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DEPARTMENT OF BUSINESS ADMINISTRATION

CHALLENGES AND POSSIBILITY OF CRYPTOCURRENCY
IN ETHIOPIA

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**CHALLENGES AND POSSIBILITY OF CRYPTOCURRENCY
IN ETHIOPIA**

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**A THESIS PROPOSAL SUBMITTED TO SENTMARY UNIVERSITY,
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LETTER OF CERTIFICATION

**SENT MERRY UNIVERSITY COLLEGE
SCHOOL OF GRADUATE STUDIES
FACULTY OF BUSINESS**

**ASSESSING THE BENEFITS AND APPLICABILITY OF
CRYPTOCURRENCY IN ETHIOPIA**

APROVED BY BORD OF EXAMINERS

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DECLARATION

I, the undersigned, declare that this is my original work, prepared under the guidance of _____ . All sources of material used for this thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

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ST. MARY UNIVERSITY, MARCH 2023

ENDORSMENT

This thesis has been submitted to ST. Mary University School of graduate studies for examination with my approval as a university advisor.

Advisor

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SENT MERRY UNIVERSITY, MARCH 2023

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ABSTRACT

Briefly, the research objective is to assess the challenges and prospects (possibility) in practicing Cryptocurrency both nationally and personally in terms of financial freedom, financial privacy & convenience. Additionally, the study assesses the general capability of the countries multibillion birr infrastructures and legal status. Respondent's data were collected using semi self-structured questionnaire containing 18 open ended questions and 10 interview questions that gather information on Challenge and possibility of Cryptocurrency in Ethiopia. Quantitative data obtained were organized and analyzed through using descriptive statistical data analysis methods such as frequencies, percentiles, measures of central tendency mainly mean & standard deviation were used so that the research could come to a conclusion. As for the qualitative data gathered from interviews and other secondary sources were thematized & analyzed accordingly, also a narrative approach were used to present the results of the interviews. To ensure there exists an internal consistency between the mentioned variables within the research, the researcher has employed a "Cronbach Alpha" test for data reliability, the results indicate that there is a good level of internal consistency amongst the tested items and variables of the study. The research findings indicate the technology can facilitate currency exchange, money transfer and payment in an open and fast platform for the entire community & it also has the capacity to ease up the complex cross border business transactions and cut down the expensive transaction cost incurred in banks. Cryptocurrency revolutionizes the idea of banking from an angle of time & energy efficiency by reducing the manual and even automated services. Although the national bank of Ethiopia has the capability of enacting laws by which cryptocurrency users could abide by and use for various purpose alongside fiat currency, it has chosen to restrict its use within the national border. The major research findings indicate that sectors and or parties who have leverage on sociopolitical and socioeconomic area shall protect the sector from political & economic trajectory derailment. It's also recommended that strengthening and improving the cyber security system to boost the governmental leverage to control and monitor Cryptocurrency activities in particular and for finance security in general is mandatory, finally major attitudinal change by the government, finance security agency & the national bank of Ethiopia should be made in terms of decriminalizing and implementing of policies or at least liberalize the use in Ethiopia.

Key words: Cryptocurrency, Bitcoin, Ethereum Blockchain, Decentralized,

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the study

In this chapter, the idea of Cryptocurrency with that of the importance and solution it provides to its users globally are discussed, such importance's as lower remittance transfer fees. Moreover, the significant influence it has within the commodity & fiat markets are discussed.

At present Cryptocurrency is at the frontier of financial development, It provides both opportunities and risks in financial markets and has attracted significant attention in recent years. Accordingly, the number of market players involved in the Cryptocurrency business has risen (Farell, 2015). The new business model provided by Cryptocurrency along with the exponential increases in the prices of Cryptocurrency may have enticed investors toward Cryptocurrency, with many utilizing Cryptocurrency as a speculative asset to take advantage of the early gains. However, the subsequent crash in prices acted as a wake-up call to speculators dealing with Cryptocurrency. Additionally, risks related to price manipulation in Cryptocurrency markets are not unheard of (Gandal et al. 2018).

Numerous private Cryptocurrency have been introduced after the emergence of Bitcoin in 2009. Bitcoin is by far the most successful one and it has value like a “digital gold”. It has been getting a lot of media attention, and its total market value has reached 20 billion USD in March 2017. More importantly, a number of central banks started recently to explore the adoption of Cryptocurrency and Blockchain technologies for retail and large value payments. Many proponents believe that Cryptocurrency and Blockchain technology will have a significant influence on the future development of payment and financial systems. While policy makers concern about the opportunities and challenges brought about by these technological advances, there is very little guidance provided by economic theory regarding the appropriate usage of these technologies and the optimal design of these systems (Tsega, 2018).

According to Michael (2017), when considering alternatives to commonly utilized remittance transaction methodologies, Cryptocurrency could be the most ideal solution. Cryptocurrency, specifically Bitcoin, have the potential to decrease remittance transaction fees to a rate lower than one percent. For example, if Sub-Saharan African citizens began to utilize Cryptocurrency instead of

standard transfer companies like Western Union and MoneyGram; transfer fees could be reduced to as little as (.25%); which would result in billions of dollars being directly funded to the people that need it the most.

Currency transferring companies which are collecting dishonorable surcharges further incentive remittance-based Cryptocurrency integration. This methodology of remittance transaction could effectively help provide the largest possible fraction of funds towards remittance recipients within developing nations. Bitcoin also offers more benefits in addition to economic incentives when associated with remittance transactions.

Although many central banks issues warnings about the use of Cryptocurrency and have explicitly denied its status as a currency, only a few have banned its use as a financial asset. Policy makers are concerned about the low liquidity, the use of leverage, market risks from volatility, and the operational risks of Cryptocurrency (FSB, 2018). Many central banks emphasize that Cryptocurrency is not legal tender and that users face the risk of unenforceability of Cryptocurrency transactions. The Global Research Center (2018) compiled regulations on Cryptocurrency and its report shows that, in countries where Cryptocurrency is allowed, it can be legally traded as long as it follows existing rules or laws related to financial instruments. Regardless of the regulatory stance, policy makers are wary that Cryptocurrency would be used for illegal activities, such as money laundering, trade in illegal or controlled substances, or terrorism finance. Policy makers are also aware of the potential lack of consumer and investor protection. Deposit insurance for holders of Cryptocurrency is limited and not supplied by domestic monetary authorities.

1.2. History of Bitcoin

Launched in 2009, Bitcoin is the world's largest cryptocurrency by market capitalization, unlike fiat currency; Bitcoin is created, distributed, traded, and stored using a decentralized ledger system known as a Blockchain. Bitcoin transactions are purely peer-to-peer where this version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution. In the Bit coin Blockchain there isn't a single authority that oversees, issues or regulates the currency the way that the National Bank of Ethiopia or any other national bank globally regulates their national currency, instead there is a public record logging the activities,

and the Bitcoin users themselves assist with any distribution and tracking-related tasks. As mentioned the Bitcoin cryptocurrency relies on Blockchain technology for the sake of recordkeeping system. The ledger maintains entries of all the transactions made with users playing the role of initiators and verifiers for these activities. (Satoshi Nakamoto White Paper 2009).

For as long as we remember, we have always lived with the premise that we are constantly being watched by the biggest government companies and banks, to escape this rule, Bitcoin came to existence. This technology has the particularity of being controlled by a decentralized system. Current conventional currencies including the Ethiopian birr (ETB) & many more are all controlled by governments since they are the ones that issue them and in some countries, this premise goes as far as imposing the people where they can or cannot spend their money, the state has the power to block transactions, meaning that the society could not spend their money freely, in other words the physical coinage as we know it is centralized, and Bitcoin allowed people to break this regulation.

According to Hughes & (Middlebrook 2015), Cryptocurrency such as Bitcoin are built on the Blockchain technology. A Cryptocurrency is a virtual currency that uses cryptography to validate the owner of a unit of value of the currency. Despite the rise of Cryptocurrency, governments are skeptical about accepting existing Cryptocurrency as legal method of payment. This skepticism is understandable as existing Cryptocurrency are volatile and have records of scams and illegal transactions. Thus, it is logical for a country to explore the intricacies of developing a Cryptocurrency that is stable and regulated. This topic area is interesting because a stable and regulated Cryptocurrency has many advantages including fewer paper notes in circulation, easier inter country trading, and improved online transactions.

Research on Cryptocurrency encompasses several fields of study, from economics and finance to computer science and engineering, as well as applied mathematics. The breadth of the research field is not surprising given the nature of Cryptocurrency as a financial innovation with its roots in Blockchain technology and the fact that it uses cryptography intensively. Cryptocurrency have many different aspects, and can therefore be viewed from various angles, including the financial and economic perspective, legal, political and sociological, as well as technical and socio-technical perspectives. This study wants to look into the advantages of using Cryptocurrency in Ethiopia and how relevant institutions have been working to implement it in Ethiopia. Specifically, the digital currency units in Ethiopia are believed to offer consumer solution in addressing the day-to-day

institutional challenges encountered in the conventional banking system. Hence, this study attempts to assess the challenges and possibilities of Cryptocurrency also known as Digital Currency and its applicability.

1.3. Statement of the Problem

Bitcoin, which uses the Blockchain technology, was first created in 2009 and ever since it has grown immensely popular across the globe. Simply, these virtual coins are created using an expensive and complicated computerized process called mining. Ethiopia has now seen Bitcoin networks and clubs, such as Bit Club and AWS Mining, across the country and more and more people are investing in them. Recently, there has been widespread controversy as to the legitimacy of the business models used to sell and buy Bitcoin in Ethiopia. The main source of income comes in the form of commissions and some experts in the field call them pyramid schemes instead of what Bitcoin was originally meant for which an open source software is used for basic mining. Bitcoin investment groups (in Ethiopia) are Ponzi schemes run by criminal middlemen. Blockchain is basically a distributed, decentralized and public digital ledger that is able to record transactions across many computers, making it close to impossible for the information data to be distorted without changes made to all the blocks. (Tsega 2018)

Not having centralized data storage makes the Blockchain system difficult to exploit, and in essence making it totally secure. The Blockchain network is controlled autonomously using a peer-to-peer system, allowing authentication through mass cooperation. This phenomenon has even reached Ethiopia, with a growing number of Ethiopians investing heavily and profiting by unheard of margins. According to some estimates, there are about a thousand Ethiopians who have invested their money in Cryptocurrency, such as Bitcoin (Blockchain forum Ethiopia, 2018). Bitcoin has grown by a whopping 771% over the last 3 years to reach all-time highs. The newer and second most popular Cryptocurrency worldwide is Ethereum, which itself has seen its value spike by more than 5,000% year-to-date (Kollewe, 2018). The interest of many Ethiopians has been piqued, wondering if they should join the hordes of investors around the globe. The talk is that there are a few Ethiopians who have become Bitcoin millionaires, as they had invested in them early.

Cryptocurrency lie for the most part in a grey area of the law. Their actual usage is limited. It is based largely on buying, on speculation and to an extent used as a hedging mechanism. (Kollewe,

2018). In Ethiopia, the trading of Bitcoin and other Cryptocurrency remains mostly as an unregulated activity. Unlike many of its Ethiopia's African counterparts the National Bank of Ethiopia completely disregard the existence of this innovative form of money. In essence the point is that Ethiopians, buying and selling Bitcoin are doing so at their own risk & more so punishable by law. The Bitcoin cryptocurrency is not recognized as legal tender by the Ethiopian government and the central bank does not regulate the operations of Bitcoin. Messay Asgedom (2021)

Therefore, this study wants to assess as to how the public could face the challenges in using such currencies for the purposes of investment and or as a payment method where possible. Also the research intends to show the importance and inevitability of Cryptocurrency since the idea of financial & market globalization has long taken over. Moreover, the study highlights on issues of level of internet literacy, cyber security, infrastructural ability and governmental policy on such currency. The study is also expected to create societal awareness on safeguarding oneself and be cautious of the risks connected with the usage of such digital currency.

1.4. Research Questions

The research is intended to address the following basic questions:

- What makes Cryptocurrency different from government provided currency and other currencies?
- What enabling platforms are available for Cryptocurrency to circulate in Ethiopia?
- How do the socio-political factors affect adopting and implementing Cryptocurrency in Ethiopia?

1.5. Objectives of the study

1.4.1. General objective

The general objective of the study is to assess the benefit that one can get from using Cryptocurrency in terms of privacy, financial freedom & convenience in comparison to the centralized currency system and its applicability in Ethiopia.

1.4.2 Specific objectives

The specific objectives of the study are to:

- Analyze the country's infrastructural & legal status in adopting decentralized currencies.
- Assess the socio politics factors which have direct or indirect leverage on such currencies.
- Look into practices in other places such as neighboring and global countries.
- Evaluate the uniqueness of Cryptocurrency with that of its pros & cons to the economy in terms of personally and nationally.

1.6. Significance of the study

Absence of deep understanding about cryptocurrency is a major reason that necessitates the study subject matter to study. Despite consensus on the importance of Cryptocurrency, there is a gap in the understanding as to how it would be applied to support the country's banking system. The outcome of this study will serve as a source of information on Cryptocurrency in Ethiopia as well as challenges associated with its use. In addition, the result of this study will be used as an input for experts and scholars interested to work for the promotion and applicability of Cryptocurrency in the country. It can also be used by government policymakers and various stakeholders who will have the desire to work for growth of the service. Further, it will show the means for more academic research on this topic and make contribution to literature gap.

1.7. Scope of the study

Taking into consideration the dynamic nature of Cryptocurrency the study topic encompass related issues to be addressed fully. Since this new type of currency is dependent on using of ICT lots of fears and rejections arise as it uses computers which may confuse people, fears such as vulnerability

to hackers, illegal activity of money laundering and creating a loophole for terrorist funding needs as well as its volatile behavior of exponential rise followed by drastic fall in price. On the whole this research focuses on assessing the benefits of Cryptocurrency, factors affecting its adoption and its applicability in Ethiopia.

1.7 Limitation of the study

Throughout conducting this study, there were some limitations faced by the researcher, the first limitation was, even-though the benefit of digital currencies technology is advanced dynamic Ethiopia is far behind in adopting such technology and give the chance for these alternative currencies. The second limitation was finding people who are aware of the technology very well. Finding respondents who are enthusiasts and have great imagination about virtual currency was challenging. The third limitation is the condition of the respondents when the time of data gathering, they have very busy schedule and job burden because of which some of the respondents were less concerned in answering some open-ended and close ended questions appropriately which might affect the results of the study to some extent the final limitation the research has faced is that there were not enough studies conducted under such business / technological topics targeting Ethiopia.

1.8 Organization of study

The study would be organized in to three chapters of which chapter one is consists of background of the study, problem statement, and research questions to be answered in the study, general and specific objectives of the study, scope as well as significance of the study. Chapter two deals with theoretical and empirical reviews of the literature with regard to the concept of Cryptocurrency and block chain technology. The terms and concept briefing are also addressed in chapter two. Chapter three deals with the research design and methodology used to study the research including sample size and character and the sampling method. Chapter four analyzes and presents the data gathered using questioners whereas the final chapter five holds the conclusion of the study and finalizes the research through conclusion.

CHAPTER TWO

REVIEW OF LITERATURE

In this chapter, the reviews revolve around concepts of how to mine a cryptocurrency within the Blockchain system and the essence, importance and functionality of both cryptocurrency and Blockchain in Ethiopia and Africa.

2.1. Theoretical Review

2.1.2. Basic concepts

In the virtual currency system, one has to purchase a currency from the crypto market or has to go through a process called “mining” by which the process of mining will require the machine to solve a cryptographic puzzle for a reward which in our study would be a cryptographic currency be it Bitcoin or any other.

Cryptocurrency is an electronic token, which originates from the need for direct peer-to-peer online payments. The most widely used and known Cryptocurrency is Bitcoin, introduced by an unknown developer or a group of developers with the pseudonym Satoshi Nakamoto. It uses a decentralized public ledger to record ownership and transfers of value. The innovation behind Cryptocurrency is that transactions are verified by several “miners,” who solve a complicated cryptographic problem to verify the ownership of the Cryptocurrency and the subsequent transfer. The miner who solves the cryptographic problem first and validates the transaction receives Cryptocurrency as remuneration. The mining process is an open source program that can be accessed by the public. The peer-to-peer verification system bypasses typical trusted third parties such as a bank or a credit card company. Various innovations in Cryptocurrency have emerged since Bitcoin rose to popularity, thereby broadening the definition of Cryptocurrency. While some central banks are mulling over establishing their own Cryptocurrency, the industry is mainly a market-driven phenomenon (Shirakawa & Korwatanasakul, 2019).

Nine years since the birth of Bitcoin, governments and central banks around the world are increasingly recognizing the potential upsides and downsides of digital currencies. In addition, the Bank for International Settlements, popularly known as the central bank, issued a paper analyzing the nature of Cryptographic money, urging central banks to consider issuing their own

Crypto coins. Over 100,000 merchants worldwide accept Bitcoin. Notable ones include Microsoft and Expedia, as well as the online electronics retailer Newegg. There is also a service like Shake pay and BitterX to convert Cryptocurrency into USD or Euros for a fee (Achversklub, 2018). Another notable aspect is the SEMRUSUS search engine analytic study, with a database of 120 million keyword searches related to Bitcoin in the US. Since April 2017, searches about Bitcoin have increased by 450%, while since June 2017 Google searches for Ethereum reaches similar 14 million, more and more people are realizing the importance of the Blockchain phenomenon and the Cryptocurrency (Achversklub, 2018).

According to the World Bank report mobile money transfer in Kenya, has a tremendous impact on the society. There is an implementation mobile banking kiosk even in the rural areas, this has been the game changer for the rural poor who have generally had scarce access to financial institutions, and for whom the trip to the nearest bank is too high in terms of travel cost or lost time at work. According to the world bank report a research conducted by Georgetown University on 2016 shows that because of the use of mobile phone and M-PESA (Digital Currency), around 200,000 Kenyans moved out of poverty and most women in Kenya moved from subsistence farming to business of retail sales and their saving went up as a result. As mobile phone ownership grows, this may be a way to jump past the traditional ways to access a financial institution and bring access to people where they are (World Bank 2018).

In May 2018, Ethiopian Ministry of Science and Technology's (EMoST) chief declared a partnership with one of the world's foremost Cryptocurrency supplier. A Memorandum of Understanding with Input Output Hong Kong (IOHK), a company based in Hong Kong, China, for the utilization of a block chain application platform called Cardano, a type of Blockchain record management platform used in Ada Cryptocurrency. In Ethiopia, the trading of Bitcoin and other Cryptocurrency remains mostly as an unregulated activity. The Bitcoin is not recognized as legal tender by the Ethiopian government and the central bank does not regulate the operations of Bitcoin, therefore, the public must be cautious of the risks connected with the usage of such digital currency. (Blockchain Forum Ethiopia 2018).

Unlike many of its Ethiopia's, African counterparts the National Bank of Ethiopia completely disregard the existence of this innovative form of money. In essence of the point is that, Ethiopians, buying and selling Bitcoin are doing so at their own risk. Ethiopians have no claim

against the authorities if the value of their Bitcoin one day crashes down, or the exchange in which they keep their Cryptocurrency is closed down or gets hacked. Not unique to Ethiopia but most countries have yet to determine the legality of Bitcoin. In this case in point, Blockchain will be used to trace Ethiopian coffee along the value chain, applying genetic sampling to classify species, origin, and identify pesticides and exposure to any chemicals leading to the authentication of the coffee. The technology allows management of the supply chain, distributed shares, simultaneous looking and improved security, especially in checking for corruption or mislabeling of consumption goods. Furthermore, Blockchain will be employed to create an interspecies payment token capable of moving sums of money between humans and wild animals (ethiopianbusinessreview.net, 2021).

This payment token, called Linnaeus, will tackle the loss of biodiversity and species extinction in the equatorial belt, including Ethiopia. A trial of this project will run in protected areas of southern and western Ethiopia. The agreement also incorporated a training program for Ethiopian university graduates in Haskell programming language. Following this landmark agreement, the Yirgacheffe Coffee Producers Union in Ethiopia began receiving the value of their exported coffee in Bitcoin. Despite this breakthrough for Blockchain technology in Ethiopia, the government is maintaining its official stance for Cryptocurrency. Another breakthrough came in the form of a meeting held on September 29, 2018. The Sky gate Hotel located near Bole International Airport hosted to a meeting of about 70 potential Cryptocurrency investors. (Blockchain Forum Ethiopia 2018).

2.1.3. Regulation and Legal System for Cryptocurrency

Cryptocurrency in its current state is not considered a substitute for money. One of the largest points of contention regarding its value comes from the fact that it is not issued by any sovereign authority, thus its intrinsic value is questionable. Money has three basic features— a unit of account, a generally accepted medium of exchange, and a stable store of value. Cryptocurrency cannot take the role of a unit of account and a store of value because the market valuation of Cryptocurrency is characterized by large volatility in prices. Bitcoin, the largest Cryptocurrency in terms of market capitalization (Coinmarketcap.com 2017), saw its value rise in December 2017, before subsequently losing 30% of its value in December 2018 (Kollewe 2018).

The unenforceable nature of Cryptocurrency transactions in many countries also prevents it from becoming a common means of payment, in its beginnings; Cryptocurrency was used as a payment instrument. Since Cryptocurrency uses a distributed ledger systems that bypass intermediaries, they can potentially reduce the cost of international transfers, including remittances. Lower transaction costs can ultimately contribute to financial development and increased financial access. Thus, while the large uncertainty over the value of Cryptocurrency currently prevents it from being recognized as a currency that functions as a unit of account or a store of value, it is largely used for payment that promises anonymity and the elimination of intermediation costs (Farell, 2015).

As Cryptocurrency gained more recognition in the financial sector, market players began to use it as a speculative investment asset. Similarly to other financial instruments, Cryptocurrency began to be traded in Cryptocurrency exchanges. (Bauer, Hong, and Lee 2018) found that Bitcoin, holding the largest share of the Cryptocurrency market, is mainly used as a speculative instrument rather than an alternative currency. Speculative trading is conducted in exchanges where consumers can buy, sell and exchange Cryptocurrency using dollars, euros, yen, or through using other Cryptocurrency. Currently, over 200 exchanges support Cryptocurrency trading all over the world (Hansen 2018). The major exchanges are located in countries such as, the US, the Republic of Korea, and Samoa, among others (Hansen, 2018).

2.1.4. Cryptocurrency from Global view

In countries such as Sweden, Mexico and Isle of Man, their government has promoted the use of crypto currency as mode of payment for transactions carried out alongside their national currency. The government of Antigua allows the funding of charities and national projects through using Cryptocurrency. According to Cryptocurrency trading platform, information show that the Cryptocurrency user has increased by nearly 150 percent from the year of 2018 up to the year 2020, the increase in users is caused by interested users who trade using Cryptocurrency thus contributing to the rise in Cryptocurrency accounts. And here it can be said that the widening number of users shows the idea and popularity of Cryptocurrency is paving its way to peoples mind when it comes to alternative currency. (Reynor de Best Feb 2021). According to Statista global consumer survey (2020) consumers in Asia, South America and Africa are owners of one of Cryptocurrency such as Bitcoin by the year 2020, this shows that the acceptance level and attitude towards Cryptocurrency has changed positively and increased in the number of owners globally. (Reynor de Best Feb 2021).

2.1.5. Cryptocurrency in Africa

Bitcoin was used as an intermediary currency to facilitate transfers between other currencies. This may assume the user has access to a bank account but struggles with the cost and difficulty of international transfers or e-commerce systems. It is possible, however, to focus on the digital currency system as a type of decentralized bank. If a person has a personal computer or a mobile phone that can be used to download a digital currency wallet, they can obtain a public key that represents their account on the global system (Tsega, 2018).

Despite the development of mobile cellular with more than 1 billion SIM cards and 140 mobile money services in 39 countries, or over half of the 277 total services globally, as of December 2016, there are very few concrete cases of the use of or adoption of Blockchain Technology. Solutions are developed within the constraints of a poor understanding and knowledge of the technology, especially in sectors other than banking. In addition, central banks do not have regulation in place for innovation technologies of this kind. However, Bitcoin, nevertheless, is gaining ground in countries such as Ghana, Kenya, South Africa, Tunisia and Uganda, where it is used generally for money transfers. Banks in South Africa including the reserve Bank are beginning to accept the innovation of Digital Currencies and Blockchain Technology despite the differing opinions of regulators on matters such as Cryptocurrency. United Nations Economic Commission for Africa, Blockchain Technology in Africa report mentioned the importance of Blockchain Technology and Cryptocurrency to meet the SDGs and Agenda 2063 a vision of global and continental development that recognizes the critical role of technologies and innovation in tackling most of the challenges of sustainable development. The report stated the advantages of Blockchain technology like its form of decentralization, security, and transparency, high resistance to outrage, auditability and efficiency (UNECA November 2017).

2.1.6. Cryptocurrency in Ethiopia

The Ethiopian government had signed a deal to create a national data base for students and teachers on a decentralized data base system to give a digital identity to store educational records in partner with IOHK a Cardano commissioned software company. IOHK has established offices in Addis Ababa and has engaged in Blockchain projects which are expected to launch in January 2022 next year .The Cardano Blockchain project will enroll some 5,000,000 Ethiopian students in giving of Blockchain based identity using the ATALA PRISM by building digital identity on Cardano

Blockchain. The Cardano Blockchain system will resolve the problem of counter fitting of certificates and educational documents which is a common problem in Ethiopia and also by giving the opportunity for students with diplomas and degrees to be considered as reliable and genuine should they want to apply for further education or carrier seeking process in foreign countries. According to data from MOST (Ministry of science and Technology) this project will launch with data of students from grade 12 with Cardano Blockchain. The deal between Cardano and the Ethiopian government plays a huge role in adopting crypto asset industry for Ethiopians (Blockchain forum Ethiopia May 2018).

In Ethiopia, there have been several institutions and individuals over the past few years working and planning to work on Blockchain and Cryptocurrency. Most startups and the technology users are used for this research. However, the center of the research is mainly on AchversKlub school of Cryptocurrency which is planning to implement school of Cryptocurrency project in Ethiopia. The school of Cryptocurrency project was started in 2017, well before other initiatives introduced the technology to Ethiopia. Achivers Klub, has plans to give classroom based courses and correspondence or online courses of Cryptocurrency, in order to introduce the technology widely in Ethiopia, for us to learn and be able to use alternative coins other than fiat currency (Tsega, 2018).

The conformation that the Ethiopian government had made by signing a deal to create a national data base of students and teachers on a decentralized database system in issuing them with a digital identity which will be used to store educational records in partner with IOHK a Cardano commissioned software company. IOHK established offices in Addis Ababa and engaged in block chain projects which are expected to be launched in January 2022. The Cardano block chain project will enroll some 5,000,000 Ethiopian students in issuing of block chain based IDs using the ATALA PRISM by building digital IDs on Cardano block chain which will allow the government in tracking the students' academic performance. In Ethiopia, most information is recorded on paper than that of electronic equipment. IOHK, through the proposed block chain system by mostly using information from the Ministry of Education (MoE) running on full node (under control) with schools and students will use a "light client" mode to get access to the system while the system operates on public Cardano block chain. The implementing of this system in Ethiopia will enable school graduates and students to access or take copies of their report cards, temporary degrees or other related schooling documents on provided electronic chips by using NFC (Near Field

Communication) methods which widens the accessibility of data for school children who do not have mobile phones (Blockchain forum Ethiopia May 2018).

The Cardano Blockchain system will also resolve the problem of counter fitting of certificates and educational documents which is a common problem in Ethiopia and also by giving the opportunity for students with diplomas and degrees to be considered as authentic to apply for further education or career seeking process in foreign countries. According to data from the Ministry of Science and Technology (MoST) the project will avail data of students from grade 12 with Cardano block chain. The deal between Cardano and the Ethiopian government plays a critical role in adopting crypto asset industry for Ethiopians and as for the African economy by promising the use of block chain technology for the betterment of socio economic change by focusing on African market goals which is held as per the UN sustainable Development Goals (SDGs) as well as AU Agenda 2063 (UNECA November 2017).

Currently the power and telecom infrastructures need lots of improvements to provide better internet quality with that of safer cyber security system to protect users form cyber bullies. Information technology (IT) together in combination with fast and reliable internet plays a major role in shaping the world of cryptocurrency transaction business thus, without IT and Internet important business processes might not be able to be carried out properly and thus fail to help businesses raise the profit in the changing environment.

2.1.7. Benefit and Applicability

The encryption method used to transfer the various kinds of transaction data also known by Cryptocurrency Algorithm is a highly secured transaction method than that of the centralized currency system security wise. Since Cryptocurrency is based on Blockchain, it is complex to tamper with the encryption algorithm method by making the transaction process a two factor double security verification process where the user must enter a valid username and password to initiate a certain transaction process, then after, entering an authentication code sent through a personal cellphone or other electronic device will enable the user complete transactions (Muhammad Ashraf Fauzi, 2020).

Financial institutions are given the right to limit the amount of money that one can deposit or withdraw from their account. There is a maximum amount of value that one can deposit in there online payment platform which in our country case amounts to about **15,000 to 20,000 birr**. We can

easily understand that the given deposit cap limits the user as far as financial freedom is concerned, a person is systematically forced to only make payments selectively limiting the needs and wants of the person with their own money. The effect of financial limiting is also seen on withdrawal section, a directive drawn by the National Bank Ethiopia by the directive number FIS/03/2020 on (May 19/2020) puts a daily and monthly cap on cash withdrawal limit, that is the amount a person is entitled to withdraw monthly is limited to **1,000,000 (one million birr)** only and **2,500,000 or (two million and five hundred thousand birr)** for institutions, this shows us that financial institutions are highly entitled in making financial decisions over ones hard won money. It's to put in mind that setting a daily and monthly depositing and withdrawal cap would result in economic depression as a result complicating and crippling the economy.

The benefit with Cryptocurrency such as Bit coin, a user can receive and send cash anywhere at any time of the day and on any day of the year regardless of public holidays and without a concern of sharing of the national currency between the parties. Since Cryptocurrency is based on a Block Chain system the owner is in full control over the Cryptocurrency asset, there is no third party present censoring the transaction and only the user is in full control over their Cryptocurrency asset unlike the centralized bank system they are available at all time for deposit and withdrawal (P. Carl Mulan, 2014). According to report from Net Guardian (2020), a Swiss made banking software which detects fraudulent acts carried out by bank employees stated that on the fiscal year of 2020 showed that an estimate of 3.6 billion dollar money fraud had been carried out by bank employees all over the world this shows that the centralized currency system has loopholes for fraudsters, having said that another important benefit obtained by using Cryptocurrency regarding financial institution fraud is the financial information privacy is strong and is only kept between the system and the Cryptocurrency owner which nullifies fraudulent activity committed against bank account holders.

The chances of banks going bankrupt by the reason of robbery or by delicate periods where all its subscribers decide to withdraw their money all at once forcing the bank to declare for insolvency, for example, the collapse of the New York Stock Exchange in 1929 triggered a number of corporate bankruptcies and 744 banks failed in the first 10 months alone (Makato yano, 2020) thus it could be said that from one of the huge advantages of using virtual currencies is that the term "insolvency" is nonexistent in the world of virtual currencies.

In addition the transaction fees taken as a commission by the system from a certain peer to peer transaction process is extremely low in comparison to the commission taken by normal currency system per transaction (Muhammad Ashraf Fauzi 2020). Another benefit relating to Cryptocurrency is the traditional currency concept is consisted of a hard tangible currency and a financial service provider that a user can access with a bank account where the large amount of currency is stored and transported to places, it's to be noted that the large amount of hard cash takes up a lot of space for storage and requires a unique environment in terms of security, but not only that the large amount of money is also hard for transport across regional or continental borders. In contrast to the above mentioned issues, Cryptocurrency system users are supposed to create their own account or WALET application on their designated electronic device to administer and pursue financial transaction without the presence or involvement of financial service providers thus reducing and silencing the issues raised in terms of storage and transportation (Christian Rueckert, 2019).

Currently, cryptocurrency is not both legally and politically supported by the Ethiopian government due to reasons such as, absence of legal enactment, fear of fraud and of losing control over economic policies such as monetary policy resulting in the consequence that the usage of cryptocurrency has been criminalized and is punishable by law. The fear of losing control arises from the fact that national governments cannot regulate cryptocurrency and therefore creating a negative chain reaction in its money supply system.

The liberalization or regulation of crypto currencies is crucial for its future development and applicability because it dictates the level of freedom and benefits Cryptocurrency can keep. The regulation or liberalization of such currencies must be well balanced, the Ethiopian government with that of the financial security agency should not be too strict that all benefits are diminished, or too liberal allowing such currencies in dismembering its financial sovereignty. Here, for the purpose of applicability the government regulation should be strict enough that cryptocurrency is politically and legally supported, because only with legal and political support could enable its applicability.

2.2. Empirical Reviews

2.2.1. Cryptocurrency regulation systems

To provide an empirical examination of the policy stance toward Cryptocurrency, it is useful to place emphasis on Shirakawa & Korwatanasakul (2019). They identify three broad types of regulation system in 218 economies—fully liberalized, regulated, and banned. The policy choice of allowing the use, regulating, or prohibiting the use of Cryptocurrency can represent, on the one hand, how open policy makers are to new avenues in financial development or, on the other, how prudent they are in adopting new financial technology.

Sven Niklas (2021) emphasizes that currently there is no such thing as regulation-free zone or legal vacuum for Cryptocurrencies. However, when Bitcoin emerged, there barely was effective regulation targeting Cryptocurrencies specifically as far as regulation is concerned. This resembles the times preceding the spread of national and territorial currencies in the nineties. Before central banks took control over monetary policy, private money was freely circulating on the market namely, foreign currencies (currencies issued by foreign states) and low denomination money (privately issued currency). Cryptocurrencies have common traits with both foreign and low denomination money they are used alongside with national currencies although in a limited way however they are far from widespread circulation, the vast majority are not issued by central banks, they are cosmopolitan, they are not easily converted into national currencies, their value is uncertain, etc. thus this knowledge allows us to understand better how governments can respond to cryptocurrencies.

Regarding on the debate raging that whether Cryptocurrency is money or not, Sven Niklas (2021) argues that in future Bitcoin will serve only as a speculative asset and cannot be a viable alternative to existing national currencies since it does not fulfill the three functions of money. Accordingly, volatility and the absence of a legal tender status prevents Bitcoin or other encrypted currencies from being a unit of account. He also noted that it cannot be seen as a medium of payment as Cryptocurrencies are mostly used for trading and have limited acceptance network. However, Sven assumes that Cryptocurrency may have the potential to store value but once again volatility makes it questionable in the long run.

Shailak Jani (2018) argues that since some virtual currency systems are connected with real world monetary systems, they may affect the demands and supply facilities of real world money. For example, enabling users to purchase virtual and real goods and services with virtual currency in some platforms may reduce the demands on real money thus users will no longer depend on real money to buy what they want and they will use virtual money instead. On the other hand, some platforms which enable users to exchange their virtual currency with real currency where this will increase the demands on the traditional currency as a result the fluctuation caused will have an adverse effect on the existing monetary systems such as inflation and circulation instability.

Spengelink, Hardwin. (2014) has placed emphasis regarding the security risks that are attached to cryptocurrencies. For instance, should a person gain access to your virtual (Software) or hardware, digital wallet pass codes, and your funds are stolen or subjected to fraud, there is no possibility or way in getting your funds back. Similarly, whenever a user would enact a transaction and sends funds to the wrong recipient, there is no way to remit the funds (as there is no central authority) other than trusting on the goodwill of the person or business that received the funds. Building upon security risks, as cryptocurrencies involve software and code, the storage in digital wallets, personal devices, online storage lockers & exchanges are subjected to vulnerabilities as any other pieces of software and therefore pose a security risk. There are numerous examples of cryptocurrency exchanges that have been hacked in the past, whereby the business and their clients lost their funds without any legal backup or recourse. The prime example being the Mt. GOX (Magic the Gathering Online Exchange) which was the biggest Bitcoin exchange in the world. This exchange been hacked back in 2013 and 2014 where \$473 Million Dollars' worth of Bitcoin (740,000 Bitcoins) were stolen.

Additional argument placed by Shilak Jani (2018) emphasizing regarding unknown identity risks, since creating an account in most of virtual currency platforms such as social games and social networks is not authenticated, financial transactions cannot be monitored very well. Gamers and users can create more than one account with unknown identities and use them for illegal transactions. There is no way to recognize the source of creating or cashing out the virtual currencies. This leads to inability to track the transactions in case of money laundering suspicion. Moreover, unknown identity will enable criminals to get paid with virtual currency for their crimes.

2.3 Conceptual Framework

2.3.1. Socio-political and infrastructural factors

A person's attitude plays a huge role on whether accepting or rejecting things. The social value here in our country is highly considered as primary toward considering and adapting new things, it's funny that in some part of Ethiopia elders has to come see it or prove the worthiness of a new trend or something unusual but useful, so the fate of a newly introduced currency system will depend on the willingness and awareness of the society for the new trend to survive or die. (Raynor, 2021). In countries such as Sweden, Mexico and Isle of Man the government has promoted the use of Cryptocurrency as mode of payment for transactions carried out alongside their national currency. The government of Antigua allows the funding of charities and even national projects through using crypto currencies. Infrastructural problems account for many disturbances and chain reactions which mostly result in system halt. Infrastructures such as the telecom and power company play a pivotal role in the day to day activity of manufacturing, trading communicating and so many more proving that one's absence ending up in negatively affecting the economic activity pursued both personally and nationally (Vadapal, 2020) .

Among the many variables which are determinant to Cryptocurrency in various countries, and since the research is concerned on the challenge and possibility of Cryptocurrency in Ethiopia, the researcher has determined variables or factors of ;

- I. Governmental policy
- II. Social attitude
- III. Infrastructural problems
- IV. Level of awareness
- V. Government regulation

to be the determinant variables and or factors for the possibility of Cryptocurrency in Ethiopia.

CHAPTER THREE

RESEARCH METHODS & TECHNIQUES

3.1 Research Area

The background and aforementioned issues are all about the conventional centralized financial institution that has been since the emergence of modern banking system. The continuous invention of new technologies of communication in aiding businesses has leveled up in the ways and methods with which transactions are carried out changing the focus point from Fiat currency to decentralized virtual currency. If the technology shift is not properly addressed and taken into consideration by governments and central banks, the chances of building the country's economy will lag because the rate at which the new currency system is being adopted by western & other else countries is swift as they are technologically advanced, have better political and government system and bare a better attitude towards change and innovation. Here, the focus of the research will be the progress being made in applying the Cryptocurrency system towards replacing the centralized financial system thereby adopting advanced decentralized digital currency system.

3.2. Research Design

The common most used designs are exploratory, explanatory and descriptive research design methods which are based on the purpose of the study (Saunders, 2009). From the most common used research design, a qualitative research methodology and an exploratory research design were implemented to analyze and explore the literature available regarding Cryptocurrency advantages and challenges facing its implementation at different levels. Thus, this research seeks to employ

3.3 Data Type and Source

3.3.1. Data type

According to Creswell (2013), there are three research data types: qualitative, quantitative, and mixed methods. Mixed research methods are used when it incorporates elements of both qualitative and quantitative approaches and the findings are also more reliable using one of the approaches. Mixed research design is an approach to conduct inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve

philosophical assumptions and theoretical frameworks. The core assumption of this form of inquiry is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone. Thus, mixed research design would be applied in order to achieve objectives of this study.

3.3.2. Data Source

The data collection methods which are employed for this study are both primary and secondary sources of data. Primary data will be collected from various business owners & investors, policy & law makers and scholars through using of questionnaires consisting of both open ended questions & a real time interview with the respondents whereas the secondary data are obtained from published and unpublished public & private documents and other types of information.

3.4. Sample Size Determination

The population size of this study includes various stakeholders like investors, policymakers and scholars in the field is important as it can provide a first-hand look into the real-world problems faced by business owners in connection with Cryptocurrency. From the total of 347 respondents the student researcher aims to disseminate a total number of 27 questionnaire and interview to policy makers, 160 questionnaire and interview to scholars and 160 questionnaire and interview to investors and business owners. Here, purposive sampling technique will be used to select respondents to be included with the objective of gaining basic information about the topic under research. In non-probability (also known as purposive sampling) sampling technique, the student researcher determines as to which subject of the population to be included in the research study.

Table 3.4.1 sample size determination

Total number of sample population		Number of respondents selected
A	Investors and business owners	160
B	Scholars	160
C	Policy makers	27
A+B+C = 347		

Source: own research (2022)

By using sample size calculating formula $sample\ size = Z - score \times SD \times (1 - SD) \div (margin\ error)^2$ the student researcher has set the target population of 3500, with a 95% confidence level and a 6% margin of error, the sample size requires the participation of 347 respondents for the research.

3.5. Sampling Methods

A purposive or judgmental sampling is a non-probability sample that is selected based on the characteristics of a population and the objective of the study. The thought of crypto currency is something new and considered as unusual in the mind of Ethiopians and Africans. The number of user is limited due to lack of information, inadequate exposure to the tech, fear of change, government regulation and many other reasons. Due to the above mentioned and other related reasons the researcher utilizes judgmental sampling technique where the participants will be selected based on their knowledge and proximity to the technology (Crossman, 2018).

3.6 Data Collection Methods and Instruments

The student researcher believes that both qualitative and quantitative data are relevant to this study. Hence, both of these types of data are going to be collected from both primary and secondary data sources.

- **Primary source:** Include the actual information received from individuals who are directly and indirectly in contact to and specialize within areas of policy making, information technology & investors in various fields of business and business owners with good proximity to the technology.
- **Secondary sources of information:** These include all types of published and unpublished public or private documents and other types of information. Documents and the Internet will be reviewed and assessed as an additional source of data and for the understanding about Cryptocurrency and Blockchain technology in general.

Primary attention will be given to questionnaire and interview as research instruments to collect the primary data from different primary sources generated by the researcher, survey questioner and .

Structured questionnaire will include important questions about the advantages and processes of applying Cryptocurrency.

An in-depth interview which utilizes probing would be conducted using interview, consisting of questions about the various aspects of Cryptocurrency. The quantitative data generated will be organized and analyzed using a descriptive data analysis method to triangulate the findings of the design that will help strengthen the overall empirical findings of the study, to measure the reliability & validity of the data a method of internal consistency reliability (Cronbach alpha) method is used whereas, the qualitative data are thematized and narrated accordingly.

3.7 Measurement of reliability

when conducting a research, for any quantitative data measurement to be valid, it must demonstrate reliability Questionnaires were developed after reviewing the literature to assess benefits and applicability of Cryptocurrency in ethiopia. Where the scales used to measure the responses is a five point rating scale. Regarding the reliability, the Cronbach’s alpha should be considered with the threshold of .70, although a .60 can be used however results are questionable. For this research, questionnaires were pre tested for its internal consistency, as a result, the Cronbach’s alpha of all variables) showed that a cronbach alpha result of **.829** this indicates that there is a good level of internal consistency amongst the tested items and variables of the study.

Table 3.7.1: Measurement of reliability of variables

Variables	Items	Cronbach Alpha
Social attitude	6	.829
Government Policy	3	
Infrastructural problems	3	
Level Of Awareness	3	
Regulations	2	
Total Tested Items	16	

Source: Own research (2022)

3.8. Methods of Data Analysis

In order to analyze the quantitative data which is obtained from the questionnaires, descriptive statistical techniques would be used. Moreover, document analysis method would be utilized to analyze data from different secondary sources of data which includes relevant documents. The major statistical tools to be used include frequencies, percentiles, measures of central tendency mainly mean, measures of dispersion such as standard deviation, and measures of associations mainly coefficient of correlations.

The qualitative data to be gathered using real time interviews and other secondary sources would be categorized into themes, and then be analyzed accordingly. Particularly, narrative approach is going to be used to present the results of the interviews.

3.9. Ethical Considerations

The purpose of the study would be explained to respondents so that they will be comfortable to reply. All participants would be asked voluntarily to participate in the data collection by collaborating in filling the questionnaire and responding to the interview. By doing so, the respondents are free from any harm and more importantly their views are confidential and anonymous, and the information will be used for academic purpose only. This research will take all research ethics and legal issues into consideration.

CHAPTER 4: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

In this chapter, the collected data through the using of both quantitative and qualitative data gathering approach are analyzed.

The data analysis approach are categorized in to two parts where the first part focuses on the characters of the respondents, such as their gender, work status, marital status, area of specialization and whether they won any of Cryptocurrency.

4.2 Response rate

Within this research a total of 347 respondents were targeted from a total population size of 3500 (three thousand five hundred), and the research questioners were sent to 347 respondents from where a total of 239 (two hundred thirty five) questioners were returned with fully and partially responded to.

Based on the following formula the response rate has come to be at a 68.8 percent, thus used for the analysis of the research. A research response rate of above 60 percent is considered to be very good (Mugenda 2003).

$$\text{Returned questioners in percent (\%)} = \frac{\text{number of returned questioners}}{\text{number of reserch respondents}} \times 100\%$$

4.3 Character of respondents

In these sub section, the respondents' character in terms of gender, work status, marital status, their area of specialization and whether they own any of Cryptocurrency were examined to get better insight from the demographic set of the respondents and the results are put quantitatively in a tabulated form and whereas details are discussed below the table.

Table 4.3.1 Demographic data of respondents

Demographic Variables	N	Category	Frequency	Percent	Mean	Standard Deviation
Area of specialization	239	Business	130	54.4	1.56	.670
		Information Technology	85	35.6		
		Policy maker	24	10.0		
		Total	239	100		
Ownership of Cryptocurrency	231	Yes	39	16.9	1.83	.375
		No	192	83.1		
		Missing	8	3.3		
		Total	231	100.0		
Gender	236	Male	153	64.8	1.35	.479
		Female	83	35.2		
		Missing	3			
		Total	236	100.0		
Marital status	239	Married	114	47.7	1.52	.501
		Not married	125	52.3		
		Total	239	100.0		
Work status	239	Employed	171	71.5	1.57	.904
		Self employed	68	28.5		
		Total	239	100.0		

Source: (SPSS generated)

4.3.1 Gender

As presented in the above table the number of male participants to women participants is greater in number, namely, male participants account for 150 (63.81%) and female participants accounting for 82 (34.9%) and 3 of the respondents failed to mention their gender accounting for 1.3 % as missing.

4.3.2 Work status

Details of the respondents were also put to analysis for the sake of gaining which status is dynamic in terms of technology exposure and has attitude toward Cryptocurrency, from the chart below we can understand that 167 (71.1 %) of the respondents are employed whereas 68 (28.9 %) of the respondents are self-employed, investors and business owners.

4.3.3 Area of specialization

Again here, the respondents were also put to analysis to get particulars on which area of specialization exists the dynamism of tech exposure and general knowledge. From the figure 4.3 below 129 (54.9 %) of the respondents specialize in area of business and 82 (34.9 %) of the respondents are IT specialists and 24 (10.2 %) of the respondents account to response from policy makers.

4.3.4 Marital status

The marital statuses of the respondents were also studied to get better insight whether it signifies any relation to Cryptocurrency. In figure 4.4, respondents who are married account for 113 (48.1 %), whereas the remaining 122 (51.9%) of the respondents account for not being married.

4.3.5 Ownership of any sort of Cryptocurrency

The respondents were asked whether they own any of Cryptocurrency, as shown in figure 4.5 below from which 37 (15.7 %) of them were entitled to Cryptocurrency such as Bit coin, Doge coin and Ethereum, whereas the remaining 190 (80.9 %) of the respondents didn't have any, and the remaining 8 (3.4 %) of the respondents failed to specify.

4.4 Result and Findings

The student researcher has said out to give answers to the following three research questions which are:

1. What makes Cryptocurrency different from government provided currency (Fiat currency)?
2. What enabling platforms are available for Cryptocurrency circulation in Ethiopia?
3. How do the socio political factors affect adopting and implementing Cryptocurrency in Ethiopia?

The three (3) research questions were embedded within the questioners which were disseminated to the respondents, the research questions were both directly and or indirectly addressed through using open ended and close ended questions.

First and foremost the level of awareness among the respondents were assessed and analyzed in table 4.4.4 for the purpose of understanding on what level the respondents regarding the Cryptocurrency technology in Ethiopia. For such technologies to exist and or flourish, the researcher has firstly examined the level of understanding and how the technology is perceived by the respondents. Upshots from three selected open ended questioners concerning variable of level of awareness specify that majority of the respondents concur on the value fluctuation of the currency itself is repulsive, numerically expressed, 61.1 % of the respondents are aware and are against value fluctuation of the currency and 34.7 % of the respondents are found to have neutral response. In terms of the currency in revolutionizing the finance system as we know it, 59.4 % of the respondents are fully aware and believe that such a currency could change the way we see money.

Table 4.4.4 level of awareness towards Cryptocurrency

	N	Frequency		Percent	Mean	Standard. Deviation
Although the value of Cryptocurrency is increasing & attracts investors, its volatility is repulsive	233	Strongly agree	40	16.7	2.20	1.180
		Agree	106	44.4		
		Neutral	59	24.7		
		Disagree	22	9.2		
		Strongly disagree	6	2.5		
		Missing	6	2.5		
		Total	239	100.0		

Cryptocurrency is capable of revolutionizing the centralized finance system	236	Strongly agree	47	19.7	2.35	.958
		Agree	95	39.7		
		Neutral	37	15.5		
		Disagree	42	17.6		
		Strongly disagree	15	6.3		
		Missing	3	1.3		
		Total	239	100.0		
Cryptocurrency could benefit its users or the economy in any way possible	239	Strongly agree	31	13.0	2.57	1.022
		Agree	95	39.7		
		Neutral	67	28.0		
		Disagree	37	15.5		
		Strongly disagree	9	3.8		
		Missing				
		Total	100	100		

When it comes to benefit of any kind such as convenience, speed, efficiency and such obtained through using Cryptocurrency, 52.7 % (majority) of the respondents are aware that it has benefit at the national and at the individual level.

To answer research question number one, one interview question was asked which says “**which characters of Cryptocurrency are attractive and which are repulsive in terms of benefit to Ethiopian economy**”?

Among the most common differences mentioned are cryptocurrency has the power of eliminating bill counterfeiting which currently is a headache to the NBE and the economy in specific and globally in general. Cryptocurrencies are virtual tokens which are time stamped within the block chain system whenever it’s used in a transaction. The algorithm method applied in the system also guarantees security and full control over ones assets through a high level of encryption method which gives safety and security to its user.

Transaction costs incurred when using Cryptocurrency is much cheaper in comparison to transaction fees incurred in the conventional banking system whilst providing a fast & secure fund transfer. Cryptocurrency is also highly known for operating on a decentralized ledger system where each transaction information are time stamped and distributed among user nodes anonymously where by

transactions are made possible without the presence of third parties censoring transactions made using a peer to peer (P2P) protocol. Another unique difference of cryptocurrency to fiat currency is that it insulates its users from money inflation which could arise from economic shock, economic depression and economic recession. Unlike that of the centralized system, cryptocurrency trade transaction enable the most simplified cross border trade transactions for those involving in an import and export businesses without having to wait for foreign currency exchange from the national bank of Ethiopia which currently is a big problem for cross border traders in various sectors. Cryptocurrency is liberating, as far as financial freedom is concerned by providing a financial platform where financial censoring and control over ones financial choices are nonexistent with a limitless and non-censoring cryptocurrency wallet where one can access it at any time of the day and at any place in the world because it has a global payment system. It is also to be noted that the cryptocurrency system also revolutionizes the way we see things from an angle of time & energy efficiency and reduces both manual and even automated activities which are seen in banks at present. In addition, to get better insights, three (3) open ended questions were also asked which indirectly supports the interview question for the purpose of better understanding, addressing; the capability of cryptocurrency in revolutionizing the finance system, easiness towards understanding and applying its concepts & cryptocurrency serving as an alternative and substitute to fiat currency. Results and interpretation are presented in a tabulated and elaborated form.

Table: 4.4.1 Attitude towards Cryptocurrency

	N	Variables	Frequency	Perce nt	Valid percent	Mean	Std. Deviation
Cryptocurrency is capable of revolutionizing the centralized finance system	236	Strongly agree	47	19.7	19.9	2.50	1.180
		Agree	95	39.7	40.3		
		Neutral	37	15.5	15.7		
		Disagree	42	17.6	17.8		
		Strongly disagree	15	6.3	6.4		
		Total	236	98.7	100.0		
It's easy to understand and apply the concept of		Strongly agree	21	8.8	8.8		
		Agree	105	43.9	43.9		

Cryptocurrency in Ethiopia	239	Neutral	30	12.6	12.6	2.88	1.258
		Disagree	47	19.7	19.7		
		Strongly disagree	36	15.1	15.1		
		Total	239	100.0	100.0		
Crypto could serve as an alternative and as a substitute currency to the fiat currency	234	Strongly agree	41	17.2	17.5	2.67	1.249
		Agree	86	36.0	36.8		
		Neutral	40	16.7	17.1		
		Disagree	43	18.0	18.4		
		Strongly disagree	24	10.0	10.3		
		Total	234	97.9	100		

Source: Own research (2022)

In the above table 4.4.1 describing the attitudes of the respondents towards cryptocurrency are, 59.4 % of the respondents believe that cryptocurrency has the capacity to revolutionize the conventional banking system in existence, whereas the remaining 23.9% of the respondents think cryptocurrency has no capability to bring about any change to the centralized banking system and the remaining 15.7 % of the respondents are undecided towards the thought.

For the case of ease of use of cryptocurrency 52.7 % of the respondents believe that cryptocurrency is friendly for use whereas 34.8 % of the respondents think that it's not user friendly.

And the rest of the respondents account to be undecided. The 53.2 % of respondents also think that cryptocurrency could serve as alternative currency in Ethiopia where as 28 % of the respondents believe that it couldn't serve as an alternative currency & the rest 17.2 are undecided to the question.

From the above data, the researcher portrays that the majority portion of respondents believe that the use of Cryptocurrency in parallel with fiat currency could be carried out without much of a hustle. Also, predominant number of respondents favored Cryptocurrency in connection with ease of use and the potential it has in recasting the finance system as we know it.

For research question number two, an interview question was asked saying **“Do you think the national infrastructures such as banks, telecom and others are capable in hosting an internet based currency”**? The responses are also summarized and put in a narrating manner.

The multibillion birr infrastructures such as telecom, Power Corporation and the national bank of Ethiopia (NBE) are found to be in a state of incapacity and disinterest (case of NBE). For example if we take the case of ethio telecom; for such virtual currency it needs to expand its internet accessibility throughout the cities with that of network accessibility and network quality. An internet connection through mobile data or an ADSL broad band system, network quality and bandwidth fluctuations are abundant which causes computers or mobile devices to disconnect or be in a state of “inactive” creating a sluggish or a dull connection thus interrupting the internet service in general & transaction tasks in particular. Concern over Cyber security issues are also among the main issues raised due to the fear of vulnerability to attacks from hackers or malicious software which the telecom infrastructure has a weakness on & haven’t done enough to address issues.

Power cuts are also mentioned as one of the major factor. Whenever a power cut occurs it creates a chain reaction within the internet service provider (ISP) company. Components such as server computers and repeater antennas require sufficient amount of power to operate. Another negative chain reaction created due to power disruption is loss of connection incident on service subscribers. It is to be noted that ethio telecom has backup power generators but the problem lies in between switching to power from the power corporation and power from generators, where the switching process creates a power loss for seconds where server computers or antennas will be forced to go off grid until sufficient power is restored.

As for the banking sector, the national bank of Ethiopia (NBE) is rather somewhat capable but is disinterested towards the concept of cryptocurrency because, as policy the NBE has officially banned the use of cryptocurrency and has labeled it as illegal for use within the country. Some reasons raised are because the national bank of Ethiopia and the financial intelligence center including the Ethiopian government has not yet enacted a judicial and securities follow up and control law that governs the concept of cryptocurrency.

In addition, to further support the analysis on governmental security issues towards cryptocurrency one open ended question was provided to respondents regarding the governments controlling and monitoring capability of cryptocurrency and the result found is that majority of the respondents said that the ability of the government to monitor activities in such areas is at minimum and where this

gathered data further supports the notion developed under the interview question that the government’s ability to control and monitor cryptocurrency activities is low, figuratively; 64.4 % of the respondents believe that the government has low controlling and monitoring ability of cryptocurrency activities whereas 23.5 % of the respondents think the government could handle matters which arise from Cryptocurrency activities.

	N	Frequency	Percent	Mean	Standard. Deviation	
By applying Blockchain technology the government could strategically control counter fitting of documents	233	Strongly Agree	10	4.2	2.87	.952
		Agree	77	32.2		
		Neutral	94	39.3		
		Disagree	37	15.5		
		Strongly disagree	15	6.3		
		Missing	6	2.5		
		Total	239	100.0		
Criptocurrency will be accepted & practiced in Ethiopia having the legal, social, & technological barriers in mind	237	Strongly Agree	9	3.8	2.81	.848
		Agree	78	32.6		
		Neutral	104	43.5		
		Disagree	40	16.7		
		Strongly disagree	6	2.5		
		Missing	2	.8		
		Total	239	100.0		
In addition to cryptocurrency, Blockchain technology will change the documentation System in organizations	230	Strongly Agree	13	5.4	2.58	.866
		Agree	103	43.1		
		Neutral	93	38.9		
		Disagree	9	3.8		
		Strongly disagree	12	5.0		
		Missing	9	3.8		
		Total	239	100.0		

Source: Own research (2022)

In addition, to highlight on the importance of Blockchain aside from Crypto, its use in the documentation system to the country which are related with to the infrastructure shortcomings, two

open ended questions were asked and the results show that the respondents are aware that the system could revolutionize the documentation system as we know it. Majority of the respondents agreed that in addition to crypto usage, the Blockchain can change the documentation system. A data of 116 respondents which make up 48.5% of the sample size believe the technology is important in the documentation system having the infrastructural barriers in mind, whereas the remaining 8.8% of the respondents disagreed with the system however, considerable amount of respondents which amount to 38.8% think that Blockchain system has neither importance nor harm to the documentation system at present.

- ★ The researcher believes that the considerable amount of neutrality to this open ended question is thought to have emanated from lack of technological exposure.

The third research question “**How does the socio political factor affect the adoption and implementation of cryptocurrency**”? To answer this question one open ended question “**Are the socio political and socio economic stands capable in adapting and implementing cryptocurrency**”? Was asked which indirectly answers the third research question.

The sociopolitical issues raised at most are concerning poverty, governmental attitude towards the concept, political instability & conflicts within the country with that of sector monopoly (which insulates sectors from foreign and national competition) are the majority of the sociopolitical factors affecting its adoption and implementation in Ethiopia, and each factors raised are detailed.

Sociopolitical factors such as governmental attitude, political stability and sector monopoly play a significant role in adopting and implementing cryptocurrency. For adapting such type of currencies the financial sector of national bank of Ethiopia (NBE) and the finance security intelligence has not yet enacted a law within the sector for such things to be governed with, rather the use of cryptocurrency such as Bitcoin and others are criminalized and punishable by law.

Political stability also plays a pivotal role regarding the adoption and implementation process of cryptocurrency. The current political instability in the country has effectively shifted the focus of the government toward creating a conducive environment for peace to prevail in the country rather than focusing on promoting and achieving economic growth which are interrelated with politics such as in the area of macroeconomic which deals with foreign currency shortage, inflation and changes in

economic outputs where such problems relating to macroeconomics could only be addressed and resolved by the government only.

Table 4.4.3 governmental policy on Cryptocurrency

	N	Frequency		percent	Mean	Standard Deviation
The government will understand the benefit & regulate cryptocurrency for the use of various fundings & for citizens personal use	239	Strongly agree	1	.4	3.37	1.016
		Agree	39	16.3		
		Neutral	61	25.5		
		Disagree	99	41.4		
		Strongly disagree	39	16.3		
		Missing				
		Total	239	100.0		
The government could come short in controlling & monitoring Cryptocurrency activities	239	Strongly agree	51	21.3	2.59	1.195
		Agree	69	28.9		
		Neutral	61	25.5		
		Disagree	42	17.6		
		Strongly disagree	16	6.7		
		Missing				
		Total	239	100.0		
The absence of financial censoring and third parties in Cryptocurrency transaction will have a positive impact in the socioeconomic environment in comparison to the central finance system.	236	Strongly agree	14	5.9	3.61	5.424
		Agree	87	36.4		
		Neutral	62	25.9		
		Disagree	50	20.9		
		Strongly disagree	23	9.6		
		Missing	3	1.3		
		Total	239	100.0		

Source: Own research (2022)

To further emphasize on issues relating with governmental policy on Cryptocurrency, the respondents data implied that there is no way that the current government have the tendency to regulate such currency where majority of the respondents which account to 57.7 % believe so where

as 25.5 % of the respondents showed neutrality. The response given to this specific question depicts that the governmental attitude for such currency is negative due to the reason that

- I. Both the Macro and Micro economic sector trajectory are not achieving
- II. Access to capital is not fairly adequate
- III. Poverty level amongst individuals is extreme
- IV. Unarbitrable poverty gap between the rich and poor

Because of the above mentioned issues, by the respondents, the Ethiopian government has banned the use of cryptocurrency within the Ethiopian financial market.

When it comes to the idea of financial freedom and censoring, the respondents reflected that the commodity monetary system in Ethiopia is found to be suppressive in terms of financial freedom and financial transaction such as financial capping, limitation on withdrawal and limit on daily money transaction. The data obtained implies majority of the respondents which account to 55.7 % believe that the absence of third parties from their financial activity positively contributes by means of rewarding freedom over their hard won money, whereas 28.9 % of the respondents have trust over the intervention of intermediaries to their financial life.

4.5 Discussion of the Result

- ❖ Respondents are aware that this technology has the capacity to revolutionize the ordinary financial and trade transaction system at present from an angle of time & energy efficiency and also reduces both manual and even automated activities which are seen in banks today.
- ❖ Findings indicate that the concept technology of cryptocurrency is wide and can bring about major changes in areas of technology, socio-economy and socio-politics.
- ❖ In addition, findings also imply that the technology is advanced and it has major challenges in scope of technology, skill and personal awareness levels thus, technical guidance, infrastructural expansions & strengthening need to be made.
- ❖ Based on the collected data, it can be said that the use of Cryptocurrency can solve the current foreign currency problems and considering the current Sevier foreign currency problems, it will be wise to see and consider all the available options including Cryptocurrency.

- ❖ Its character of “globalizedness” (accessible anywhere) was another feature that attracted the respondents, anyone in any country can use it, and the idea of creating international account liberates the respondents from Trusted Third Party (TTP) dependency and finance censoring.
- ❖ According to respondents, Cryptocurrency revolutionizes the way they see things from an angle of time & energy efficiency and also reduces both manual and even automated activities that can be seen in banks.

From the get go the idea of cryptocurrency is somewhat higher cased in contrast to the NBE (government) provided digitized money platforms such as CBE Birr, DASHEN Amole or some other private banks established mobile & internet banking platforms, as a result Cryptocurrency could bring about technological challenges and challenges to personal and skill awareness. The infrastructures interconnected to ICT, power and that of legislation has to broaden their capability for the sake of technological changes in general and for such currencies in specific. Governmental attitude plays a pivotal role in cases where a clearly stated rule and law towards such decentralized coins is non-existent, for instance the current government has only dictated a declaration of criminalizing of the use of cryptocurrency in Ethiopia also it doesn't not clarify its tools of intelligence and tools for tracking such alleged crimes by its users thus Ethiopia shall decriminalize the use of cryptocurrency in its monetary market.

Collected data also imply that the respondents understand that among one of the benefits that one gets is that such currencies possess the capacity in solving the acute foreign currency deficiency in our country thus; the government should consider the use of such currencies since they could easily be exchanged in to a stronger fiat currency than ours.

The wellbeing of the socio economy and socio politic environment shall be dynamic and healthy for the sake of promoting economic growth both at personal and national level. It's obvious that horizontal and vertical conflicts account for negatively pressuring a countries investment at hand & investments planned for the future which highly pushes Foreign Direct Investment to a halt so, such platforms shall be kept free of disturbances for the purpose better capital access among society, societal financial inclusion and better national economic turnovers.

According to (Moritz Holtmeier, Philipp Sandner, 2019) Issues of socio-politics and socio economic problems are reasons that determine a countries economic trajectory be it growth or

collapse, financial inclusion and access to capital among the society of a country plays a major role in boosting the economic development of a country. A socio economic system which neglects to include a society of low income level which is not financially included in the economic system of the country is bound to remain impoverished and can no longer contribute to the economic growth positively whatsoever. Additionally, firms in an impoverished society cannot generate as much revenue and profit as desired and therefore support the local economy less through fewer jobs, lower salaries and produce lower tax volume.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMENDATION

The study intended to assess the challenge and possibility of Cryptocurrency in Ethiopia, through adopting a mixed research approach.

The purpose of this chapter is to outline the summary of findings in section, followed by conclusion and presents recommendations.

5.1 Summary of Findings

Cryptocurrency comes under many names, among the most viral types of currencies are Bitcoin and Ethereum cryptocurrencies are popular alternatives for online payments and also for purpose of investments. Such currencies are digital which can be said that are an alternative payment forms which are created and function under an encryption algorithm.

The benefit and applicability were assessed from the dimensions of how it's perceived by the people and also how they could benefit from using cryptocurrency, in addition infrastructural & legal ability with that of their willingness to create a conducive system for such currencies to function within the national payment system in parallel with fiat currency. Also the governmental attitude towards cryptocurrency was also assessed.

- Currently the use of cryptocurrency is for any use such as online payments or as an investment is banned by the Ethiopian government and is punishable by law. Although the Ethiopian government has endorsed the use of Blockchain technology through Ministry of Science and Technology but, not Cryptocurrency however; the technology can facilitate money exchange, money transfer and transactions in an open and fast platform for the entire community.
- Although the national bank of Ethiopia has the capability of enacting laws with which cryptocurrency users could abide by and use for various purpose alongside fiat currency, it has chosen to restrict its use within the national border.
- Sectors of the power company and ethio telecom need to improve their infrastructural service coverage in areas such as betterment of internet network quality by eliminating internet service sluggishness where deemed necessary.

- The telecom company should also implement features and strengthen its capacity regarding internet provision and provide better cyber security system for the purpose of preventing hackers from inflicting cyber harms. The price per megabyte of internet should also be considered to be minimized for the sake of creating an internet literate society and also for use of such currencies
- Power interruption accounts for most system halts within the country thus; Power Company has to strengthen its power grid capability to be able to provide continuous electricity to its subscribers with the least amount of power interruptions.
- Cryptocurrency has the capacity to easing up complex cross border business transactions and cut down the expensive transaction cost due to the reduced transaction time and transaction commission costs incurred. For our country cryptocurrency has a significant role capable in solving the foreign currency shock at present.

5.2 Conclusion

Cryptocurrencies can play an important role when it comes to globalization and unification of markets through enabling sellers of valuable commodities such as Ethiopian coffee or artifacts to the international market with the least amount of transaction cost with at most time efficiency. Ethiopia, by using cryptocurrency could bring about massive societal economic changes to the society the possibilities would be countless for instance, import and export trades would rise since there are no financial restrictions, companies would be able to sell their products to many more markets, and consequently boosting the country's economy and in turn would own an alternative globalized currency in parallel.

In general cryptocurrencies such as Bitcoin or others can have a considerable impact on developing countries in such a way by increasing financial growth and inclusion of individuals and companies by reducing the transaction fee incurred by intermediaries and minimizing the transaction time in cross border business activities.

5.3 Recommendations

Many developing countries including ours have an approach of banning the use of cryptocurrency for sake of business transactions and or for investment business. Such an approach has some contradicting manifestations such as ownership of cryptocurrency in Ethiopia is increasing on one hand and the business is loosely governed or policed, (the government has no leverage on people who are users and are investing or who are planning to do so) thus:

- The Ethiopian government with that of the NBE and the financial security agency should consider enacting laws and policies that comprehensively control cryptocurrency in the country.
- Currently, Cryptocurrencies such as Bitcoin and or Ethereum support the growth process of the developing countries like Ethiopia in some limited ways; such as in areas of foreign currency, ease of use, convenience and much more however, the future of socio economic and socio political development heavily depends on factors of;
 - i. Governmental regulations approach that will be introduced.
 - ii. Infrastructural growth.
 - iii. Socioeconomic and socio politics growth.
 - iv. Adoption of Cryptocurrencies.
- Sectors of the telecom industry and that of Power Company should highly improve their service coverage and quality. Our telecom company having a significant role for such technology should work on improving its ICT infrastructures, cyber security and on its internet provision whilst providing better internet environment because without the presence of a well-established ICT and sufficient internet connection penetration, important business processes would inevitably come to a halt. This technology could save a lot of time, energy and money especially to the societies who are living in the rural areas, who travel long distance frequently to get a small amount of money from bank. Nowadays, majority of the Ethiopian people use mobile phone which is a huge platform; we can take this mobile phone usage to the next level by using mobile money transaction and transfer using Cryptography.

- Major attitude changes by the government, finance security agency & the national bank of Ethiopia should be made in terms of decriminalizing and implementing of policies for the purpose of adoption and implementation of Cryptocurrency in to the Ethiopian market.
- The government should implement a strategy of strengthening and improving its cyber security system to boost its leverage in controlling and monitoring cryptocurrency activities in particular financial activities in general.
- Governmental Sectors and or parties who are directly and indirectly involving in sociopolitical matters shall ensure the political and economic environment of the country to be conducive and are kept in a functioning and progressive status.

From risks such as the fact that it being criminalized in the Ethiopian and some other neighboring & foreign monetary markets who already are involved in investing with cryptocurrency, adding the uncertainty of cryptocurrency could be a major drawback that can devastate some investors. Not only is there the volatility of price but other uncertainties such as:

- ★ How to retrieve ones digital wallet if lost
- ★ What if the cryptocurrency is fake or genuine?

Uncertainties of cryptocurrency are major drawback resulting in substantiated needs for further investigation to determine are safety, value and worth. Therefore, parties in the crypto Blockchain shall implement or agree on a system that could verify the genuineness of digital currencies which are offered in the crypto market. Since a ones lost digital wallet could ever be retrieved to its owner the nodes or parties shall also devise a mechanism which could circumvent the system only for the sake of retrieving lost digital wallets where it could solve such problems without tampering with the safety, privacy and anonymity protocols of the system.

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Appendix.

Survey Questionnaire for Policymakers, Scholars, Investors & Business Owners.

Dear respondent,

First, I would like to express my gratitude in advance for your willingness to spend your valuable time to respond to this research questionnaire. This research is undertaken as part of partial fulfillment for the degree of Masters' of Business Administration.

The title of this research is “**ASSESSING THE BENEFITS & APPLICABILITY OF CRYPTOCURRENCY IN ETHIOPIA.** Your genuine reply to each research question is very important and highly appreciated.

To ensure the confidentiality of the information please **DO NOT WRITE YOUR NAME OR ADDRESS** on this questionnaire.

All provided information shall be kept strictly confidential and used for academic purpose alone. Moreover, any information shall not be used for any other purpose without your prior consent. The information shall be used or analyzed in aggregate without revealing individual responses explicitly.

The final result of this research and the final recommendation and finding shall be forwarded to the concerned office or company for their corrective measure and further understanding.

Finally, I would appreciate your responsiveness and taking the time to complete the following questionnaire. For any further clarification and comment, you can contact the researcher by the following address.

My address: - (Email- sammi752722@gmail.com, simmonspro12@gmail.com)

Thanks in advance.

1. Gender. Male Female
2. Work status. Employed Self-employed Unemployed
3. Marital status: Married Not married
4. Area of specialization. Business Information technology Other ,
If other, please specify _____
5. Do you own any of Cryptocurrency, if yes please specify?
A. Yes I do. B. No I don't.

Please specify _____

I. Option type questionnaire

Mark the number of your choice where: 1= I strongly agree 3= Neutral
2= I agree 4= I disagree 5= I strongly disagree

Part one: Variables relating to social attitude					
	1=Strongly agree	2= Agree	3= Neutral	4= Disagree	5= Strongly disagree
Good thoughts come to my mind when I think of or hear about Cryptocurrency					
Would you pursue trade activities using Cryptocurrency					
Cryptocurrency could serve as an alternative and as a substitute to fiat currency					

It is easy to understand and apply the concept of Cryptocurrency in Ethiopia					
The absence of third parties censoring financial transactions adds confidence and convenience to my financial life.					
Cryptocurrency is the currency of the near future.					

Part two: variables related with government policies					
	1= Strongly agree	2= Agree	3= Neutral	4=Disagree	5= Strongly disagree
The government will understand the benefits and Regulate Cryptocurrency for the use of various funding and for citizens personal use					
The government could come short in controlling and monitoring Cryptocurrency activities.					
The absence of financial					

censoring and third parties in Cryptocurrency transaction will have a positive impact in the socioeconomic environment in Comparison to the central finance system					
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<u>Part 3. Variables related with Infrastructural problems</u>					
	1= Strongly agree	2=Disagree	3=Neutral	4= Disagree	5= Strongly disagree
Cryptocurrency will be accepted and practiced in Ethiopia having the legal, social and technological barriers in mind					
By applying Blockchain technology,the government could strategically control Counter fitting of documents.					
In addition to Cryptocurrency, Blockchain technologywill					

change the documentation system in organizations					
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Part four: Variables related with level of awareness					
	1= Strongly agree	2= Agree	3= Neutral	4= Disagree	5= Strongly disagree
Cryptocurrency is capable of revolutionizing the centralized finance system					
Cryptocurrency could benefit its user or the economy in any ways possible.					
Although the value of Cryptocurrency is increasing and attracts investment, its volatility is repulsive					

Part five: Variables relating to regulation					
	1= Strongly agree	2= Agree	3= Neutral	4= Disagree	5= Strongly disagree
Regardless of transaction security I fear					

Cryptocurrency Vulnerability for money laundering and illegal funding's.					
The absence of financial censoring and third parties in Cryptocurrency transaction will have a positive impact in the socioeconomic environment compared to the central finance system					

I. Interview questionnaire

1. What economic and technological benefits will be obtained from practicing Cryptocurrency? _____

2. What kind of policy towards Cryptocurrency you think is best that the government should consider and follow? _____

3. Would the benefits outweigh the cost or the other way round if the Ethiopian government regulates Cryptocurrency? How? _____

4. Do you think Cryptocurrency will be regulated in Ethiopia? Why?

5. What personal, institutional and national benefits could be obtained from practicing Cryptocurrency in contrast to the traditional currency?

6. Do you think the national infrastructures such as telecom, bank and others are capable in hosting an internet based currency? Why?

7. Are the socio-economic and the socio-politics stand capable in adopting and practicing virtual currency? Why? What are your recommendations?

8. Which socio-economic and socio-politics factors you know impede the adoption and applicability of Cryptocurrency? _____

9. Which characters of Cryptocurrency are attractive and which are repulsive or bad in terms of its benefit to the Ethiopian economy? _____

10. Which regulation system for Cryptocurrency would best fit to the Ethiopian economy **(Fully liberalized, Regulated or Banned)** in terms of socio-economic and socio-politics? _____
