

REVIEW PAPER ON CRYPTOCURRENCIES

Secure Software Development 2019

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1 INTRODUCTION

1.1 WHAT IS CRYPTOCURRENCY?



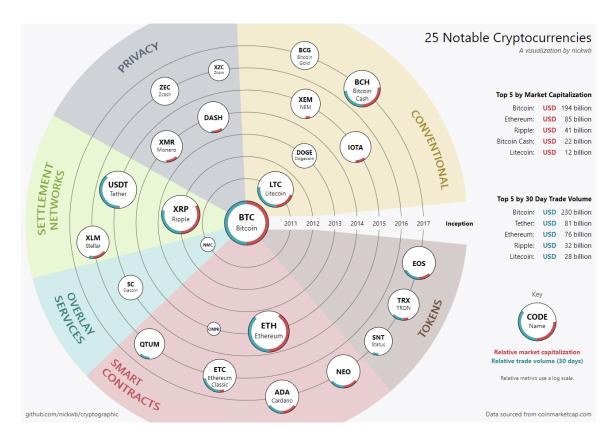
Cryptocurrency is a digital or virtual currency that uses cryptography for security. Cryptocurrency is difficult to counterfeit due to security feature. Many crypto currencies are decentralized systems based on block chain technology - a managed ledger implemented by a diverse computer network. One characteristic of cryptocurrency, and perhaps its greatest attraction, is its organic nature; it has not been released by any central authority providing theoretical immunity against government interference or manipulation. The first block chain-based cryptocurrency was Bit coin, which is still the most popular and most valuable. Today, there are thousands of alternative crypto currencies with different features or specifications. Some are Bit coin clones, while others are forks or new crypto currencies that separate from existing ones.

There are several types of crypto currencies in the present world. This digital coin system is popular for large type of transactions.

- Bitcoin (BTC)
- Litecoin (LTC)
- Ethereum (ETH)
- Ripple (XRP)
- Cardano (ADA)

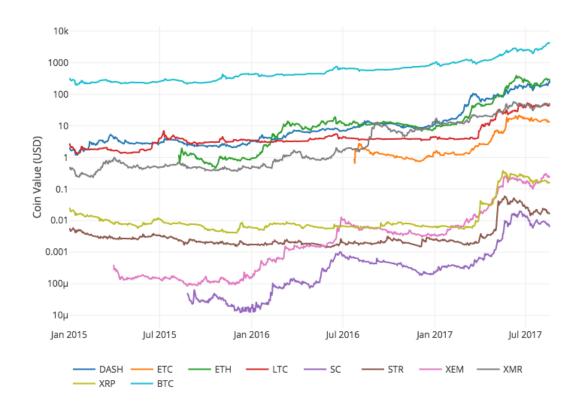
- Bitcoin Cash (BCH)
- Dash (DASH)

Above are the main crypto currencies in the present world. Bitcoin is the most popular crypto currency in the present world. Ripple, also known as XRP, was one of the best performing cryptocurrencies in the world.



Above diagram shows the results of comparing the most famous twenty-five cryptocurrencies in 2018. According to the Jeff desjardins's summarization article, Bitcoin, Ethereum, Ripple, Bitcoin Cash, Lite coin are the top 5 market capitalization currencies in 2018.





Above diagram shows cryptocurrencies price in USD according to twice per year. Bitcoin (BTC) take the highest value according to the graph. SC takes the lowest value in 2015 to 2017.

2 LITERATURE REVIEW

In step with Trotman (2014), crypto currencies are a subset of digital currencies, both of which may also have centralized institutions or are fully based on a decentralized community (Trotman 2014). Bryans (2014) has the idea that for a centralized forex scheme, virtual currency is issued through a single organization that ensures that digital coins can be exchanged back into Fiat currencies or used to buy and promote virtual items. One example of this centralized virtual foreign money is Linden Greenback, published by Linden Lab, which can be used in an online virtual international lifestyle. It has some features with Fiat currencies. As with the regular treasury system, an important institution serves as a source of faith.

However, in step with Maelstrom (2014), decentralized forex schemes try to avoid central institutions as much as possible and are built on a network of counterparties, as long as counterparties can look at each different, they are able to formulate acceptance as true based entirely on their behavior. Where reporting to counterparties is not possible, different mechanisms need to be found to establish reliable transactions. One solution is crypto currencies, which are decentralized forex schemes based mainly on cryptography.

According to Bryans (2014), crypto currency is a virtual token created using cryptographic algorithms. This token is then transported across our online world using protocols with peer-to-peer networks. Its value comes in particular from the demand for and supply of such tokens, and a critical part of their appeal lies in the decentralization of the machine in which they exist. The common crypto currency discourse has led to various stages of innovation aid, which some regulators strongly discouraged, along with the views of the economic generation public on the inevitable use of crypto currencies (Bryans, 2014). The key benefits, as Harvey (2015) states, include security features, ease of use in mobile gadgets, reasonably priced production and transfer costs via block chain transmission protocol, and low long-term inflation risk. Global monetary organizations, including Citibank, are increasing their personal crypto currency, given the perceived benefits of using the above protocols (Madre, 2015).

Harvey (2015) also stated that the main problems with adopting crypto currencies are early song documenting of illiquidity, high volatility and potentially unclear usage. Harvey (2015)

went on to mention the maximum problems associated with the positive introduction of crypto currencies, confusing as to whether they are virtual or digital and how their values are decided. Virtual currencies have spread throughout the world. They consist of Facebook credits, Microsoft Points and Amazon Money. Harvey (2015) mentioned that, unlike Bit coins, as mentioned earlier, these currencies are issued through groups and are not linked to any claims on actual assets. If a large employer, such as Facebook, is spending foreign money to compete with traditional currencies, the outcome of the community must ensure that foreign money is absorbed fairly quickly through community members. Moreover, Wagner (2014) explained that the value and spread of digital currencies are usually controlled by a central authority, usually an issuing agency, and are used to fully facilitate online purchases. Crypto currencies are closer in form to physical currencies because they are used as a body for trading assets. Ironically, Harvey (2015) argues that the amount of money in today's world is mostly in digital form and can thus be considered as crypto currency.

Any other region of convincing argument has been about whether crypto currencies should be considered currencies or virtual assets. Given the above definition, it can be expected that the token will be treated as forex, while Glaser et al. (2014) also indicate that crypto currency users are not interested in the trading system, but are looking for an opportunity to participate in an investment car.

Draw Baugh and Temple-West (2014) mentioned that crypto currency is viewed by the US domestic revenue provider as virtual foreign money and should therefore be taken into account as an asset. Such property, under US economic rules, is primarily a problem with capital asset taxes. Other early implementation jurisdictions that include Norway, Sweden and Canada additionally understand crypto currencies as assets. However, Germany, which is also a very early adopter, recognizes crypto currencies as a unit of account used for buying and selling and taxing in the country, but in the form of "personal money" (Clinch, 2013). There is basically no international consensus on how nice it is to define crypto currencies as assets or currencies. These topics are addressed in the parameters of each jurisdiction and their ability to change it.

Given this kind of rapid take-off, Gams and Halberd (2013) look at the need for law and oversight of these crypto currencies. The authors claim that the maximum of these crypto currencies issued through groups are mostly subsidies to customers on a network or platform,

as well as Amazon cash and Kindle. Any such machine is also cheaper for the company, as these currencies would have to be spent on objects on a platform such as Amazon, rather than on some outdoor goods or services. Crypto currencies that are no longer tied to a selected platform, such as Bit coin, Gams, and Halberd (2013), note that these currencies can affect charging stability, economic and payment stability. Therefore, additional regulation may be needed.

3 OVERVIEW OF CRYPTOCURRENCY

3.1 HOW TO SEE CRYPTOCURRENCIES?

If we have our wallet under your digital key and key, we can "send" people digital assets. To do this, most people tend to use online arches, such as those provided by Coin base. The process is very similar to traditional online services: we only enter the amount of money we want to send and the company we want to pay.

Some sellers accept crypto currencies. Microsoft will allow us to add Bit coin to your online account, for example through your digital wallet. And there is a growing list of things we can buy in cryptocurrency, including everything from fine art to real estate. In many cases, accepting cryptocurrency payments is more of a marketing than a financial activity, but it can provide cryptocurrency tokens with greater stability.

All in all, we must remember that most outlets that accept cryptocurrency also impose significant restrictions on it. First of all, most accept only crypto currencies, Bit coin and Ethereal. Second, we may not be able to use the credits for each service. For example, Microsoft will allow us to use Bit coin to buy games, movies, and apps in the Windows and Xbox stores - but we can't use it in the Microsoft online store or buy gift cards here.

3.2 ARE THERE ANY FEATURES?

Of course it is! Most independent and startup exchanges buy and sell crypto currencies, for which we also charge certain types of service fees. And like real stockbrokers, they let us in and out whenever we buy or sell money. Fees are usually a percentage of the total contribution or payment. However, while we pay 1.5 percent of the total, this is less than some traditional services. For example, PayPal usually pays closer to 3 percent.

3.3 HOW SECURE CRYPTO CURRENCIES?

It depends on your point of view. It is true that using crypto currencies block chain technology will ensure that transactions are properly recorded and very difficult to break. Block chain software is basically a decentralized ledger that does not have a single person or authority, as all transactions are kept in multiple nodes that offer redundancy and are very onerous for any user.

However, if a cryptocurrency token is stolen from a digital wallet, in most cases it means that the money is gone and not reliable. In addition, some vaults have been broken at several, again leaving customers without a downturn, as the fund is not guaranteed or guaranteed by any government agency (as opposed to traditional US bank accounts covered by FDIC up to \$200,000). More than a billion dollars were stolen from cryptocurrency exchanges last year.

3.4 NEED TO ACCEPT IT CRIMINAL?

Historically, cryptocurrency has been a land of criminal and digital speculators, possibly attracted by how easily Bit coin can be traded online without compromising anonymity. Not surprisingly, people who sell stolen data and drugs on the dark web are big early adopters of cryptocurrency. However, in recent years, it has gained legitimacy through the flexibility to transfer digital money online without any form of banking. It has also benefited countries such as Venezuela, where the local currency is volatile and exposed to wild fluctuations in inflation. In these situations, cryptocurrency may offer some protection against political unrest.

3.5 IS THIS BETTER THAN OTHER ONLINE PAYMENT SERVICES?

In a word, no. The main problem with all crypto currencies is the unpredictable fluctuations in their value. Because we advocate for a special digital face value, we can lose (or gain) money before we use it to buy or unload something. The traditional currency (known as cryptocurrency fiat currency) tends to be more stable due to the support of governments and a larger network of global trading markets.

3.6 WANT A BIG OFFER?

Yes, and no. The 2017 speculation bubbles on the world's most popular cryptocurrency - Bit coin - have exploded - but Bit coin is widely used. People trade in Bit coin equivalent of up to \$ 800 million a day. This may seem like a lot, but it's less than half of what traditional PayPal does every day.

However, it is gaining popularity as a category of money, mainly because private companies are seeing huge marketing potential when launching their own crypto currencies - and another source of revenue (see ICO below).

4 CONCLUSION

A cryptocurrency is a digital currency that is created and managed through the use of advanced encryption techniques known as cryptography. Cryptocurrency made the leap from being an academic concept to (virtual) reality with the creation of Bitcoin in 2009. Present world this type of digital currencies are used by billions of figures. Actually these cryptocurrencies are highly secured and very easy to access and do transactions. Bitcoin is the most expensive and highly recommended cryptocurrency in the present world. Using cryptocurrency will increase the efficiency of digital marketing and it will very easy to handle for transactions.

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