DIGITAL CURRENCY

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DECEMBER, 2022.

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BEING A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF COMPUTER SCIENCE, UNIVERSITY OF BENIN, BENIN CITY.
IN PARTIAL FULFILLMENT OF THE AWARD OF BACHELOR OF SCIENCE (B.SC) DEGEEE IN COMPUTER SCIENCE, UNIVERSITY OF BENIN.

DECEMBER, 2022.

CERTIFICATION

This is to certify that this research project was carried out by KADIRI KHADIJAH KUBURAH of the Department of Computer Science, University of Benin, Edo State, Nigeria, under the supervision of Dr F.O Chete.

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DEDICATION

This project work is dedicated to my family, friends and everyone that supported me in one way or the other.

ACKNOWLEDGEMENT

I wish to express my utmost gratitude to my supervisor, Dr F.O Chete for guiding and supporting me through this project work, and also for his warm friendly disposition.

I also acknowledge the HOD, Department of Computer Science, Prof. (Mrs.) A. O. EGWALI for her exemplary leadership in steering the affairs of the department and watching out for her students.

I must appreciate good friends and companions whose sole presence in my life have made it more beautiful. Eedris and Donice, I thank you for your relentless and loyal support that kept me afloat in dire times.

Finally, I must thank my family, though no words would suffice. Nothing I will ever say will be enough to thank my Mom. I deeply appreciate my lovely sister, Hafsat Kadiri, for always being my dependable pillar. I thank Mr Jonathan, for all he has done. And I specially appreciate Mr Oyedele, for always being there for me.

TABLE OF CONTENTS.

TITLE PAGE....ii

CERTIFICATION....iii

DEDICATION....iv

ACKNOWLEDGEMENT....v

TABLE OF CONTENTS....vi

ABSTRACT....ix

CHAPTER ONE....1

1.0 INTRODUCTION TO DIGITAL CURRENCY....1

1.1 BACKGROUND OF STUDY....1

1.2 STATEMENT OF PROBLEM....4

1.3 AIMS AND OBJECTIVES....5

1.4 SIGNIFICANCE OF STUDY....6

1.5 SCOPE OF STUDY....6

1.6 METHODOLOGY....7

CHAPTER TWO....8

2.0 LITERATURE REVIEW....8

2.2 Digital currency....14

2.3 Physical Currency Overview....19

CHAPTER THREE 20

RESEARCH METHODOLOGY 20

3.1 Research Design and Objectives. 20

3.2 Population of Study. 21

3.3 Sample Size and Sampling Techniques. 21

3.5 Validation of Research Instrument. 22

3.6 Method of Administration Survey. 22

3.7 Method of Data Analysis. 23

3.7.1 Pie Chart. 23

CHAPTER FOUR 24

4.0 Introduction 24

4.1 Response rate 24

4.3 Sections of the Questionnaire. 25

4.3.1 Section A 25

4.3.2 Section B 27

4.3.3 Section C: This section consists of the accessibility and reliability of Digital Currency. .. 29

4.3.4 Section D 30

4.3.5 Section E 32

4.3.6 Section F 33

4.3.7 Section G 35

CHAPTER FIVE 54

SUMMARY, CONCLUSION AND RECOMMENDATION. 54

5.1 Summary 54

5.2 Conclusion 54

5.3. Recommendation. 56

REFERENCE 57

ABSTRACT

Digital Currency is a sort of money that can only be obtained digitally or electronically is known as a digital currency. Other names for it include cybercash, electronic currency, digital money, and digital money.

Digital currencies are only available in digital form and lack any tangible characteristics. Digital currency transactions are carried out using computers or electronic wallets linked to the internet or specific networks, unlike physical currencies which have distinct physical qualities and traits, such as banknotes and coins that have been produced.

While they do not require physical wallets, digital currencies have their own set of requirements for storage and processing. For example, an Internet connection is necessary as are smartphones and services related to their provisioning. Online wallets with robust security are also necessary to store digital currencies.

Their digital provenance makes digital currencies susceptible to hacking. Digital currencies used for trading can have wild price swings.

CHAPTER ONE

1.0 INTRODUCTION TO DIGITAL CURRENCY

A sort of money that can only be obtained digitally or electronically is known as a digital currency. Other names for it include cybercash, electronic currency, digital money, and digital money.

Digital currencies are only available in digital form and lack any tangible characteristics. Digital currency transactions are carried out using computers or electronic wallets linked to the internet or specific networks, unlike physical currencies which have distinct physical qualities and traits, such as banknotes and coins that have been produced. Only when these currencies are physically in the possession of their holders are transactions involving them feasible.

Digital currencies have characteristics comparable to those of physical currencies yet allow for instantaneous ownership transfers that are not constrained by geographical limits. Digital money, electronic money, and electronic currency are other names for digital cash. It is a sort of currency that is only accessible online and not in physical form (such as banknotes and coins). Although it displays traits that are comparable to those of real money, it enables immediate transactions and ownership transfer across international borders.

1.1 BACKGROUND OF STUDY

When someone discusses digital money, Bitcoin is one item that immediately springs to mind. Young and old alike, most people throughout the globe only know about Bitcoin as a kind of digital cash (and maybe the altcoins that followed bitcoin). But did Bitcoin just suddenly appear? Was Satoshi Nakamoto, a cloaked figure who goes by the name Satoshi, the inventor of Bitcoin?

Overall, the answer is no. Bitcoin, on the other hand, is a modernization of an antiquated concept. However, blockchain technology as it now exists is distinct enough to alter how the whole financial sector operates. Many others came before Satoshi Nakamoto intending to develop digital money that might fuel an alternative economy, but they failed for technological, governmental, and ideological reasons.

These "digital currencies" include, among others.

a. E-gold 1996

When most of the world's population was still catching up with the internet, the idea of digital money first emerged. One such instance is e-gold. By 2009, an oncologist called Douglas Jackson, who founded the website in 1996, had amassed more than 5 million user accounts. E-gold became so popular that even businesses began to accept it. Digital money was backed by gold and was a tremendously lucrative business until it became a favorite of thieves and hackers. Its demise was caused by cybercriminals' persistent assaults on the platform and their usage of e-gold as a preferred method of payment by extortionists and money launderers.

b. WebMoney 1998.

In 1998, WebMoney was launched. WebMoney is, in all practical senses, a kind of digital money, except for the decentralized component. The Moscow-based business provides a broad variety of financial services, including online trading platforms, merchant services, peer-to-peer payment systems, and online billing and payments. When e-gold was shut down, WebMoney quickly

overtook it as the finest option available. It drew many users, both good and bad, from e-gold. To stop its use for criminal operations, WebMoney changed its services shortly after that. Several foreign currencies, including the US dollar, British pound, Russian rouble, and even bitcoin, are presently supported by WebMoney.

c. Liberty Reserve 2006

One may see Liberty Reserve as a failed effort to establish a centralized anonymous money transfer company. Users were able to sign up for accounts on the network and send money to anybody without being verified. Users could conceal their Liberty Reserve account details from persons they were sending money to, and user accounts were not vetted.

However, as predicted, it quickly became the preferred location for cybercriminals, which annoyed the authorities. Authorities from many different nations compelled Liberty Reserve to close, and its founders were imprisoned for money laundering and encouraging illicit activity. The portal was shut down by regulatory authorities in May 2013.

d. Perfect Money 2007

Another digital currency network that supports a variety of currencies, including USD, EUR, GBP, BTC, and others is called Perfect Money. Similar to the majority of previous digital currency platforms in the past, the demise of one well-established platform will spur the rapid development of its replacement. Perfect Money had the same outcome. After Liberty Reserve was shut down by authorities, Perfect Money was inundated by customers from the former. Except for the absence of authentication, Perfect Money likewise provides services comparable

to those of Liberty Reserve. However, neither in the US nor for US residents living anyplace else in the globe is Perfect Money accessible.

e. Bitcoin 2009

As a functional platform for decentralized digital money, Bitcoin was initially offered in 2009. Bitcoin has an edge over all previous digital currencies due to its decentralized design, which puts the whole platform under the control of a far broader community than a single person or organization. Additionally, it will be impossible for anybody to control the whole system and manipulate the populace for their own selfish and avaricious ends. Not to mention the open-source nature of the bitcoin technology, which prevents anybody from controlling the whole network. It's also important to note bitcoin's transparency and security.

After years of dealing with centralized, proprietary digital currency networks, Bitcoin seems to have struck the perfect note, allaying all the concerns about digital money. New digital currencies, including national currencies, have emerged in response to the success of bitcoin.

1.2 STATEMENT OF PROBLEM

High rates of inflation can result from printing more paper money than necessary to maintain reasonable growth. Because more money is competing for comparatively fewer products and services, which drives up prices, the value of legal notes declines as their quantity rises. When inflation spirals out of hand, it can cause hyperinflation, where new money must be printed endlessly to offset the value of old money that is constantly depreciating.

Citizens of a country will only esteem paper money if they all have the same level of faith that it will accurately reflect the value printed on it. If public trust wanes, whether as a result of high

public debt levels or political unrest, pandemonium may result in which goods and services are only exchanged in kind, rendering paper money essentially worthless.

Paper currency is prone to unintentional ripping, shredding, burning, and laundering.

These are the reasons why digital currency might help traditional cash's flaws.

1.3 AIMS AND OBJECTIVES

One goal of digital money is to eliminate the operational expenses and time lag associated with such transactions by utilizing distributed ledger technology (DLT). A DLT system uses a network of interconnected nodes or shared ledgers to handle transactions. To reduce transaction processing times, this network can be expanded to include other jurisdictions. Removing the requirement for a centralized database of information, also enables transparency to regulators and stakeholders, enhancing the resilience of a financial network.

The double-spending issue is also resolved by digital money by utilizing an algorithmic consensus approach. Simply put, the issue is how to prevent the same person from using a digital "note" of money more than once.

The objectives of the study are:

i. To explore the issues with physical cash.

ii. Examine the difficulties with paper Naira in comparison to e-currency.

iii. To determine the potential benefits of e-currency to the Nigerian economy.

1.4 SIGNIFICANCE OF STUDY

Digital money is significant in part because it makes payments considerably quicker than using traditional method like wire transfers, which can take days for banking institutions to authenticate a transaction.

Additionally, it offers less expensive global transfers. Currency exchange rates across borders are highly pricey. People must pay expensive fees to transfer money from one nation to another, particularly when there are currency changes involved. Digital assets might change this industry by making it more affordable and quick.

Because banks are closed on weekends and beyond regular business hours, existing money transfers sometimes take longer at such times. However, with digital money, transactions proceed at the same rate every minute of every day.

1.5 SCOPE OF STUDY

As long as the bulk of the people is not enrolled in the banking system, the vision of using digital money in the economy and moving toward a cashless society will remain unrealistic.

The right enabling infrastructure, including proper connection and mobile devices, must be put in place to reach every nook and cranny of the country, even remote areas bereft of any type of banking facility. Therefore, launching any type of creative digital product requires not only

overcoming several technological problems but also some significant impediments connected to a digital awareness, access, availability, and pricing.

1.6 METHODOLOGY.

To get comprehensive information about Digital Currency, the study used a descriptive and explanatory method.

The Google form was used to collect and analyze data using the questionnaire approach. This made it possible for us to collect data on public attitudes toward Digital Currency.

CHAPTER TWO

2.0 LITERATURE REVIEW.

The Concept of digital money was first suggested in a research paper by David Chaum in 1983. He established the electronic cash business DigiCash in Amsterdam in 1989 intending to commercialize the concepts from his study. In 1998, it filed for bankruptcy.

Introduced in 1996 and reaching a user base of several million users before being shut down by the US government in 2008, e-gold was the first extensively used Internet currency. Both academics and US government officials have referred to e-gold as "digital currency." Coca-Cola started accepting mobile payments in 1997 for vending machine purchases. In 1998, PayPal introduced its service denominated in USD.

The launch of bitcoin in 2009 marked the beginning of blockchain-based, decentralized digital currencies without a central server or actual commodities reserve. Since no single agency or individual has the right to turn off the blockchain-based digital currency, often known as cryptocurrencies, attempts by the government to control them have failed.

Digital currencies had their roots in the 1990s. The dot-com bubble, also known as the dot-com boom, tech bubble, or Internet bubble, occurred in the late 1990s when the use and adoption of the Internet saw a huge increase.

Another well-known provider of digital currency is Liberty Reserve, which was established in 2006. Users can convert their money into Liberty Reserve Dollars or Euros and then freely trade them with one another for a 1% charge. Q coins, also known as QQ coins, first appeared in early 2005 and were a form of commodity-based digital currency utilized on Tencent QQ's messaging platform. Due to rumors, Q coins were thought to have had a destabilizing effect on the Chinese Yuan currency because they were so successful in China. With bitcoin, which was established in

2008 and has since become the most used and accepted digital money, there has recently been renewed interest in digital currencies.

The nature of money has an impact on the things that are produced and consumed as well as the goals and tactics used to achieve them. On the other hand, how money is distributed affects how people act and how much they are willing to pay for things. These elements have a direct impact on commodity prices. The primary tenet of contemporary society is the trade of commodities and services. Money is a basic good that makes trading goods and services easier. Since the cessation of extensive bartering and gift/counter gift exchange, it serves as the primary medium of trade. Today, the banking industry has the advantage of producing over 95% of the money supply as interest-bearing debt to itself, and it controls how money circulates, favoring lending for short-term profit above long-term benefit to society (Ritzberger, 2008). Furthermore, it has long been maintained that a systemic growth imperative, in opposition to the second law of thermodynamics, is inherent in the architecture of bank money because interest is a need for its survival (Smith, 2001). The pursuit of the interconnected objectives of ecological sustainability and social justice may call for adjustments to business as usual, according to reflection on these under-reported topics (Dittmer, 2013).

Money.

Satoshi Nakamoto tried to create an electronic payment system based on cryptographic evidence rather than faith at the time bitcoin was first created. He desired that everyone in the globe use the same currency without the trust-based model's inherent flaws (Nakamoto, 2018). People have always viewed money as an element of daily life that cannot be separated.

Definition of Money.

Money is a good that is widely acknowledged as a means of economic exchange. It is the primary indicator of wealth and how prices and values are conveyed. As money, it travels anonymously from one person to another and from one nation to another, allowing commerce.

Money is a current means of trade that comes in the form of coins and banknotes, according to the Oxford Dictionary.

The possession of resources, goods, and other items is sometimes referred to as wealth (Anon., 2019).

According to Nopirin (1998), money is everything that may be used to pay for products, services, or debt.

The definition of money given by Solikin and Suseno (2002) is an item that may be saved, exchanged for other items, and used to judge other items. The researchers said that because the physical shape and features of money vary so greatly depending on the time and location of use, it is exceedingly difficult or practically impossible to define money according to these factors. Money is therefore viewed as money that is in everyday life, which is observed from its use or function for people, to simplify and further its comprehension. In other words, our understanding of money comes from our ability to use it. 2002's Solikin & Suseno.

According to Seitz, E.'s (2017) research, money is neither a thing with three or four functions nor a way of thinking, as Spengler suggested. According to a study by Plato and Aristotle, money is a non-object based on human action, an interface of trade, and limitless means. Quantity and materiality are seen to be qualities of money from such a teleological perspective. (Seitz, 2017).

Function of Money

Money, according to Solikin and Suseno (2002), serves four fundamental purposes. These are:

(1) Use of money as a means of exchange. A person can immediately swap their money for the commodities they require from those who make the items by using money.

(2) Using money as a value store. People frequently accumulate and save their riches for later use.

It is undeniable that money is a viable choice for people to preserve their wealth, even if it may also be preserved in numerous forms (property, a house, and other valuable items).

(3) Using money as an accounting unit. Money makes it simpler to exchange goods and determine their value. Exchanges between goods that are physically distinct can also be made possible via money.

(4) Using money as the default postponed payment. Transactions involving loans and borrowing are how this money is used.

One approach to determine the loan payback amount is using money. 2002's Solikin & Suseno.

According to a 2012 article from the Bank of Canada and a 1953 book by Ludwig von Mises, money serves three fundamental purposes: Cash is:

(1) A trading tool. People must directly exchange products and services if there is no money. Money is a convenient medium of exchange and a unit of measurement. People may compare the worth of many different kinds of commodities and services thanks to money. It evolved into the benchmark for setting both the selling and buying prices of products and services. Additionally, it enables price comparisons across periods and serves as a third function: a value bank. Money makes it easier for deposits to build up and for people to borrow money against those deposits. It

is simpler to engage in a contract to pay for products or services obtained now in the future thanks to this money characteristic.

Money did not magically evolve into a payment system over night.

The way that money is used to make payments has changed over many years, and so has the payment system. Considering the development of technology

therefore there is a growing need for new useful and affordable payment methods.

According to a journal by Pramono et al. (2006), the categorization or kind of money from the time of its discovery till the present is divided into five divisions, which are as follows:

a. Full-Body Cash

Money that is fully bodied possesses the quality that both its worth as money and its value as an object are equal. Demand and supply have an impact on value equality.

The first kind of money used in the past was metal coins. Iron and copper were initially used to make the coins. Coins made of iron and copper were gradually supplanted by coins made of silver and gold as human civilization advanced because they were thought to be more comfortable to use. The gold and silver that are used now are

The government issues currency that is used as money.

A metal's worth as money will be very similar to its value as a commodity due to the pressure of supply and demand. For instance, if gold coins are valued more highly as a commodity than for their use as a means of exchange

The gold coins will cease to be used as a means of trade and be combined with other currencies to become a commodity (non-money purpose). In contrast, if gold costs more

When gold is used as money, its value increases, which reduces its usage as a commodity and increases its use as gold coins. This will increase public trust in gold coins and
make sure they are acceptable as a form of payment.

b. Full-Body Representative Money.

A sort of money known as representative full-bodied money has no value as a product or object. First, a private firm known as a goldsmith, which is essentially a storehouse that accepts recognition claims over a quantity of gold or silver, created paper money. Paper money becomes a method that may be accepted as a medium of trade like metal coins since it can be exchanged for coins in a defined quantity. The worth of metal as an object is equivalent to the value of this sort of money, which only represents a limited amount of items or metals.

c. Fiat currency or credit currency.

People today want a form of payment method that is more reliable and efficient. The existence of credit money, a sort of currency whose value as currency exceeds its worth as products, provides a solution to this problem. Even in some instances, an object's value as a thing diminishes, as with the paper money that is still widely used in society today. The public's trust serves as a guarantee for this type of money. Controlling or limiting the printing of money is the best way to preserve the level of public trust. The central bank's efforts to uphold public confidence include maintaining the balance of
the economy's requirements into consideration while adjusting the money supply.

d. Account Checking.

Checks or checking accounts, which enable payments to be made through balance transfers at a depository institution, often a bank, are a significant breakthrough in the evolving payment process. Checks enable individuals to

minimize transportation expenses associated with carrying the money for transactions while enabling large-scale transactions without the need to carry a lot of actual money at once.

e. Digital currency.

Electronic payments include those that make use of networks of communication, integrated circuits (ICs), encryption, and other information and communication technologies. Among the several created and well-known electronic payments available today

Credit cards, online banking, debit cards, and ATMs are all forms of payment. Except for credit cards, all such electronic payments are consistently connected to the accounts of

Customers of banks that utilize them (Pramono, et al., 2006)

2.2 Digital currency

The nature of money has an impact on the things that are produced and consumed as well as the goals and tactics used to achieve them. On the other hand, how money is distributed affects how people act and how much they are willing to pay for things. These elements have a direct impact on commodity prices. The main tenet of contemporary society is the exchange of goods and services. Money is a fundamental good that makes trading goods and services easier. Since the end of extensive bartering and gift/counter gift exchange, it serves as the primary medium of exchange. Today, the banking industry has the advantage of creating approximately 95% of the money supply ex nihilo as interest-bearing debt to itself, and it controls how money circulates,

favoring lending for short-term profit over long-term value to society (Ritzberger, 2008). Furthermore, it has long been argued that a systemic growth imperative, in opposition to the second law of thermodynamics, is inherent in the design of bank money because interest is a requirement for its existence (Smith, 2001). The pursuit of the interconnected objectives of ecological sustainability and social justice may call for changes to business as usual, according to reflection on these under-reported issues (Dittmer, 2013).

Any form of currency or money-like asset that is primarily managed, stored, or exchanged digitally is referred to as digital currency (also known as digital money, electronic money, or electronic currency). Digital currency typically lacks a central issuing or regulating authority and instead relies on a decentralized system to track transactions and manage the issuance of new units, as well as cryptography to prevent fraud and counterfeiting.

Types of Digital Currency

Different kinds of currencies that exist in the electronic world can all be referred to as "digital currency" under one umbrella term. There are primarily three types of currencies:

Cryptocurrencies

Digital currencies known as cryptocurrencies use cryptography to secure and validate network transactions. The creation of such currencies is managed and regulated through the use of cryptography. A couple of examples of cryptocurrencies are Bitcoin and Ethereum. Cryptocurrencies may or may not be regulated, depending on the region.

Virtual Currencies

Virtual currencies are unregulated digital currencies that are managed by developers or a founding group made up of different process participants. A predetermined network protocol can also be used to algorithmically control virtual currencies. A gaming network token is an illustration of a virtual currency, and its economics are set and managed by developers.

Central Bank Digital Currency

Digital currencies issued by a nation's central bank are known as central bank digital currencies (CBDCs). A CBDC can be used in addition to or in place of conventional fiat money. A CBDC only exists in digital form, in contrast to fiat currency, which also exists in physical form.

Advantages of Digital Currency

The following are some benefits of digital currencies:

Quick transaction and transfer times

The time needed for transfers involving digital currencies is very short because they typically operate within the same network and complete transfers without the use of middlemen.

Transactions involving digital currencies are typically quick and inexpensive because payments are made directly between the parties involved without the use of any middlemen. Compared to conventional payment methods involving banks or clearinghouses, this performs better. Electronic transactions based on digital currencies also enable the necessary record-keeping and deal transparency.

No physical production is necessary.

Digital currencies don't have to meet a lot of the conditions that apply to physical currencies, like the construction of physical manufacturing facilities. These currencies are also resistant to stains or physical flaws that can occur with physical money.

Implementing Monetary and Fiscal Policy

The Fed currently distributes money into an economy through several intermediaries, including banks and financial institutions. CBDCs can assist in getting around this system and letting a government organization pay people directly. They also make production and distribution processes simpler by eliminating the need for physical currency note manufacturing and transportation.

Less Expensive Transaction Costs

Direct communication within a network is made possible by digital currencies. For instance, if two parties are located within the same network, the customer can pay the shopkeeper directly. Even the costs of digital currency transactions between networks are considerably less than those involving physical or fiat money. By cutting out middlemen that seek economic rent from processing the transaction, digital currencies can make the overall cost of a transaction cheaper.

Disadvantages of Digital Currency

The disadvantages of digital currencies are as follows:

Storage and Infrastructure Issues

While they do not require physical wallets, digital currencies have their own set of requirements for storage and processing. For example, an Internet connection is necessary as are smartphones and services related to their provisioning. Digital currency storage also requires online wallets with high security.

Hacking Possibilities

Digital currencies are hackable due to their digital origin. Hackers can take digital currencies from online wallets or alter the protocol, rendering them useless. The numerous instances of cryptocurrency hacks have shown that there is still work to be done in terms of protecting digital systems and currencies.

Variable Value

Wild price fluctuations can occur when using digital currencies for trading. The decentralized nature of cryptocurrencies, for instance, has led to the proliferation of weakly capitalized digital currencies, whose prices are susceptible to jarring shifts based on investor whims.

Similar price trajectories for other digital currencies during their early stages can be observed. For instance, the Linden dollars, which are used in the online game Second Life, initially experienced a price trajectory that was quite unstable.

2.3 Physical Currency Overview

What exactly is physical money?

Physical cash is money that is available in the fewest feasible amounts of notes and coins to support daily transactions and transmit account information outside of banks' secure networks. In other words, they are just reliable, relatively secure communication tools that are used to transfer account information manually around the economy.

The official currency of a nation is physical. Coins and currency on paper make up the total. Each nation has its kind of money, which is regulated by its central bank.

Money, note, or coins' present worth is not always determined by the components used to make it. Value is instead formed from the desire to concur with a value that is shown and depend on it for usage in subsequent transactions. People and economies throughout the world wish to keep and are prepared to accept the currency as payment for current or future transactions. Currency is a commonly recognized means of exchange.

Let's pretend you have a 100 Naira bill in your hand to attempt to make things as simple as possible. The piece of paper in your hand is money, and although it may not be accepted everywhere in the globe, it will be accepted everywhere in Nigeria. However, the value it holds—in this example, 100 Naira—is a monetary value that can be used as a medium of exchange and compared to the values of other currencies.

But given that 80% of central banks globally are considering creating digital currencies and that the Central Bank of Nigeria just launched its own, that day will soon arrive when they become the rule rather than the exception.

CHAPTER THREE

RESEARCH METHODOLOGY

This Chapter concentrates on the technique of the research; the strategy used in the investigation of this study. It is the element that investigates the influence of the usage of Digital Currency over Physical Currency. This Chapter which focuses on the research design and purpose, the population of the study, the Sampling Size Technique, the Instruments used for the survey, and the tools for Analysis also covers the why, how and to what degree Digital Currency is beneficial.

3.1 Research Design and Objectives.

This study was done by conducting a survey and employing a questionnaire. The questionnaire comprises of seven sections(A, B, C, D, E, F, G). Section A focused on obtaining demographic information from participants whereas section B focused on the participant's perspective on the accessibility of Digital Currency. Section C focused on the participants' opinion on Digital Currency while section D focused on the participants' position on whether Digital Currency can be trustworthy and dependable. Section E focuses on the effect of Digital Currency on the participants. Section F focused on the participants' future ambitions for Digital Currency. Conclusively, Section G focused on the participants' overall perspective on Digital Currency.

To establish the utility of Digital currency, a survey was done for over 100 random persons inside and surrounding the University of Benin, both employed and non-employed.

The aims of the study were :

i. To critically investigate the audience's general view of Digital Currency.

ii. To assess whether the audience perceived Digital currency as beneficial, and whether or not they are positively oriented to it.

iii. To examine whether their views of Digital Currency may impact their usage of it.

3.2 Population of Study.

This research was not confined to a specific demographic but was conducted with over 100 random participants. Some of which are students, employed, and non-employed. The questionnaire was prepared with the objective of finding out whether Digital Currency is of considerable relevance and advantages over Physical Currency.

3.3 Sample Size and Sampling Techniques.

Among the persons that have access to the internet, over 100 participants were given this questionnaire.

3.4 Survey Instrument.

The questionnaire with thirteen (13) items aimed at data gathering was given. This was done through Google forms, and the links were forwarded to random individuals on social media. Given the aims, seven sections(A, B, C, D, E, F, G) were disseminated to collect individual replies.

Section A: Demographic answer consisting of Gender, Age, and Internet Usage. These answers were obtained using a scaled format.

Section B: This section consists of two questions, it focuses on the overall view on awareness and likely usage of Digital Currency. These answers were obtained using a Scale format.

Section C: This section consists of two questions, it focuses on the accessibility and basic individual view of Digital Currency. These answers were obtained using a Scale format.

Section D: This section comprises two questions, it focuses on the broad perspective of how dependable and trustworthy is Digital money. These replies were obtained utilizing a Scale format.

Section E: This section comprises a question, and focuses on the influence of Digital Currency. This answer was taken using a Likert Scale style.

Section F: This section consists of two questions, and focuses on the overall view of the individual's intentions for Digital Currency. These answers were obtained using a Scale format.

Section G: This section consists of a question, and focuses on input from the people on Digital Currency.

3.5 Validation of Research Instrument.

The research student prepared the questionnaire having cogitated through necessary connected paperwork and following certain technical components use and acceptance model to assess the behavioral or usage pattern.

3.6 Method of Administration Survey.

The surveys were prepared in a Google-Forms style and then disseminated to persons on Social Media by the research student. Of over 100 responders, some were determined to have missing data. This missing data was cleaned using the Analysis software, Google form. These surveys

were given to random persons some of them were Students or Workers and they comprise a big proportion of internet users thereby improving the validity of the findings.

3.7 Method of Data Analysis.

The data gathered from Google Form surveys were analyzed using a Pie Chart and a spreadsheet.

3.7.1 Pie Chart.

A graphical representation method known as a pie chart shows data as a graph in a circular form. It is a static composite chart that performs best when there are few variables. Pie charts are frequently used to display sample data, where each data point represents a mix of various categories. A "slice of the pie" is used to illustrate each of these categories. The quantity of data points that fall into each category determines the size of each slice in a direct proportion.

CHAPTER FOUR

4.0 Introduction

This chapter presents the results and discussion of findings in line with research questions. It is discussed under the sections of questionnaire response rate, analysis of personal information of the respondent and discussion of findings.

4.1 Response rate

A sample of questionnaire was shared online and it was sincerely answered. Over 100 respondents answered the questions shared.

4.2 Questionnaire respondents.

Number of Individuals that participated	Responses Retrieved	Percentage of surveys respondents
108	102-105	94-98%

Table 4.1 indicates the questionnaire response rate from the table, it was indicated that over 100 data was received from the respondents. From the study of the questionnaire response rate, it is obvious that the response rate was high.

4.3 Sections of the Questionnaire.

The Questionnaire was divided into sections with the aim of gathering responses on different aspects from the respondents.

4.3.1 Section A

Section A consists of the Demographic answers comprising the Gender, Age, and Internet Usage of respondents.

Table 4.2: Gender of the respondents.

Table 4.2 reveals the gender distribution of the respondents. Majority of the respondents in this study were male which represents 57.3% of the total respondents, while the females represented 42.7% of the total respondents. This implies that majority of the respondents were males.

Gender	**Percentage**
Male	57.3%
Female	42.7%
Total	**100%**

Table 4.2 chart distribution of respondent's sex.

Table 4.3: Age range of the respondents.

Table 4.3 reveals the age range of the respondents. The total age gathered from respondents was 102. Some o f the respondents in this study fell within the range of 16-20 and represented 6.9%, some within the range of 21-30 and represented 76.5%, some within the range 31-40 and represented 8.8%, some within the range 41-50 and represented and others 51-60 and represented 0.9%. This implies that the majority of the respondents were within the age of 21-30 age bracket.

Age Range	**Percentage**
16 - 20	6.9%
21 - 30	76.5%
31 - 40	8.8%
41 - 50	6.9%
51 - 60	0.9%
Total	**100%**

Table 4.3 chart distribution of respondent's age range.

Table 4.4: Range of Internet Usage of the respondents.

Table 4.4 reveals the internet usage range of the respondents. The total internet usage gathered from respondents was 105. The percentage of most often was 57.1%,that of very often was 34.3%, that of often was 7.6% while 1% for not often. This implies that majority of the respondents fell under the most often.

Often Visit to the Internet	**Percentage**
Most often	57.1%
Very often	34.3%
Often	7.6%
Not often	1%
Not at all	-
Total	**100%**

Table 4.4 chart distribution of respondent's internet usage.

4.3.2 Section B

This section consists of the awareness and likely usage of Digital Currency.

Table 4.5: Awareness of the respondents.

Table 4.5 reveals the awareness of the respondents. The total awareness gathered from respondents was 104. The percentage of a lot was 32.7%, that of much was 28.8%, that of not much was 37.5%, while that of just hearing is 1%.

Awareness (Heard or Read About)	**Percentage**
Alot	32.7%
Much	28.8%
Not much	37.5%
Just hearing about it in this survey	1%
Total	**100%**

Table 4.5 chart distribution of respondent's awareness.

Table 4.6: Likelihood of usage of the respondents.

Table 4.6 reveals the likelihood of usage of the respondents. The total likelihood usage gathered from respondents was 104. The percentage for extremely likely was 12.5%, that of very likely was 32.7%, that of likely was 31.7%, that of not so likely was 15.4%, while that of not at all was 7.7%.

Likelihood of usage	**Percentage**
Extremely likely	12.5%
Very likely	32.7%
Likely	31.7%

Not so likely	15.4%
Not at all	7.7%
Total	**100%7**

Table 4.6 chart distribution of respondent's likelihood of usage.

4.3.3 Section C: This section consists of the accessibility and reliability of Digital Currency.

Table 4.7: Accessibility of the respondents.

Table 4.7 reveals the accessibility of the respondents. The total accessibility gathered from respondents was 105. The percentage of physical currency been accessible is 38.1%, that of digital currency was 25.7%, while that of both been accessible was 36.2. This implies that the majority of the respondents sees physical l currency as more accessible.

Accessibility	**Percentage**
Physical Currency	38.1%
Digital Currency	25.7%
Both are accessible	36.2%
Total	**100%**

Table 4.7 chart distribution of respondent's accessibility.

Table 4.8: Trust for reliability of the respondents.

Table 4.8 reveals the trust for reliability of the respondents. The total reliability trust gathered from respondents was 103. The percentage for strongly disagree was 5.8%, that of disagree was 6.8%, that of neutral was 42.7%,that of agree was 35%, while that of strongly agree was 9.7%. This implies that majority of the respondents were neutral on their decision.

Reliability Trust for Digital Currency	**Percentage**
Strongly disagree	5.8%
Disagree	6.8%
Neutral	42.7%
Agree	35%
Strongly agree	9.7%
Total	**100%**

Table 4.8 chart distribution of respondent's reliability trust.

4.3.4 Section D

This section comprises of the broad perspective of how dependable and trustworthy is Digital money.

Table 4.9: Choice for swiftness of the respondents.

Table 4.9 reveals the choice for swiftness of the respondents. The total choice for swiftness gathered from respondents was 104. The percentage for physical currency was 21.2, that of digital currency was 51%, while that for both was 27.9%.This implies that the majority of the respondents decided on digital currency in terms of fast payment.

Choice for swiftness	**Percentage**
Physical Currency	21.2%
Digital Currency	51%
Both are fast	27.9%
Total	**100%**

Table 4.9 chart distribution of respondent's choice for swiftness.

Table 4.10: Choice for discrete and confidentiality of the respondents.

Table 4.10 reveals the choices for discrete and confidentiality of the respondents. The total choices gathered from respondents was 102. The percentage for physical currency was 12.7%, that of digital currency was 71.6%, while that for both was 15.7%This implies that the majority of the respondents decided on digital currency in terms of discrete and confidentiality.

Choice for discrete and confidentiality	Percentage
Physical Currency	12.7%
Digital Currency	71.6%
Both are discrete and confidential	15.7%
Total	**100%**

Table 4.10 chart distribution of respondent's choice for discrete and confidentiality.

4.3.5 Section E

This section gets the view on the influence of Digital Currency to an economy.

Table 4.11: Economic impact of the respondents.

Table 4.11 reveals the economical impact of the respondents. The total economical impact gathered from respondents was 103. The percentage for extremely impactful was 8.7%, that of very impactful was 58.3%, that of neutral was 30.1%, that of not so impactful was 1%, while that of not at all was 1.9%. This implies that the majority of the respondents were of the opinion that it will be very impactful to an economy.

Economical impact	**Percentage**
Extremely impactful	8.7%
Very impactful	58.3%
Neutral	30.1%
Not so impactful	1%
Not at all	1.9%
Total	**100%**

Table 4.11 chart distribution of respondent's view for economical impact.

4.3.6 Section F

This section consists of the overall view of the individual's intentions for Digital Currency.

Table 4.12: Usage plans of the respondents.

Table 4.12 reveals the usage plans of the respondents. The total usage plans gathered from respondents was 102. The percentage for yes was 90.2% and that for no was 9.8% This implies that the majority of the respondents had plans on using digital currency.

Plan on usage	**Percentage**
Yes I do	90.2%
No I don't	9.8%
Total	**100%**

Table 4.12 chart distribution of respondent's plans on usage.

Table 4.13: Comparison of worth of the respondents.

Table 4.13 reveals the comparison of worth of the respondents. The total worth comparison gathered from respondents was 101. The percentage for more was 90.1% and that for less was 9.8% This implies that the majority of the respondents were of the opinion that it would worth more.

5-10years worth	**Percentage**
It would be worth more	90.1%
It would be worth less	6.9%
Total	**100%**

Table 4.13 chart distribution of respondent's opinion on worth.

4.3.7 Section G

Feedback of the respondents.

It reveals the feedback of the respondents. The total feedback gathered from respondents was 44.

4.2 System Result analysis.

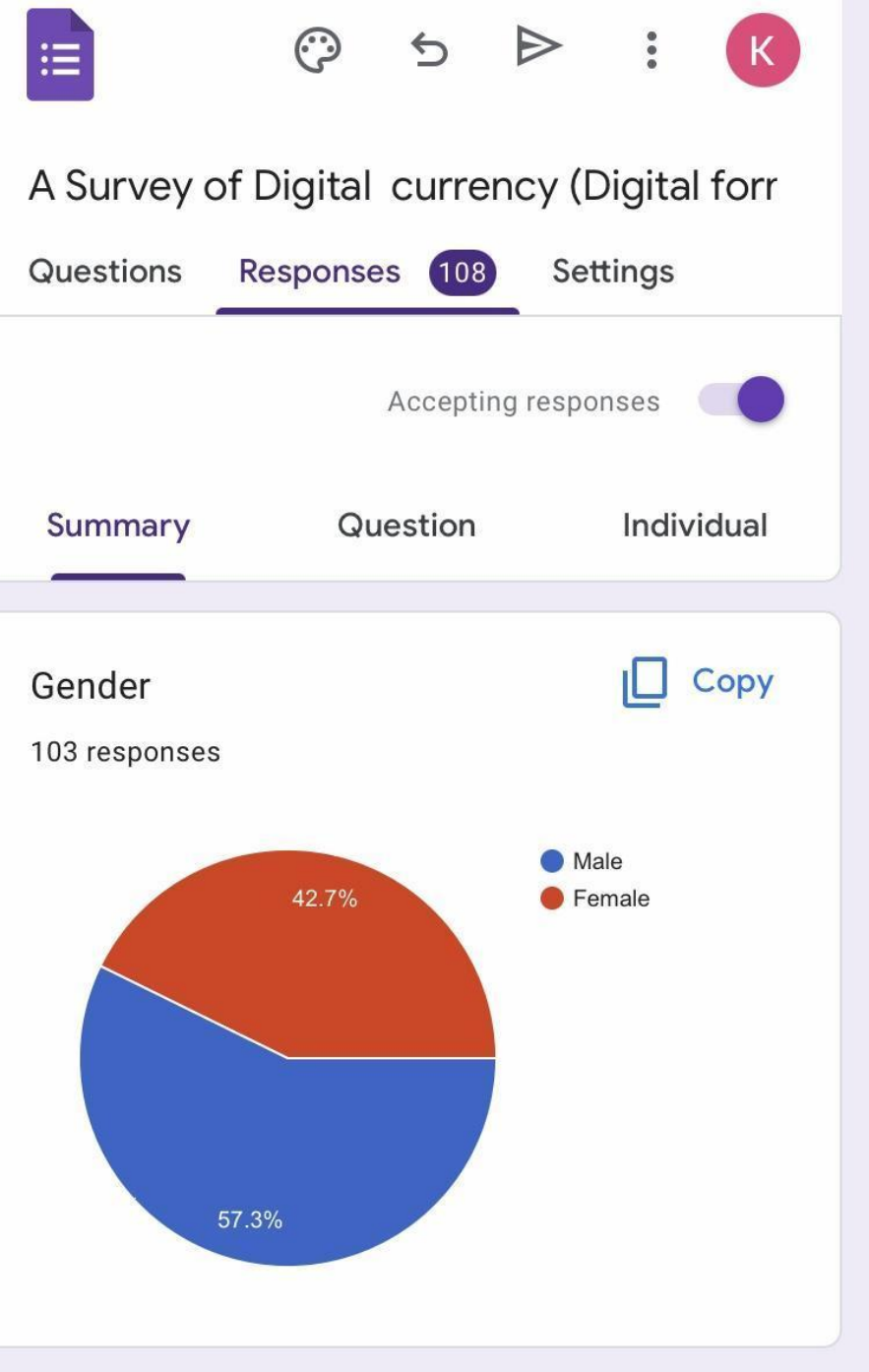


Fig. 4.1: Statistical distribution of gender.

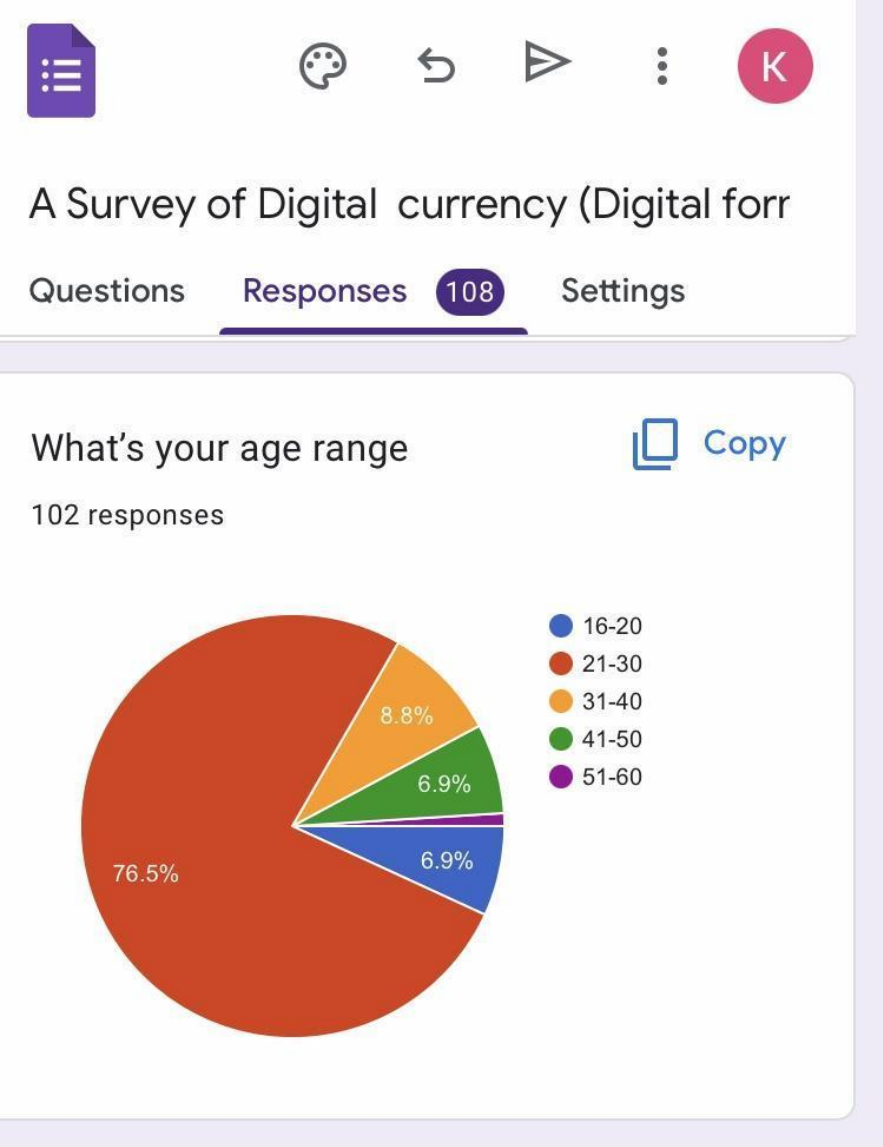


Fig.4.2: Statistical distribution of age range.

Fig. 4.3: Statistical distribution of visiting the internet.

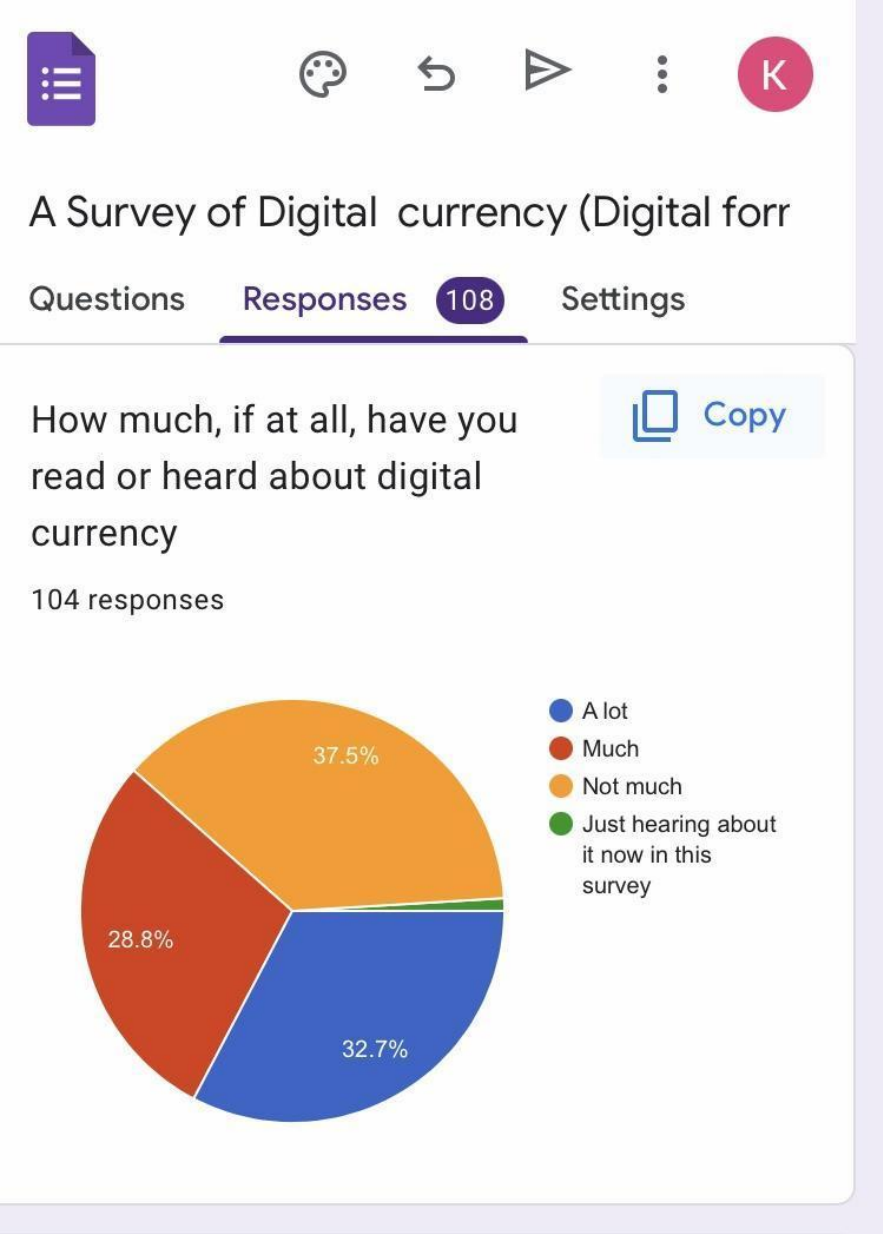


Fig. 4.4: Statistical distribution of awareness of digital currency.

Fig. 4.5: Statistical distribution of likely usage.

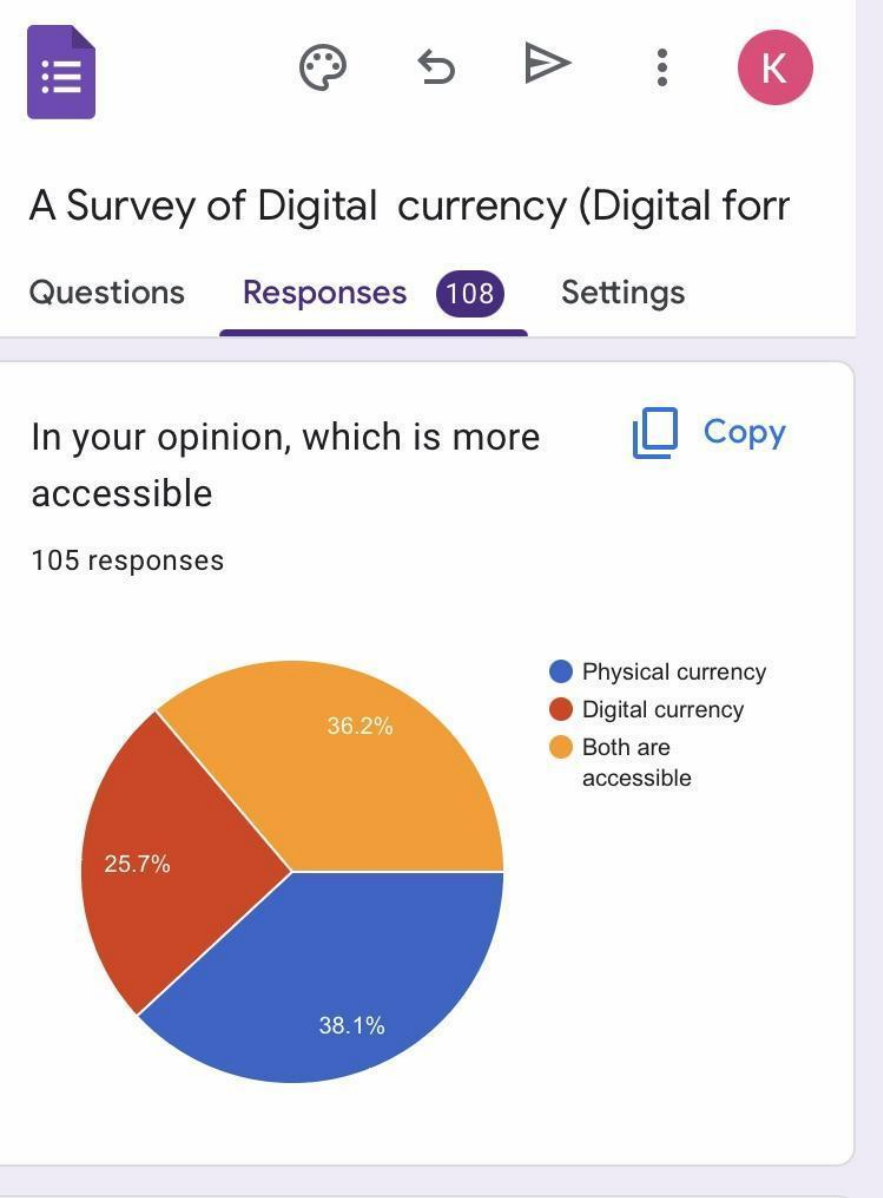


Fig. 4.6: Statistical distribution of accessibility.

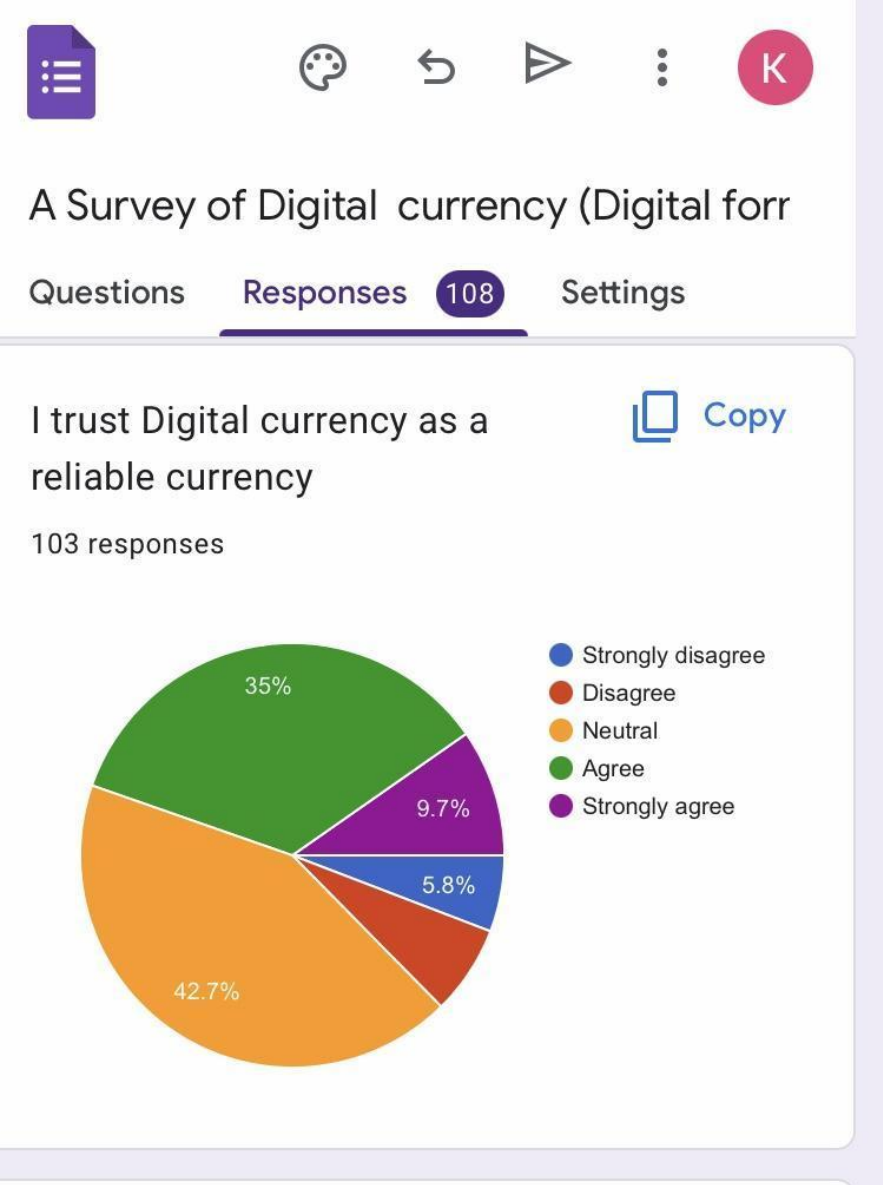


Fig.4.7: Statistical distribution of reliability.

Fig. 4.8: Statistical distribution of fast payment.

Fig. 4.9: Statistical distribution of confidentiality.

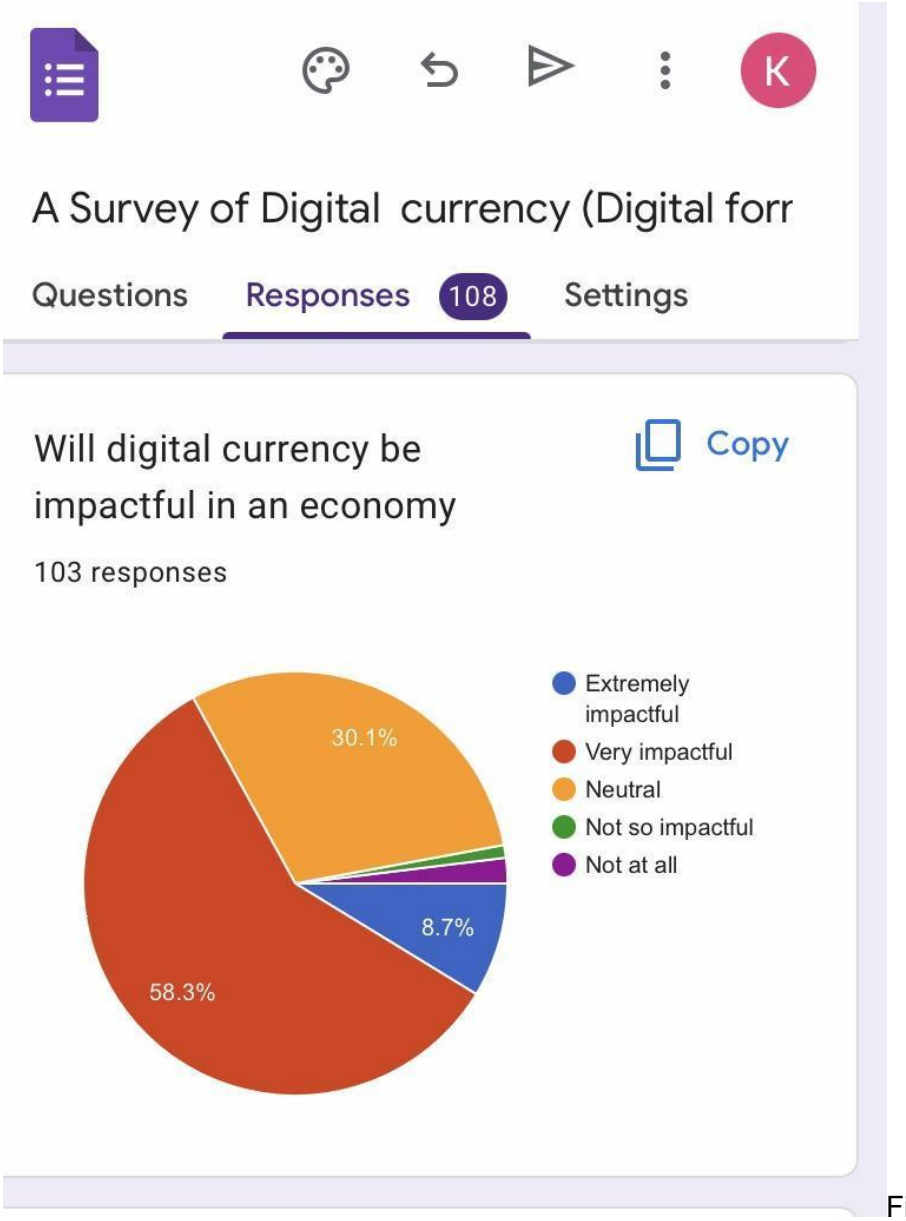


Fig. 4.10: Statistical distribution of economical impact.

Fig. 4.11: Statistical distribution of plan usage.

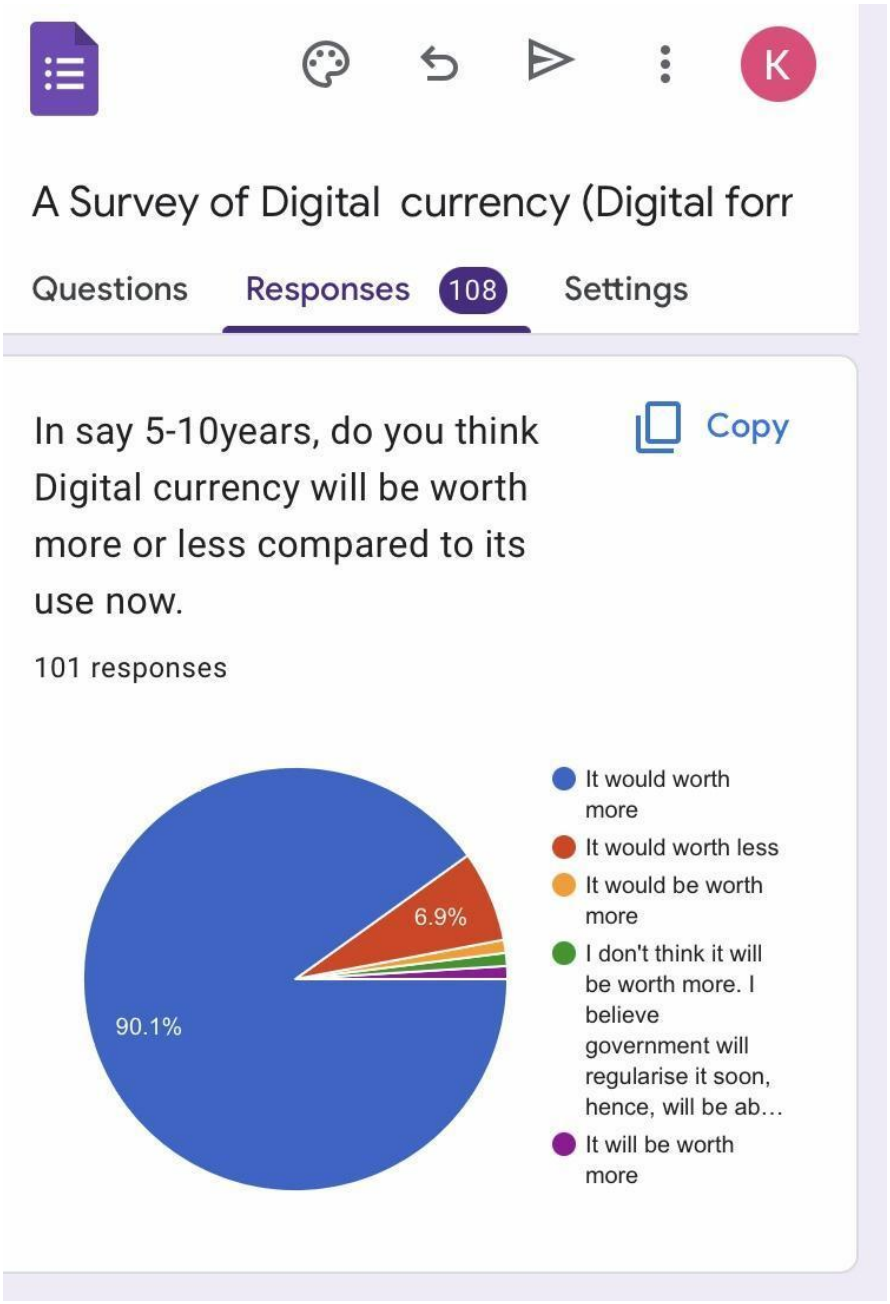
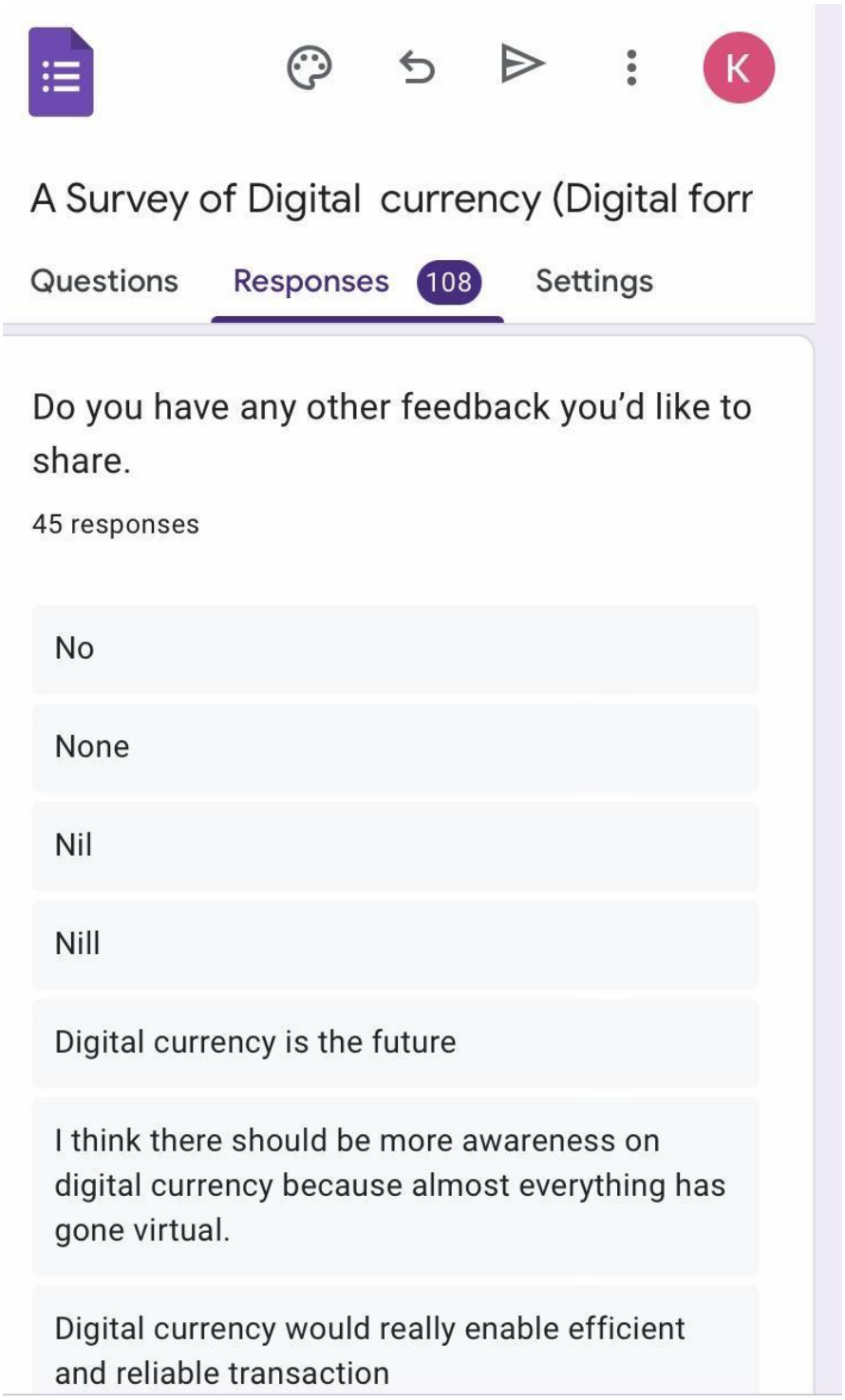


Fig. 4.12: Statistical distribution of future worth.


K
A Survey of Digital currency (Digital forr
Questions
Responses 108
Settings
Do you have any other feedback you'd like to share.
45 responses
No
None
Nil
Nill
Digital currency is the future
I think there should be more awareness on digital currency because almost everything has gone virtual.
Digital currency would really enable efficient and reliable transaction

Digital currency is the future

I think there should be more awareness on digital currency because almost everything has gone virtual.

Digital currency would really enable efficient and reliable transaction

Great survey!!👍👍👍

Dear Prof,

Welldone

Not really

Digital currency is now and the future.

Digital currencies should stick to what they were initially made for. Other uses are some sort of noise in the asset class.

Digital currencies and blockchain is the future of finance. Cryptocurrencies & stable coins are decentralized. There is wide adoption currently going on in several countries around the world and funding programs amongst startups helping to them create blockchains & research in the ecosystem.
Furthermore, like the traditional finance, there are there are also bad actors in the ecosystem, but the right regulations, adoption will become faster and more effective.

no
Digital currency is the future of online transactions and a very reliable means of payment.
never under estimate the value of a digital asset most especially digital currency
NA
No
Many people out there don’t know about digital
None

No

Many people out there don’t know about digital

None

No I don't

Yeah

Nope, I don't know anything about digital currency.

One of the drawbacks of the adoption of digital currency in a country like Nigeria is the high non-literate rate. The current estimated illiteracy rate of Nigeria adults is put at 31% according to the Federal Ministry of Education.

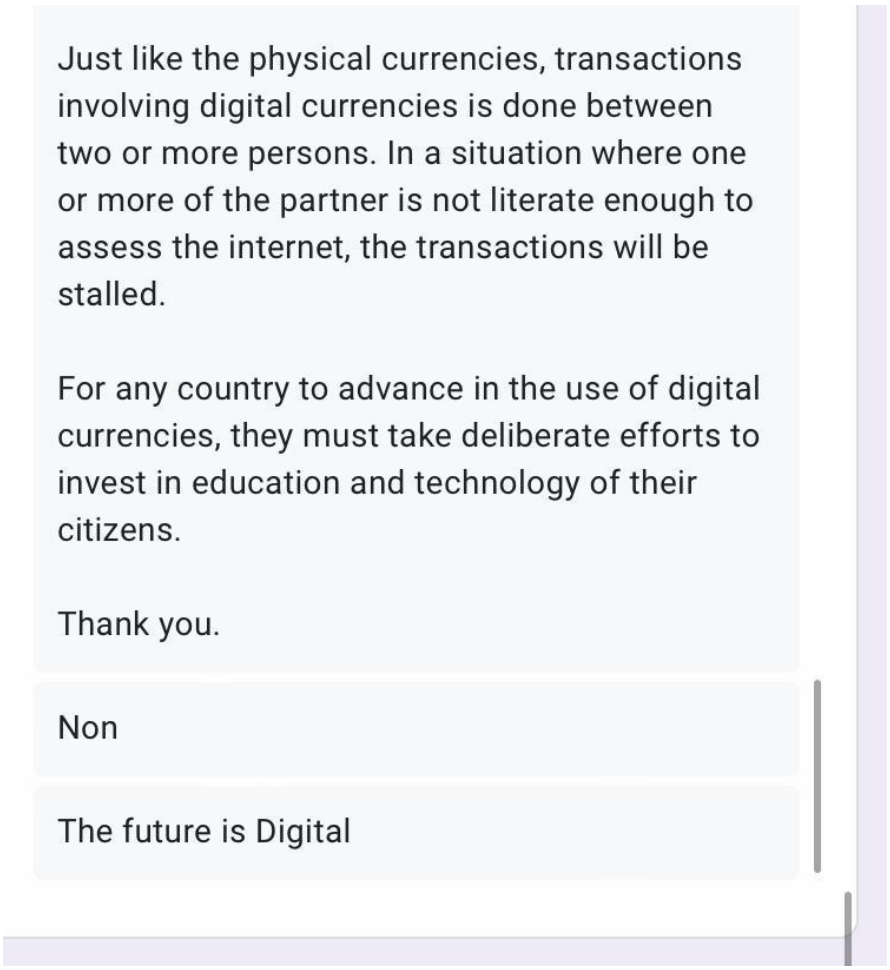
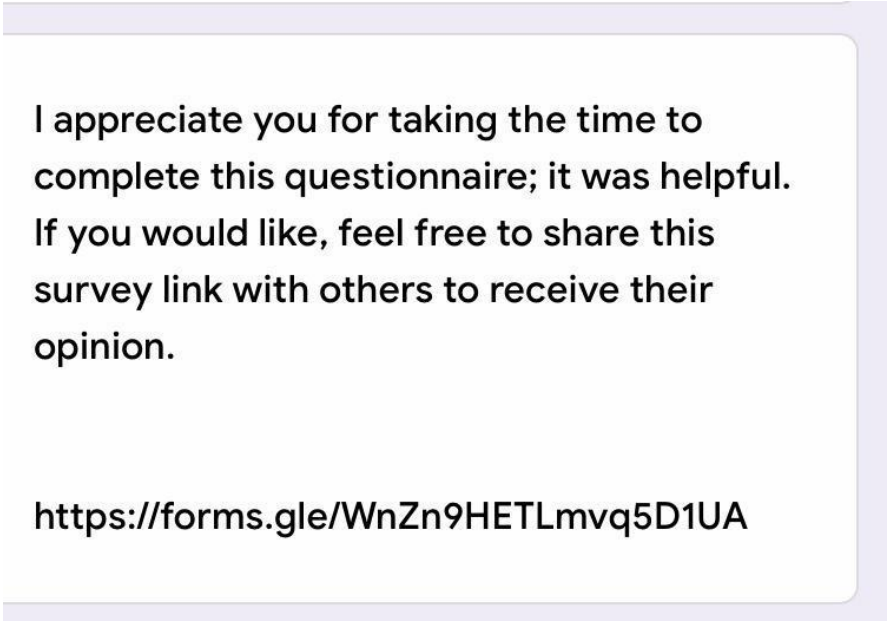


Fig. 4m: Feedback from respondents.



CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION.

5.1 Summary

By employing distributed ledger technology, this study attempted to eliminate the operational costs and delays involved with such transactions (DLT). A DLT system manages transactions using a shared ledger or a network of linked nodes. This network may be expanded to include other jurisdictions to shorten transaction processing times. By removing the need for a centralized database of data, a financial network's resilience is improved by allowing transparency to regulators and other stakeholders.

By using an algorithmic consensus method, digital money also addresses the problem of double spending. The problem is how to stop the same individual from utilizing a digital "note" of money more than once, to put it simply.

5.2 Conclusion

Digital money is best suited for civilizations without a strong financial infrastructure since all it needs is an Internet connection and is not reliant on well-established organizations like banks.

The convenience of digital currencies has contributed to their rise in popularity. Many people think they can send money more quickly and easily with digital currency. Due to concerns about the stability of their financial systems and mistrust of the status of their economies, several nations have embraced various types of digital money. Other users choose digital money because it provides them more discretion over their spending. Many users may avoid the standard laws

and regulations that are enforced with fiat money since there is inadequate regulation of digital currencies.

Digital currencies, like Bitcoin, are a breakthrough in financial services technology and goods that might allow more transparent and effective international trade. Bitcoin may reduce transaction costs for companies and become a significant method of processing electronic payments since it doesn't depend on middlemen. The potential for the expansion of Bitcoin is evident given these characteristics. Of course, conventional money may be utilized for illegal operations like money laundering.

Despite the many advantages and disadvantages cited by Bitcoin proponents and opponents, it is obvious that at the moment, digital currencies are still in legal limbo. Although certain regulatory bodies, such as FinCEN, have attempted to explain this legal framework, further clarity by regulatory bodies and policymakers is required to promote the wider adoption of virtual currencies.

Congress and the authorities want to safeguard the populace against digital currency-based fraud schemes. However, the use of Bitcoin in a scam does not imply that all digital currencies are faulty or dishonest by nature.

Although it is still in its infancy and some people are still wary of it, digital money is here to stay, has been incorporated into our lives, and will eventually be a universally accepted form of payment. It is only a question of time. The adoption of digital money and how often it is discussed indicate that it has a promising future.

5.3. Recommendation.

Digital money provides flexibility and economic progress by spanning boundaries. In the grand scheme of things, it would also be cheap, simple, and quick. Digital currencies may increase commerce and provide several options to improve a nation's financial stability.

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