

Cryptocurrency

How to Invest in Blockchain technologies
like Bitcoin, Ethereum and Litecoin



GEORGE PAIN

CRYPTOCURRENCY

**How to Invest in Blockchain
technologies like Bitcoin, Ethereum
and Litecoin**

BOOK DESCRIPTION

Cryptocurrency has been with us since when Bitcoin was introduced in the year 2009. However, it is of late that cryptocurrency has persistently hit financial market headlines bringing in new owners, investors and traders. The avalanche of new entrants has even clogged some trading platforms resulting in delays and temporary closures. This is due to processing of the overwhelming backlog of applicants who want to join their trading platforms.

Some people have never heard of cryptocurrency. However, there are many who have heard of cryptocurrency but have not found an appropriate source of information that sufficiently addresses their need to be informed and thus be enabled to participate in this digital currency revolution. The purpose of this book is to introduce you to the world of cryptocurrency by providing you with crucial information that can help you make the right decision.

This book introduces you to the basics of the technology behind cryptocurrency. This is so that you can understand why it differs from other currencies and why it is attracting such a heavy magnitude of attention.

While most people know Bitcoin and sometimes treat it as synonymous with cryptocurrency, this book introduces you to other popular cryptocurrencies and upcoming cryptocurrencies. This is so that should you decide to enter the cryptocurrency market you are able to get a choice that fits your budget, location, and means of buying it.

Being a currency, cryptocurrency is traded just as any other currency is traded in the forex market. The exception is that cryptocurrencies have a unique trading platform. In this book, you will learn some of the best cryptocurrency trading platforms that you can join.

Every successful trader knows the importance of a trading plan. Most financial securities and money markets share basic concepts when it comes to trading plans. This is the same case with cryptocurrencies. However, due to the unique nature of cryptocurrency, there are certain additional concepts that you need to consider in your trading plan. This book guides you through the process of creating an effective, efficient and productive trading plan so that you too can become successful should you decide to become a cryptocurrency trader.

Lastly, every investor always desires to understand the future of his/her investment options. This book provides information that greatly aids you in finding the most appropriate future perspective of cryptocurrency so that you can make an informed decision on whether you want to make a short-term or long-term investment in cryptocurrencies.

Enjoy reading.

ABOUT THE AUTHOR

George Pain is an entrepreneur, author and business consultant. He specializes in setting up online businesses from scratch, investment income strategies and global mobility solutions. He has successfully built several businesses from the ground up and is excited to share his knowledge with you. Here is a list of his books.

[Books of George Pain](#)

CONTENTS

[CRYPTOCURRENCY BOOK DESCRIPTION GIFT INCLUDED ABOUT THE AUTHOR](#)

[DISCLAIMER CONTENTS INTRODUCTION](#)

[WHAT ARE CRYPTOCURRENCIES?](#)

[MOST POPULAR CRYPTOCURRENCIES UP AND COMING CRYPTOCURRENCIES](#)

[How to Invest in Cryptocurrencies THE BEST TRADING PLATFORMS TRADING](#)

[PLANS FOR CRYPTOCURRENCIES THE FUTURE OF CRYPTOCURRENCIES](#)

[CONCLUSION](#)

INTRODUCTION

In 2009, cryptocurrency was a mystic concept characterized by the anonymous founder of Bitcoin going by the pseudonym 'Satoshi'. At this point, Bitcoin has moved from a value of \$0 then to hit a high of about \$15,000 per coin with market capitalization hitting over \$160 billion.

Every single eruption in Bitcoin value has triggered more interest in it while those who could not afford its value sought alternative cryptocurrencies thus raising their profile. The growth in cryptocurrencies is phenomenal. Interest in cryptocurrencies continue to grow as more people get to know them and make it a norm. You too can be part of this phenomenal growth.

This book aims to provide you with up-to-date information on cryptocurrencies so that you can be able to make an informed decision. It is always important to know that opportunities exist rather than regret later. When you know an opportunity exists, you can be able to make an informed decision whether to grab it or leave it. You will not regret making an informed decision, but you will always regret not having known an opportunity existed which you would have given a fair chance.

Do not miss out.

Keep reading!

WHAT ARE CRYPTOCURRENCIES?

To be able to get a better understanding of what cryptocurrency is, it is important to not only define it but also go beyond the definition to cover its technical and financial aspects.

Definition of cryptocurrency

We do not have a universal definition of cryptocurrency. However, for purposes of our discussion, we can define cryptocurrency as:

Cryptocurrency is a virtual decentralized digital currency created and managed through the use of advanced algorithmic encryption techniques known as cryptography.

Features of cryptocurrency

Cryptocurrency has many features. However, we can classify these features into three main categories – technical features, financial features, and transactional features.

Technical features

- Virtual – This currency has no physical existence. It is generated by use electronic codes
- Algorithmic – Codes generated are algorithmic by nature
- Cryptic – The codes are encrypted as a guarantee of security. They also regulate the creation of new coins and verification of existing coins.
- Database-driven – Code records are stored in database ledger known as blockchain
- Decentralized – Most fiat currencies are created, supplied and controlled by governments' central banks. On the contrary, cryptocurrencies creation and transactions are algorithmically selfcontrolled by open source software. They rely on peer-to-peer networks for their circulation. Thus, no single entity can control their creation and circulation.
- Digital – Traditional fiat currency is defined by a physical object such as gold, silver, etc. They are also stored in vaults. Digital currencies are not defined by any physical object, but codes. They are kept in digital wallets which acts as their store. They are transacted by transmitting them from sender's digital wallet to the recipient's digital wallet.

- Adaptive scaling – While traditional fiat currencies are controlled through interventions by monetary authorities, cryptocurrencies have the ability to scale up or down dynamically (automatically) to control their supply in the market.
- Mining – While traditional coins are produced through a process of minting, crypto coins are produced through a process of mining.
- Open source – The software used to create mine cryptocurrency has codes which can be readable by any software developer. Thus, developers can create their own APIs without the need to consult or seek permission from anyone.
- Proof-of-Work – Most cryptocurrencies (Bitcoin included) rely on the proof-of-work system. In this system, a hard-to-compute but easy-to-verify puzzle is used as a way of earning the fundamental value of the coin. Thus, a token (coin) is created once a puzzle forming it is cracked (solved). Some other cryptocurrencies use Proof-of-Stake or Proof-of-State either as a substitute to or in addition to proof-of-work.

Financial features

- No physical jurisdiction – The currency is not limited to a given territory. It is global and universal.
- No legal jurisdiction – Because it has no physical jurisdiction, it is not subject to laws of any country.
- Electronically transacted – The currency is transacted in electronic form.
- A measure of value – The currency is used to measure value based on 'proof of work' (PoW), and other measures.
- Exchange of value – The currency can be used as a means of reward in the exchange of goods and services.
- Speculative – The currency is market-driven and, as such, is subject to the forces of demand and supply.
- Controlled supply – Most cryptocurrencies have an upper limit of supply tokens. For example, Bitcoin has a maximum of 21 million tokens that are expected to be completely mined by the year

2140. This supply is controlled by a schedule written in the code. This shows transparency in terms of money supply so that anyone can know the number of tokens in circulation and can roughly compute the number of tokens to be available by a given future date. This is unlike fiat currency whose volume in circulation is mostly kept secret by governments around the world.

- **No debt** – Cryptocurrencies are currency commodities just as gold. They stand for themselves. Unlike fiat currency, they do not represent debts (through the system of IOU).
- **Value** – For a currency to have worth, it must represent some value. Before the advent of fiat currency, traditional currencies used to represent actual gold. Gold is scarce and hard to mine and refine. Therefore, the work undertaken in this process of mining and refining contributed to its fundamental value. Furthermore, its scarcity granted it the market value (the forces of supply and demand). Mining crypto coins, especially Bitcoins requires a lot of work and increasingly complex and sophisticated circuitry. This makes Bitcoins scarce.

Transactional features

- **Secure** – While public keys are transmitted with the coin transaction, only the owner of a cryptocurrency has the private key. Thus, this is the only one who can send cryptocurrency. This sophisticated cryptography is made harder to break by the sheer magnitude of the big numbers that represent it.
- **Pseudonymous** – Cryptocurrencies use pseudonyms such that neither transactions nor accounts are connected to the real-world identities. For example, Bitcoins are sent and received via randomly generated addresses. Each of these addresses is around 30 characters. A coin-holder identification is encrypted within this address. While you can use these randomly generated addresses to follow up on transaction flow, you cannot connect to the realworld identity of users with those addresses. While the accounts are pseudonymous, they are not anonymous as they are publicly available. However, some cryptocurrencies like Monero have both pseudonymous and anonymous features.

- **Permission-less** – There is no permission-seeking arrangement when it comes to using cryptocurrency. Cryptocurrencies are generated by software that anyone can easily download for free and use. Once you have downloaded the software, you can easily send cryptocurrencies such as Bitcoins. There is no one to prevent you from doing so.
- **Irreversible** – After a transaction is confirmed, it can never be reversed.
- **Quickly available around the globe** – Cryptocurrency transactions happen almost instantaneously. Within a few minutes, networks around the globe confirm them. Distance does not matter.

How do cryptocurrencies work?

Cryptocurrencies work on the same concept as debit cards. The only difference is that bookkeeping is not done by banks but the public. They have no centralized clearinghouse. Their bookkeeping is jointly carried out through blockchain – a publicly available and distributed ledger across networks.

Since every person has a copy of the ledger/register, there is transparency and accountability, which helps to build trust. By not being distributed, it avoids intermediaries who would be responsible for storage of the register. With no intermediaries, no agency costs.

The following concepts make it easier to understand cryptocurrency:

- Mining
- Public Ledger Transactions
-

Mining of cryptocurrency

Mining is a special term that refers to the process of validating the algorithm of a given token. It is only when a given token is validated (verified and confirmed as genuine) that it becomes a cryptocurrency and thus is entered into the public register (blockchain).

Those people who carry out this mining are the ones referred to as miners. Miners' role is to secure the network by receiving and validating new issues of coins and entering them into the public register. The process of this verification involves using software to solve cryptographic puzzles of a given

set of transactions and adding them to the ledger once they are solved. Miners are rewarded in the form of coins for their mining effort.

For heavily mined cryptocurrency such as Bitcoin, miners require specialized and sophisticated hardware such as ASIC chips to be able to process billions of calculations per second just to confirm one transaction. The more puzzles miners solve, the more cryptocurrencies they earn. This incentivizes them to continue mining thus ensuring the safety of transactions over the network. This mining process gives fundamental value to the coins. This is what is referred to as proof-of-work.

Blockchain Technology

A blockchain is a public ledger of cryptocurrency's transactions. When a peer-to-peer transaction is made, the transaction is transmitted to all network users with 'full-node' wallets. Miners then try to solve the transaction's cryptographic puzzle. The first miner to solve the puzzle is rewarded with a few newly mined coins. Every transaction belongs to a block with a cryptic link to another block. Therefore, when a transaction is solved, its cryptic link to the new block is unraveled and thus the new block is added to the ledger. This cryptic link serves as a chain between the previous block to which the transaction belongs and the new block unveiled through the cryptic link. This is why it is called blockchain. Nonetheless, before the ledger is updated, there has to be a consensus among miners as to its validity. This consensus is a proof that the miner who was the first to solve the cryptic puzzle has done work (proof-of-work).

In a technical sense, cryptocurrencies are restricted entries in a database of which certain specific conditions must be met for there to be a change in these entries. Assuring that these conditions have been met is achieved through proof-of-work. Thus, mathematical algorithm rather than people secure the entries, unlike in the traditional fiat currency system.

Transactions

A transaction is a transfer of fund between two digital wallets. This transaction is transmitted to a public ledger. Once transmitted it is queued awaiting verification and confirmation by miners. The wallet originating a transaction encrypts it with a cryptographic signature (encrypted electronic signature) as a mathematical (algorithmic) proof that the transaction is

originating from the owner of that particular wallet. Once miners verify and confirm the validity of the cryptographic signature, it is then that they enter it into the public register (ledger/blockchain).

The cryptographic signature has a public code, which matches up with the user's privately held password. Any user of a given cryptocurrency can choose to have access to the ledger by downloading it. This becomes a "full node" wallet. However, they can opt to keep their coins in a third-party wallet such as Coinbase.

Whoever owns the private key (private password) to a given a wallet owns the amount of cryptocurrency denoted in the ledger (blockchain).

The primary difference between bank notes and cryptocurrency is that instead of governments and banks issuing the currency and keeping ledgers, an algorithm does.

How do you acquire a cryptocurrency?

There are two ways to acquire cryptocurrencies:

- Purchase them
- Mine them (validate their algorithm)

How cryptocurrency avoids double spending

Double spending is a situation whereby a person uses the same currency unit to spend more than once. Digital products are much easier to duplicate than non-digital products. However, due to the cryptic and accounting nature of cryptocurrency, it is nearly impossible to carry out double trading. Cryptocurrency uses blockchain technology to avoid any likelihood of double spending.

Why do you need a cryptocurrency?

The following are the main reasons why people go for cryptocurrency:

- Safe hedge – What has propelled Bitcoin is its storage of value. Bitcoin has become the virtual gold standard for virtual currency. This is because, like most cryptocurrencies, their volume is known in advance.

- Speedy transaction – Due to their digital nature, cryptocurrencies enable fast transaction processing.
- Low-cost transaction – Cryptocurrencies use peer-to-peer transaction process. Thus, middle agents such as banks and clearinghouses are eliminated.
- Anonymity – Cryptocurrencies allow anonymous transaction process.

Is there exchange market for cryptocurrencies?

Like fiat currencies, cryptocurrencies also have an exchange market. This is a market whereby cryptocurrency is exchanged against another or against a fiat currency. In the next section, we will explore the best trading platforms for these markets.

THE BEST TRADING PLATFORMS

Trading in cryptocurrency has continued to become lucrative due to high levels of speculation and the increasing acceptance of cryptocurrency by the global online community (netizens).

Once you make a decision to trade in cryptocurrency, you need to have an appropriate platform, which will not only help you to buy but also trade in cryptocurrencies.

Establishing the right criteria to guide you in your choice of trading platforms will help you avoid pitfalls that many beginners encounter such as signing up for a trading platform in which their preferred cryptocurrencies are not being traded or not purchasable using their available fiat currency or means of buying. This will also help you avoid signing up for a platform that is not secure and prone to hacking.

Criteria for choosing the best platform

The following are criteria that will enable you to choose the best trading platform for you cryptocurrency

- Safety – How safe is the server and its website?
- Liquidity – How much and fast is the cash flow?
- Fees and spread – How much fee is being charged per transaction?
- Transparency – How transparent is the exchange in terms of prices, volumes and coins transacted?
- Currency pairs – How many currency pairs are available? Does the platform trade in my preferred currency pairs? (e.g. crypto/crypto, fiat/crypto, crypto/fiat, etc)?
- Means of payment – What means of payment are available (for both buying and receiving sales proceeds)?
- Customer support – Is customer support good? Are customers happy? How fast and effective are customers issues being handled? What are the common customer complaints?
- Reputation – What is the current rating of the trading platform?
- Beginner-friendliness – Is the platform friendly for beginners? Does it have sufficient resources to help beginners learn how to trade on

its platform? Does it offer dummy accounts where beginners can practice on before being skilled enough to trade on the platform?

The top 5 Trading Platforms

With the appropriate criteria in mind, you can now vouch for the best platform. The following are some of the best platforms for you to consider:

1. Coinbase

Coinbase is the leading cryptocurrency trading platform. It is considered by most cryptocurrency users as the best exchange platform for cryptocurrencies. Most of the leading cryptocurrencies are traded on the platform.

Coinbase has recorded an increase in traffic by almost 70% in the months from October to November 2017. By mid-2017, it had about 20 million cryptocurrency wallets and 75,000 merchants who use the platform as a payment processor. It also had 15,000 app developers who have created APIs based on its platform.

This shows that it still has a stable future as a platform of choice for many traders.

Pros

- User-friendly
- Loyal customer base
- Positive customer experience (great user interface, availability of mobile app)
- Plenty of online wallets
- Present in multiple currency zones including US (Dollar), Great Britain (Pound) and Europe (Euro).
- You can buy up to \$1,000 worth of Bitcoins using credit card provided that your ID is verified
- Insured deposits
- Ethereum, Lite Coin and Bitcoin Cash are also traded
- Off-chain transactions allowed which makes it faster than other trading platforms

- Partnership with key financial players, which makes it easier to use traditional currencies and channels to buy cryptocurrencies. These include PayPal, NYSE, BBVA, Andreessen Horowitz and Shift Card.
- PayPal BTC sales feature that allow PayPal users to sell their Bitcoins (currently available in the US only).
 - Linked to Shift Credit Card (on request), which allows you to use Bitcoins to settle normal payments by automatically converting Bitcoins to equivalent dollar amount (currently available in the US only).
- Free gifts to new users
- Basic wallets for beginners and advanced wallet (Multisig Vault) for experienced users. Multisig Vault allows experienced users to manage their own wallet keys. Multisig Vault means that even if Coinbase were to collapse, you do not lose your coins.

Cons

- Long vetting and approval time due to the high volume of signups. However, this is a problem affecting most of the major cryptocurrency trading platforms due to the worldwide surge in demand for cryptocurrencies.
- Frequent flagging and freezing of accounts due to stringent safety rules - This causes extra-vetting inconveniences many clients. However, considering compensation guarantees from the platform should lose your coins for no mistake of your own, this gives assurance. This has also been triggered by increased cases of hacking and security breaches.

2. Bittrex

Bittrex is reputed for the comprehensive vetting process, especially of new coins and user security. It has high-security module. It also supports a wide array of currencies. Currently, it supports trading in over 190 cryptocurrencies. It has a high level of stability accompanied by speedy transactions.

Due to its high-security level, it has one of the most secure wallets in the market. Many cryptocurrency experts have placed a bet on it overtaking Coinbase in the near future. It is the most globalized exchange platform being able to accept traders from over 180 countries around the world. This has been made possible by its online payment and verification partner, Jumio. This overshadows Coinbase, which struggles to serve clients from North America, Europe Australia, and Singapore. Its junior competitor, Kraken, only serves US, EU, and Japan.

When it comes to visits traffic, Bittrex has already surpassed Coinbase as it receives over 160 million visitors per month compared to Coinbase that receives just about 125 million visitors per month (in the months leading up to the end of the year 2017). Kraken receives just 45 million visitors. It receives the highest volume of mobile traffic at 35%, which almost nears both Coinbase and Kraken combined which accounts for only 35%.

Most users claim to have better engagement with Bittrex than with Coinbase. This could be attributed to its better utilization of social media networks including Facebook and Twitter in marketing and customer service.

Pros

- Maximum security level (so far, not yet experienced hacking incidence)
 - Great Two-Factor authentication system
 - Available in almost all countries of the world
 - Currently supports more than 250 cryptocurrencies
 - No limits on deposits
 - Fully regulated by US authorities and is complaint
- Allows withdrawals of up to \$3,000 per day with just minimum verification
- High volumes of transactions available for big traders
 - Most of its funds are held in cold storage thus enhancing security
 - Requests minimum possible personal information during the verification process
 - Has one of the fastest account verification process
 - It has an easy to compute yet affordable flat fee of 0.25%

Cons

- Slow response to customers
- Lack of support for margin lending and trading
- Low liquidity which sometimes causes delays in waiting time
- Opaque accountability when security compromises happen
- Being a crypto-only exchange, it does not support fiat deposits or withdrawals

3. Kraken

Kraken boasts of a high-security framework. It is preferred by intermediate and professional traders due to its fast funding, high liquidity, margin trading, low fees and advanced order types such as stop-loss orders. The platform accepts both fiat and cryptocurrency transactions, which can be completed via wire transfer at that bank. However, the platform does not accept cash, debit or credit card deposits.

Pros

- Offers some of the cheapest rates for withdrawals, deposits, and trading
- It is more transparent than most platforms. It regularly carries out proof-of-reserve auditing
- It has an excellent ranking. It is ranked as the 5th on the list of leading cryptocurrency trading platforms.
- Allows free deposit for Euros, Japanese Yen, and Canadian Dollar.
- Supports margin trading.
- Allows Two-Factor authentication via Google's 2FA app Provides
- fast SEPA withdrawals

Cons

- It faces uptime issues especially its trading engine, page timeouts and delays in generating new deposit addresses.
- UX interface is not such appealing
-

It haphazardly disables some trading features without prior communication or explanation to its users. Examples include disabling of stop-loss orders.

4. Cex

Cex was launched in the UK as a holding entity for one of the world's largest Bitcoin mining companies, GHash. GHash controls about 42% of Bitcoin hashing power. Cex is based in the UK. CEX accepts deposits in US Dollars, Russian Rubles, and Euros through credit cards, SEPA and wire transfers. It accepts transactions from users around the globe who want to trade in Bitcoins or GHash mining shares. Cex became one of the early platforms to accept Bitcoin Cash (BCH), a fork of Bitcoin.

Pros

- It has a beginner-friendly interface with a great range of features. This is in addition to its offering a wide array of trading pairs, deposit methods and security features.
- Quick and easy sign-up process via social media logins for those with Facebook, Google, Github and VK accounts.
- Executes orders through fill-or-kill (FOK) frameworks which makes transactions easier and faster for beginners.
- Avails API for third-party developers to build customized tools for its platform.
- Has mobile trading app.
- It has not yet experienced security issues with customer deposits.
- Continues to add new altcoins to its trading platform.
- Allows deposits via credit cards from significantly more countries compared to most platforms, especially when compared to Coinbase.
- It has a page on its platform that enables users to easily find out conversion rates even before signing up.
- Offers margin trading on some trading pairs such as ETH/BTC, BTC/EUR, BTC/USD, ETH/USD.
- It has loss-protection tools.

Cons

- Not all countries are supported by wire transfers and credit card payments.
- Customer support has low response rates.
- The mobile app is not deficient in most services offered on the web.
- While it is still embracing more altcoins, it still has very few altcoins that it supports.
- It experiences heavy delays in verification, which typically takes weeks. Though, they are attributing this to huge influx of users which has also affected most major trading platforms.

5. Coinmama

Coinmama is a user-friendly platform that does not require one to have initial cryptocurrency to start trading. New users can start by using fiat currency to buy cryptocurrencies. This platform is available for users in almost all countries of the world.

Pros

- Virtually no credit card restrictions when it comes to buying cryptocurrencies.
- You can make deposits via Western Union. This makes Coinmama one of the very few trading platforms that allow cash deposits.
- It has one of the highest daily buying limits of \$50,000 for new signups.
- It holds no user funds. On the contrary, it sells from its holdings. This system makes it more secure.
- Quick delivery of Order placement.

Cons

- It is more expensive compared to other platforms as it charges 12% per transaction
- It does not allow SEPA or bank wire payments
- Very basic user interface that lacks most trading tools such as advanced trades and analytics tools such as charts
- Very limited trading pairs (it only supports Bitcoin and Ether)
-

They only do selling but not buy-back. Thus, if you buy a cryptocurrency from them, you have to find alternative platform to sell them

- Lacks mobile API which constrains development of customized solutions

Other popular trading platforms

1. Bitstamp.net
2. LocalBitcoins
3. Gemini
4. Bitfinex
5. Bisq
6. Bitstamp
7. CEX.IO
8. eToro
9. Poloniex
10. HitBTC
11. BitMEX
12. GDAX.com
13. Etherdelta.com
14. Paxful.com
15. CoinATMradar.com

How to join a trading and investment platform

1. Sign up for your preferred trading platform
2. Enable 2Factor authentication where required
3. Carry continuous benchmarking of altcoins against Bitcoin
4. Focus on your margins of gain
5. Keep an ear on industry influencers and opinion shapers
6. Factor-in your tax responsibility

MOST POPULAR CRYPTOCURRENCIES

There are more than one thousand cryptocurrencies in the world. However, just a few dozens of them are actively traded. The popularity of a

cryptocurrency means that you can easily exchange and convert it. There is also a higher chance of it appreciating in value due to increased speculation. It is the speculation that makes a cryptocurrency become a more preferred investment option.

In this section, we are going to look at the five most popular cryptocurrencies in the market.

Bitcoin

Bitcoin is the most popular cryptocurrency. It is the trendsetter in the world of cryptocurrencies. It began actively trading since the year 2009. It was created by the anonymous pseudonym 'Satoshi Nakamoto'. It now accounts for about 45% of the entire cryptocurrency market. While there had been many failed prior attempts at cryptocurrencies, Bitcoin succeeded due to its blockchain technology. The blockchain system prevented double spending. Its early adopters were people who wanted to remain anonymous in the so-called 'dark internet' ('darknet'). These people were dealing in money laundering, hacking, illicit trade and such other nefarious activities. However, due to quick, less costly transaction process, it came to gain wider acceptance in terms of genuine legal transactions.

Ethereum

Ethereum is the second most popular cryptocurrency. Ethereum was invented by Vitalik Buterin. What makes Ethereum so popular is its flexibility. The main thing that has propelled Ethereum is the 'programmable blockchain'. Programmable blockchain allows developers to create their own blockchains. With the ability to create their own blockchain, programmers are able to develop their own apps and thus make own versions of Ethereum coins which they float as ICO (Initial Coin Offering).

Ethereum ICOs have increased Ethereum's capitalization. It has enabled many entrepreneurs to raise funds for their own Ethereum projects. Programmable blockchain and custom Ethereum apps have made Ethereum become more appealing to financial institutions than Bitcoin.

Another popular feature of Ethereum is the so-called 'Smart Contracts' (selfexecuting conditional payments). This is because, unlike Bitcoin, Ethereum blockchain not only validate a set of accounts and balances but also 'States'. States are complex contracts and programs. DAO is Ethereum's smart

contract. The downside of this flexibility is that it creates an enabling environment for hackers. However, Ethereum has been able to come up with sophisticated security features since the initial hacking of its original DAO. It came up with more secure variants of DAO such as DigixDAO and Augur.

To ward off hackers, Ethereum has come up with 'Proof of Stake' (PoS) as a form of transaction verification system. This is much more efficient than the traditional 'Proof of Work' (PoW) that Bitcoin and many other cryptocurrencies use.

As of now, Ethereum is more of a family of cryptocurrencies rather than one cryptocurrency.

Ripple

Ripple has a native cryptocurrency known as XRP. However, Ripple contrasts with other cryptocurrencies in the sense that Ripple is more of a network designed to process IOUs than cryptocurrency. Thus, Ripple, unlike Bitcoin, does not serve as a medium for storage and exchange of value but rather as an anti-spam network token. As such, Ripple does not use blockchain to establish consensus for transactions. Rather, it uses iterative consensus process which makes it faster, though more susceptible to hacking attacks.

Ripple bills itself as "instant, secure and less costly global financial transaction system with no charge-backs". This is why many financial institutions wishing to cut down on the costly international clearinghouses and exchange systems are experimenting with Ripple. Among notable financial institution includes Japan's largest banks.

Litecoin

Litecoin was the first alternative coin (altcoin) to Bitcoin. It came to be referred to as 'digital silver' as Bitcoin took the position of 'digital gold'. Litecoin came up with an algorithmic system (scrypt) that is faster than Bitcoin (which uses SHA256) and with a larger amount of tokens to be mined. It was intended to become a 'lighter' alternative to Bitcoin for mining.

It indeed achieved that by being able to be mined four times faster than Bitcoin. At 84 million tokens, it also has a volume that is four times larger than Bitcoin.

As the cost of mining Bitcoin has gone up, it has become much harder to mine. These days, one requires ASICs to be capable of mining Bitcoin. ASICs are quite expensive and specialized gadgets. This makes Bitcoin mining the domain of a few large-scale miners as small-scale miners are edged out. On the other hand, one only needs GPUs to mine Litecoin. GPUs are cheap and affordable. Modern graphics PCs, Laptops and Gaming gadgets have powerful GPUs. This makes Litecoin remain truly decentralized while Bitcoin increasingly becomes centralized.

Several other cryptocurrencies rode on its lighter codebase to come into being. Some of these include Feathercoin/Dogecoin.

At the time of its creation, it naturally took the second position after Bitcoin. However, it was later dislodged by Ethereum.

Litecoin is still actively mined as hoarded as a backup to Bitcoin.

Monero

Monero is billed as the truly anonymous and incognito cryptocurrency. It has high privacy standards. The transaction is virtually untraceable. It uses the so-called 'cryptonite' algorithm. This algorithm was invented to add features that Bitcoin was lacking. It uses the concept called ring-signature. This means that the coins are 'mixed' at the protocol level, which makes the transaction untraceable. Monero was the first non-pre-mined clone of Bitcoin. It has led to several other incarnations of crypto notes. However, it remains the most preferred incognito coins.

UP AND COMING CRYPTOCURRENCIES

There are over a thousand cryptocurrencies, some active and yet some dormant. There are new cryptocurrencies that are hitting the market and gaining wider recognition as their market share continues to expand. In this section, we are going to have a look at the cryptocurrencies that both investors and traders need to consider.

The top 5 upcoming cryptocurrencies

The following are the top 5 upcoming currencies:

1. Dash

Dash is like Bitcoin with more privacy. It has a two-tier framework for its network. The first framework is for miners who write transactions to the blockchain and secure the network. The second framework is made of 'masternodes' which transmit transactions and enable PrivateSend and InstantSend transactions.

PrivateSend technology is for anonymous transactions while InstantSend technology is for private transactions.

Dash governance is decentralized, thus making it the first decentralized autonomous organization.

Anyone can set up a master-node if he/she lock at least one thousand DASH coins on his/her server. Every master-node earns income for whoever operates it. This encourages people to run master-nodes thus resulting in more decentralization.

2. IOTA

IOTA, as the name suggests, is associated with IoT (Internet of Things). Thus, IOTA is a cryptocurrency that targets IoT. IOTA does not use blockchain technology. Instead, it uses 'Tangle'. This enables it to cut down on computational resources and hence eliminate transactional fees.

Tangle makes it mandatory for the Sender in a transaction to do a proof of work (PoW) that approves two transactions. This removes dedicated miners from the system. This increases decentralization of the system as every user becomes a 'node' in the network.

Due to its system of PoW, it becomes faster as more users perform transactions, they also do verification thus removing the backlog of verifications. This makes IOTA automatically scalable.

3. NEO

NEO is a smart contract platform, just like Ethereum; that allows smart contracts, and third-party distributed applications to be developed within its framework. The only difference between NEO and Ethereum is that, unlike Ethereum where developers much use 'Solidary' (a JavaScript-like

programming language, NEO allows developers to use any coding language they like.

NEO is extremely popular in China such that it has been nicknamed as 'Chinese Ethereum'.

4. Stellar Lumens

Stellar Lumens uses the same concept as Ripples. Its currency units are called Lumens. Its objective is to become the de facto cryptocurrency system for banks and other financial institutions. It is also aimed at becoming a bridge between various other cryptocurrencies. Cryptocurrency exchange platforms are third-party 'anchors' that provide linkages between cryptocurrencies so that you can convert your transaction from one cryptocurrency to another. Stellar Lumens seeks to apply the same concept except that these 'anchors' will reside on its network rather than by third-parties.

Stellar Lumens looks optimistic, as it has been able to attract partnership with IBM, one of the leading financial platform developers to help it implement its concept. In this partnership, IBM is expected to own the custom blockchain solution for transaction clearing on its framework while transaction clearing will be done on Stellar Lumens network. The partnership has boosted Stellar Lumens reputation as a highly promising and upcoming alternative to Ripple.

5. Zcash

Zcash is a next-generation cryptocurrency of the Zerocoin protocol. It aims at creating a truly anonymous cryptocurrency using Zero-Knowledge Succinct Non-Interactive Argument of Knowledge (zk-SNARK) technology.

Zero-Knowledge is a proofing concept that allows one party (the prover) to provide evidence (proof) to another party (the verifier) that a statement is true without revealing any information beyond the validity of the statement itself.

However, ZCash has not impressively convinced cryptocurrency users that it is better than Monero in terms of anonymity.

Other upcoming cryptocurrencies

There are many other upcoming cryptocurrencies. The following are some of them that are worth mentioning:

1. NEM (New Economy Movement)
2. Cardano
3. OmiseGo
4. Lisk
5. Tether
6. Populous
7. Stratis
8. Hshare
9. Qtum
10. EOS

HOW TO INVEST IN CRYPTOCURRENCIES

Investment is about safeguarding your earnings or wealth into programs that not only enables them to be secure but also grow in value.

For an investment to be deemed as a promising investment, it must have:

- A standard of measure
- A store of value
- Converted into a form that is universally recognized as an investment option

Cryptocurrencies such as Bitcoin differ from fiat currencies (government issued currencies) due to their limited volume. This means that when someone hoards a unit, fewer units are available for circulation into the market. For example, Bitcoin has a maximum volume of 21 million tokens. Litecoin has a maximum volume of 84 million tokens. This is unlike fiat currency where that unit could be replaced by the printing of more units.

Due to the limited supply of cryptocurrencies, hoarding and speculation have become the norm. Hoarding acts as a means of investing in cryptocurrency. Speculation becomes the real driver that determines whether one should hoard or release his/her hoarded stock to the market.

Establish a Measure of your Investment

Every investment has a yardstick for measuring its value. When it comes to fiat currencies, US Dollar remains the international yardstick. When it comes to commodity currencies, gold remains the yardstick. Cryptocurrencies also have their yardstick - Bitcoin.

Bitcoin – the ‘gold’ standard of cryptocurrency

Bitcoin is the first cryptocurrency to use blockchain technology. Prior to Bitcoin, there had been many unsuccessful attempts. Bitcoin became the first successful attempt. Bitcoin has dominated the cryptocurrency market such that it has become the de facto cryptocurrency standard just as gold remains the de facto standard for both commodity and fiat currency.

Its dominant position and recognition as cryptocurrency standard have made other cryptocurrencies to be termed as ‘altcoins’, which simply means ‘alternative coins/cryptocurrencies’.

Thus, to be able to establish the performance of your investment in the cryptocurrency market, you have to gauge it against Bitcoin.

What are the failures of fiat currency that cryptocurrency has come to remedy?

While you desire to invest in cryptocurrency, you need to understand its rationale. Why does it exist? What problem(s) was it created to solve?

From an investment perspective, the following are some of the failures of fiat currency that cryptocurrency has come to remedy:

- Low returns
- Low levels of speculation
- Unlimited supply
- Government manipulation
- Legal limitations – sanctions, political upheavals, etc

The Best Cryptocurrency to Invest in

Which is the best cryptocurrency for investors? Many would-be investors ponder about this question before making investment decision. However, unlike investment in securities and forex, cryptocurrency is a relatively new

phenomenon. It is not easy to predict which cryptocurrencies will last and which ones will eventually collapse.

You can easily choose a currency to trade in but, investment, being longterm, is not such an easy choice. The best thing to do is to follow the old adage 'never put all your eggs in one basket'. Every investor knows the importance of diversification when it comes to dealing with highly risky and volatile markets. The cryptocurrency market is extremely risky and volatile. It is not a market for the risk-averse. It is a market for the risk takers.

Why go for high-risk volatile market such as cryptocurrency? The underlying principle of investment is 'high risk, high returns'. In simple terms, the higher the risk, the higher is the potential for higher returns. You never get much return on a risk-proof investment.

While Bitcoin has shown high potential, this does not guarantee that it will never fade into obscurity. New blockchain and non-blockchain technologies are emerging. Many cryptocurrencies have already submerged into obscurity while more are coming up. You cannot ignore Bitcoin, but you have to look beyond Bitcoin as you diversify your portfolio.

How to Buy Cryptocurrency

Acquiring a cryptocurrency is the first step to owning it. While miners can acquire cryptocurrencies without buying them, you as an investor, you will have to buy them. Once you decide on your portfolio and the cryptocurrencies to buy based on your portfolio, you will have to look out for a trading platform where you can buy your cryptocurrencies. We shall look at these cryptocurrency trading platforms in our next section.

While there are many cryptocurrencies, not all of them are traded on every platform. The only cryptocurrencies that you can easily find on most platforms are:

- Bitcoin
- Ethereum
- Litecoin

For the other cryptocurrencies, you have to ascertain the platform it is traded on.

How to Store Cryptocurrency for a Long-Term Hold

Cold storage is a term that refers to storage of cryptocurrencies for the longterm hold. Due to their digital or virtual nature, you need to store your coins on a medium that will not allow your digital codes/keys to be erased, either due to blackout, virus attack or other forms of attack. An online wallet or your exchange platform is a warm storage facility. They are temporary in nature. They are ideal for traders but not investors. You cannot store in them for a long time. Online wallets and exchange platforms can be hacked or even fold-up.

Cold storage facilities are offline facilities for storing cryptocurrency. The following are some of the common cold storage facilities:

1. PC Wallet

This is a wallet (folder) that you create on your own personal computer (PC) to store your cryptocurrency codes.

2. Hardware wallet

A hardware wallet is a dongle specifically created to store encrypted data. Thus, you can block any other unintended use of your hardware wallet.

3. Ledger wallets

These are special kinds of hardware wallets. Unlike dongles, they have their own tiny screens that enable one to monitor and manipulate the storage facility. However, ledger wallets are specifically designed to store certain kind of cryptocurrencies. Thus, while buying one, you must confirm it can store your kind of cryptocurrency.

4. Paper wallets

These are impressions specifically created by software and imprinted onto a paper. To help minimize the risk of erasure, tear and wear, you need to ensure that you have quality paper. The paper wallets have a QR Code printed on them to help you easily capture the keys into the computer during the transaction.

5. Brain wallets

These are biological wallets that you etch into your own memory through the process of coding and consolidation in such a manner that you can easily retrieve the details. Use of mnemonics is the commonest way of creating brain wallets.

Cryptocurrency Investing Strategies

Cryptocurrencies, just like investing in other currencies and investments in securities, requires sound investment strategies. While each investor is unique and thus will come up with own investing strategy, there are still general investing strategies considered by most investors.

The following are the four main investing strategies:

- Unbalanced Portfolio
- Balanced Portfolio
- Profit re-investing
- Dollar cost averaging

Unbalanced Portfolio

This is a strategy whereby you allocate every investment depending on your projection of its performance.

For example, if you think Bitcoin will perform the best over time, you would give a significant proportion of investment to it and continue allocating to the next-best downwards based on predetermined percentages:

- Bitcoin (50%)
- XRP (30%)
- Monero (15%) DASH
- (5%)

This strategy is ideal for those investors who are able to carry out extensive research so that they can make informed predictions.

Balanced Portfolio

A balanced portfolio is whereby you allocate all your shortlisted currencies equal share of your portfolio.

For example, if you have a total portfolio fund of \$4,000, you will allocate to your best four currencies as follows:

- Bitcoin (\$1,000)
- XRP (\$1,000)
- Monero (\$1,000) DASH (\$1,000)

Any subsequent investment fund will be allocated equally to your preferred currencies. This strategy is ideal for those who are not active followers of the currency market and they cannot make more accurate predictions of which of the preferred currencies will perform better than the other.

Profit Reinvesting

Profit Reinvesting is a strategy where you reinvest profits gotten from a profitable portfolio to new currencies to expand the portfolio. This way, profits cover the risk of a new adventure rather than a new source of capital from your pocket. However, you only need to reinvest a given percentage of your profits (e.g. between 10% and 50%).

Reinvesting is a good strategy for long-term investors who are risk-averse yet they are not in a hurry to withdraw their profits.

Dollar Cost Averaging

Dollar Cost Averaging is a strategy that allows you to invest a fixed amount of dollars (or any other fiat currency) into cryptocurrency at predetermined intervals. It is more of blind investment strategy whereby you continue investing to increase your stock level regardless of price movements in the market (for so long as your allocation is enough to buy some currencies).

This strategy is ideal for passive investors who do not have time to follow-up on market activities on a day-to-day basis. They only need to have a longterm projection of a given currency based on its fundamental analysis to make their investment decision.

The Advantages of Long-term Crypto Investment

Long-term investment in cryptocurrency is about taking a long-term view of a given cryptocurrency in terms of future projections and deciding to commit your resources to it for a longer period.

Long-term investment in cryptocurrency has two major advantages:

Less risk – Short-term investment is prone to short-term swings. Without proper timing, you may lose your short-term investment simply because you waited longer than deserved to recoup your gains. The challenge is that this timing is undefined. You can only estimate it. With a long-term investment, you do not have to be weighed down by the urgency to withdraw your investment to meet other obligations. Thus, when the price is not favorable, you can still wait. Furthermore, with long-term investment, you are focused on the fundamental value of the currency rather than the market forces. The price being low does not necessarily mean that the fundamental value of the currency has gone down. It simply means that the demand is lower than the supply.

Lower fees – Short-term investment means that you have to keep on withdrawing and re-investing. Both withdrawals and re-investments have their own transaction costs. The more frequent you do it, the higher the transaction cost. On the other hand, long-term investment has much lower frequency and thus lower transaction cost.

Indicators of Long-term Value

One of the most important things to a long-term investor is the long-term value of a given investment. While you cannot establish with certainty the long-term value of a given cryptocurrency investment, the following are key indicators to watch out:

Market share – Market share refers to the percentage of market capitalization that a given currency has relative to the rest of the market. If this market share becomes persistent in its trend, then, that is a solid currency. You can make a long-term investment depending on whether you just want to secure your investment away from other more volatile investments (in case of a horizontal trend) or you want to have long-term gain (in case of an upward trend). Currently, Bitcoins controls above 50% of market share.

Utility – Utility is the ability of a currency to satisfy the market wants. Currencies that satisfy most consumers want (e.g. exchange of value, or store of value) will receive more of their attention and demand than other currencies in the market. A currency with a higher utility in the market will be the most sought-after. It has long-term growth potential (unless it becomes disrupted by a newer currency with a much higher utility). This utility may not

be the same for everyone. For example, while individuals may more likely prefer investing in Bitcoins due to their higher utility, financial institutions may prefer investing in Ethereum due to its utility in enabling them to create various forms of smart contracts.

Transaction volume – Transaction volumes indicates the level of activity of a given currency. A currency that is increasing in its traded volume means it getting more usage while a one that is getting declining traded volumes shows that its use is going down. A currency with a high and increasing transaction volume has a higher long-term value.

Technological development – Cryptocurrencies have no other value except that derived from their unique technology. Technologically advanced cryptocurrency makes it become increasingly adopted, become the leader of other cryptocurrencies and the standard benchmark. Thus, a cryptocurrency that keeps on churning new technological breakthroughs (in terms of mining, transacting and storage) means that it has a long-term future value.

Market sentiments – Market sentiments can shape the demand for a given currency and thus affect its transaction volume and market share. This can be either positive or negative depending on the market sentiments. Consistently positive market sentiments grant a given cryptocurrency long-term positive value. On the contrary, persistently negative sentiments in the market erode a cryptocurrency's long-term future value.

Risk Appetite as an influencing factor of your investment strategy

Risk is an important component of any investment one makes. Equity markets and money markets are, by their very volatile nature, more prone to risk than other investments. Whether you will invest in the long-term or short-term and whether you will choose a riskier, yet higher premium investment or a less risky with lower premium investment depends on your risk appetite.

Your risk appetite will determine whether you are risk averse (most likely to avoid investing in cryptocurrencies), risk neutral (most likely to invest in low-risk, low-premium cryptocurrencies in the long-term), or risk seeking (more likely to invest in high-risk, high-premium cryptocurrencies in the short-term).

Risk-averse investors are more likely to invest a smaller proportion of their capital into cryptocurrencies and diversify them widely. Risk-neutral investors are more likely to invest relatively average capital into cryptocurrencies and

diversity than modesty. Risk-seekers are more likely to invest a more than average share of their capital into cryptocurrencies and diversify only to a few high-premium currencies (about 2 to 3 high-premium cryptocurrencies).

TRADING PLANS FOR CRYPTOCURRENCIES

Just like trading in securities and forex, trading in cryptocurrency requires you to have a trading plan. A plan is important when it comes to trading and investment of any kind, cryptocurrencies being no exception. However, due to extreme volatility and high speculation associated with cryptocurrency markets, it is more imperative to have a trading plan for them.

What is a trading plan?

A trading plan is a framework that enables you to define your trading activity. It comprises of criteria, rules, and guidelines that you need to follow in your trade undertakings.

While there is no perfect blueprint for a trading plan as every trader is unique in terms of needs, attitude towards risk, and lifestyle, there are certain universally accepted principles to consider when developing your trading plan.

Who needs a trading plan?

When it comes to a trading plan, no trader is exempted. Every trader needs a trading plan. It is commonly claimed that the more experienced and knowledgeable you are in a certain trade, the less reliant you become on a trading plan. This is a fallacy. It could simply mean that you have internalized your basic trading plan such that you do not need to keep on referring to it. However, this means that you have outgrown the basics and thus you need to advance your trading plan to become a better trader at a higher level.

Trading plan – your roadmap

A trading plan defines your trading objectives and how you are going to achieve them. A trading plan is your roadmap to follow from where you are (just about to trade) to where you want to be (as a successful trader).

To be able to establish a clear vision of your trading plan, you need to ask yourself and provide answers to the following fundamental questions:

1. What is your current status (SWOT)?
2. What is your trading horizon?
3. What is your level of knowledge and experience?
4. What is your capital plan?
5. What is your vision?
6. What is your goal?
7. What is your time adjusted plan?
8. What is your kind of success you wish to achieve?

A trading plan is a business plan tailored towards trading in a certain specific product (funnel).

General trading plan rules

Every plan is custom to your particular needs and predisposition. There is no universal plan or a blanket blueprint to implement. Nonetheless, the following are the three important rules that you must consider in your plan:

- Write down your plan
- Record your progress
- Control your risk

Key trading plan questions

The best way to come up with an elaborate trading plan is to address key questions. The following are the set of questions that you need to answer in your trading plan:

1. What motivates you to trade? Is it:

- To make quick cash as fast as you can
- To participate in the thrilling challenge of the new technology
- To maximize money generating opportunities
- To create an economically sustainable living
- To have a quicker way to grow your retirement fund

2. What is your level of knowledge of cryptocurrencies?

- I'm getting started and need to practically learn as I trade
- I am fairly new to cryptocurrency trading, but I am a fast learner
- I have an in-depth knowledge in certain areas of cryptocurrency trading, but there are still grey areas
- I am very conversant with cryptocurrency concept, its market, and trading methods

3. What is your risk appetite?

- I am risk-averse (like playing safe)
- I am risk-neutral (balances risks and rewards)
- I am a risk-taker (I like the great rewards of high risk)

4. How much time can you commit to cryptocurrency trading?

- I have all the time to dedicate to it (can make it full-time job)
- I only have spare time to commit (can work part-time)
- I can make it a hobby, just to enjoy it when I am in the moods

Creating a trading plan

Trading plans are custom in nature. You can personalize your trading plan to suit your style. However, there are certain basic components that you need to incorporate. The following are some of the considerations you need to make in order to have a good trading plan:

1. Know your status as a trader – this involves making your own self-evaluation through SWOT Analysis
2. Clearly define your goals and mirror them to every step and decision you make
3. Decide whether you want to be short trader or a long trader
4. Identify your key trading pairs and trading timeframes
5. Establish your personal trading system.
7. Decide on how much risk you can afford
8. Determine the manner in which you will handle your open trades
9. Establish a proper record keeping system

10. Back-test your trading system

Personal trading system

A trading system is part of a trading plan, which comprises of a logical scheme of actions to take should certain events occur. This scheme is devised based on a set of rules that you have set. A trading system automates your decision-making process so that you become less susceptible to psychological mistakes.

However, this does not mean that it is mechanically rigid. It should be adjustable and adaptive to changing market conditions. Nonetheless, this should not be an excuse for you to become irrationally discretionary. To avoid irrational discretions, adjustments to your trading system should be backtested to establish their efficacy, validity and reliability.

A simple trading system should have the following key basics:

- **Set-ups** – These are observable conditions, which you look for in the market as indicators of a high probability of a successful trade. Set-up indicators include higher highs, lower lows, moving averages, etc. Whichever set-up you choose depends on whether you are a short trader or a long trader.
- **Trigger points** – These are exact moments when you have to take an action based on your set-ups. Triggers can be manual or automated depending on expertise and availability of required tools on your trading platform. While most forex markets have advanced set-up and trigger tools, very few cryptocurrency platforms have them. Even those that have these tools, the tools are still rudimentary. Thus, you are more likely going to rely on manual set-ups and triggers.

Back-testing of your trading system

Back-testing refers to passing your trading system through a testing mechanism using hypothetical or historical data to determine its validity, reliability, and efficacy. This is extremely important as it can help you avoid costly mistakes of relying on a defective trading system.

You can either do back-testing yourself or you can outsource experienced and professional back-testers to carry it out on your behalf. While created through different system and technology, cryptocurrencies and fiat currencies rely on the same principles of trading. Thus, a forex back-testing system can be used to back-test cryptocurrency trading system with just minor customizations.

Risk management

Risk management is an important and inevitable component of a good trading plan. Without risk management, you can hardly claim that you have a trading plan. Risk management depends on your risk appetite. It also depends on whether you are trading short or long.

Nonetheless, you need to have a basis for setting up your risk management strategy. The following are key questions you need to answer in order to guide you in your risk management strategy:

1. How much of my account (in terms of percentages) can I afford to risk on each trade?
2. How many trading positions am I ready to run at any given time?
3. What is the maximum level of my account exposure am I ready to accept?

Benefits of a trading plan

It is obvious that a trading plan has immense benefits to your trading endeavor. Nonetheless, we can highlight the key benefits you can derive from an effective trading plan:

- Rational and streamlined decision-making
- Simplified and disciplined trading
- Structured risk management
- Defined entry and exit strategies prior to trading
- Effective account and trades management

Common mistakes to avoid

How you feel and respond to your trading influences your decision-making. Sometimes it can boost your decision-making capacity or even impair it. This

is the psychological factor in all trades, cryptocurrency included. You cannot afford to overlook your psychology while trading.

Most mistakes people make while trading is mostly due to psychological factors. It is important to be aware of them so that you are able to take control. The following are some of the common mistakes due to psychological factors:

1. Attaching emotions to your decisions (e.g. fear, greed, stress, joy, anger, etc.)
2. Engaging in sentimental trading
3. Being impatient
4. Being restless
5. Being indecisive
6. Being unprepared
7. Assuming easy profits
8. Over-relying on software
9. Poor timing
10. Not keeping records
11. Failing to calculate Risk v Reward ratio
12. Not sticking to your trade plan
13. Refusing to cut your losses
14. Over-reacting to your winnings
15. Limiting your options
16. Spreading thinly (Over-diversification)
17. Overexposure
18. Taking unnecessary risks
19. Following trend misconceptions

Trading plan tips

1. Be disciplined
2. Keep your progress on track
3. Stay rational
4. Don't allow yourself to become overwhelmed by psychological factors

THE FUTURE OF CRYPTOCURRENCIES

The future of cryptocurrency depends on both the technical advancement of the technology behind the cryptocurrency and change in the attitudes of existing and potential users.

Technological future

Cryptocurrency as a concept has a bright technological future. Increasingly powerful computers accompanied by an algorithm that is becoming easier to mine means that it is going to be less cumbersome to mine.

There are two challenges that cryptocurrency is going to face as we head into the future:

- Rigidity – Most cryptocurrencies are not easily scalable. They have circulation limit. For example, Bitcoin has a maximum circulation volume of 21 million tokens, which are anticipated to be fully mined by the year 2041. What will happen after it is fully mined?
- Sophisticated hacking – As more people embrace cryptocurrency, it becomes more familiar. This makes it more exposed to deeper exploration by hackers. Thus, the cryptography must grow as the hacking expertise becomes more sophisticated.

Monetary future

Over speculation – There has been too much speculation on the leading digital currencies. This has caused the market price of tokens to skyrocket. Bitcoin is a typical example. When the value of a token goes extremely high, fewer people can afford it. This means it becomes less of a means of exchange and more of a means of storing value. Bitcoin has largely become like gold. You can hardly use it in carrying day-to-day transactions such as shopping for grocery.

Governmental intervention – Governments across the world have been reacting to the high volatility of cryptocurrencies. Many have raised their voice about the need to regulate cryptocurrencies. This brings some degree of uncertainty about their universal application in the normal day-to-day usage.

However, as large financial institutions continue to explore cryptocurrency, trade in them and accept them as a form of money, they are changing attitudes of their respective governments. A case in point is Google, Microsoft, JP Morgan, Merrill Lynch, Goldman Sachs, among other financial and tech giants.

Changing dominance

Currently, Bitcoin is the leading cryptocurrency. However, as technology advances and as demand for tokens increases, there will be an increased shift towards other cryptocurrencies. Thus, Bitcoin is likely to cede ground in future as the dominant cryptocurrency. Nonetheless, its position as the 'gold' standard of cryptocurrencies is going to remain unchallenged for a long time. Ripple, Litecoin and Ethereum are going to take a greater role in the near future as many financial institutions are actively exploring them. Ripple is being preferred as a form of automated algorithmic clearing house. Ethereum is attractive due to its many customizable features such as smart contracts, among others.

Performance of fiat currency

One of the main factors that have driven many people towards cryptocurrency is the instability of their own fiat currencies. For example, Zimbabwean Dollar has become worthless. Venezuelan Bolivar has depreciated at such a high rate such that it is hard to follow or keep as a store of value. When a given fiat currency become unstable, users become more willing to take up cryptocurrency. In most jurisdictions where the economy is overheating such that they are facing hyperinflation, they restrict the flow of foreign currency such that people can hardly be able to buy them. Since governments have no control over cryptocurrencies, they become the easily available options for citizens to safeguard their monetary investment.

Lightning Network – Transaction for the future

Bitcoin has been exploring what it terms as 'Lightning Network'. This is a system that Bitcoin hopes will help it overcome its scalability issues and the high cost of mining. These have caused its tokens to skyrocket in price so that they no longer make sense as a medium of exchange.

What is Lightning Network?

Lightning Network is a decentralized network that uses smart contract functionality, which rides on blockchain to facilitate instant payments across a network of participants.

Lightning implements HTLCs (Hashed Time-lock Contracts) concept, which has bi-directional payment channels, that allows payment to be securely routed across multiple peer-to-peer payment channels. This network helps parties to bypass the mining nodes. This way, they can transact (send/receive payments) instantaneously.

Lightning payment channels allows users to engage in a truly direct peer-to-peer transaction rather than broadcasting their business transaction to the entire world. By being able to track inter-party payments on their own, the two parties are able to free themselves from the rather time-consuming and expensive interactions via blockchain. In case one or both, parties dispute balances on the Lightning Network, either party is able to transmit the last valid transaction signed by both parties to the blockchain for purposes adjudication. The blockchain acts as an automated final arbiter to the dispute. The advantage of this dispute resolution mechanism is that neither party can influence the automated neutral arbiter unlike in case of human arbiter who can be swayed, persuaded or biased by pleasing arguments and emotional connection rather than facts and evidence.

This network allows users to transact with anyone who is connected to their payment channels through multiple hops. This makes it some form of a network of peer-to-peer payment channels.

Key features of Lightning Network

Lightning Network has several features. The following are the main features:

- Instant payments – Since transactions bypass blockchain confirmation, blockchain confirmation delay time is avoided resulting into a transaction taking just a few milliseconds to complete compared to the normal blockchain time of about 10 minutes (as of late).
- Smart contracts – Lightning Network is about smart contracts. These are peer-to-peer contracts not requiring on-blockchain confirmation.

- Low cost – Huge costs of cryptocurrency transactions are incurred at the blockchain confirmation level. By overriding blockchain, these costs are avoided thus making Bitcoin affordable as a medium of exchange for micropayments.
- Reduced blockchain load – Since channels bypass the blockchain, less load is inflicted on the blockchain. Furthermore, only channels open and close transactions. Channels remain uncommitted and thus open for further transactions without the need for blockchain to process every other transaction.
- Indefinite channel opening – A channel can stay open for as long as two parties to it agree. There is no mandatory timeout period. This not only reduces the load on blockchain but also the cost of opening and closing the channel.
- Rapid cooperative closes – So long as both parties agree to close a channel, it can be closed instantaneously. The only wait is for confirmation that the channel has closed in the appropriate state ●
- Multi-signature capability – Each channel allows a user to provide multiple signatures to a transaction between the parties. This provides an extra layer of security.
- Onion-style routing – an onion-style routing is a one where there is nested encryption such that intermediary nodes cannot tell the source or end of a transaction. They can only know the node that they are receiving the transaction from and the one they are transmitting the transaction to. This helps to protect the privacy of the sender and the recipient across the network.
- Outsource-able enforcement – If one party closes an old channel without good intent, the other party can block the attempted illintent within a defined period. This function can easily be outsourced to a party's agent who will be there to monitor compliance without having the ability to control, siphon or redirect the funds. This is a way to prevent wicked intents such as fraud or theft.
- Cross-blockchain security – This system allows heterogeneous consensus system such that cross-chain atomic swaps can occur. The only thing needed is for the chains to support the same cryptographic hash function. This enables payments to be routed

across more than one blockchain provided that all the chains support the same hash function used for the hash lock and timelock. The cross-blockchain capability allows transaction between Bitcoin and altcoins plus sidechains.

- No third-party trust – Since two peers pay each other directly using regular Bitcoin transactions, no third party controls their funds.
- Scalability – Lightning Network is capable of handling up to billions of transactions per second across the network. With smart contracting, payment per action/click is possible.
- Improved privacy since Lightning transactions are not stored in public ledger forever

What problem does Lightning Network seek to solve?

Lightning Network has come about as a solution to persistent Bitcoin challenges. The following are some of the challenges that gave rise to the Lightning Network:

- Blockchain overload
- Lack of scalability
- High cost of mining
- High cost of transaction
- Time lags due to regurgitating the entire blockchain every time a transaction is made
- Lack of dynamism required for Bitcoin to be truly a medium of exchange rather than a store of value

CONCLUSION

Thank you for downloading and reading this book!

This book is aimed to provide you with up-to-date information on cryptocurrencies, know how to invest in them and maximize your profit. I hope you have gained valuable information that has enabled you to start trading in cryptocurrencies. If this is the case, please help others achieve success in cryptocurrency trading by encouraging them to acquire a copy of this book for knowledge and reference.

Thank you.

Good luck!