model has high level of liquidity along with the lower rate of volatility and higher rate of longevity. As a result, it can be inferred that most of the users prefer Bitcoin over the altcoins.

**Privacy of personal information:** Since Cryptocurrency is decentralized; therefore, the private information of the people, who use Bitcoin for the transaction, is remaining private. However, Park et al., (2015) argued that this is also very popular means of transaction, since it helps to keep the identity of the users protected. Bitcoin mining is also safe to the users as no third party can involve into it. For instance, unlike PayPal or the credit cards, after opening the Bitcoin wallet, both the personal information as well as their identification cannot be leaked.

## **2.6 Risks Associated with Bitcoin**

**Risk of loss:** Sometimes, it can be observed that the investments through trading Bitcoin, may be hacked or scammed. As a result, most of them aim to fail to recover the money and may suffer from the financial loss. For instance, in order to hack the investments,

cybercriminals mostly use the Localbitcoins platforms, with which the laundering money can be stolen. Conversely, since the transaction through Bitcoin is new in the market, therefore, most of the users are willing to rely upon the Cryptocurrency. From this point, it can be argued that the transaction through Cryptocurrency is volatile in nature.

**Lack of security:** It is not yet invented, which can protect the coins from threats arise by human error. Some of the human errors are such as the technical glitches, password fraud etc. As per the statistical report of Blockchain tracking company chain analysis, approximately 3 million bitcoins have been theft (Nova, 2018). The major reason of hacking of bitcoin can be explained. Bitcoin was born out due to the distrust of digital markets, and therefore, it was planned to build a new system, which is free from or different from the bankers or from the brokers. After raising the valuation of Cryptocurrency, uneasiness of the people has also been increased as well. Apart from the lack of security, the users would not like to invest in the Bitcoin conventional payment method due to the lower level of scaling.

**Lack of applications:** Since, the digital currency is also used for the purpose of illegal transactions, therefore, the possibility of the uses of Bitcoin transactions have become highly complicated. The hackers would not be able to disrupt the electronic payment system or the fiat currency. The currency would require to be used for the purpose of money transferring, micropayments transform or the electronic transformation. In order to protect the users, Australian banks use to freeze the accounts of those, who have been taking part both the Cryptocurrency trading or involve in the Bitcoin. Apart from this, for avoiding these risks, the users can use Cryptocurrency tumblers during the time of trade. According to Nova (2018), Cryptocurrency tumblers are helpful in this context since the altcoins leverage the processes like stealth of addresses for protecting the users.

## **2.7 Effect of Cryptocurrency on Market**

It is known that the digital currencies enable to store as well as receive the money in terms of electronic form. More specifically, Cryptocurrency is a segment of digital currency, where the encryption process is undertaken for regulating and transferring the currency units. At the end of 2017, the market capitalisation of Cryptocurrency has reached to the USD1.3 bn. However, it can be stated that Cryptocurrency cannot be used for all types of transactions; it is limited for few supplies. The prime objectives of the investors or the traders, who use to transact through the Cryptocurrency is, to make higher value in the future instead of purchasing of other goods and services in turn. In a nutshell, it can be inferred that the Cryptocurrencies are not used for the purpose of accounting. In addition, the purchases are transferred back in terms of sovereign currencies such as in the form of Euro or US Dollar (Arnold, 2017). On the other hand, the nature of digital currency is highly volatile, and hence, the buying power of the users has been changed continuously. From this point, it can be concluded that for the exchange of digital currencies, price stability is complex. For instance, if the value of digital currency rises, then the users need to hoard the currency. Transaction through digital currency or the Cryptocurrency has been rising since 2009, which is marked after the innovation of Bitcoin. The price volatility and the deflationary economic situation has adverse effect on the Bitcoin.

## **2.8 Effect of Cryptocurrency on Global Economics**

According to Arnold (2017), it can be mentioned that Cryptocurrency is referred as the disruptive economic innovation, which have opportunity in the revolution of present economic structure. Bitcoin is the common system of Cryptocurrency, with which digital transaction can be possible without the presence of the intermediaries. It is known that the economic transaction of the world is dependent upon the US Dollar. It is identified as the reserve currency of the world economy. However, after the global financial crisis of 2008, the



world market has been experiencing the widespread hardship of the economy. Therefore, the form of economic centralisation is disrupted by the exchange of Cryptocurrency over the years. Nonetheless, after the emergence of cryptocurrencies, the digital exchange has been decentralised in a massive rate. It is one of the useful means of transaction during the international trade. Since the middle is absent, therefore, the transaction fees are very nominal. This will be beneficial for the small-sized foreign firms, which get the opportunity to increase the profitability percentage by participating in the global trade. If the intermediary will present during the transaction, then the overall cost of the importable items will be increased along with the imposition of tariff and quota (in case of non-free trade situation) (The Mission Daily, n.d). Consequently, the foreign customers will not be like to purchase the importables. From this point, the foreign firms will be affected. As a result, it can be inferred that Cryptocurrency has positive effect on the international trade as well as also on the global economy. However, Nova (2018) argued that for preventing the presence of the intermediaries, Cryptocurrency create a massive disruption during the global payment process. The major reason behind this is the occurrence of money laundering due to this payment processing protocol. Cryptocurrencies is not capable to trace the overall transactions as well as is not able to ascertain the characteristics of the operators. Moreover, the financial institutions also do not have access on this means of exchange. This is the main reason why the head of the IMF warned the participants about the potential disruptions of Cryptocurrency and also recommend to revolutionise the concept of money for all level of transactions and for the means of exchange.

## **2.9 Gap of the Literature**

From the above analysis it can be observed that Cryptocurrency is one of the medium of virtual currency, which is working completely in a different manner from the traditional currency for the purpose of transaction. Based on the above discussion, it can be inferred that

Cryptocurrency is easy to access, which has decentralised operations across the world. Apart from the easy access, Cryptocurrency offers the users to conduct the quick payments. Transaction through Cryptocurrency is highly beneficial for the international trade and therefore, the traders facilitate the Cryptocurrency as the medium of exchange. Moreover, since the third party or the banking institutions would not be able to interfere in this transactions, therefore, from this point it can be inferred that transaction through Cryptocurrency is beneficial for the inter-country exchange. However, it can be argued that Cryptocurrency is not able to make reverse payment. This study does not able to give a proper justification about the reverse transaction of Bitcoin. Apart from this, the financial institutions would not be able to trace the effect of Cryptocurrency on it. The researcher has also failed to find out the regulations of the governments of the countries on Cryptocurrency.

## **2.10 Summary**

In this section the researcher has tried to theoretically explain the theories and concepts on Cryptocurrency. In this regard, the researcher has highlighted the effect of the factors, which influences the bitcoin prices. Therefore, it can be interpreted that Bitcoin is one of the decentralised digital currency, with which the users would be capable to send the money or can conduct transaction with the receivers even without the involvement of the third party. One of the major benefit of Cryptocurrency is it can be controlled by each of the participants since the power of the transaction cannot be controlled by any other intermediaries or by the financial institutions or by the government.

Apart from discussing the effect of influential factors on Cryptocurrency, the researcher has also explained the reason of fluctuation of the value of Bitcoin. The major reason of the fluctuation is hacking and therefore, it would adversely affect the market of Cryptocurrency. Simultaneously, the illegal activities regarding the Bitcoin transaction also has a negative

impact on the digital currency users for transactions. It is noted that the users may suffer from the ethical issues due to the challenges like hacking as well as the illegal issues.

The researcher has got a broader aspect to enlighten the benefits of Cryptocurrency in this research. Cryptocurrency enables to prevent the identity theft from the scammers, which has already analysed in the above section (Bitconnect, 2017). Apart from this, it can be mentioned that the users are willing to send money through this medium of exchange since the transaction fee is very low compared to the others. In spite of this, the researcher has also tried to provide a precise idea about the effect of Cryptocurrency on the economics precisely. Based on the analysis, it can be inferred that this means of exchange is highly beneficial for the global traders for making the transactions easily and also very quickly.

## **Chapter 3: Research methodology**

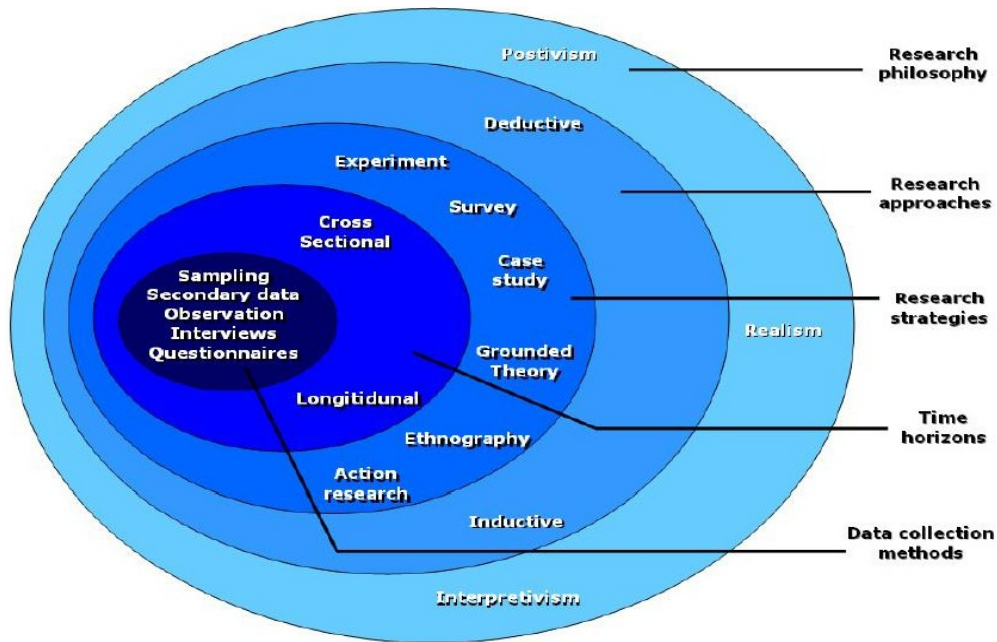
### **3.1 Introduction**

The researcher will highlight and analyse the most appropriate process, with which the requirement of the paper will be fulfilled. This is the most crucial chapter of the research in order to accomplishing the project as well as deriving the conclusion within the projected deadline. In order to generate the conclusion, the researcher will rely upon the thematic analysis. In this context, the researcher will include the analysis of research approach, research philosophy, research strategies and the methods in a detailed manner. In spite of these, the researcher will also discuss the data collection process in this context and based on these elements, the researcher can discuss the findings and the conclusion can be completed. Lastly, the researcher will mention the ethical guidelines, which will require to obey throughout the research process.

### **3.2 Research Onion**

Research onion explained the strategies for developing the conclusion of the paper. According to Mackey and Gass (2015), research onion shows the effective progression, based on which the research methodology section would be completed. Each of the layers of the onion explains the detailed approach of the research process.

**Figure 1: Research onion**



(Source: Mackey and Gass, 2015)

From the above figure it can be seen that in the first layer of the onion, the stages of the research philosophy has explained. With the help of the second layer of research onion, the researcher can highlight the deductive and the inductive research approaches. In the fourth stage, the researcher can give justification of choosing of quantitative or the qualitative research process. As opined by Taylor, Bogdan and DeVault (2015), two time horizon methods such as the cross-sectional and the longitudinal process would be analysed in the fifth layer of the research onion. In the sixth stage or the last stage shows the detailed process of the data collection process. In the following section, the researcher will derived the conclusion based on the summative in depth.

### 3.3 Research Method

Research method analyses the requirement of information in order to generate the conclusion for the paper. Research method is of two types such as qualitative and quantitative. In order

to avoid the numerical information, the researcher would be eligible to develop open-ended questionnaires, so that the respondents can state the opinion based on the subject matter. On the other hand, in case of quantitative research method, the researcher needs to deal with large amount of data base and therefore, needs to use large amount of data for analysing the statistical methods. In this regard, both the correlation and the regression analysis are performed by the researcher. Most of the times, the researcher depends on the primary study for gathering the numerical data. In order to complete the paper, the researcher would rely upon the qualitative research and it would be the best suited technique for this study.

### **3.3.1 Research Approach**

Research approach refers the entire process of the concerned topic for generating the conclusion. As opined by Flick (2015), the research approach can be categorised into two segments such as inductive and deductive approach. In case of inductive approach, the researcher will need to depend on the existed hypothesis for generating new theory. On the other hand, in case of deductive approach, the researcher tries to develop a detailed structure based on the classical theories and then construct new hypothesis, which is relevant to the study. In this paper, the researcher will follow the deductive research approach. Choosing of this research approach is significant for accomplishing the qualitative research. In addition, Flick (2015) opined that the deductive approach influences the researcher to build several essential themes connected to the subcontracting practices. On the contrary, inductive approach is not appropriate for this research since it refers the construction of new theories and models, which is not the objective of the paper. Nonetheless, the researcher has not kept the focus to derive new concepts based on the subcontracting practices. This is the reason, why the researcher has not chosen the inductive research approach for completing the paper.

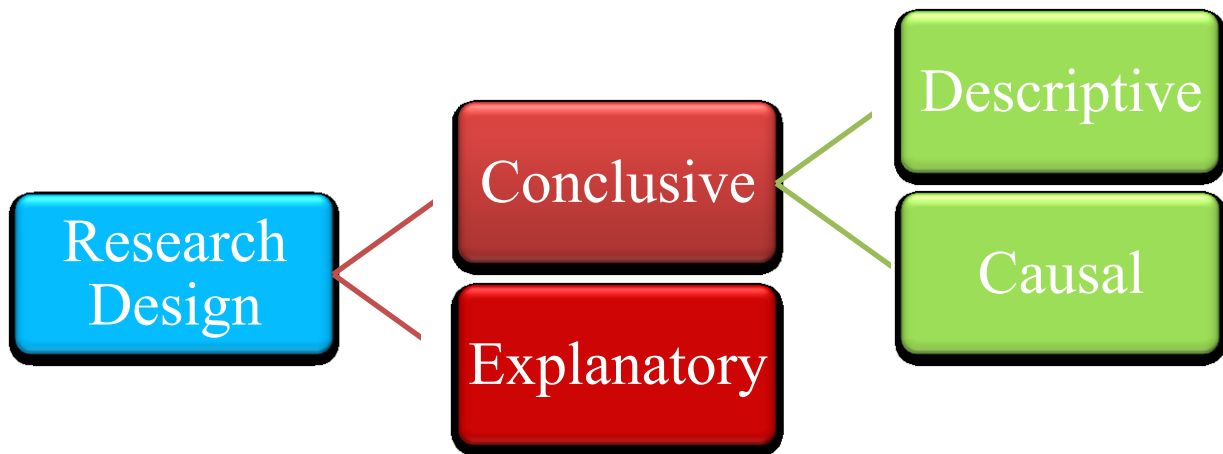
### **3.3.2 Research Philosophy**

Research philosophies are of four types and these are positivism, pragmatism, interpretivism and realism. Under the interpretivism research philosophy, the researcher aims to deal with the qualitative research process. According to Roberts (2013), qualitative research process is suitable for the interpretivism research philosophy since the researcher will be enabled to derive the appropriate conclusion. Likewise, the realism research philosophy is beneficial for those studies, where the researcher will rely upon either on the quantitative or qualitative analysis in order to generate interpretations based on the reality. Conversely, the researcher will depend upon the positivism research philosophy if the researcher will decide to derive the conclusion based on the large sized primary data. Lastly, the researcher chooses the pragmatism research philosophy if both the qualitative and the quantitative approach will conduct. In this researcher will rely upon the realism research philosophy, therefore, the researcher will be capable to derive the conclusion independently. In addition, the researcher will be capable to eliminate the biased outcome for figuring out the actual outcome.

### **3.3.3 Research Design**

Research design shows the framework of the paper, with which the objectives of the research can be addressed. Apart from this, research design is beneficial to analyse the data collection process and also the data interpretation. As opined by Miller, T., Birch, Mauthner and Jessop (2012), explanatory and conclusive are the two most important research designs. Among these two research designs, explanatory research design is the best suited for identifying the impact of casual relations on the several events. On the other hand, explanatory research design enables to assess the accuracy of the study after evaluating the effect of each variable on the others. Nonetheless, the researcher requires to start a definite point under the conclusive research. Conclusive research design can be classified into two such as casual and descriptive.

**Figure 2: Types of research design**



(Source: Created by author)

Explanatory research design is used for identifying the several attributes, which affect the Cryptocurrency. The validity of the collected data is examined based on the literature review. In order to generate the conclusion, the researcher will use the descriptive research design.

### **3.4 Sources Used for the Findings of the Article**

In order to find out the influential effect of the factors on Cryptocurrency as well as also to find out the effect of Cryptocurrency on the economy, the researcher has aimed to the relevant secondary sources. The following dissertation has the access in online Library or in Google Scholar for collecting the information from the related articles. Apart from this, the researcher has access in the online database for carrying out the research successfully. As opined by Vujaklija et al., (2010), the researcher focuses on the keywords such as “Cryptocurrency”, “bitcoin”, “blockchain” etc. These key words are essential to identify for choosing the updated articles for explaining the effect of Cryptocurrency.

#### **3.4.1 Process through which the Essential Articles and Journals are xamined**

As per the earlier discussion, the dissertation has conducted the thematic analysis for successfully accomplishing the research. According to Mackey and Gass (2015), the concept



of thematic analysis is one of the most essential tool of the secondary qualitative research. This research is capable to identify the effect of Cryptocurrency on the global economy. Based on the conducted analysis, the researcher would derive the findings as well as also highlight the effect of it's on the future researches.

### **3.5 Data Analysis**

This section is referred as the analysis process, which is chosen by the researcher for finding out the reliability of the collected information. More specifically, it can be stated that thematic analysis is used for this research in order to identify, analyse and report several data arrangements, with which the researcher can deliver the meaningful conclusions. Most of the researchers have identified that thematic analysis is relatively easy techniques of qualitative data analysis compared to the any other techniques. Conversely, thematic analysis is used by identifying the theoretical background. This is significant for conducting a more detailed analysis based on the complex data description. The structure of the thematic data analysis is dependent on six stages, which are mentioned in the following:

- Familiarising with the accumulated information
- Developing the initial codes
- Searching of themes
- Reviewing the themes
- Defining and analysing the collected themes
- Developing the report.

### **3.6 Ethical Consideration**

Every research involves the analysis of the existing literature from the starting point of the research objectives. It is noted that most of researches aim to add some additional information on the existing research, so that new direction of knowledge can be created. The

researcher requires to acknowledge the work of the existing literatures, on which the background of the research is developed. In addition, it is necessary to pay the adequate respect in the sake of the dignity of the research. The researcher has collected information for deriving the conclusion based on the reliability and also on the foundation of the information. The prime focus of the researcher is required to keep him free from any types of ethical issue. In addition, the researcher needs to maintain the anonymity, honesty, transparency and confidentiality for collecting the information. In this respect, the researcher also requires to employ efficient effort for adhering all of the aspects of the ethical considerations.

### **3.7 Summary**

In order to derive the conclusion, the researcher would conduct the secondary research. In this context, the researcher would collect information from articles, journals or from the newspapers. Apart from this, the researcher would follow the deductive research approach in order to identify the effect of Cryptocurrency on the global economy. For generating the conclusion successfully, the researcher would take the help of qualitative research. During collecting the information, the researcher requires to maintain honesty and confidentiality.

## **Chapter 4: Data Findings and Analysis**

### **4.1 Introduction**

The uses of Cryptocurrency have been rising with the passage of time and in this regard, the researchers have invented the Initial Coin Offering (ICO), which is a popular technique of crowd funding crypto currencies. This chapter of this dissertation is beneficial for deriving the findings of the research paper. The accumulated information would be analysed based on the secondary research. In this regard, the researcher needs to understand the importance of the keywords, so that the data collection process would be easier.

### **4.2 Determination of Crypto Currencies**

It is known that Cryptocurrency was designed based on the unit of exchange and the users can place the assets of the stores even without the involvement of the Central bank. According to Arnold (2017), Cryptocurrency price would be affected due to the influence of several factors. These factors are such as the blockchain difficulty level, price of bitcoin, investors, innovation, limited supply and demand, governmental issues, effect of traditional systems etc. For instance, in some of the countries, both the Cryptocurrency and Bitcoin are considered as asset, whereas some of the countries consider it as currency. More specifically, 21 million units of Bitcoin are classified into 100 times, among which some units are adopted as Bitcoin and some are considered as price tag by the countries.

The supply of Cryptocurrency can be bought in terms of constant rate and due to the coconscious rules; the supply rate cannot be changed. However, it can be argued that the price of Cryptocurrency has been rising very slowly since the year 2016 and the reason is the reduction of the supply of new incoming coins. On the other hand, though the price of Cryptocurrency has been affected due to the supply, however, the Litecoin would not be dent in the level of price. Conversely, the price of Cryptocurrency is also varied depending on the

utility. As opined by Tradimo (2018), the changes of utility are the major reason of volatility of price. In this case, it can be mentioned that if the payment of Cryptocurrency is considerable high, then it can be inferred that the utility for Cryptocurrency is also very high.

The pricing value of Cryptocurrency is also dependent upon several driving factors such as innovations. In turn, it leads to perceive the negative consequences along with the criminality. For instance, the hacking to Cryptocurrency exchange such as Mt. Gox adversely affects the reputation of Bitcoin. However, it can be argued that the innovation has positive reactions and these are the multi-signature security on the payment gateways or on the wallets of transaction process. Moreover, for making the coin supply more secure, sometimes Cryptocurrency aims to reuse the Bitcoin code.

The movement of crypto currencies is also dependent upon the price of Bitcoin, which is identified as the reserve currency. In this context, it can be mentioned that with the rise and decrease of Bitcoin prices, the price of Cryptocurrency would also be changed. The reason of this price fluctuation is relied upon the power of blockchains. Furthermore, the investors have direct influence on the price level of the Cryptocurrency by manipulating or inadvertently. In this context, it can be stated that Cryptocurrency encourage the investors to invest more and with the rise in investment or with the rise in demand for Cryptocurrency, the price level of the digital currency would be increased as well. Additionally, with the large proportion of capital disposal, the investors would be capable to purchase large volume of coin supply.

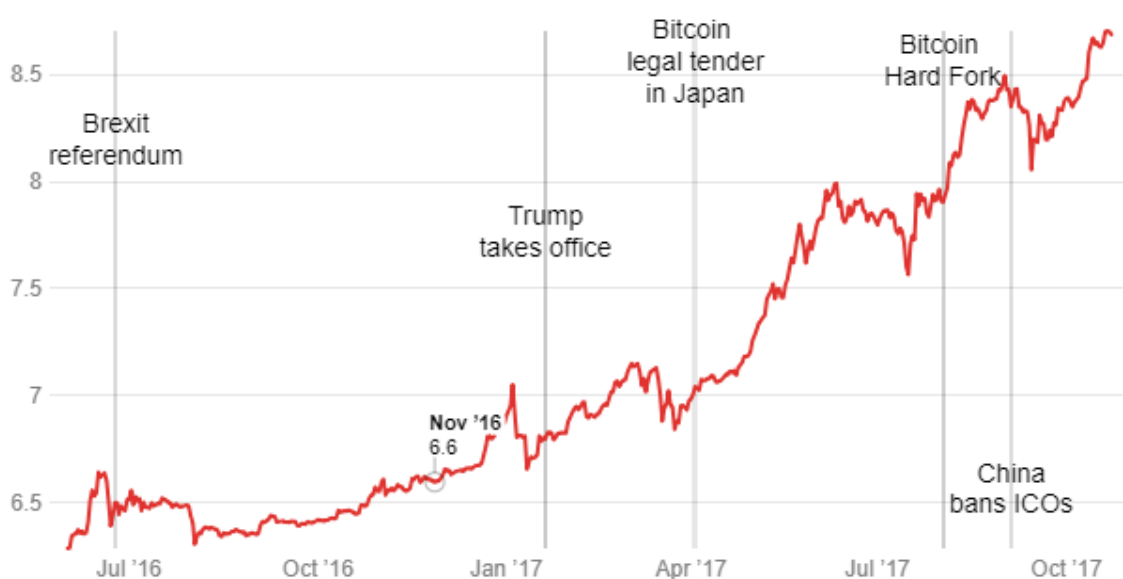
Node count is one of the important indicators for measuring the value of Cryptocurrency. It is noted that Node count is referred as the active wallets, with which the existence of the currency on the homepage can be found. It also helps the users to identify the fair prices and the capitalisation of the digital currency (Tradimo, 2018). More specifically, with the help of node count, the users can understand the strength of the community. In spite of this, true mass

adoption and the real value are the two most essential factors, with which the Cryptocurrency can be determined. Furthermore, the ICO process is capable to bypass the expensive compliance techniques and also used in the venture capitalists and in the banks. For instance, the US dollar has its own valuation, which can be determined with the help of treasury notes and with the help of exchange rate (Brown, 2016). According to Brown (2016), Cryptocurrency model motivates the users to improve the collaboration and also in the contribution. In addition, both the storage value and the transmission value of the users can be improved. The uses of Cryptocurrency can be adjusted and determined with the help of public offering.

### 4.3 Factors Affect the Bit Coin

As per the statistical report, the Bitcoin price has dropped approximately by A\$8000 in the past few decades. Based on the current research, it can be mentioned that the price of Bitcoin is affected by four factors and these are political uncertainty, risk, governance of bitcoin itself and also by the regulators and the governments.

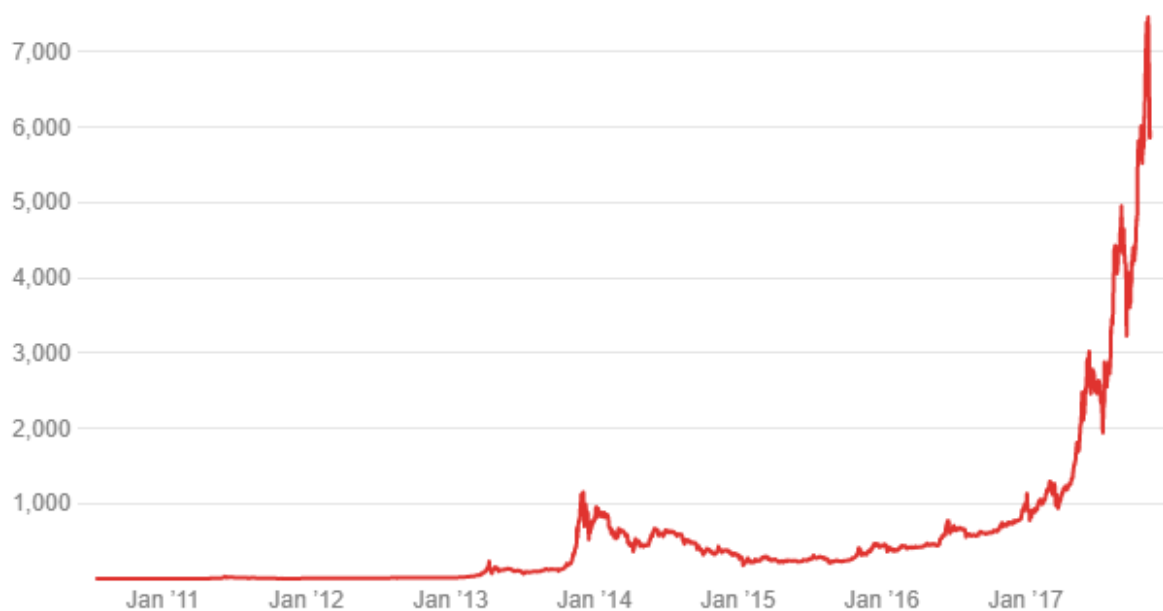
**Figure 3: Driving factors of Bitcoin**



(Source: The Conversation, 2018)

It is noted that the political uncertainty affect the price level of the Bitcoin. The users try to hedge the price movements of Bitcoin or they require to anticipate the movement of larger percentage across the countries and currencies. For instance, the financial crisis of Greece of the year of 2015, the consumption of Bitcoin by the residents had increased in order to protect the wealth of them. In addition, this economic situation did not affect the economy of the global markets. Conversely, it can be added that the Exit of Britain from the European Union had increased the price level of the Bitcoin after 2016 and in turn, the valuation of the British pound had also declined.

**Figure 4: Bitcoin closing price \$USD**



(Source: Das, 2017)

From the above diagram, it can be clearly seen that after Brexit, the price of Bitcoin in the market of UK has been increasing sharply, with which the values of British currency has been

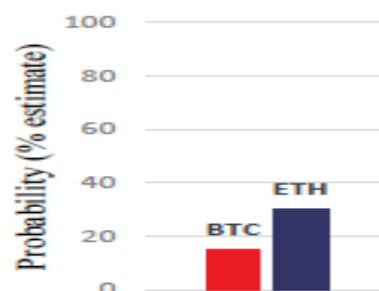
declined. In terms of economy, it can be inferred that the exporters, which aim to export the goods and services to the UK, would be affected the most (due to the fall in Sterling).

The economists have identified that the investors' decisions regarding the Bitcoin is affected through the psychological factors. In the opinion of Das (2017), positive media coverage has positive influence on the price level of Bitcoin. Positive media coverage is referred as hype-cycle. On the other hand, regulatory movement has positive influence to increase the Bitcoin. For instance, the crowdfunding effect of China leads to shut down the exchange of Bitcoin in the country, which in turn reduce the price of Bitcoin approximately by 29% within the next 24 hours. Apart from this, banning of ICO in China, the price level of Cryptocurrency has been affected. Since, Bitcoin is considered as decentralised currency, therefore, the price level of this digital currency has been fluctuation with the time being.

#### 4.4 Effect of Crypto Currency on Global Economics

The financial institutions of the global economies are highly concerned to experience the blockchain technologies, with which the operational efficiencies can be driven. In addition, the financial marketers would be capable to get the access on the untapped markets. The global financial institutions are more willing to adopt the ledger as well as transaction validation procedure instead of adopting the Bitcoin or Ether.

**Figure 5: Adoption of Bitcoin by Financial Institutions**



(Source: Das, 2017)

From the above depicted figure, it can be observed that during the five year time line of the global financial institutions, the uses of Bitcoin or Ether would not be accepted or adopted by these institutions.

In terms of economics, the economic background of the implementation of Cryptocurrency is in the balanced position since the financial sector is remaining separated from this economic landscape. In addition, Cryptocurrency and the underlying blockchain technology has been growing with the passage of time across the global market. The prime objective of Cryptocurrency is to assist the economy in crowdfunding. In this context, it can be stated that Initial Coin Offerings (ICO) is considered as the leading crowdfunding process for most of the start-up firms of Cryptocurrency. In addition, by preventing the entry of the middleman, Cryptocurrency is capable to keep the entire transaction under the authenticating procedure. Conversely, the privacy and anonymity can also be maintained during the transaction process of Cryptocurrency. On the contrary, Guzman (2018) argued that the global economy has been facing challenges from the problem of mining Cryptocurrency. It has greater environment issue since the mining units would consume a high percentage of electricity and would generate huge proportion of pollution in air as well.

### **Money supply of Bitcoin**

The money supply of Botcoin is classified into two segments such as in the commodity credit and also in the circulation credit. In order to find out the elasticity of the money supply of Bitcoin, it can be mentioned that both the innovation in the circulation credit as well as the fractional reserve banking system are required to follow in the future. Money substitute is the resultant of the competitive advantage over the money and these bank accounts are used for economise the storage as well as the transacting costs. On the other hand, it can be added that the base currency of the Bitcoin has its intrinsic features, with which the money substitutes



can emerge from the competition. Conversely, since Bitcoin does not have no lender in the resort system, therefore, the system declines the probability of the fractional reserve banking system. Likewise, the inelastic monetary supply of money supply refers to freeze the high powered growth rate of money.

The Australian school make an argument and mentioned that business cycle of the global economy is the inevitable magnitude of the monetary interventions. In this context, it can be mentioned that fractional reserve banking in Bitcoin would lead to the charging of lower rate of interest on the excessive expansions. It is noted that the lower interest rate is impaired with the unsustainable investments if the optimal inter-temporal consumption preferences would not be matched. From this point, the economists of Austrians anticipated that the inelastic money supply or the suppression fractional reserve banking is both beneficial for preventing the business cycle. In a nutshell, it can be concluded that the Bitcoin monetary system would follow the inelastic supply of money in the global economy since it is working similarly with the automated currency system and also similarly with the zero growth rate in the monetary base. On the other hand, it can be inferred that the adoption rate of Bitcoin would maximise the uses of the speculative investment over the currency. Apart from this, Bitcoin is useful for the deflationary economic situation and it can fulfil the concept of the Friedman theory.

#### **4.5 Effect of Cryptocurrency on the economic well-being of the people**

Cryptocurrency makes both the buying and selling process easier compared to the traditional method. This in turn helps the exporters and importers in the trade. Due to the lack of exchange rate, the cost of the importable would not be increased. As a result, the host countries or the exporters can successfully sell the products to the target markets in which it has competitive advantages. In addition, the exporters would be capable to successfully expand the business in the target market (Damini, 2017). Consequently, the amount of FDI would be increased, which is also good for the growth of the economy. From this point, it can

be inferred that free trade among the emerging economy and the developed economy, the emerging economy would get the utmost benefit and they also do not need to pay the cost of exchange. On the other hand, both the exporters and the importers can keep the detailed information of the transaction process. As a result, the sender can track the records of logistics in a detailed approach. In a nutshell, it can be inferred that transaction through Cryptocurrency has a positive effect on the economic well-being of those people, who are running small sized of firms. This is highly significant for the successful business exposure. This is the other reason, why the government of the most of the emerging nations are willing to take the help of Crypto currency for the means of communication and exchange. On the other hand, since, the tax rate of the transaction through Crypto currency is low, therefore, it is considered as the peer-to-peer monetary process. This is the other reason, why the transaction cost us almost zero or non-existent. More specifically, it can be concluded that transaction through Crypto currency has positive influence on the well-being of the people, more especially on those, who are living in the emerging economies.

#### **4.6 Summary**

In the conclusion, it can be mentioned that the innovative payment system, Bitcoin is effective to identify the demand of the global market as well as the current monetary flow. Since the last five years, Bitcoin has control the economic situation under market penetration with its innovative payment procedure. More specifically, it can be interpreted that Bitcoin is significant for the decentralised monetary system, for the anonymous transaction as well as for acknowledging the micropayments. As a result, due to the unavailability of banks and local currencies (mostly in the emerging economies), the users can rely upon the transaction through Bitcoin. For instance, the users can choose the alternative payment processes such as Western Union and PayPal in this situation. This is the prime reason why the Montreal Economic Institute has marked this digital payment system as the potential revolutionise

payment process. Google has also enhanced its focus towards the Bitcoin payment solutions for facilitating several micro-transaction processes such as for streaming the Netflix service. In a nutshell, it can be concluded that Bitcoin has a positive effect in the emerging economies, for instance, approximately 70% residents of Kenya would get benefits from Bitcoin. They use M-Pesa through their smart phones for transferring the money or for the other monetary transactions. However, some of the economists have also argued that Bitcoin is one of the major reasons of the monetary instability of the world.

## **Chapter 5: Discussion and Implications**

### **5.1 Introduction**

It is clearly evident that Bitcoin is referred as the digital currency since it is distributed and used electronically. It is one of the biggest inventions of open source software by Satoshi Nakamoto in the year of 2009. It can be concluded that the prime advantage of Bitcoin is its independence from the global governments, corporations and also from the financial institutions. Since, the movement of Bitcoin is transparent; therefore, the users have the access and have the complete details about the transaction. It can be also seen that the network of Bitcoin is only shared with the public ledger, which is known as block chain. The transaction through Bitcoin is recorded digitally within the “blocks”. Moreover, the transaction through Bitcoin can be protected through the digital currency and can be sent to the receiver’s addresses accordingly and the process can be accomplished instantaneously. Apart from this, Bitcoin has the high level of portability in the digital currency industry. It is noted that for receiving the money from the account of the sender, the receiver needs to scan a QR code or the receiver can click on the online wallet option. In this chapter the researcher would highlight the implication of Cryptocurrency and Bitcoin along with the discussion.

### **5.2 Discussion**

Cryptocurrency is referred as the digital currency, which are encrypted through the Cryptography. More specifically, Cryptocurrency can be stored virtually or electronically in the websites, mobile phones or in the computers. However, as per the requirement Cryptocurrency can be converted into the real money as well as the users would be capable to save it in the bank account. Over the passage of time, it can be observed that transaction through Cryptocurrency has been growing massively and it has been increasing the visibility towards the public. From this point, it can be inferred that Cryptocurrency and Bitcoin have occupied the financial world since people across the global market are highly willing to

invest and buy this digital currency. Firstly, it can be stated that Bitcoin enables to prevent the remittances from the other nations. On the other hand, the Bitcoin and Cryptocurrency have control over the capital. For instance, the residents of China get the ultimate benefits through the transaction of Cryptocurrency since the government of the country restricts the businesses to invest in the currency across the global market. More specifically, the government of the country is responsible for trapping the liquidity of the economy. This is the major reason why Bitcoin have the opportunity to increase the popularity in the economy of China. In spite of this, the uses of Bitcoin have increased across the global market since the crackdown on corruption has been increased. For instance, in the countries like India and Venezuela, the uses of Bitcoin has been increased since the government of the countries have banned or started to take initiatives against the paying of bribe or to protect the countries from the devastating effect of useless black money. Conversely, most of the start-up firms of the emerging economies show their interest towards the Bitcoin transaction, with which the businesses can be integrated into software as well as have the scope to be monetised. Additionally, the operational cost of the start-up firms can be controlled by eliminating the charge of the intermediaries or the charge of the commission. As per the statistical report of SourceForge, transaction through Bitcoin in India has been growing in a rapid manner (Spencer, 2017). However, it can be argued that since the Reserve Bank of India would not get the access of the transaction through Bitcoin, therefore, it creates essential policies for the safety purpose of the Indian and therefore, the users have to verify their know your customer (KYC) before making any transaction. It is beneficial to prevent transaction through the Bitcoin or Cryptocurrency. However, RBI is not capable to track the economic operations of the Cryptocurrency. More specifically, it can be concluded that Bitcoin and Cryptocurrency are considered as the pillar of the economy of India.

**Ripple effect of Cryptocurrency:** Cryptocurrency has direct and the indirect effect on the organisation, people and also on the people across the world. For instance, a software developer of Sweden has made a video on the advantages and disadvantages of Cryptocurrency and it published through the youtube channel. It is clearly evident that the subscriber of the channel grew from 4000 to 10000 within few months and approximately 2500% subscribers have increased. This is one of the major implications of the ripple effect of the Cryptocurrency. This implies that Cryptocurrency has a wide range of contribution in holding of the digital assets. In spite of this, Spencer (2017) mentioned that media coverage is the other reason behind the popularity of Cryptocurrency. On the other hand, the trading price of Cryptocurrency was comparatively high in Zimbabwe due to the high level of demand for digital currency. This is the effect of decentralisation of Cryptocurrency.

**Implication of efficiency of digital currency:** It is known that the digital currencies like Cryptocurrency or Bitcoin are relied upon the blockchain technology, which in turn leads the disruption of the currency. In terms of economics, it can be mentioned that the disruption financial services of digital currency enables to reduce the transaction cost as well as can reduce the complexity in the financial transactions. From this point, it can be mentioned that the transaction through the digital currency is far-reaching. One of the greatest benefits is that it would not be capable to be counterfeited or the transactions would not be reversed. Another benefit is that digital currency is not restricted by the exchange rate, transaction charges or by the interest rates (Athey, 2015). In this context, it can be added that the transaction through digital currency can be conducted very easily and very quickly. Apart from the ease of transaction, the decentralised financial process through this digital currency is comparatively simpler. In order to maintain the compliance, Cryptocurrency code some essential rules on the network checking. This is significant for the modified financial processes since it can remove the bank (the intermediary) as well as empower the people. Furthermore, transaction

through the digital currency is very cheap than the bank transferring. In a nutshell, it can be concluded that digital currency serves a secured way of transaction under the distributed ledger technology.

**Safe money for the poor:** Transaction through digital currency has been increasing across the emerging economies with the passage of time. As per the statistical data, approximately 60% people of Kenya get benefits from this medium of exchange. With the help of this medium, the users can save money in the mobile phone credits apart from sending the credits to the others. The people, who are leaving in the rural places, get the utmost benefit from this medium of exchange due to the unavailability of banks accounts. Bitcoin is admitted as the convenient and safest medium of payment since the users can eliminate the currency risk, more specifically in the high inflation rated nations (Athey, 2015). In this respect, it can be said that the transaction through this digital currency is physically safer compared to the storing of money at home or than the purchasing of expensive jewellery. This is how; the emerging countries would get the scope to expand their access in the global financial market and would be allowed to protect themselves against the inflation.

**Unleashing the e-commerce:** Credit card fraud in the e-commerce is one of the main issues, which can turn away the good business. This type of data breach is very common during the global transactions and this is the major reason, why most of the firms would not like to accept the online payment. For instance, in case of transferring money through Bitcoin, the transaction cannot be undone once it made. This is how the risk of fraud during the transaction can be eliminated. However, virtual currencies make the online shopping process easier. Cryptocurrency and Bitcoin allow the small businesses as well as the emerging economies in the international e-commerce business.

It can be mentioned that the transaction through Cryptocurrency is significant for the welfare of the developing countries. It is known that corruption, unemployment rate, inflation and poverty are the major problems of the emerging nations. Nevertheless, development of blockchain technology and the transaction through digital currency bring another enthusiasm and also revive the countries.

**Reduce the remittance cost:** The international remittance system is completely relied upon the operational activities of the citizens of the developing nations, especially who are living in the developed nations. These immigrants require to send or receive money to the home and the transaction is conducted through the Uni Transfer, Western Union or through Money Gram. As per the statistical report of World Bank, 2017, the remittance to the emerging nations in the year 2016 was approximately \$441 billion, which was half percentage of the total remittance of the world (The Mission Daily, n.d). In this context, it can be said that this remittance cost of Sub-Saharan was in the highest position across the globe. Cryptocurrency helps the receiving process of global money transfer through the reduction of cost of remittance. For instance, a block chain powered remittance technique of Nigeria, SureRemit uses to charge zero cost on its cross-border transactions. Similarly, the remittance services of Philippines, Rebit is also working in the same way. The residents of the country have also admitted that the money transfer through the Rebit platform charges low compared to the conventional money transferring services.

**Improve the financial inclusion:** It is noted that lower financial inclusion is one of the major problems across the lower-income nations of the world. As per the statistical report of the World Bank, 2 billion people across the world market do not have the access in the banking process or some of them do not have accounts in the banks. Mostly, it can be observed in the emerging countries like Cameroon, Pakistan, Niger, Chad, Yemen, Burundi etc. The unbanked issue of the developing countries lead to reduce the participants in the world



commerce transaction. From this point, it can be concluded that the Cryptocurrency technique such as BitPesa and MPesa is beneficial to increase the access of the residents of the emerging economies to the several banking activities or to the other financial instruments. Cryptocurrency allows the users to get the access of the banking services with the help of the applications of mobile phones. In spite of this, the banks of the developing nation like Nigeria would refuse to provide loan to the small-scale business, whereas the Nebeus apart from the Mpesa and BitPesa provide the crypto-backed loans to the small-scale firms, with which it can explore the businesses both in the domestic and international market.

Other aspect of financial inclusion like the lack in international payment system is the other problem, from which the developing country like Africa has been suffering. The global commerce is highly denominated by the US Dollar and thus, the countries need specialised payment or receipt process. Therefore, most of the developing nations have been faced this problem since they do not have access in the foreign exchange. In order to serve opportunity to the people of the developing countries, Indonesia has started TenX, which is referred as digital wallet and the users would be allowed to receive money through the Visa card payment technique.

**Fight against the corruption:** Corruption is one of the major threats of the low-income nations across the world markets. The lack of democratization leads to leave the collective commonwealth of these emerging nations. Therefore, technologically advanced nations would be capable to increase the accountability, with which the corruption can be abolished. For instance, the adoption of Cryptocurrency increase the cryptography and it would help to keep the transaction secure. Therefore, corruption can be prevented since Cryptocurrency can keep the track on the transaction. More specifically, the tight traceability as well as the lack of anonymity of Cryptocurrency can fight against the corruption and fraud, which is not be able by the traditional money transaction.

## **Effect of Cryptocurrency in India**

The Cryptocurrency revolution has been expanded across India over the years, more specially after the demonetisation. The current Prime Minister of India encourages in the adoption of digital currency throughout the nation, with which the circulation of cash bills can be limited and country can easily move towards the electronic payment ratification. In this context, the Reserve Bank of India is also supporting the concept of Cryptocurrency in order to prevent the harsh measurement over the black money. By doing this, the government of the country can evade the income of the black market and the massive tax rate and hence, after demonetisation, approximately the circulation of 22 billion banknotes has been removed. Consequently, the Indians switch their means of savings and take the help of Cryptocurrency for preserving the funds. However, it can be argued that since the uses of Cryptocurrency is still decentralised, therefore, the Central Bank of India looks after to develop the country's own blockchain, which is known as "Lakshmi". In addition, the organisations of India have started to sell digital coins through the Initial Coin Offerings (ICO). In a nutshell, it can be concluded that the blockchain economy is cost of more than 100 billion dollars and with the passage of time, the customers, investors, entrepreneurs of India would increase their dependency on it. As a result, it can be anticipated that India will hold the number one position in the adoption of digital currency.

**Effect on well-being of the people:** Cryptocurrency or the digital currencies are the fastest growing asset of the world compared to the traditional currency exchange (Patington, 2017). It is noted that invention or the uses of digital currency has started after the financial crisis. This was the only method of exchanging money. From this point, during that period, the people get the utmost benefit, therefore, it can be concluded that Crypto currency has positive influence on the well-being of the people. After the analysis, it can be also observed that transaction through crypto currency is also suitable for the trade. Conversely, the people of

both the emerging and the lower developed countries would get the privilege of using crypto currency. Since, most of the people of the low developed nations do not have the access on the banking sectors, therefore, this is the only way of transferring the money.

### **5.3 Analysis**

In this section, the researcher of the paper has highlighted how Cryptocurrency works and also enlighten the implication of it on the developing economies. From the above analysis, it can be observed that Cryptocurrency has positive influence on the developing economies. The residents, who do not have access in the banking or financial instruments or do not have any bank account; they would get the utmost benefit by using the Cryptocurrency. In addition, Cryptocurrency allows the users to send money in terms of lower transfer cost. Conversely, it is beneficial to reduce the cost of remittance in case of transaction through the Cryptocurrency. This is enduring to the people of emerging economies, who are currently living in the developed nations. After the analysis, it can be also seen that the current government of India and the Reserve Bank of India encourage in the expansion of Cryptocurrency in order to prevent the corruption or the circulation of black money across the country. Furthermore, political factors of the countries can destabilize the transaction through the Cryptocurrency.

## **Chapter 6: Conclusion and Recommendations**

### **6.1 Conclusion**

Cryptocurrency is the latest and modified technology, which is used for the virtual money transfer purpose. Most importantly, no third party or the intermediary can intervene among the sender and receiver during the time of money transaction. More specifically, the transaction of Cryptocurrency cannot be regulated by the government of the country or cannot be issued by the central bank of the nations. It is noted that after the Cryptocurrency boom, demand for Bitcoin and Ethereum have been increased. Apart from the developing nations, the developed countries like Switzerland and Singapore mostly use Cryptocurrency (The Economic Times., 2017). Apart from this, the countries like China and Russia, where the political restrictions are high, also use the Cryptocurrency. More specifically, the freedom in the payment structure as well as the nature of quick payments has increased the adoption of digital currency.

### **6.2 Linking with the Research Objectives**

In this section, the researcher would try to find out whether the objectives of the paper have been met or not. Before going into detailed discussion, it can be inferred that crypto currency has positive effect on the economy, more specifically on the emerging economies. It makes the transaction process easier and the people of the country do not need to carry liquid money or do not need to have accounts in the financial institutions for the purpose of transactions. However, in this context, it can be mentioned that the users need to be concerned about the privacy of transaction, so that the data breaches problems can be avoided. In the following section, the researcher has made an in-depth analysis about the linking of conclusion with the objectives.

### **6.2.1 Linking with the First Objective**

From the above analysis, it can be observed that there are several influential factors, which affect the price or the transaction of the Cryptocurrency. More specifically, media has the effective means of manipulating nature on the public. It has short term effect on the adoption of Cryptocurrency. For instance, it can be stated that after the social turmoil of China and South Korea, transaction through Bitcoin and Altcoin has collapsed. It in turn leads to increase fear, doubt and uncertainty within the users for adopting the Cryptocurrency or any other digital currency. This is the reason, why the market leaders target to eliminate this uncertainty and take the help of FOMO (fear of missed opportunity). In this situation, the financial giants have been playing the role of catalyst for which the price rate of the digital currency has been fluctuating. In spite of this, the price of the Cryptocurrency is also dependent upon the utility. If the payment for Bitcoin is high or the scale is towards increasing, then it can be mentioned that the utility is high.

Apart from these, hacking has an adverse and major effect on the Cryptocurrency exchange, for instance, Mt. Gox has negatively affect the reputation of the Bitcoin. Consequently, exchange through Bitcoin can be degraded. In order to prevent such hacking, the innovators have brought multi-signature security on the Bitcoin wallets, which would have positive effect on the users. The price volatility of Bitcoin is also affected both by the political and the economic factors. However, it can be mentioned that strong price volatility has adverse effect on the payment of Cryptocurrency. From the above analysis, it can be also concluded that internal competition has strong and negative effect on the price of Cryptocurrency. It is known that market structure cannot be predicted and therefore, if the security system will break, the market of digital currency will lead to be collapsed. For instance, after the occurrence of Mt. Gox in the year 2014, the trading volume was accounted by 70% and the termination led to collapse the volume of market by 80%.

### **6.2.2 Linking with the Second Objective**

In the connection with above discussion, it can be inferred that massive price fluctuation is one of the major limitations of Cryptocurrency. The price fluctuation is very challenging for the businesses, who mainly conduct transaction through the Cryptocurrency. However, the traders or the businesses also face the challenge due to irreversible payment structure. If someone make payment by any chance, it would not be possible to pay back or refund the money. In spite of this, there are many websites or organisations, which do not have option to participate in such of these transactions. Therefore, people need to use real currency in turn of the digital money. From this point, it can be interpreted that lack of acceptance of the digital currency is the other limitation of Cryptocurrency.

Security threats are the other risk of loss in Cryptocurrency. Since, central authority is absent during the transaction, therefore, security theft may occur due to the technical error. In addition, the password of the wallet of Cryptocurrency is also irrecoverable. If the password is forgotten or lost, then it would not be possible to recover it. Consequently, all the balance in the Cryptocurrency wallet would be futile. Conversely, Rahman (2018) cited that the balance transfer through the Cryptocurrency wallet is also irreversible. From this point, it can be recommended that the sender needs to be aware about the use and transaction of Cryptocurrency. Furthermore, user address error is the other risk, which has negative effect on the money transaction. In this context, it can be mentioned that if the error cannot be addressed, then it would be difficult to transfer the money. Due to the lack of address validation, the users face risk of loss in the Cryptocurrency. In addition, the sender also needs to double-check the address of the recipients before sending the money. The users require to protect the device with high-quality antivirus protection for getting the access on Cryptowallets and crypto-exchanges.

With the passage of time, investments in projects, which are related to the Cryptocurrency or Bitcoin, become very popular and this fundraising is referred as the Initial Coin Offering (ICO). However, if the projects fail to get the success, then the investors would suffer from huge amount of loss. For instance, after starting to crack down the exchange through Cryptocurrency in China, the government of the country has banned the use of Cryptocurrency for the medium of exchange. Consequently, some of the digital currency exchanges such as BTCC China, OKCoin and Huobi have been facing challenges about their existence. For this reason, many countries such as Taiwan, Russia and Bolivia have restricted the use of Cryptocurrency in these countries. In the added with, Bitcoin is identified as the risky investment and therefore, the users may face the utmost caution for the purpose of trading. This refers that the uses of digital currency will be restricted for the purpose of trading as well as for the purpose of monetary exchange.

### **6.2.3. Linking with the Third Objective**

It can be anticipated that Cryptocurrency will receive high support from the institutional investors. Investors are feeling comfortable for investing efficient funds into the projects. From this point, it can be said that Cryptocurrency has successful future, more especially in the developing countries. Since, Cryptocurrency has positive effect in the developing economies; therefore, the investors are willing to invest more in this, so that the small-scale and middle-scale businesses get the benefits and can transfer money across the world. In addition, the traders will get the utmost benefits from it. For instance, Tim Draper, Billionaire investor has invested \$250000 per coin since he has the expectation to achieve the value within the year 2022. On the other hand, the developing country like India has strong support towards the adoption of Cryptocurrency. Cryptocurrency has entered into the market of India approximately 5 years ago. RBI has decided to launch its own version of centralised digital currency. After demonetisation, 86% cash of the country has collapsed and therefore, the

residents of the country only need to rely upon the digital currency for the purpose of transaction. This in turn leads to the mining boom along with the huge investment in Bitcoins. Conversely, Indian exchanges have decided to launch Cryptocurrency before the next year as well as have planned to support the other digital currencies like Ripple, Ethereum, Bitcoin cash etc. Indians use Bitcoin for the purpose of trading since they are price volatile. Chawla (2018) opined that acquiring of Cryptocurrency is marked as the initial stage for the development and the implementation of blockchain across India.

#### **6.2.4 Linking with the Fourth Objective**

It is clearly evident that Bitcoin has strong effect on the economy, more especially on the developing economies. Primarily, with the help of Bitcoin transaction, the corruption of a country can be prevented. More specifically, it can be seen that the Bitcoin has the capability to change the lives as well as to improve the economic well-being of the poorest by allowing them to participate in the global economy very easily. Bitcoin helps to eradicate the problems like poverty, lack of the access in banking instruments, hyperinflation, lack of capital etc. The residents of the emerging nations are eligible to get the access in the modern banking as well as in the financial services of the world. For instance, as per the report of Mobile World Live, approximately 10 million people of Kenya are eligible to deposit or withdraw money through the MPesa peer to peer application. There are approximately 20.7 million users of Kenya take the help of MPesa (Kapoor, 2018). Consequently, most of the organisations are willing to follow the MPesa's functioning by allowing the banking operations of Cryptocurrency through the different mobile applications. The company like MicroMoney enables to provide loans to 40000 people in Myanmar, Thailand, Sri Lanka, Cambodia and Indonesia through the transaction of Bitcoin and its blockchain operation. The prime objective of MicroMiney is to deliver the banking services to the 2.5 billion people, who have not access in the banking instruments. Nebeus also works like the similar way. On the other hand, as per the statistical



report of World Bank, BitPesa also takes initiative to help to the importers of Uganda, Nigeria, Kenya, Tanzania, more specifically the people of the less developed countries since they do not have access on the banking operations. As a result, the people of these countries will be able to send or receive money to the countries like China, Europe and the USA and can participate in the international trade, with which the growth of the economy can be increased. For instance, BitPesa have 6000 users across the 85 countries, which have already conducted 17000 transactions with the help of Blockchain as well as get then success (Dale, 2018). In a nutshell, it can be interpreted that with the help of BitPesa, the developing countries can eliminate the largest obstacle of the economy and the people will get the banking services in turn as per their requirements. Consequently, the people of these countries will be eligible to take part in the export and import business by converting the currencies into the US Dollar since it is accepted by the all over the world. For instance, TenX along with BitPesa is also capable to convert the digital currencies into the fiat currencies. Another benefit of BitPesa is, it can send money to the people of the emerging economies even without involving the aid workers. It is noted that then aid workers are usually stolen or corrupted by the officials, as a result, the cost of money transformation would be increased as well. Nevertheless, BitPesa eliminate this problem from its operation and also improves the social welfare of the people of the developing nation. From the analysis, it can be concluded that Bitcoin has positive effect on the economy.

### **6.3 Recommendation**

In order to derive the conclusion on the effect of Cryptocurrency on the global economics, the researcher can conduct the regression analysis. It is known that the statistical analysis is capable to identify the effectiveness of Cryptocurrency and the level of significance on the financial market as well as on the growth of the economy. More specifically, it can be recommended that the researcher can complete the primary research and can collect

information on the users of the emerging countries and the financial advisors of the company. In spite of this, it can be suggested that the researcher can conduct an in-depth analysis on the effect of Cryptocurrency on the developed nations.

#### **6.4 Limitation of the Research**

In order to derive the conclusion, the researcher has relied upon the secondary research since he did not have enough time to conduct the primary research and accomplish a survey or interview method. If the researcher would have enough time, then he could take a survey on the users of any developing economics, so that it could be identified the usefulness of Cryptocurrency on them. On the other hand, the researcher would not be able to evaluate the influential power of Government on the users regarding the effectiveness of Cryptocurrency. Therefore, the researcher would not be capable to understand the behaviour of the government to motivate the citizens of the emerging countries for adopting the digital currencies for the purpose of transactions or for any other exchange. In turn, the researcher only had to depend upon newspaper, articles or journals. On the other hand, due to the shortages of time, the researcher is not able to show the relationship between the developing and the developed countries regarding the transaction through Cryptocurrency. In spite of the time constraint, financial constraint is the other restriction of the paper. As a result, the researcher did not get access of many websites for collecting the information since the websites ask to pay for the availability. Due to the budget constraint, the researcher was not able to use SPSS and SAS software for analysing the effectiveness of Cryptocurrency on the users of the developing economics. Therefore, it can be said that availability of data is the other major constraint apart from the time and budget.

#### **6.5 Scope of the Future**

The researcher has highlighted the significance of the uses of Cryptocurrency on the developing economics apart from discussing the future of the Cryptocurrency; therefore, this

paper would be used as the secondary research. More specifically, this researcher would be beneficial to complete the literature review of the future research, who would chose this topic for their research.

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