



CRYPTO CURRENCY

Information Technology

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ABSTRACT

In today's unpredictable world, change is the norm wherein everything is volatile, uncertain and complex with a dash of ambiguity. Hence, it is pertinent for business organizations to adapt to the changes and be abreast with the latest innovations. These innovations can be in the form of changing marketing tactics or alternative payment methods. We are at the threshold of the next big thing in financial markets, the crypto-currency. **Crypto-currency**, an encrypted, peer-to-peer network for facilitating digital barter, is a technology developed eight years ago. **Bitcoin**, the first and most popular crypto currency, is paving the way as a disruptive technology to long standing and unchanged financial payment systems that have been in place for many decades. While crypto currencies are not likely to replace traditional fiat currency, they could change the way internet-connected global markets interact with each other, clearing away barriers surrounding normative national currencies and exchange rates.

KEYWORDS

barter system, cryptocurrency, cryptowallet ,bitcoin,decentralized

OBJECTIVE:

- The main objective is to understand the usage of cryptocurrency and its benefits.
- To understand the risk involved in the usage of cryptocurrencies .
- To know about the bitcoin.

INTRODUCTION:

Starting from barter system, to coins to paper currency, we have reached an era where we are talking about cashless transactions. Digital payment system is a way of making transaction or paying for goods and services through an electronic medium without the use of cheque or cash. It makes the payment easier and saves time.

In all these digital payment tools, there is another one called crypto currency which is slowly but steadily taking the news headlines.

Crypto Definition

1.Digital: Cryptocurrency only exists on computers. There are no coins and no notes. There are no reserves for crypto in Fort Knox or the Bank of England!

2.Decentralized: Cryptocurrencies don't have a central computer or server. They are distributed across a network of (typically) thousands of computers. Networks without a central server are called decentralized networks.

3.Peer-to-Peer: Cryptocurrencies are passed from person to person online. Users don't deal with each other through banks, PayPal or Facebook. They deal with each other directly. Banks, PayPal and Facebook are all *trusted third parties*. There are no trusted third parties in cryptocurrency! *photos!Pseudonymous:* This means that you don't have to give any personal information to own and use cryptocurrency. There are no rules about who can own or use cryptocurrencies. It's like posting on a website like 4chan.

4.Trustless: No trusted third parties means that users don't have to trust the system for it to work. Users are in complete control of their money and information at all times.

5.Encrypted: Each user has special codes that stop their information from being accessed by other users. This is called cryptography and it's nearly impossible to hack. It's also where the *crypto* part of the crypto definition comes from. Crypto means hidden. When information is hidden with cryptography, it is *encrypted*.

6.Global: Countries have their own currencies called fiat currencies. Sending fiat currencies around the world is difficult. Cryptocurrencies can be sent all over the world easily. Cryptocurrencies are currencies without borders!

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. Cryptocurrencies use decentralized control as opposed to centralized digital currency and central banking systems. **There are approximately 2322 crypto currencies being traded with a total market capitalization of \$348 billion as of July 9th 2019.**

Usage of Crypto currencies:

Crypto currencies isn't like using fiat currency. You can't hold crypto currency in your hand and you can't open a crypto currency account. Crypto currency only exists on the block chain. Users access their crypto currency using codes called *public* and *private keys*.

It's a bit like sending emails. If you want someone to send you an email, you tell them your email address. Well, if you want someone to send you crypto currency, you tell them your public key.

Now, if you want to read your emails or send an email, you need to enter your email password. This is how private keys work. Private keys are like passwords for crypto currency. Public keys can be seen by anyone, but private keys should only be seen by you. If there is one paramount detail you should learn from this *What is Crypto currency* guide, it's that keeping your private keys safe is extremely important!

Private and public keys are kept in *wallets*. Crypto wallets can be online, offline, software, hardware or even paper. Some can be downloaded for free or are hosted by websites. Others are more expensive. For example, hardware wallets can cost around a hundred US Dollars. You should use several different kinds of wallets when you use crypto currency.

Whoever has the private and public keys owns the cryptocurrency.

Advantages:

- Easy to use
- Low operation cost
- Fast transaction
- Transparency
- Highly secured

Disadvantages:

- Strong volatility
- Not accepted widely
- Not able to reverse the payment

Top 10 cryptocurrencies:

Cryptocurrency Name (Code)	Current Price in U.S. Dollars	Market Capitalization
Bitcoin(BTC)	\$8,313.40	\$139.57 billion
Ethereum(ETH)	\$607.14	\$59.34 billion
Ripple(XRP)	\$0.67	\$26.58 billion
Bitcoin Cash(BCH)	\$926.25	\$15.69 billion
Litecoin(LTC)	\$163.03	\$9.00 billion
Cardano(ADA)	\$0.18	\$4.70 billion

NEO(NEO)	\$69.74	\$4.47 billion
Stellar(XLM)	\$0.23	\$4.30 billion
EOS (EOS)	\$5.15	\$3.76 billion
Monero (XMR)	\$213.66	\$3.37 billion

The Story of Bitcoin

No one knows who Satoshi Nakamoto is. It could be a man, a woman or even a group of people. Satoshi Nakamoto only ever spoke on crypto forums and through emails.

In late 2008, Nakamoto published the Bitcoin whitepaper. This was a description of what Bitcoin is and how it works. It became the model for how other cryptocurrencies were designed in the future.

On January 12, 2009, Satoshi Nakamoto made the first Bit coin transaction. They sent 10 BTC to a coder named Hal Finney. By 2011, Satoshi Nakamoto was gone. What they left behind was the world's first cryptocurrency.

Bitcoin became more popular amongst users who saw how important it could become. In April 2011, one Bitcoin was worth one US Dollar (USD).

By December 2017, one Bitcoin was worth more than twenty thousand US Dollars! Today, the price of a single Bitcoin is 7,576.24 US Dollars. Which is still a pretty good return, right?

1. Satoshi Nakamoto

The biggest holder of Bitcoins is the anonymous creator of the coin, Satoshi Nakamoto. The exact amount of Bitcoins held by the founder of web 4.0 is not known but the first block, which is said to belong to the figure holds over 900,000 BTC, worth close to \$4 billion USD today.

2. FBI

fBI ranks as one of the largest holders of BTC. The bureau was the center organization in shutting down Silk Road and confiscated 144,000 BTC in the process. The authority decided to sell off the BTC through an auction leaving them with a number of BTC. If the FBI held on to the BTC, it would be the one of the largest holder of the coin with over \$567 million in its coffers.

3. Micree Zhan

The other co-founder of Bitmain, Micree Zhan, is also heavily invested in Bitcoin. He is also one of the top richest personalities in China with a total wealth of \$2.4 Billion USD.

Problems and risk of cryptocurrencies:

- Spoofing payment information and phishing
- Hacking a payment gateway
- User address error
- Loss of a wallet file
- Insecure ICOs
- Spoofing a user address

Tips for cryptocurrency holders and crypto-investors

How can you avoid the problems?

Always verify a Web wallet's address, and don't follow links to an Internet bank or Web wallet.

- Before sending, double-check the recipient's address (at least check the first and last characters), the amount being sent, and the size of the associated fee.
- Write down a mnemonic phrase that allows you to recover a cryptowallet if you lose it or forget your password.
- Keep a cool head and make informed decisions when crypto-investing, and don't panic or hurry.
- Always remember that crypto-investment is very risky. Do not invest more than you're ready to lose at any moment. Diversify your investments.
- Use cryptocurrency hardware wallets.
- Run high-quality antivirus protection to protect the devices you use to access cryptowallets, trade on crypto-exchanges, and so on.

CONCLUSION

Cryptocurrency is still, into its nascent stage but it is gaining popularity on daily basis. Most of the countries still don't have any clear regulation or system which can check, curb, regulate or ban the use of

cryptocurrency. Decentralized and anonymity are the two main characteristics of cryptocurrency, which has become a challenge for the governments to curb its uses in criminal activity or transactions and how to allow a legal status to it. Most countries are still analyzing ways to properly regulate the cryptocurrency. Cryptocurrency is in a grey area as the technological leap has left the lawmakers far behind. However, cryptocurrencies have a long way to go before they can replace credit cards and traditional currencies in use, which is being used as a tool for commerce across the globe.

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