

Sosyal Bilimler Enstitüsü

T.C.
MARMARA ÜNİVERSİTESİ
SOSYAL BİLİMLER ENSTİTÜSÜ
İŞLETME ANA BİLİM DALI

CLASSIFICATION OF CRYPTOCURRENCIES AND THE PERCEPTION OF COLLEGE STUDENTS ABOUT ITS USE

Yüksek Lisans Tezi

MUHAMMAD ZAIN BUTT

İSTANBUL, 2021

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Danışman: DR. MUSTAFA SAYIM

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ÖZET

CLASSIFICATION OF CRYPTOCURRENCIES AND THE PERCEPTION OF COLLEGE STUDENTS ABOUT ITS USE

Bu çalışmanın amacı aşağıdaki soruya yanıt vermektir: " Classification of cryptocurrencies and the perception of college students about its use". Araştırma üç bölüme ayrılmıştır: İlk bölüm bir giriş sağlar ve Kripto Para Birimlerinin Sınıflandırılmasını formüle eder. İkinci bölüm, kripto hakkında halihazırda mevcut olan çalışmaların bir literatür taramasıdır ve bu sistemin Avrupa'da benimsenmesinin artılarını ve eksilerini bulmaya çalışır. Devletin rolünü, yasadışı kullanımlarını ve diğer emtialarla olan bağlantılarını, merkezi olmayan yapısını, kamuyu ve değişkenliği nedeniyle oluşan güvensizliği vurgular. Üçüncü bölüm, üniversite öğrencilerinin kripto hakkında ne düşündüklerini ve bu sistemin benimsenmesini anlamak için halka açık bir ankettir. Çalışma, öğrencilerin kriptopara birimini günlük bir para biriminden daha çok bir meta olarak gördüklerine dair somut kanıtlar olduğu ve ana kullanımların hala karanlık ağda yasa dışı faaliyetler için yapılan işlemler içerdiği ve literatür incelemesinin gösterdiği gibi Avrupadaki yaklaşan yasalar ve kısıtlamalar tarafından müdahale edildiği sonucuna varıyor. Bu, aynı zamanda kripto para birimlerine yatırım yapmak isteyen yatırımcılar için fikir oluşturur.

Anahtar Kelimeler: Cryptocurrencies, Classification, Students

ABSTRACT

CLASSIFICATION OF CRYPTOCURRENCIES AND THE PERCEPTION OF COLLEGE STUDENTS ABOUT ITS USE

The purpose of this study is to answer the following question "CLASSIFICATION OF CRYPTOCURRENCIES AND THE PERCEPTION OF COLLEGE STUDENTS ABOUT ITS USE" Research is divided into 3 parts. The first part provides an introduction and formulates a Classification of Cryptocurrencies according to their types. The second part is a literature review of already present studies about crypto and tries to find the pros and cons of the adoption of this system in Europe and highlights government role, its illegal uses, and links to other commodities, its decentralized nature, and public mistrust because of its volatility. The third part is a public survey from college students in order to understand what they think of crypto and its adoption of this system. The study concludes that there is factual evidence that students consider cryptocurrency as more of a commodity than an everyday currency and major uses still include transactions on the dark web for illegal activities which as shown by the literature review is being intervened by upcoming laws and restrictions in Europe. This also provides an insight for investors looking to invest in Cryptocurrencies.

Keywords: Cryptocurrencies, Classification, Students

ÖNSÖZ

Bu çalışmada kripto paraların sınıflandırılması yapılmış ve öğrencilerin kripto para kullanımına ilişkin algıları tartışılmıştır. Bu çalışma aynı zamanda kripto paralara yatırım yapmak isteyen insanlar için kripto para birimleri hakkında cevaplar bulmaya çalışıyor.

Tez çalışmamın planlanmasında, araştırılmasında ve hayata geçirilmesinde ilgi ve desteğini esirgemeyen, bilgi ve tecrübelerinden geniş ölçüde faydalandığım, yönlendirme ve bilgilendirmeleriyle çalışmamı şekillendiren danışman hocam, Dr. Mustafa SAYIM, araştırma sürecinde fikirleriyle beni aydınlatan ve samimiyetini her zaman hissettiren.

Muhammad Zain BUTT

İstanbul, 2021

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INTRODUCTION:

Cryptocurrency have been gaining immense popularity over the last decade. There is still confusion and mistrust generally whether it's the currency of the future or not. Since Europe was one of the pioneers in legalizing the use of cryptocurrencies, this research would answer how is actually perceived by the general population in Europe but the focus would be college students. In order to answer this question, the research is divided into three parts. First part explains how cryptocurrencies work and categorizes them according to their types because no official classification is available and there are potentially thousands of cryptocurrencies available right now. In the second part of the research is a literature review that consults already present studies in order to find the pros and cons of adopting to the system and whether the system is suitable for use as an alternative for daily payments or is it just limited to an investment tool which can also be used for illegal activities. These questions would be answered based on the findings from the literature review which includes topics like how it affects European market, government interventions and laws in Europe and the upcoming laws which could affect this market. Furthermore, I have tried to establish a general opinion based on the findings from its security, hacking issues, stability, public mistrust because of its portrayal as a bubble and its use in Illegal activities. All of the above points help in establishing the pros and cons of adopting to this currency, would it be allowed by the government? Would people be willing to accept it especially the young college students? Which in turn would help establish a conclusion about the hypothesis. The final part would co-relate to the findings using a public survey that I conducted using social media from college students in order to ask their general opinion about the cryptocurrencies.

1. SECTION-1: HISTORY, EVOLUTION & CLASSIFICATION

Cryptocurrency is also regarded by many as currency of the future. Here currency or money needs to be described a little because it is a major part of our modern-day world. Money could be anything that is given or received as payment for goods or service (Mishkin, 2007). Before physical money came into existence there used to be a system called the barter system where people would exchange certain things for mutual advantage with each other for example somebody has a rice field, he could exchange some rice for a bread or some meat. So there was always a need for a medium to obtain certain needs and desires i.e. a payment system which eventually came into existence and was taken up by the states and governments. Before paper currency came into existence there were many other forms of currencies like leather currency, metallic coins, gold and silver coins etc. and it is always something that is hard for the common folk to recreate otherwise there would be no check and balance and everybody would be as rich as they wanted to be and no concept of economy would exist. So there have always been certain ways and tricks to create currency so it cannot be reproduced or counterfeited. Following is a timeline of currencies used in the world (The History of Money, 1996).

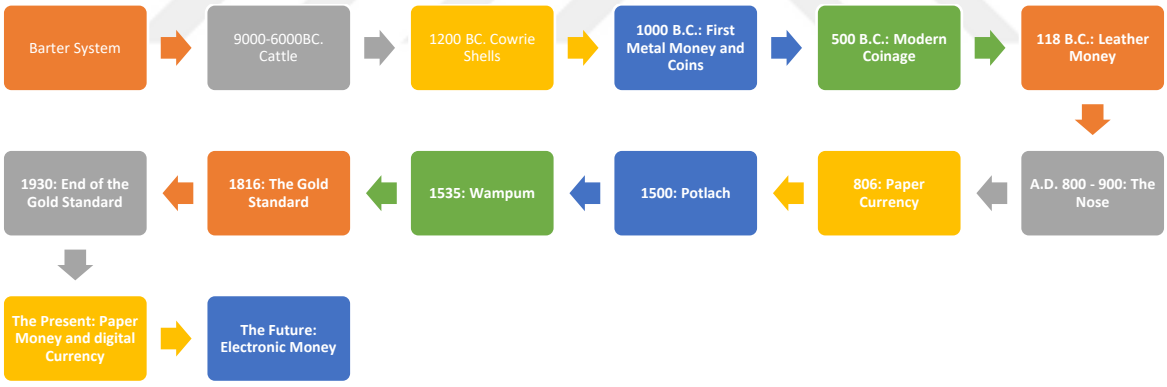


Figure 1- History of money (The History of Money, 1996)

1.1. EVOLUTION OF MONEY AND HUMANS:

Money has been evolving for a long time and ever since it started being used as a medium for payment people have been trying to counterfeit it and make their own copies of it and ever since governments and states got control of it they have been trying to prevent it. From leather money where there could be designs or embellishments hard to copy to paper money which has metal wires and hidden patterns in it, it has been a long evolutionary process. Gold and other precious metals or stones have been a very stable form of currency and a lot of people still trust them more than paper money. Gold has its value because it is a limited resource and one day the world is going to run out of it and it is not very abundantly found, it also has its

value because it is the most malleable out of all the metals and its shiny look makes it ideal for jewelry and has been a reliable source of investment ever since people started using it as a form of payment or monetary value. But people also try to make their own copies of it as well, there were the Alchemists who believed that ordinary metals could be turned into Gold and tried to do it for hundreds of years and never succeeded but in the process made a lot of new discoveries for modern day chemistry. It really depends upon what the masses believe in and how much the governments can make them believe in some certain thing. The point being that cryptocurrencies are an evolved form of currency which is the hardest to counterfeit or make your own copies of it till date because it is a very complex process and as far as known to mankind impossible to create by common folk or even programmers as of now but nobody can say anything about the future. "Money, in and of itself, is nothing. It can be a shell, a metal coin, or a piece of paper with a historic image on it, but the value that people place on it has nothing to do with the physical value of the money. Money derives its value by being a medium of exchange, a unit of measurement and a storehouse for wealth " (Beattie, 2019). So as money is evolving so are the people and people are more and more aware of their rights every single day and want to take control of their spending and what they are charged for. This is a modern-day world where everybody is connected to each other and it's getting hard for the governments to charge people whatever they want in the name of taxes and money transfer fess etc. It's because of this awareness people could decide if they want to use a certain currency or not and if people stop using some sort of currency, then it would be rendered useless. Money is considered valuable only because everyone knows that everyone else will accept it as a form of payment (Beattie, 2019). As Beattie says money only holds the power that we give to it so if a mass number of people decided to give up on traditional money than they can render it useless in one way or another. This is where the idea of cryptocurrencies comes in and would be discussed next.

1.2. DEFINITION OF CRYPTOCURRENCIES:

The word cryptocurrency comes from cryptography or encryption which means hidden and can only be decoded or cracked by following some certain rules known to the developers of the cryptography technique. A more formal definition would be '*A **cryptocurrency** (or **crypto currency**) is a digital asset designed to work as a medium of exchange that uses strong cryptography to secure financial transactions, control the creation of additional units, and verify the transfer of assets'* (Greenberg, 2011) and (Polansek, 2016). Cryptocurrencies are using a decentralized control as opposed to centralized digital currency and central banking systems (Allison, 2015). The idea is to have a decentralized currency not belonging to any country or government. Hence it is digital or electronic money which is created using a cryptography technique known to the developers only and as of today almost impossible to crack or replicate. The same cryptography and encryption techniques would also be used to register transactions and payments in a

public ledger. According to developers it would be a finite currency and at one point in time they would stop creating new currency. The most popular of these is Bitcoin and would have a total number of 21 million units ever made controlled by a software that generates it on its own controlled pace. As of April, 2020 it has surpassed 18 million coins in circulation.

1.3. HOW CRYPTOCURRENCIES WORK:

Digital payments made with a debit or credit card still involve conventional money but cryptocurrencies are decentralized meaning that its distribution and exchange aren't controlled or regulated by a government or some other authority. The process that a popular cryptocurrency i.e. Bitcoin is using is as follows. Individuals have the bitcoins stored in a digital wallet called a Bitcoin wallet and all transactions and purchases go through a large network of computers running special software. Whenever a transaction or payment takes place the network records the sender's and receivers digital ID's or Bitcoin addresses in case of Bitcoin and enters this information into a publicly available ledger which is called a Blockchain which is updated and stored across every computer on the network. This information is encrypted with a public key cryptography and verified across multiple points in the network to ensure every computer that is processing the cryptocurrency has the same ledger or Blockchain and is virtually impossible to counterfeit. This verification process is performed by Bitcoin Miners. Computers or other processing devices owned by Bitcoin miners are connected to this large network. Mining software arranges recent transactions into blocks which are only accepted by the rest of the network if the block is hashed correctly, which requires the computer to find correct numerical values which is a time consuming and intensive process. Once a computer successfully processes a block it's added to the Blockchain and the system generates a new Bitcoin that goes into the miner's digital wallet as a reward. It takes a lot of computer processing power to generate an appreciable amount of Bitcoin since the system is designed to take approximately ten minutes to process a block and the difficulty of this mining process increases as more nodes join the network (Techquickie, 2018). Most cryptocurrencies use an open source software and almost the same system. The diagram below summarizes the whole process for A sending Bitcoins to B.

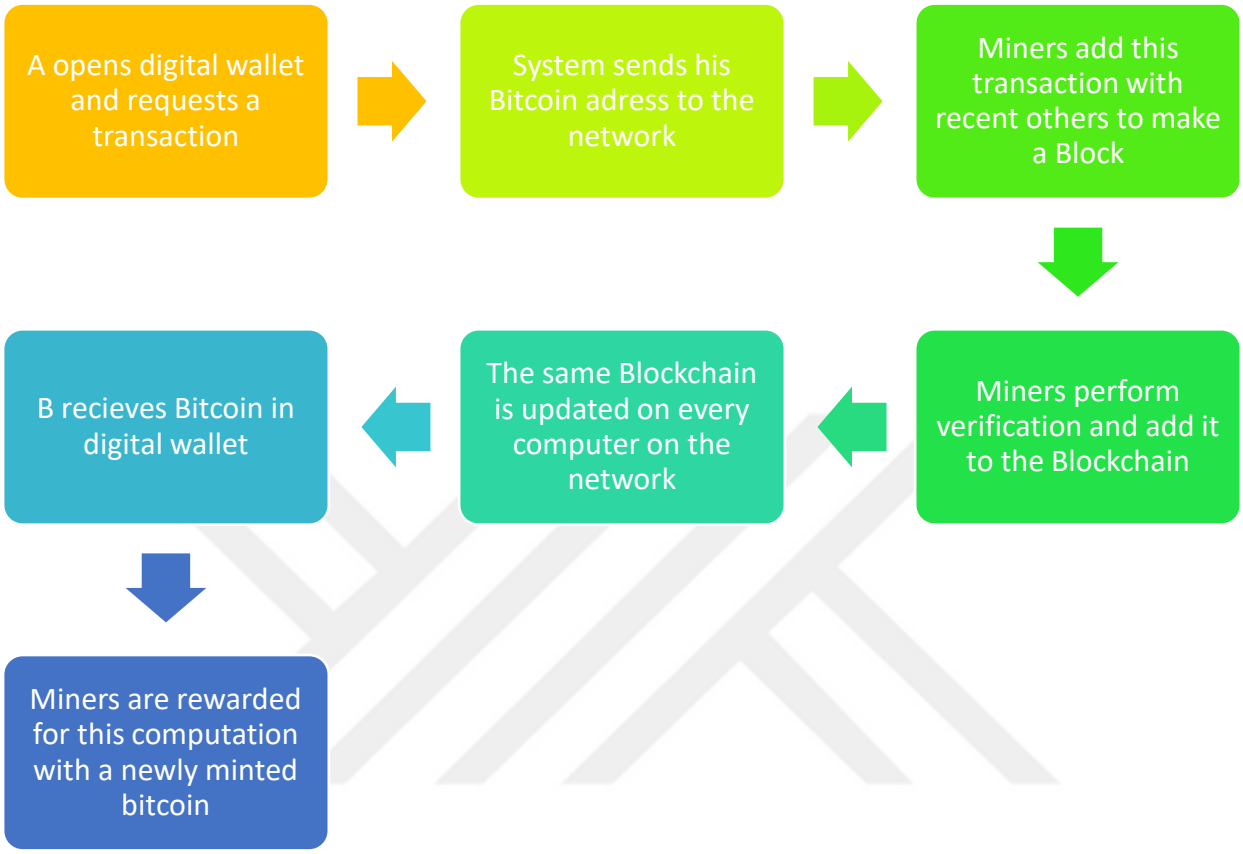


Figure 2- Bitcoin Process

1.4. CATEGORIZATION OF CRYPTOCURRENCIES:

There are a lot of different cryptocurrencies right now and they could be categorized according to a number of different parameters. As of April, 2020 there were 5360 cryptocurrencies in the world (Coin Market Cap, 2020). Their values are mostly compared to the USD or EUR and are slightly different to one another and can be classified into different categories based on the use of technology or their place of usage and the process of creation and transaction. Each cryptocurrency is fixated on or more issues it tries to tackle and hence one currency could be in more than one category as well as it could serve more than one purpose as well. (Cryptomaniac, 2019). The three main categories are as follows.

1.4.1. BITCOINS:

Bitcoin was the first cryptocurrency to be ever made in this world and in term of market capital is still the leading cryptocurrency in the world right now as of May 2020. It is based on a system that follows a peer to peer decentralized network where no government or managing authority is controlling it and from

processing of transactions to creation of new coins everything is being processed by miners and they get a fair amount of reward in the form of coins for doing it. It allows users to carry out their everyday transactions without the need of a bank. The system is self-sustaining and keeps a fixed number of total coins that can ever me made hence it can be viewed as a finite resource and the world is going to run out of it one day. Otherwise if there was an unlimited supply or number of coins they would lose any monetary value, hence the fixed number of coins somehow ensures that the coins would retain their value. The process is encrypted using cryptography and made impossible to replicate just like paper money is tried to be made in a way impossible to replicate. The computers used in this process are called "Nodes" and the number of computers that can join the network is unlimited. When it started nobody imagined that Bitcoin would be where it is today, it set a new precedent and a whole new field of technological innovation that is going to change the way we view money today. Because the network is decentralized and you don't have to prove your identity to a third party bitcoin also got very popular for trading over the dark web for anonymous purchasing without any government oversight. Bitcoin has not been very stable either, people have made fortunes as well as lost fortunes in it. It is still not something where you could put your savings and be sure they would be safe. A detailed chart of the recent value of bitcoin has been created and the data was available open source at Coindesk (Bitcoin BTC, 2020) which is a popular online forum that discusses cryptocurrencies. In the chart the data is from 07/18/2010 to 06/17/2020 and as evident bitcoin has had a massive exponential growth around December of 2017 when it hit a record high value around $20k per coin but also had a massive fallout in the following days. In the last year it has stayed rather consistent with value around $9k to $10k and people are now starting to develop a bit more confidence in it. So this a type of currency you can send to other and make purchases with it, purchase a gift for a friend or buy something off of the internet, basically it is just like money but it is digital and the other defining factor is that it is decentralized where people are paid money in the form of bitcoins for running the software that processes all of these transactions. This is also the more user friendly and the target audience is also normal everyday people whereas this might not be the case with the other type of cryptocurrencies up next. This is aimed at normal people and in a perfect ideal future imagined by bitcoin they would be able to replace conventional money with it. Whereas the other two types focus a bit more on the applications of cryptocurrencies and Blockchain rather than it being used as a currency in itself.

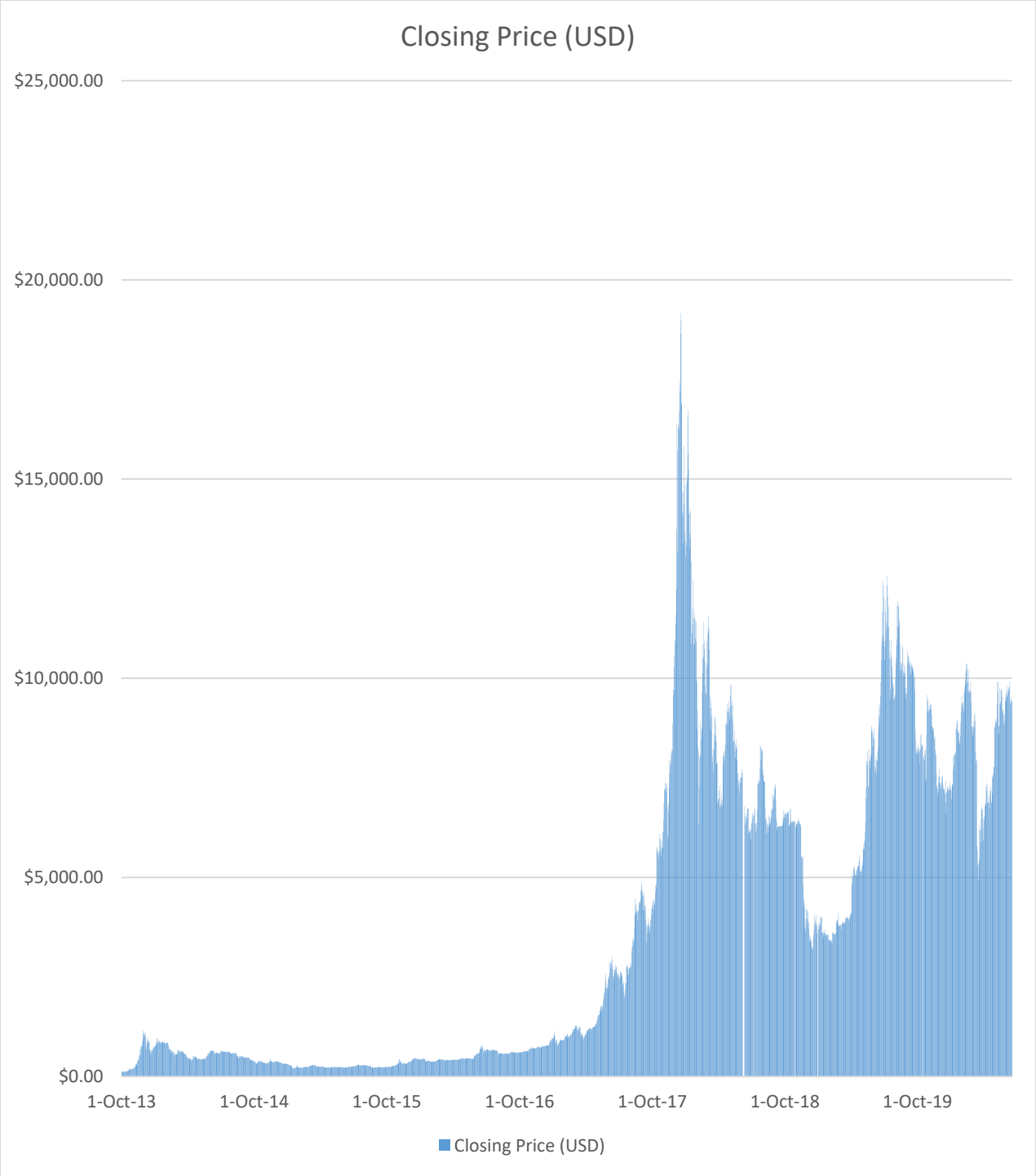


Figure 3 - Value of Bitcoin overtime

1.4.1.1. TRANSACTIONAL CRYPTOCURRENCIES:

This is the type of cryptocurrency that focuses on removing the middle man or an over watch authority in a daily transactions and payments and is a person to person system. The most popular cryptocurrency

Bitcoin also falls in this category as it is a decentralized network and is not controlled but any government or authority it has some of its perks and cons as well which are scalability and privacy (Cryptomaniac, 2019).

1.4.1.2. SCALABILITY:

Scalability refers to a concept that the block or records of transaction size and the frequency is fixed. In case of bitcoin the block size is 1 megabyte and the total number of coins is limited to 21 million coins and the system is designed to process one block roughly every 10 minutes thus the output of the system is constrained to a maximum of 7 transactions per second which would not be very effective in high load conditions (Croman & Eyal, 2016). "Transaction scalability is essential to create a robust platform where mass adoption is possible. Alternative cryptocurrencies have been created to salvage this situation, some examples are like litecoin and bitcoin cash" (Cryptomaniac, 2019). The scalability issue is one of the key issues holding Bitcoin back and is known as the Bitcoin scalability problem which other cryptocurrencies using the same system also suffer from. In order to overcome this issue Bitcoin has launched a new type of coin called Bitcoin cash which has a block size of 8 megabytes rather than 1 megabyte and can process a block faster and thus lowering the processing fees as well (Cryptomaniac, 2019).

1.4.2. ALTCOINS:

As evident from the term Alt Coins or Alternate coins are the alternatives to Bitcoin. Some of them are not just defined by being an alternate but they rather try to focus on a different purpose but mostly they are alternates to Bitcoin, hence the name Altcoin. As of May 2020 there are around 5000 different Altcoins and the number is growing every day (Frankenfield, Altcoin, 2020). The two biggest coins in the Altcoin domain are Ethereum and Ripple and both of them are also consider major competitors to Bitcoin. Evidently most of them are built from the Bitcoin framework and tried to improve where Bitcoin lagged behind and some of them have succeeded at it as well. The other major benefit they have is that there is always room for new improvements where Bitcoin feels to be a limited and non-changeable framework, this is the basic point these new coins have exploited and tried to make the most out of the possibilities (Kingray, 2020). There are of course a number of overlapping features but what makes them better are the improvements which Bitcoin cannot have because of its limitations. There are different types of Altcoins as well which are discussed below.

1.4.2.1. MINING BASED ALTCOINS:

These are the coins that are similar to Bitcoin and use almost the same mechanism that involves a Blockchain and the mining framework where a miner would process the transaction for a reward but there

could be some exceptions to this for example Factom is a coin that employs a unique method called proof of stack (Kingray, 2020). Here the miners are called stackers who perform the exact same job that a miner would but the system would allocate the job just to one stacker and as a result everyone would get their turn and all of them would not try to solve the same block, this saves an enormous amount of energy that was otherwise wasted. Some Altcoins which are mining based were not made to be used as a conventional digital currency but they had rather different purposes like application development.

1.4.3. TOKENS:

Tokens are different from Bitcoin and Altcoins because they are not capable of operating independently without the former two which means they are using the network of some other cryptocurrency. This means that they do not have their own Blockchain but they are built on Blockchain of existing cryptocurrencies. (Understanding The Different Types of Cryptocurrency, 2019). Cryptocurrency tokens which are occasionally also termed as crypto assets work by employing an already present Blockchain and utilizing it to make a Blockchain on top of it to represent a utility or an application the possibilities here also beyond measure and they are being used for mass crowd sales but not limited to just that. For example, a cryptocurrency token could be representing the time spent by customers on average in chain stores in different locations. Tokens could be used as literally tokens that you could give to someone, for example there could be a token which would allow a user to read books on Blockchain based system (Frankenfield, Crypto Tokens, 2020). Token could also be representing some other cryptocurrency and could be evaluated in proportion to one of these currencies for example someone could have a token that is equal to 5 bitcoins, now this would make that specific token tradeable and users would be able to trade and transfer it among themselves or others on that specific Blockchain chain network (Frankenfield, Crypto Tokens, 2020).

In summary, cryptocurrencies and altcoins are specific virtual digital currencies and have their own personal dedicated Blockchain and serve the basic purpose of being used as a medium for digital payments. On the other hand, the cryptocurrency tokens operate on top of an existing Blockchain that is utilized as an environment for the creating and executing of decentralized applications and smart contracts, tokens are used to facilitate these transactions (Frankenfield, Crypto Tokens, 2020). Cryptocurrency-assets usually serve as the transactional units on a Blockchain that are created using the already available standard templates which could for example be from Ethereum network because it gives a user access to create tokens. All such Blockchains work on the concept of smart contracts or decentralized applications, where the programmable, self-executing code is used to process and manage the various transactions occurring on the Blockchain (Frankenfield, Crypto Tokens, 2020).

Cryptocurrency tokens usually work on a system backed by Initial coin offering or ICO which is then intern used to crowd fund in order to jump start the project. The term ICO needs more clarification and is further described down below.

1.4.3.1. INITIAL COIN OFFERING:

An Initial coin offering as is quite evident from the name is a way for companies to raise funds for what could be a new coin or an application or utility that is based on an already present cryptocurrency's Blockchain. This is very similar to an initial public offering both are used to raise funds in order to fund a new project (Frankenfield, Initial Coin Offering (ICO), 2020). People who are interested in investing would buy into the project's initial offering and receive a newly generated crypto token issued by the project owners. This newly generated token could be functional as a utility token which could allow the owner to exhibit certain operations or it could be just a share in the newly developed coin and would have a certain stake in it which would change with time depending on the changing value of the coin. Studies have shown that investors who have invested in crypto tokens have been able to yield great returns and no wonder it is one of the most popular ways to generate funds in order to fund Blockchain based applications and utilities. In order for an investor to be able to make a good revenue the investor must have a good knowledge of cryptocurrencies and how the market works because these ICO's are completely unrelated and mostly they don't have an over watch or a guarantor which also makes them quite risky as well. Furthermore down below is an insight of how this process actually works. In view of their absolutely advanced nature and separation from customary monetary instruments and scenes, ICOs have formed into a dim administrative territory, regulating out of reach of existing legislative structures. Generally they carry out operations without applying the principles overseeing the public position of securities and without association of conventional monetary go-betweens. This permits to cut down on legitimate consistent costs, which makes this type of crowdfunding reasonable for new companies and creative organizations including fraudsters (Ferrari, 2020).

1.4.3.2. HOW AN ICO WORKS:

The initial coin offering works by first outlining the whole project, the project owners would define everything from the start like how long the fund raising is going to last and how much stake one would have in the project which could also be for a limited period of time and how much stake the founders would keep and for how long would they keep it. So it's essentially sort of a fund raiser for the crypto world. According to some reports the amount raised by ICO's in the first quarter of 2018 was 118% more than all of 2017 which was estimated to be 5.6$ Billion (Delventhal, 2018). But in the same quarter in 2019 this market took a nose dive and was down 97% and could only generate 40$ million in the first quarter (Alexandre, 2019). This market is generally huge and has great rates of returns as well but at the same time

it has a lot of scams and is highly volatile and is only suited to a professional investor who has a good understanding of it.

1.5. SECTION-1 SUMMARY:

In section 1 we have discussed an introduction to the research. In order to answer the question whether Cryptocurrencies would be able to replace politically backed currency in Europe a knowledge of timeline of history is necessary leading to its evolution of this new digital form of currency and commodity which is observed in section 2 where a correlation is explained between cryptocurrencies and another important commodity like oil which would in turn help in answering whether cryptocurrencies are an answer to daily currency or to be used as a commodity like gold and oil. Since there's thousands of types of cryptocurrencies in the world and there is no official classification into its types a classification has been established according to its types and subcategories. Section 2 would discuss these types and public trust and mistrust in these types using literature review of hackable cryptocurrencies, their volatility and stability, effect of government intervention and laws on different types. Furthermore, in the final part it is explained how cryptocurrencies actually work. In order to answer a research that is regarding the impact of digital cryptocurrencies over conventional currency it is very important to first under how this decentralized system actually works. Now that we have explained how this system came into being, how many types it has and its general working principles we would try to establish in the next section using literature review of how these characteristics would leads to answering our research question because it is essential to know about the inner workings of a system before questions can be answered about it.

2. WHAT IS THE PERCEPTION OF COLLEGE STUDENTS ABOUT CRYPTOCURRENCIES AND ITS USE?

The increasing popularity and acceptability of cryptocurrencies is based on the fact that they are decentralized and not controlled by a certain entity that could be either governments or central banks and hence these are considered to not be vulnerable to political situations and could be a safe place for keeping your money. However, because of no authority overlooking these currencies could also pose a threat to the domestic financial environment of a country as well and which could potentially disrupt the financial world as we know it. This study is going to try and unearth a general perception of the masses while focusing on the young generation about cryptocurrencies by listing the pros and cons of this system and how it is being used and how are the governments planning to manage the new system. This literature review would hence provide an insight of how the system is being perceived by the masses in Europe.

2.1. NON-CENTRAL AND CENTRAL CRYPTOCURRENCIES:

The term non-regulated is used because there is no government or central bank defining their value or how they work. The cryptocurrencies don't belong to a certain country or region, they are global hence no one has a say other than the developers who developed it according to a specific set of rules which machines would keep following. Rules are starting to emerge in Europe which would be discussed in the next heading. There could be cryptocurrencies which are central and would have a third party monitor the process but these are still not politically backed and given the market and number of coins they also have to be highly competitive. A centralized cryptocurrency is also prone to hacking since the data is in one place and hackers could take advantage of it whereas on the other hand this risk is next to nothing and most hackers call the Blockchain systems as virtually impenetrable. If a cryptocurrency is operating centrally this would mean that it is bound to geographical boundaries and could be operating out of a country which could impose laws and regulate the usage (Sahu, 2020).

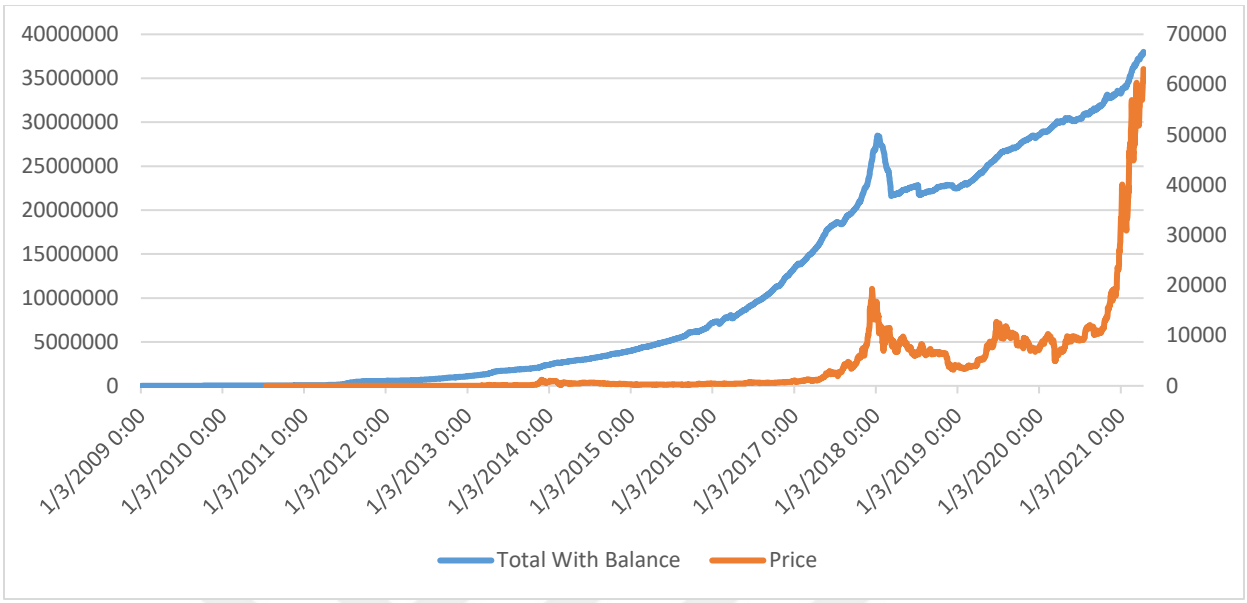


Figure 4-Total Bitcoin Addresses with Balance

In figure 4 it is clearly seen that the system has evolved rapidly and the number of people joining the network has had a steep upward rise for the most part. The data for the graph was obtained from a popular cryptocurrency website called into the block which is available publically (Into the Block, n.d.). While the number of addresses might have increased experts are of the opinion that most of these new address influxes account for investor accounts rather than general masses who would use it for daily transactions but the has definitely seen surges over the last couple of years. It has already been explained how a decentralized crypto currency works and been established that Blockchain based systems provide the user with complete control and there is no third party involvement and offer more security so in order to compete with them centralized cryptocurrencies offer special features and that is why they also have a market share of their own as well. Investigations have revealed that a system claiming to be decentralized could be controlled or centralized in some aspects as well. The governing factor in this debate is that central or decentralized cryptocurrencies both are not regulated or controlled by governments or central banks but politically backed currencies are vulnerable to that and people are starting to realize it now which could end the monopoly of governments over the world of financial sector as we know it. The scope of this research is limited to Europe only there is no way to tell how many of these cryptocurrencies are being operated from within Europe but according to a popular website 501 organizations are operating out of Europe which include all kind of currencies, tokens, initial coin offerings etc. but it does not matter how many of these operate out of Europe because they could operate from anywhere in the world and still be used in Europe.

2.2. GOVERNMENT INTERVENTION AND LAWS IN EUROPE:

European Union has been very neutral and has not taken sides with or against cryptocurrencies. The use of Bitcoin is legal everywhere in Europe except Ukraine where it is also not illegal but also not recognized by the government. Most European states have regulations and laws by now but some still don't have them. It is possible to use all over Euro to trade in Cryptocurrencies but laws have been emerging to avoid its use for criminal purposes and to avoid these currencies in undermining the Euro (Freitas, 2020). On 24th September 2020 The EU announced its plans to regulate cryptocurrencies and Blockchain. The executive arm of the EU has said that "the future of finance is digital but that it's important to mitigate any potential risks" (Amaro, 2020). The new legislation wants to reduce these risks for investors, while also giving legal certainty to those issuing these assets (Amaro, 2020). It was proposed that the process would take around a year and but it would get done because the future is digital and there is no denying or overseeing that fact. One of the key aspects of this legislation would be to reduce market fragmentation because many of these platforms are working within one or more of the member nations and they want to make it somewhat central across all member states, which would in turn lead to making it a more cohesive financial system where if one member country allows the use of a platform than it would automatically apply to the rest of the member countries. All of this means there would be tougher rules about issuing new coins and token which in the long run would impact the market but would also mean less volatility for already present coins. Facebook is one of the biggest companies in this world and the promise of digital currency also made them announce a platform of their own called Libra which they hoped to be backed by multiple currencies but they are also now going to make changes in the light of these regulations because they had a backlash from regulators worried about it disrupting the financial system (Amaro, 2020). These legislations have not been approved yet but it is likely that they will be and it would be a regulated market in the future by law makers and governments which means less danger to the Euro but on the same hand would prove the market to be less prone to financial fraud and provide a stable market of innovations. Blockchain-based tokens can be portrayed as carefully scant units of significant worth whose properties and distribution of which are carried out by means of PC code. As their potential uses are possibly limitless. The term 'crypto-asset' covers the wide assortment of virtual monetary forms, virtual resources and advanced tokens that Blockchain can support (Ferrari, 2020). The founding digital currency, Bitcoin, was made to work as a methods for daily payments, yet it immediately transformed into a means of significant investment opportunities. Later the Ethereum project extended the functionalities and dissemination of crypto-assets expanding to Smart-Contracts, facilitating the creation and distribution of digital tokens upon demand (Ferrari, 2020). European foundations and Member States have begun different activities investigating blockchain's potential in the monetary sector. However, lawmakers additionally see that Blockchain-based monetary exercises can't keep on developing in an ungoverned vacuum, as they raise genuine dangers affecting both investors and

users assurance, market honesty and monetary crimes. Regulators and administrative specialists are handling inquiries on the legitimate treatment of crypto-resources and searching for systems to uphold guideline on the organizations developing around them. To ensure and help the advancement of the business while guaranteeing proper lawful oversight, Europe has opened public counsels and given broad reports on crypto-assets. On one side, administrators are happy to energize the token economy as a positive long haul pattern, evading oppressive guideline that could endanger the business and uproot the market for speculations. On the other, they perceive that lawful shields and administrative assurance should be set up, not exclusively to ensure speculator insurance yet in addition to guarantee a manageable advancement of organizations and of the entire ecosystem (Ferrari, 2020). Moved by the goal of keeping an unsafe harmony between liberal positions and lawful insurances, European establishments have so far had a sit back and watch approach, abstaining from pushing for appropriate administrative methodologies to be embraced. European Union lawmakers have the stance that a European as well as a worldwide methodology would be important to adequately control these new monetary networks. As cryptocurrency market works universally, administrative and authorization endeavors at a public level may push firms towards less directed locales. This would infer passing up on market chances, just as risking financial specialist security, since tokens can be offered to European people from outside of Europe too and there would be no check or balance of European Authorities over that. Given this danger of administrative exchange, a decent administrative methodology is ideal to bring crypto-resources and related organizations under the EU purview and authorization limits (Ferrari, 2020). A number of the foremost relevant legal instruments that apply to crypto-assets and related activities under European financial law, exposing the challenges of enforcing existing rules to fluid, changing with time and need and possible financial applications have been discussed. Such analysis is beneficial to spot important policy questions for further research, and to tell the present debate on the necessity of regulatory intervention at the European Union level in this domain. From a conceptual and practical point of view, European lawmakers determine the legal actions for tokens by including them within general categories which are payment, investment and utility which are related to different, specific functions (Ferrari, 2020). These three categories, designed to drive crypto-assets toward specific possible ways of regulation, are to be interpreted as archetypes, whereas existing tokens tend to mix and involve more functions also known as Hybrid Tokes and present fluid properties. Therefore, while this classification and legislation is vital, it doesn't exempt from the necessity to adopt a more specific and pointed approach that should be different based on the platform when evaluating risks and legal requirements that concern cryptocurrency assets (Ferrari, 2020). Crypto currency assets that are identified as investment instruments or as electronic money fall into the scope of European financial regulation which includes issuing and trading securities which apply to tokens with an investment component, while the principles governing electronic money and payment service providers are applicable to payment tokens.

However, such simplistic plan presents several loopholes. The plan to bring cryptocurrency assets and investments under already present legislation and investor protection laws is justified by concrete risks, but the existing requirements don't always fit the features of companies and start-ups within the Blockchain industry, their technical and operational processes, their advantages and benefits plans for investors, it's very hard to get all that under the same plan. It should be clarified what constitutes the custody or safekeeping of cryptocurrency assets. The enforcement of existing requirements is probably going to be hindered by legal issues, which arise due to decentralization, global nature and non-incorporation of entities (Ferrari, 2020). Moreover not all tokens will be captured, supported their specific functions, by existing legal regimes. This is often the case of crypto-assets that are commonly mentioned as utility tokens. To fill the legal vacuum, some European Union Member states already have legal committees to ensure a coherent, comprehensive legal framework for the growing industry. Legal committees might overlap or succeed one another in several phases of the tokens lifespan. For this reason, legal uncertainty remains a serious issue, as tokens are functional parts of evolving, innovative solutions which may hardly be reduced to pre-existing classes or defined a priority. Beyond these drawbacks within the applicability of existing rules, a normative stance on the regulation of Blockchain-based financial application must also take under consideration the socio-economic dynamics that shape and are re-shaped by these technologies, checking them against the policy objectives that regulation tries to realize the difficulty of how existing legal requirements and legislations should be applied within this ecosystem is primarily an issue on the roles of the varied actors involved therein. The announcement by Facebook of making its own, privately controlled International currency and financial infrastructure that empowers billions of people reflects the necessity to scrutinize the interests and powers that drive the event of Blockchain-based solutions. Due to its decentralized, open-source roots, the cryptocurrency-asset market got quickly populated by an entire new range of intermediaries and financial service providers which are exchanges, safeguarded wallet providers, cryptocurrencies landing platforms, remittances and utility services, investment managing which given their business models and organizational structures won't be covered by already present legal definitions and can surpass these existing legislative practices. With this in mind, the regulation of Blockchain based financial applications must not only worry with fighting illicit behaviors, but also with balancing and managing conflicting interests at stake and preventing influential entities from taking advantage of legal loopholes and institutional failures. The regulatory and technical enforcement challenges posed are the main focus of a broader ongoing struggle between technological innovation and legal compliance. Making a legal framework for emerging Blockchain based financial technologies isn't a simple task and would require an immense international effort, as there are multiple, colluding factors to be taken into consideration.

The principle of technological neutrality enforces to treat same businesses with equivalent rules. At an

equivalent time, however, the appreciation of social and economic potentials of cryptocurrency has pushed lawmakers to alleviate innovative businesses from troubling legal duties constructed for older sorts of economic entities (Ferrari, 2020).

2.3. DARK WEB AND USE FOR ILLEGAL ACTIVITIES:

Cryptocurrencies have seen a surge in usage for illegal activities and even legal one's on the dark web. Since its increasing popularity was based on the fact that the currency is non-central and methods can be used to make transactions anonymously and without any oversight or laws in place. Bitcoin's utilization in illicit online commercial centers hawking everything from substance and drug purchases to minor and child pornography is poised to set a record this year at more than $1 billion (Kharif, 2019). The increasing trend is because dark web is mostly an unregulated domain and the use of a currency such as cryptocurrency is a perfect match to carry out illegal activities. Bitcoin used in activities at the dark web in 2017 was $872 million (Kharif, 2019). In a recent Netflix series called 'How to sell drugs online-Fast' a couple of teenagers were shown to establish a huge online drug store on the dark web and they used bitcoin as a payment method. The series was a huge hit among the masses and has effectively portrayed how easy it is to set up a drug store online and the series is not very far from reality. The teenagers used coin mixers and other methods to receive the money without catching any attention of any authorities and content such as the one mentioned above makes it very clear for people wanting to get involved in such business. It is the need of the hour to regulate cryptocurrency's use in dark web for illegal activities. A report from Rand (Research and Development), an NGO based in America, stressed on the fact that Bitcoin is being used to carry out a huge number of dark web activities (Faridi, 2020). Chainanalysis, a very famous Blockchain and cryptocurrencies analytics and cybersecurity company, reported in January 2020 that it was able to trace $2.8 billion in Bitcoin being used by criminals via cryptocurrency exchanges in the year 2019. The firm further proposed that most of the traced transactions in the report used Binance and Huobi platforms which are the two largest exchange platforms in the world. As written in the Chainanalysis report '*While exchanges have always been a popular off-ramp for illicit cryptocurrency, they've taken in a steadily growing share since the beginning of 2019. Over the course of the entire year, we traced $2.8 billion in Bitcoin that moved from criminal entities to exchanges* (THE 2020 STATE OF CRYPTO CRIME, 2020)*.'*

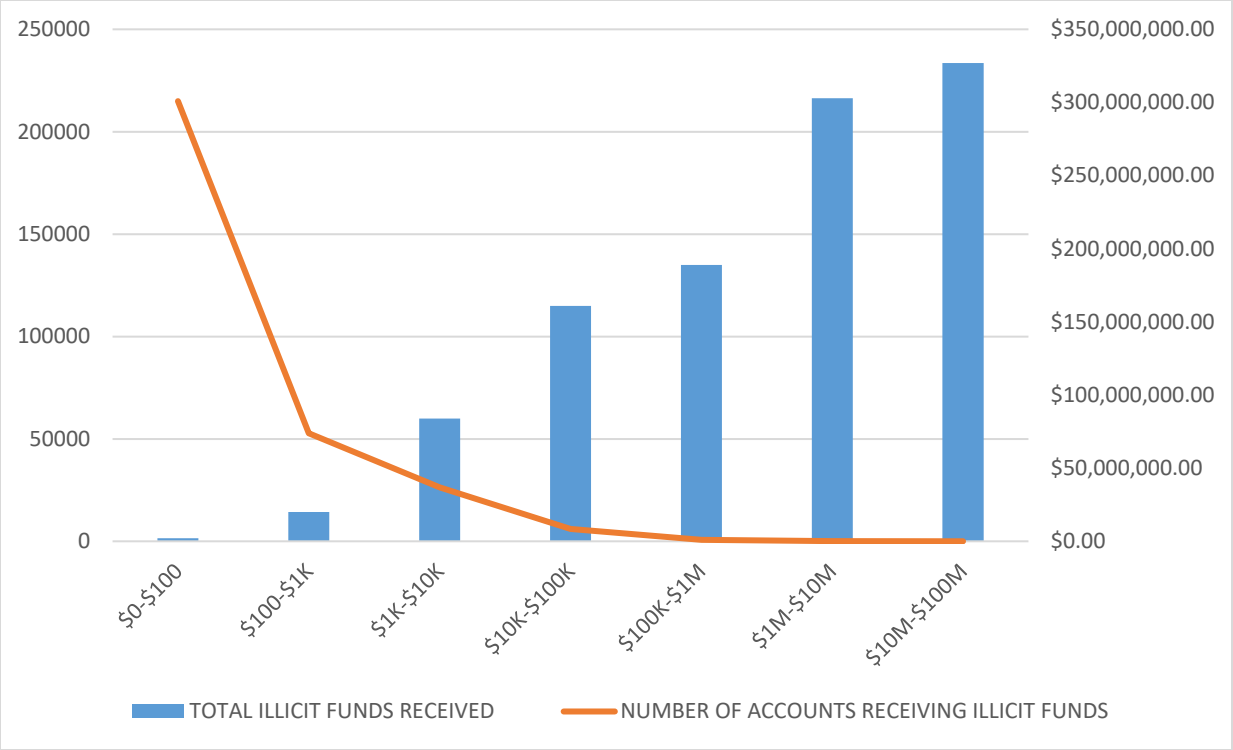


Figure 5- Illicit Bitcoins received by Binance and huobi in 2019

As can be seen from the figure 5 that it is an illustration of dealing in cryptocurrency for illegal activities from the platforms of Binance and Huobi. As is evident from the graph in figure 5 that most illicit funds received nearing $350M are from a low number of accounts dealing in large sums of money whereas the number of accounts dealing in lower amounts of money is very high. Both entities are inversely proportional to each other. The data for the above graph has been collected from Chainalysis's blog available at their website which is available publically (THE 2020 STATE OF CRYPTO CRIME, 2020). Another major use of cryptocurrencies has been money laundering. All things considered, if there were no chance to get for troublemakers actually receive the money i.e., digital currency they've gotten through illicit methods, there would be far less motivating force for them to perpetrate violations in any case if there is no end result. That would mean less occurrences influenced by wrongdoings and financial crimes and also would likewise help improve digital money's standing as the business looks to work with controllers and conventional monetary organizations and would be able to grow further and be accepted by others who are still hesitant. The law makers and governments would have to take certain measures in near future otherwise they would find themselves not collecting any taxes and everybody would be conducting their business through cryptocurrencies without any oversight and regulation. Not to mention the financial crime risk they would be putting their citizens in because as lucrative as this market is, it's also a very lucrative environment for

conducting financial frauds and scams. Special organizations and departments are needed to regulate this market place in coordination with exchanges and service providers and would have to be an international and global effort. As can be seen in figure 6, the data which was obtained from the Chainalysis report which is publically available, the data indicates that 52.2% of all illicit transactions are being carried out by Huobi and Binance. These are two of the biggest cryptocurrency exchanges in the world and this does lead to people believing that this system is only being used by criminals and is not useful for carrying out day to day transactional operations. The use of system in illegal activities has cast a very uncertain image of the system on the general masses who are left in a state of uncertainty about the credibility of the system. The following graph portrays exactly that where the 2 major crypto exchanges are unable to resolve these illicit Bitcoin transactions.

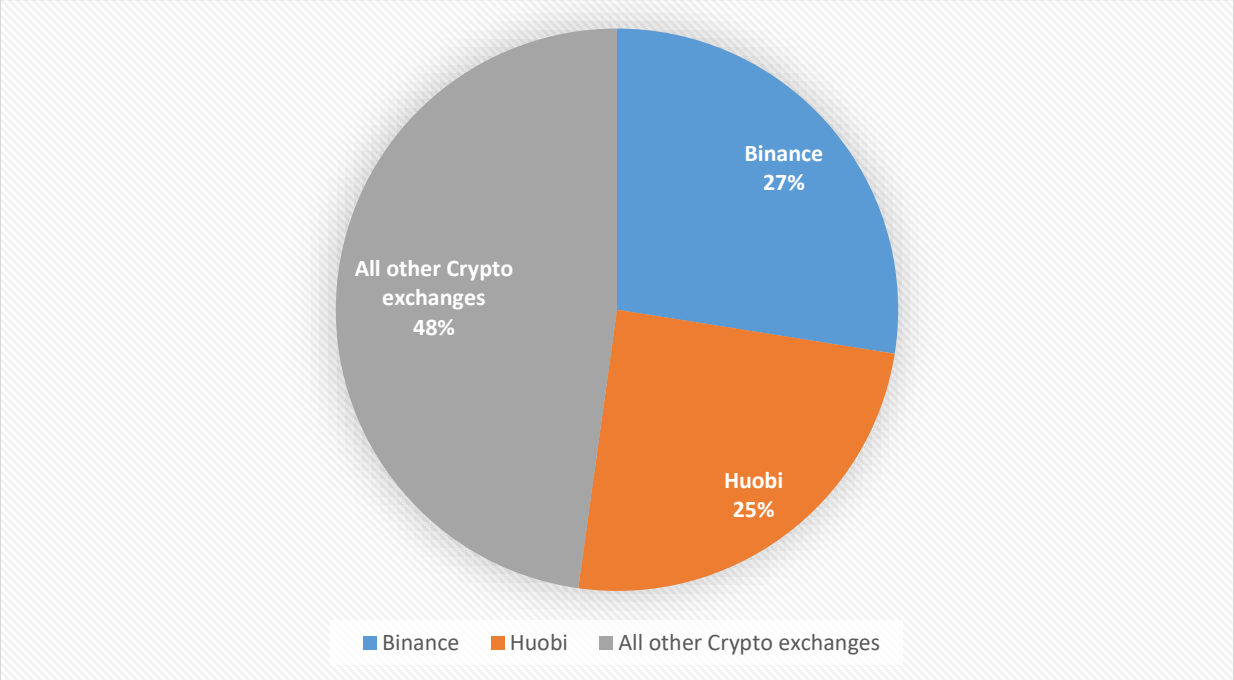


Figure 6- Exchanges receiving Illicit Bitcoins in 2019

Exchanges are also being more careful and have already started putting certain users with red flags in certain categories to observe. Specialized personnel would have to be trained to keep up with this new and innovative market which would in turn cost a lot of money and investment but all this can be regulated and hopefully it would be in near future.

2.4. CRYPTOCURRENCY-A CAREFULLY DESIGNED BUBBLE:

There are still concerns and speculation whether this whole market is a carefully designed bubble and would it burst and leaving a large number of people with a lot of lost investment. Bitcoin has seen record surge starting from November 2020 and by January 2021 it is still climbing and has gone higher than $40,000. The surge explained by experts is because of the herd mentality and as soon as people saw it rising everybody started buying Bitcoins and it would all burst very soon. Regardless of expert opinions it has seen record high values for a second continuous month and has effectively doubled in value. Predictions of a huge collapse of the market have been made by numerous financial experts. Bitcoin remains particularly unpredictable, and its exchanging is generally determined by hypothesis rather than clear basics. Some notable exchanges have experienced the bad effects of computer glitches, withdrawal blackouts, hazy working structures and dreary government and internal errors (Samson, 2020).

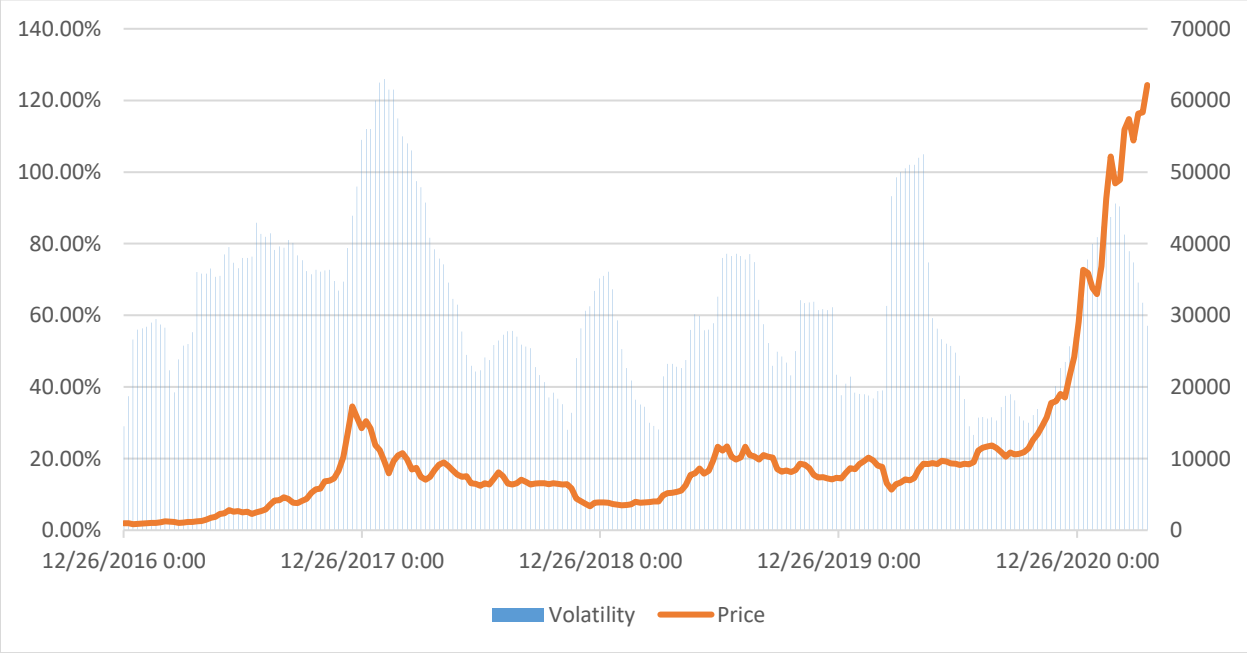


Figure 7- Bitcoin volatility graph

Bitcoin is had huge surges and downfalls and as can be seen from figure 7 the volatility hasn't always been consistent with the price of the coin (Bitcoin Volatility, n.d.). The graphical data was obtained from a popular Blockchain analysis website called into the block and is publically available. Towards the end of the graph it can also be observed that the volatility has also increased almost exponentially when the price of the coin has surged. This also contributes to public mistrust when a currency is that volatile general masses would be ever more hesitant in adopting to the system. But this market is growing and learning from glitches and considering the opposition this market has it also has a large number of supporters growing

every day who are very confident of its growth. The number of people involved is too high and if this turns out to be a bubble it would be a global catastrophe and would be much worse than any financial collapse this world has ever seen. The platforms seem determined, the exchanges and systems are improving every day and the trust of general public is also on the rise. The only way this could go down is if all this was declared illegal and governments intervened and put a halt on everything. According to general perception this is soon becoming something bigger than gold. People trust has been on the rise because of bigger corporations showing support to the platforms. PayPal, which is one of the largest money transfer services in the world has started payment and transfers in Bitcoin where it would allow users even to buy, sell or keep Bitcoin's in their PayPal wallets. Other big scale companies have also been investing but the biggest of them all are huge hedge funds who are optimistic and planning to back cryptocurrencies in the coming year. Gold's price is not derived from its practical or ornamental use as jewelry, it's calculated from its scarcity because it is hard to mine and not readily available. Bitcoin is scarcer, more durable and has a growing reputation as a store of value. It also can't be counterfeited, is easier to store, is easier to transfer, is infinitely divisible, and has an asymmetric risk profile. There is no way to tell if all this is a bubble and from public survey one can tell that it does not seem to be one. The only way it goes down is if it is outlawed and banned. Research assessment also suggests that if Bitcoin ever prevails with regards to its development as a a conventional medium of currency, it would essentially get banned, for the basic reasons that lawmakers and national banks should have control of the cash utilized in the economy to oversee financial sector. Even if it is made illegal the technology still exists and would move to a more black market usage, experts also say illegalizing something only makes it more interesting and desirable and often compare it to drugs. Something cannot be eradicated by making it illegal. Even if the governments try to illegalize it would be a very oppressing move in this modern world which is considered a free society. Cryptocurrencies deal in a market which is dependent upon the laws of the network impact. It would greatly affect the numbers if these two exchanges start exercising more cautions. Busy organizations are amazingly important, while calm organizations are useless. Much the same as gold, or undoubtedly some other resource, venture inflows will drive the cost higher for the time being, yet that by itself won't support it over the more extended term (Morris, 2020). For Bitcoin to make long haul esteem, the organization needs to develop more.

2.5. HACKING AND SECURITY:

Cryptocurrencies generally claim to be impossible to hack because the legers are placed in the network and one or two devices can be hacked but not the whole network because every machine must have the same copy of the ledger in the Blockchain. Quite possibly one of the most noticeable features for cryptocurrency is that it offers a safer method of completing monetary exchanges in a computerized world where

cybercrime is widespread whereas the other conventional money is still in control of others but here no one is in charge and the system is decentralized. The digital currency market has become a thing of the future and boasts exciting new prospects making it very significant for it to be as secure as they claim and offer it to be. That is generally a direct result of the decentralized idea of the whole process based on Blockchain that is implied for every single transaction made and none of them get overlooked. Hence forth this makes it incomprehensible and almost impossible for a solitary individual to meddle in any form of illegal manipulation of data. Furthermore, it is of great importance to note that cryptocurrency transaction don't involve any of your personal and sensitive data, they only operate on wallet numbers which is completely opposite to conventional banking systems where you have to provide every last bit of your personal data in order to get your identity verified. There is no doubt that both of these things, Blockchain and privacy, are valid and that they can possibly make digital money exchanges safer. All sorts of transactions and payments of any exchange of almost all major cryptocurrencies are put away in specialized blocks of highly encrypted data in Blockchain, the encryption used is highly complex and it is quite impossible to decrypt. While assessing the security of Blockchain information, note that all the data on these blocks is timestamped and stored as hash functions. In view of this it is practically inconceivable for any criminal indulging in digital crime to change or overwrite Blockchain information because the biggest advantage is that there is no central server where all this information is stored, hackers attach a single server but they cannot attack virtually thousands of machines at the same time because every computer must have the same copy of the ledger. Any progressions and changes in the Blockchain that occur because of new exchanges are automatically shipped off to completely approved Blockchain users, this adds an extra layer of security. A lot of other companies and banks especially have started using Blockchain as a more secure feature to store sensitive data. But there is a weak link in all of this as well, big crypto exchanges are like a fortress and impossible to penetrate but the new exchanges are vulnerable if they don't follow the exact security protocols, there have been incidents where hackers have hacked exchanges because of security negligence. The solution as proposed by experts is that there should be universal guidelines for all involved exchanges. Bitfinex a major exchange based out of Hong Kong was the target of one such attack and 120,000 BTC were stolen which in 2020 accumulate to more than 4 billion USD. While the Blockchain themselves are generally protected from hacking, you actually need to go on the Internet to purchase and sell the digital currency. The internet connection itself can be hacked. Hackers can look for traffic to and from these crypto exchanges if you don't have a secure connection. One of the most common ways of doing this is creating public internet hotspots where people unknowingly connect to an unsecure internet connection which could be provided by the hacker and unknowingly provide them with the data necessary for hacking your crypto wallets. After going on the internet, the user would also need to interface their bank or input credit card data to buy or sell cryptocurrency from an exchange, this also put's user's financial data at risk. Most of

the cryptocurrency exchanges are now utilizing a two-factor verification measure yet even that isn't entirely impossible to hack but it does provide an extra layer of security. Even after buying your coins securely the next step is to keep them safe and crypto exchanges have been infiltrated in the past by hackers. The user has to be careful in this regard there are options where you could store your coins offline or even in a computer flash drive and keep in safe of the internet because no matter how complex and secure something is it can still be cracked, conventional banks can be robbed, cash can be stolen but the crypto technology provides a very assuring sense of security for the coming future.

2.6. CRYPTOCURRENCIES AND OIL PRICING:

It is hard to imagine a correlation between cryptocurrencies and crude oil pricing but there exist some level of affects that are observed when crypto prices surge or plunge because cryptocurrency markets are also perceived as commodities like oil or gold for example. In March 2020 the cryptocurrencies took a nose dive and lost valuation of around $26 Billion soon after the crude oil prices went down by 30% in less than 24 hours. The link is both bidirectional and unidirectional spill overs from the crude oil market (Okorie & Lin, 2020). A detailed research was carried out by David Iheke Okorie & Boqiang Lin studied in depth the relation between the two commodities and have proven that a connection indeed does exist. This is because crypto is also being treated as sort of a commodity now and whenever there are ups and down among one commodity shocks are likely to be felt by the rest as well. The study mentioned above used the data from top 5 performing cryptocurrencies and bottom 5 least performing cryptocurrencies along crude oil prices. They were able to conclude that Bitcoin prices can be significantly predicted to some extent based on crude oil fluctuations. Moreover, their study shows that while the cryptocurrencies are mostly considered as investment options like commodities such as gold but they are not connected to other investment options like bonds and equities (Okorie & Lin, 2020). Crypto prices can also be linked to other major commodities like Gold. One major factor here in electricity consumption and since crypto mining is a complex process and does require a significant amount of energy and energy still is mostly generated by fossil fuels in most parts of the world hence the correlation is somewhat explained to some extent here as well. Therefore it should be part of risk assessment when investors are considering investing in this commodity. This could help investors in determining their investing policies in the cryptocurrency markets given they have some sort of correlation to another commodity to help analyze the risks to an extent.

2.7. SECTION-2 SUMMARY:

In section 2 we have discussed the pros and cons of the system using literature review to answer our research question i.e. 'What is the general perception of Europeans about Cryptocurrencies?'. Due to its de-centralized nature and absence of middle man it does provide a good argument to safely carry out transactions without the involvement of any governing system keeping an eye on the whole process but

also means more governments or banks don't take any responsibility in case of a collapse of value and market and there is no one to help out the affected or to take the blame hence it reflects a weakness in the system which in turn rejects the hypothesis because people will not believe a system where there are not sure and hence won't adapt to it because as explained an earlier heading that all this does appear to be a bubble. Even though the creators didn't intend for it to be one but forcing government laws and governance would disrupt the whole market and could cause a major collapse because the European Union cannot afford to adapt to a monetary system where they cannot track transactions to charge taxes, track down illegal activities and avoid people from getting scammed. If Europe does adapt to this system it would result in huge losses in terms of money and tax collection and would facilitate more illegal activities. Hence as learned in one of the headings regarding government intervention it was learned that several proposals have been taken under consideration by law makers to hinder or govern the process in a way that would affect overall cryptocurrency market growth which would in turn make it harder for the general masses in Europe to adapt to the system. As learned from the heading regarding financial crimes and use in illegal activities it was learned that this form of currency has made dealing drugs and paying for other illegal services over the dark web considerably easier and there are tools present to make your transactions untraceable. This also won't be allowed to go on for long and measures would be put into place to halt this practice. In the heading regarding cryptocurrency's relation to oil by consulting to an already present study we gather that cryptocurrencies are indeed being treated as a commodity rather than as a currency and hence pose no threat to the Euro because considerable correlation was found between the cryptocurrency market serving as a spillover from the oil industry. Summarizing the above mentioned points the few pros of adopting to the system are outweighed by the large number of issues at adopting to this system would inflict in Europe and there is no considerable speculation of the Euro losing its strength. Hence we can say that the system is not secure enough to earn the trust of general masses for adoption as an alternative to conventional currency because it not secure enough and there is still speculation of it being an economic bubble and is mostly being treated as an investment opportunity and a commodity like oil.

3. SURVEY

3.1. DATA SOURCE:

The data required in order to assess the research question was gathered using a survey from people living in Europe which I conducted using Google forms and was able to get 250 responses.

3.2. SURVEY:

The sample size was 250 people and it asked general questions about their understanding of the market and how college students perceive the system and whether they would adopt to it. It is observed from figure 8 that around 24.3% of the people in my survey have not even heard of Cryptocurrencies yet.

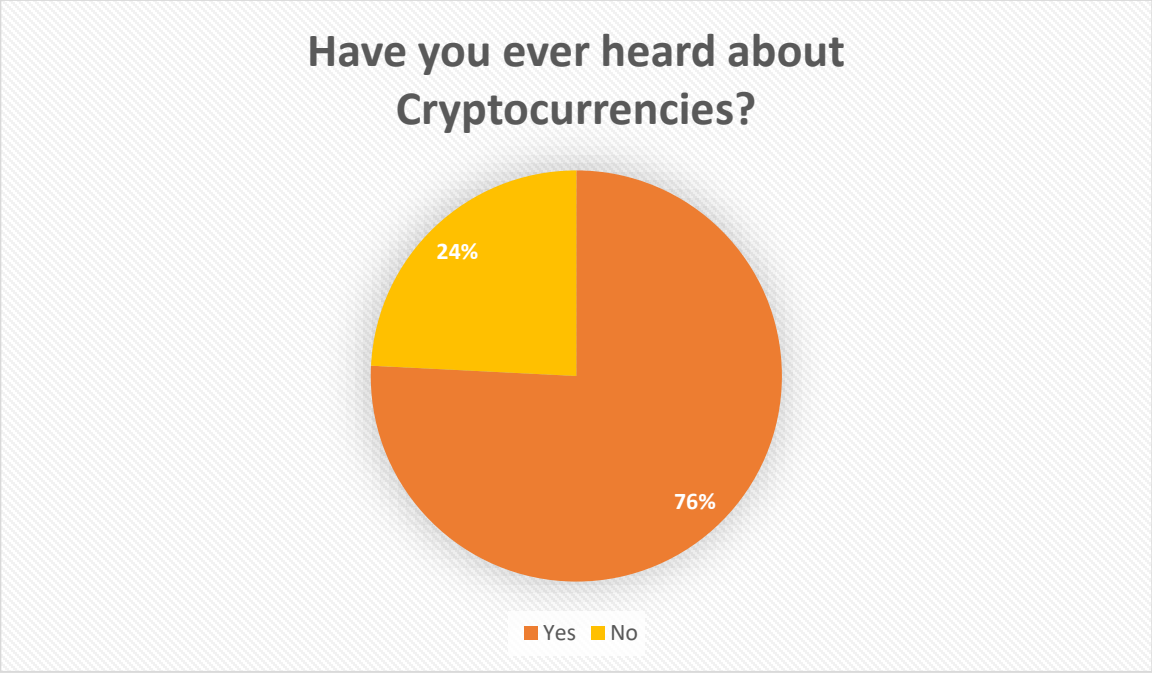


Figure 8- Survey results

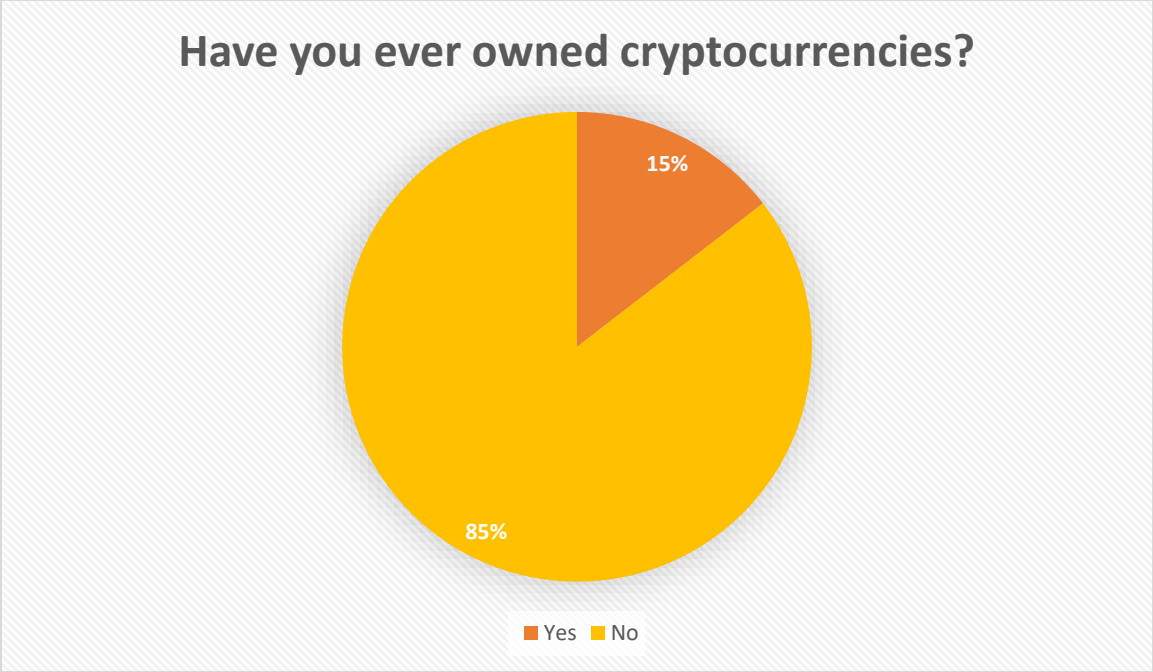


Figure 9- Survey results

Furthermore in figure 9 it can be seen that only 15% people in the survey have owned cryptocurrencies. In figure 10 we can see that around 41% plan on buying cryptocurrency in near future.

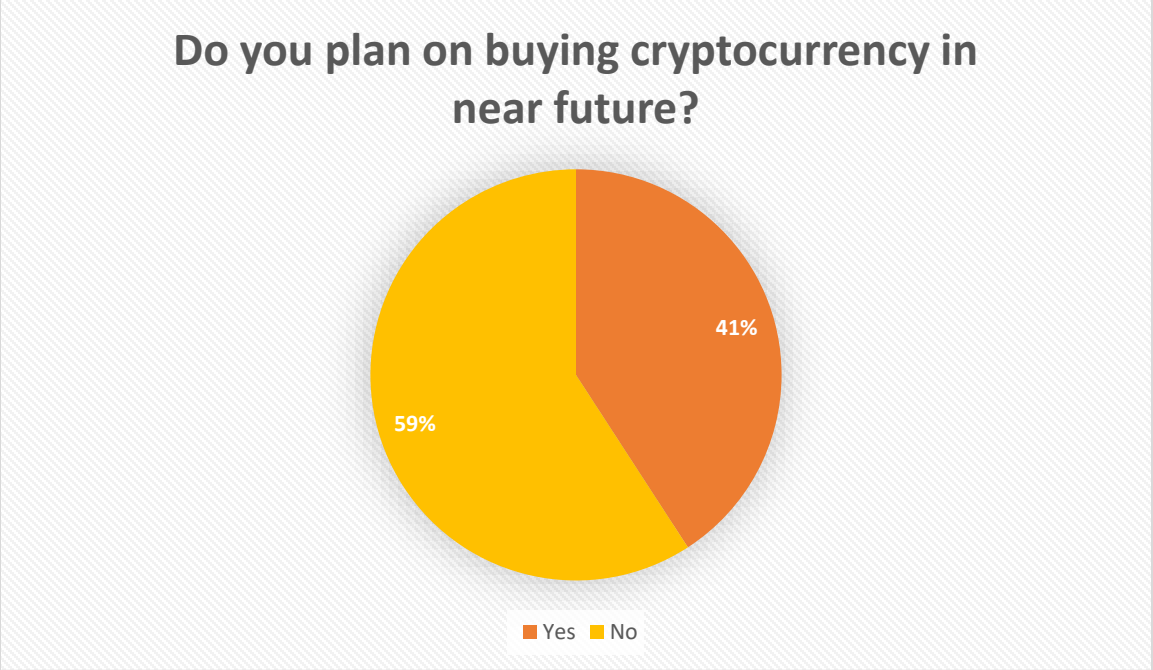


Figure 10- Survey results

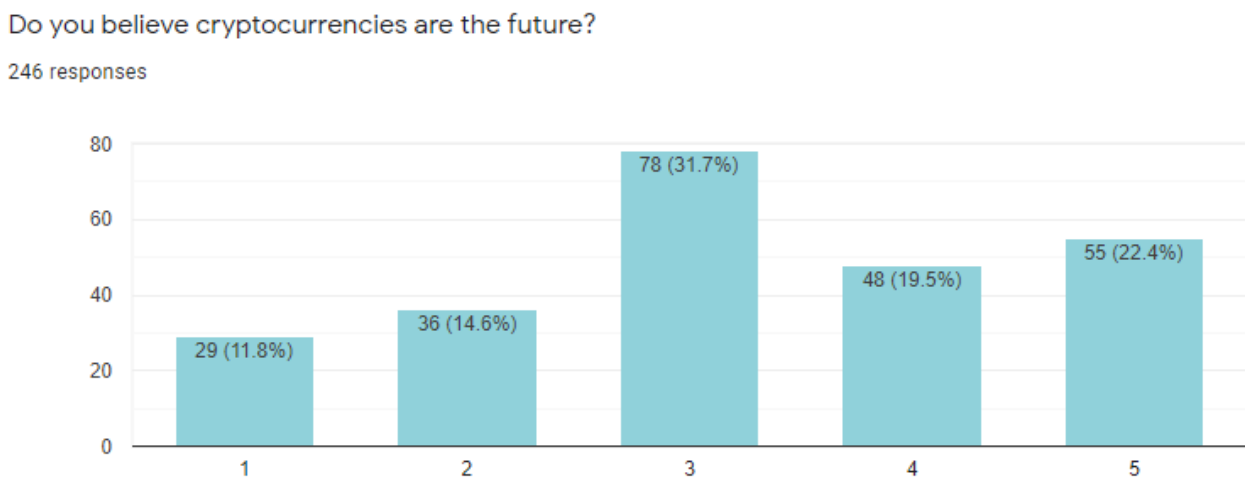


Figure 11- Survey results

The figure 11 was rated from 1 to 5 which was labelled and interpreted as follows:

1- Strongly disagree (11.8%)
2- Disagree (14.6%)
3- No Opinion (31.7%)
4- Agree (19.5%)
5- Strongly Agree (22.4%)

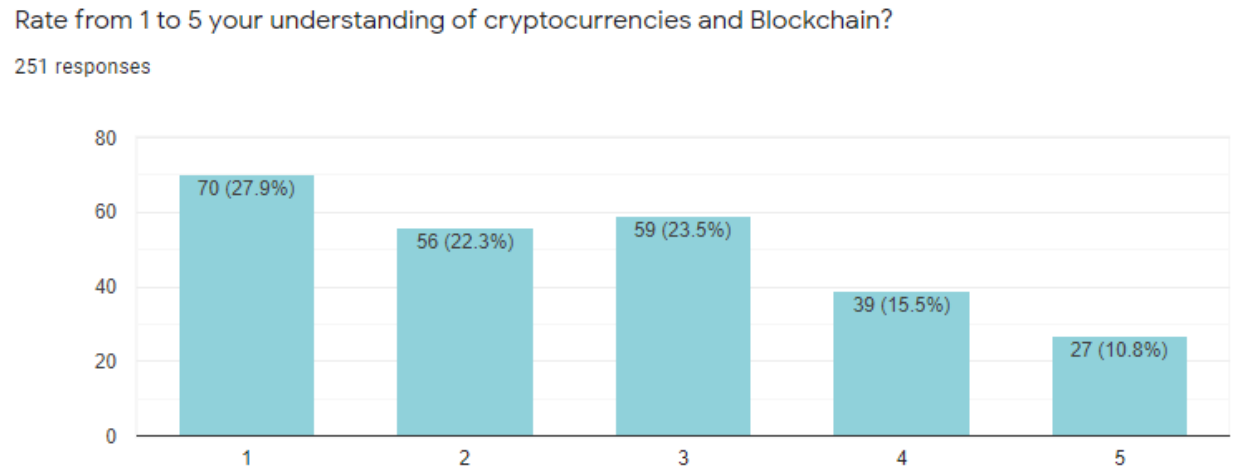


Figure 12- Survey results

The figure 12 was rated from 1 to 5 which was labelled and interpreted as follows:

1- I know nothing (27.9%)
2- I have very little knowledge (22.3%)
3- I have a moderate amount of knowledge (23.5%)
4- I have a good amount of knowledge (15.5%)
5- I am an expert (10.8%)

The figure 13 was rated from 1 to 5 which was labelled and interpreted as follows:

6- Very Unsafe (16.9%)
7- Unsafe (17.7%)
8- Don’t know if it is safe or not (38.7%)
9- Safe (14.1%)
10- Very Safe (12.5 %)

The figure 14 was rated from 1 to 5 which was labelled and interpreted as follows:

1- Strongly disagree (15.3%)
2- Disagree (19.8%)
3- No Opinion (34.3%)
4- Agree (16.9%)
5- Strongly Agree (13.7%)

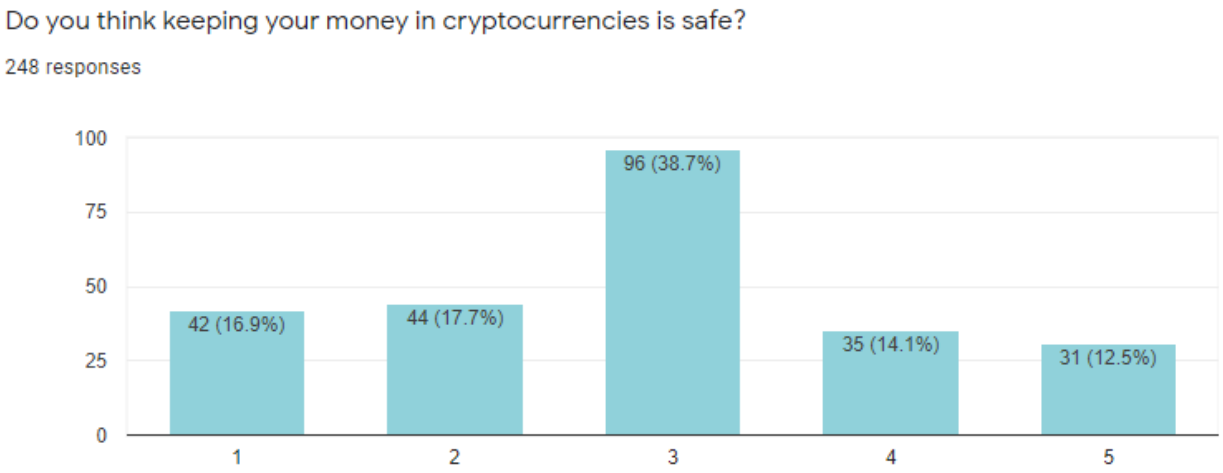


Figure 13- Survey results

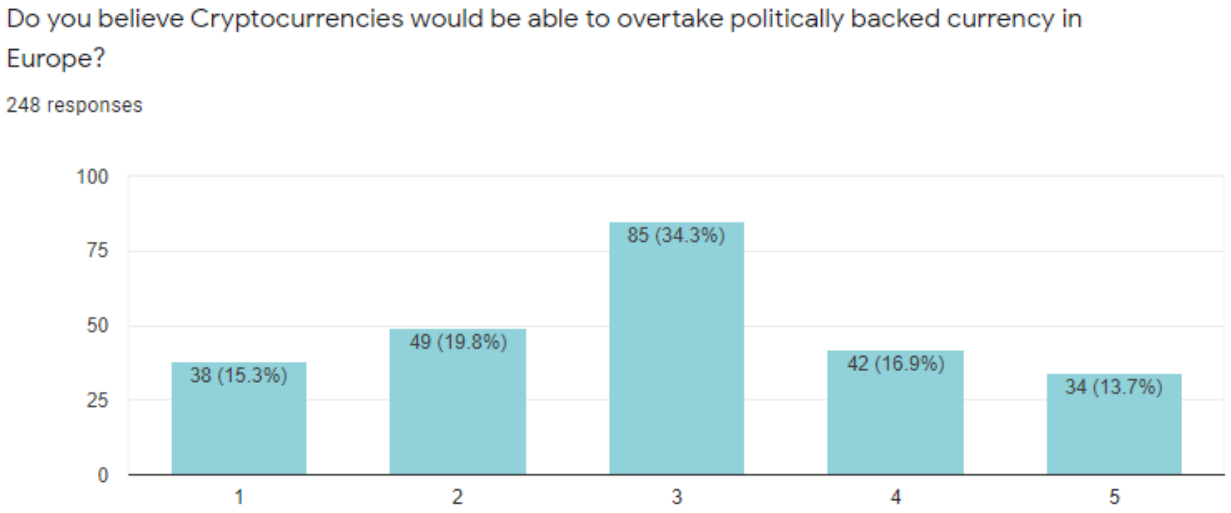


Figure 14- Survey results

The following chart in figure 15 shows that the majority of the people who participated in the survey are between 20 to 40 years of age.

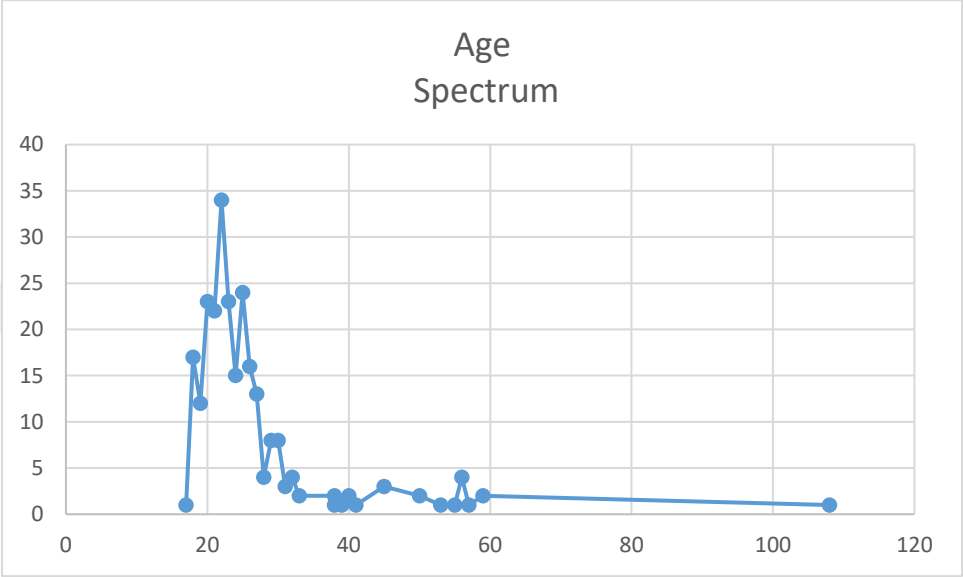


Figure 15- Survey results

4. CONCLUSION:

The literature review concludes that Cryptocurrencies have an advantage for being decentralized and it is basic selling point for people who don't want a third man or governing party involved while doing their monetary transactions. Because of the immense growth of this market Europe was one of the first in the world to legalize the use of cryptocurrencies but it still remains highly ungoverned and is prone to cyber-attacks and as a result general population is very hesitant to adopt to the system. There is significant proof of cryptocurrencies being used on the dark web for illegal activities. There is proof of spill overs from the oil industry and the surges are both uni-directional and bi-directional, which leads to the conclusion that the system is being used as a commodity for investment rather than an alternative for daily monetary transactions. There is still speculation that cryptocurrency is a carefully designed bubble and that is one the reasons it has failed to gain public trust. Europe is going to introduce a bunch of new laws in the coming years in pursuit of governing and streamlining the use of Cryptocurrencies in the region which could prove helpful in securing it for public but would also hinder its growth as an alternative to traditional currency and hence the masses are forced to believe that the laws are going to restrict the use which has caused further hesitation in adoption to the system. Major cryptocurrencies are highly volatile and have huge standard deviation. Despite the volatility they are growing and have managed to establish a huge industry in terms of market capital. This is explained by considering crypto as a commodity like gold. People have started treating crypto as a means of investment rather than a currency for daily use. Huge companies and investments have been pouring in the industry and afterwards liquidating coins for profits. The Euro seems completely independent and unchanged by anything that goes on in the cryptocurrency market. The Crypto market has seen huge surges and huge downfalls but during all this time Euro has stayed one of the most stable currencies in the world and has a standard deviation nearing zero. Henceforth it can be said that the Euro is not affected by anything that happens in the cryptocurrency market. The Survey that was carried out proves that college students do believe to some extent that it could be the currency of the future but 38.7% of the people strongly disagree that it would be able to replace the Euro, 37.8% people had no opinion whereas only 25.5% people thought that it could replace the Euro when the majority of the target group was between 20 to 30 years old. Hence it can be concluded that the perception of college students in Europe is that this could be a used as a commodity because of uncertainty about the system and general lack of trust in the system. Public survey also supports the literature review and furthermore also highlights key problems in the system. Even if Crypto could ever pose any sort of threat to politically backed currency in Europe than new laws would be made and it would be made illegal because the governments cannot let a currency being used in the country which they cannot control or regulate. Hence the whole system is being perceived as a commodity and an investment tool.

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6. APPENDIX

SURVERY QUESTIONAIRE:

1. Have you ever heard about cryptocurrencies?
   - Yes
   - No
2. Do you plan on buying cryptocurrency in near future?
   - Yes
   - No
3. Have you ever owned cryptocurrencies?
   - Yes
   - No
4. Rate from 1 to 5 your understanding of cryptocurrencies and Blockchain?

1 = I know nothing 5 = I have sufficient knowledge

5. Do you believe cryptocurrencies are the future?
   - Strongly Disagree
   - Disagree
   - Neutral
   - Agree
   - Strongly Agree
6. Do you believe Cryptocurrencies would be able to overtake politically backed currency in Europe?
   - Strongly Disagree
   - Disagree
   - Neutral
   - Agree
   - Strongly Agree
7. Do you think keeping your money in cryptocurrencies is safe?
   - Very Unsafe
   - Unsafe
   - Neutral
   - Safe
   - Very Safe

8. Full Name:
9. Age: