JMB 2,1

16

Received 8 November 2021

Revised 10 November 2021 Accepted 10 November 2021

Cryptocurrency: usability perspective versus volatility threat

Ruby Khan

Finance and Banking, College of Business Administration, Jazan University, Jazan, Saudi Arabia, and

Tahani Ali Hakami

Accounting, College of Business Administration, Jazan University, Jazan, Saudi Arabia

Abstract

Purpose – The objective of this study is to examine the nature of cryptocurrencies, risks involved in using it due to its volatile nature, advantages, disadvantages and its functions as money.

Design/methodology/approach — This is an inductive approach to a descriptive analysis (Qualitative research). In order to come to an adequate conclusion, we reviewed several studies and articles previously published in this field related to our research questions, and then explored the nature of Cryptocurrencies, their advantages and disadvantages, risks associated with cryptocurrency usage and their user-friendliness in Saudi Arabia.

Findings – The findings of this study reveal that anonymity and concealment are important aspects of cryptocurrencies. This system does not follow a transparent process that can make it parallel to conventional fiat currency.

Research limitations/implications – Although this study focuses on the issue of trust, it fails to recognize more technological factors hampering its transaction mechanism instead of enhancing it, owing to a lack of facts and knowledge.

Practical implications – Like conventional transaction system users must sign their crypto transactions that others must duly verify easily. Once a promise is made, one will not be able to back out of it until it is protected from revocation by the signer.

Originality/value — In comparison with reviewed literature, this study focuses more on the issue of volatility, which accounts for the fact that cryptocurrency has not been accepted as a permanent tool of monetary policy. Additionally, the study finds that the Saudi public is largely pessimistic toward such currencies.

Keywords Cryptocurrency, Volatility, Trust, Money functions, Transaction, Exchange rate **Paper type** Research paper

1. Introduction

The growth of e-commerce and apps for ordering taxis or paying for restaurants means that the physical act of paying is already somewhat forgotten. Enhanced machine-to-machine transactions based on the Internet will intensify payment virtualization in coming years. As the digital money gets under way, regulators, governments and businesses alike will have a lot to gain as stores of value escape the costs, complexity and rigidity of traditional money. Leveraging low-cost, open source technologies—such as cryptocurrencies block chain or other distributed ledgers—opens the door to reaching poorer or excluded customers and serving needs that are not met by the prevailing financial services infrastructure. It could expand digital commerce above and beyond national lines, while allowing new forms of taxation to cater for an expanding mobile workforce (Wang and Lo, 2014).



Journal of Money and Business Vol. 2 No. 1, 2022 pp. 16-28 Emerald Publishing Limited e-ISSN: 2634-260X p-ISSN: 2634-2596 DOI 10.1108/JMB-11-2021-0051 © Ruby Khan and Tahani Ali Hakami. Published in *Journal of Money and Business*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at http://creativecommons.org/licences/by/4.0/legalcode

Usability and

cryptocurrency

volatility of

Since the creation of Bitcoin in 2009, numerous private cryptocurrencies are introduced. Bitcoin is most successful one among all till date. It has been getting tons of media attention, and its total market price has reached 20 billion USD in March 2017. More importantly, variety of central banks started recently to explore the adoption of cryptocurrency and block chain technologies for retail and large-value payments. For example, the People's Bank of China aims to develop a nationwide digital currency based on block chain technology; the Bank of Canada and Monetary Authority of Singapore are studying its usage for interbank payment systems; the Deutsche Bundesbank has developed a preliminary prototype for blockchain-based settlement of monetary assets. Many proponents believe that cryptocurrency and blockchain technology will have a significant influence on the future development of payment and financial systems (Halaburda and Gandal, 2014).

For thousand years, physical tokens are being used as means of payment (e.g. shells, gold coins, bank notes). In such setting, an instantaneous exchange of sellers' goods and buyers' tokens allows them to realize an immediate and final settlement. This option is unavailable, however, when the two parties are not present within the same location (e.g. e-commerce), necessitating the usage of digital tokens. In a digital currency system, the means of payment is just a string of bits. It becomes challenging to prevent the buyer from re-using the same bit string over and over again (Rosenfeld, 2014).

Using blockchain technology, cryptocurrencies use balances to record trades and keep track of their obligations which are publicly known by all traders. A cryptocurrency system in a decentralized network typically needs to overcome three challenges (Gans and Halaburda, 2013):

- (1) How to establish a consensus in a distributed network?
- (2) How to discourage double spending behaviors?
- (3) How to encourage proper transaction validation?

2. Problem of the study

A cryptocurrency is a digital asset designed to work as a medium of exchange that uses cryptography to secure its transactions, to control the creation of additional units and to verify the transfer of assets. Cryptocurrencies are a type of digital currencies, alternative currencies and virtual currencies. It is always doubtful whether they will ever become mainstream currencies. The current study raises the following questions:

- (1) What is the Nature of Cryptocurrencies?
- (2) What are the advantages and disadvantages of Cryptocurrencies?
- (3) Do Saudi Arabia friendly with Cryptocurrencies?
- (4) What are the risks of using Cryptocurrencies?
- (5) Can Cryptocurrencies fulfil the function of money?

3. Objective of the study

The above-mentioned research questions can be analyzed if we achieve our research objectives that are framed as following points:

- (1) Determine the Nature of Cryptocurrencies.
- (2) Discuss the risks of using Cryptocurrencies.

- (3) Determine the advantages and disadvantages of Cryptocurrencies.
- (4) Determine the functions of cryptocurrency as money.

4. Methodology

This is an inductive approach to a descriptive analysis (Qualitative research). Here, we will go through a number of papers, researches and literatures that looked at different concerns and facets of cryptocurrency in depth. Many prior experiments and papers in this area would be interconnected and reviewed with the research questions in order to arrive at an acceptable research conclusion.

5. Nature of cryptocurrencies

Since societies transitioned from a barter economy to using money as a medium of exchange, individuals have tried to devise systems that allow for rational ways to exchange value. In order to help make goods and services commensurable the Greek philosopher Aristotle came up with four criteria that help to dictate what is considered to be "good money" (Wang, 2020).

- (1) It must be durable
- (2) It must be portable
- (3) It must be divisible
- (4) It must have intrinsic value

Gold was once the chosen means of trade since it met all four of these requirements. Governments were pushed to establish a more open means of trade that they could manage and regulate as markets expanded and demand for a medium of exchange increased. This was the beginning of fiat money. This unique medium of exchange has been widely accepted, but it has its own set of issues.

A cryptocurrency is a digital currency that is secured by cryptography (Frankenfield, 2021). Blockchain specifically deals with the way in which data is structured and allows for the existence of decentralized digital ledgers where single organizations are not able to effect transactions (Hackett, 2016). Currently the two most widely adopted cryptocurrencies are Bitcoin and Ether, the currency that is used to power the Ethereum blockchain. The places where anyone can buy or sell crypto is known as Cryptocurrency Exchange. Every crypto exchange has its unique rules and regulations, but they all provide a person access to the most prevalent cryptocurrencies. These exchanges are mainly of two kinds:

- (1) Centralized
- (2) Decentralized

A centralized cryptocurrency exchange is a marketplace for buying and selling digital properties. In this case, you would rely on a third party to oversee the sale and protect the properties on behalf of the buyer and seller. Their transactions are not recorded on the blockchain. In such exchanges, you must apply your personal information for authentication. If you're a company, then you must provide your company's information in order to verify your account. When you provide a greater amount of information to these exchanges, your withdrawal quota will increase. In case of technical difficulties or password loss, verified users can reach out to the support team of these platforms. These platforms are widely popular with cryptocurrency users and can be found on any site that offers cryptocurrency trading. Centralized crypto exchanges usually offer their users flat pairs at stable prices.

Some examples of centralized cryptocurrency exchanges include Binance, Coinbase, Local Bitcoins and others.

A DEx or a decentralized cryptocurrency exchange, on the other hand, is similar to a centralized one, except it does not have a third party on which you can rely. They are completely decentralized platforms that support peer-to-peer (P2P) trading using assets, proxy tokens and an escrow system, instead of IOU-based systems that use centralized exchanges, unlike the IOU-based system a centralized crypto exchange uses.

Usability and volatility of cryptocurrency

5.1 Differences between a digital currency and a cryptocurrency (BBVA, 2021)

"One of the differences between a digital euro and a Bitcoin is the way they are issued. While the operations, in the case of the euro, are centralized and the only one that can issue it is the ECB (European Central Bank), in the case of a Bitcoin it is totally different," says Alberto Muñoz Cabanes, Professor at the Department of Applied Economics and Statistics at the National Distance Education University (UNED).

As it comes to cryptocurrency mining by consumers, it is a distributed mechanism that is fundamentally distinct from the issuing of money by a central bank, so states may issue it indefinitely, while the monetary mass of Bitcoin, for example, is predefined and can never surpass 21,000,000. Since cryptocurrencies are created by the users themselves, only after the creation of the blocks and their verification do new coins enter in circulation. From there, its value is set by the market. Another significant distinction is that, a digital currency backed by a central bank would have low volatility, compared to that exhibited by cryptocurrencies today. This is due to the fact that while central banks ensure financial stability through monetary policies in relation to the value of other currencies, Bitcoin is a volatile currency because it acts in an immature market, not backed by any centralized authority and therefore full of expectations.

- 5.1.1 Characteristics of digital currencies. In order to issue a digital currency backed by central banks, called by the acronym CBDC (central bank digital currency), the Bank for International Settlements (BIS) lists up to 14 characteristics that make this type of currency a platform that aligns with the financial stability objectives that govern international monetary institutions. The highlights of CBDCs, according to the BIS, are:
 - The exchange and valuation would be identical to that of real currency, with no uncertainty.
 - (2) They will be approved and accessible for all forms of online and offline purchases 24 h a day, seven days a week.
 - (3) At the time of production and final distribution of the currency, the expense would be minimal, almost zero.
 - (4) They will still be a safe and robust infrastructure against cyberattacks, system crashes and disturbances.
 - (5) They can work for a variety of banking schemes.
 - (6) Due to the backing of a central bank, they would be stable and legitimate currencies.
- 5.1.2 Characteristics of cryptocurrencies. Cryptocurrency is a form of digital currency in which cryptographic techniques are used to control the creation of currency units and to validate the transfer of funds. It is not issued by any central authority that would theoretically render it to become immune to government interference or manipulation.
 - Irreversible: After confirmation, a transaction cannot be reversed, there is no safety net.

- (2) Anonymous: Neither transactions nor accounts are connected to real-world identities, everything is digitalized with access by means of the internet.
- (3) Global speed: Transactions are nearly instant in the network and are confirmed in a couple of minutes. Since they happen in a global network of computers they are completely indifferent of your physical location. There are no third parties involved in verification or validation.
- (4) Secure: Strong cryptography and the magic of big numbers make it impossible to break this scheme.
- (5) No Gatekeeper: The software that everybody can download is free. After you install it, you can receive and send bitcoin or other cryptocurrencies.

5.2 Volatility of cryptocurrencies

Cryptocurrency price fluctuation is very common, and it leaves everyone perplexed as to why it occurs so often (Figures 1 and 2). The price of cryptocurrency fluctuates due to a variety of reasons. The Volatility Index, sometimes known as the CBOE Volatility Index, is used to calculate the volatility in trading assets in conventional markets. Since cryptocurrencies are still in their early stages, there is no clear definition for their volatility.

5.3 Factors that influence the fluctuation of cryptocurrency values
Here are a few of the most significant factors that influence the fluctuation of cryptocurrency values (Expert Commentator, 2019).

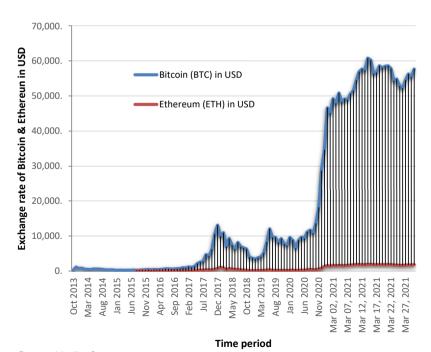


Figure 1. Volatility of cryptocurrency through exchange rate of bitcoin and Ethereum in USD

Source(s): Statista.com



Usability and

cryptocurrency

volatility of

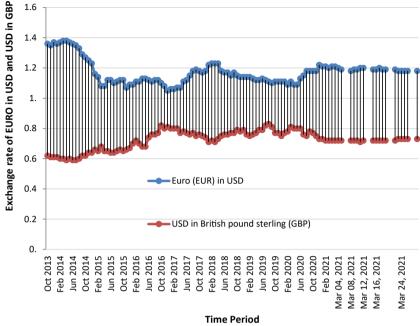


Figure 2.
Stability of fiat
currency through
exchange rate of EURO
in USD and USD
in GBP

Source(s): Statista.com

5.3.1 Cryptocurrency is still an emerging market. In comparison to fiat currencies and gold, despite all of the media coverage that cryptocurrencies have received over the years, the market is still small. Because of the small size of market, smaller factors may have a greater impact on pricing. If a consortium of investors decided to sell \$500 million worth of gold, the price of gold will not move. If anything similar happens to some other cryptocurrency, it will be enough to destabilize the whole sector and trigger a price collapse. However, since the cryptocurrency industry is still growing, there are many opportunities to enter it with a fresh and exciting project.

5.3.2 Cryptocurrencies are purely digital. Most cryptocurrencies like Bitcoin are purely digital assets and are not backed by anything physical like a currency or commodity. That means their price is solely determined by supply and demand. Many cryptocurrencies, such as Bitcoin, have a fixed or predictable supply, because the price is determined by how many people choose to buy Bitcoin right now. The main cryptocurrencies have no financial assets to back their worth, and no regimes to regulate their use as a currency. That is to say, their worth is solely based on confidence. People would certainly sell Bitcoin if they no longer think its value will stay or continue to climb. This will lower the price and persuade others to sell as well, resulting in a spiral that rapidly lowers the price.

5.3.3 The technology is still developing. The advancement of blockchain and other alternative crypto technology is still in its early stages. It will take some time before the industry matures, since it's a decade ago that the concept of cryptography-based decentralized currencies was released in the Bitcoin whitepaper. Despite this, many businesses have also embraced blockchain technology and are currently using it for marketing and advertisement. On the other hand, significant technological advancements will have a positive impact. This includes structural advancements including the Bitcoin Lightning Network and new common blockchain technologies like Ethereum. There are also

lots of new cryptocurrencies popping up all the time looking to compete and take some market share from the established ones.

5.3.4 Speculation. Speculation is one of the most important causes of volatility in the cryptocurrency sector. Buying and selling cryptocurrencies allows buyers to gamble on the price of various cryptocurrencies going up or down. In reality, it is the cryptocurrency market's uncertainty that attracts speculative traders to make big money by guessing the swings. If you can pick when the price of Bitcoin or XRP will burst upwards and buy right before it does, you can make a killing. Likewise, if you can short sell a cryptocurrency right before it crashes, you can profit too. Many analysts are actively attempting to predict the cryptocurrency markets up and down swings. These speculative bets add to the already choppy market's uncertainty.

5.3.5 The media. Since cryptocurrency is a niche industry with a lot of hype, the media has a big influence over where the prices fluctuate. Speculators and analysts are constantly observing the press for the latest major story that will either launch or crash the economy. When something does emerge, everybody understands that it's a sprint to buy or sell. In this race quickest will earn maximum profit whereas the slowest will lose the most. The media's coverage of the cryptocurrency industry has a major effect on its prices. Most of the time it does not help in the cryptocurrency business as people are getting their information from dubious sources and social networking. Frequently, the media strives to be the first to report on breaking cryptocurrency developments. As a result, some marketing experts have figured out how to profit from the buzz surrounding Bitcoin's ups and downs. For e.g. as the price of cryptocurrency rises, people start getting some promotional buzz for their brand to introduce cryptocurrency as a method of payment.

5.3.6 The profile of crypto investor. The crypto investor profile in the cryptocurrency industry is the final consideration. Unlike other sectors, such as real estate and the stock exchange, blockchain trading and investment has relatively low entry barriers. To buy, you do not need a lawyer, a trading licence or a certain amount of money. Anyone with a few dollars and access to the Internet will start trading right away. This is why millions of novice traders around the world choose to trade on the crypto exchange. Institutional buyers, on the other hand, are wary of the cryptocurrency sector. Many people believe it is far too dangerous to even approach it. When these two factors are combined, the average cryptocurrency investor has even less expertise and knowledge than any other investors. As a result, the cryptocurrency markets are highly susceptible to speculation, FUD (fear, confusion and doubt), as well as outright manipulation. Crypto traders sometimes panic in circumstances where seasoned traders could stay cool and stable.

6. Risks of using cryptocurrencies

Cryptocurrencies' success and anonymity are attracting a lot of interest from all over the world. Criminals are attracted to the features that allow for money laundering and secrecy, whilst investors see chances for big profits to go unreported. On the other hand, both governments and banks are beginning to raise their voices in protest. Despite the fact that cryptocurrency is intended to be more reliable by cryptography, there are still risks associated with utilizing it. Such as-

6.1 Business risk

Loss of confidence in digital currencies as the embryonic existence of the currencies exposes them to a great deal of danger. Online platforms have generated a large trading activity by speculators seeking to profit from the short-term or long-term holding of digital currencies. Cryptocurrencies are not backed by a central bank, a national or international institution, money or other forms of credit, and their worth is solely determined by the value that market

players put on them by their transactions, which means that a lack of confidence could result in a decrease in value.

Usability and volatility of cryptocurrency

6.2 Cyber/fraud risk

Due to the fact that bitcoin is simply a cash currency, it has drawn a significant number of criminals. These hackers have the ability to hack through cryptocurrency markets, drain cryptocurrency accounts and corrupt person machines with cryptocurrency-stealing malware. When more and more transactions take place over the internet, hackers use spoofing/phishing and malware to attack users, service providers and storage areas. To secure purchased cryptocurrencies from fraud, investors must rely on the strength of their own computer security systems, as well as security systems offered by third parties.

Moreover, cryptocurrency is heavily dependent on unregulated businesses, some of which could lack adequate internal controls and thus be more vulnerable to fraud and robbery than controlled financial institutions. Furthermore, the program must be revised on a daily basis and can be suspicious at times. Buying blockchain technology from vendors could expose you to a lot of third-party danger.

There is very little in the way of recovery. If a user's wallet keys are stolen, the thief can totally impersonate the account's original owner and has the same access to the wallet's funds as the original owner. Once the bitcoin is exchanged out of the account and the exchange is recorded in the blockchain, it is lost forever to the original owner.

6.3 Operational risk

From a centralized clearinghouse ensuring a contract's legality comes the right to cancel a money transaction in an organized manner; with a blockchain, this is not feasible. This lack of permeance is further shown by the fact that Bitcoin accounts are cryptographically encrypted, which means that if the account's "keys" are lost or stolen and then removed from the holders, access to the funds in the account is almost definitely lost or stolen as well.

6.4 Regulatory/compliance risk

Some countries can prohibit the use of the currency or declare transactions to be in violation of anti-money laundering (AML) laws. A unified AML solution does not exist due to the difficulty and decentralized existence of Bitcoin, as well as the large number of participants—senders, receivers (possibly launderers), processors (mining and trading platforms) and currency exchanges.

6.5 Market risks

The market risks are idiosyncratic, as the currency trades only on demand. Since there is a limited supply of the currency, it may face liquidity issues and limited ownership may make it vulnerable to market manipulation. Furthermore, because of its small adoption and shortage of substitutes, the currency can tend to be more unpredictable than other physical currencies, driven by speculative demand and compounded by hoarding.

6.6 Legal risks to cryptocurrency investors (Nathan Reiff, 2021)

6.6.1 Cryptocurrencies as property. The way central authorities interpret cryptocurrency holdings is one of the most important legal concerns for any cryptocurrency investor. The Internal Revenue Service (IRS) in the United States has classified cryptocurrencies as property rather than currency. This means that individual investors are beholden to capital gains tax laws when it comes to reporting their cryptocurrency expenses and profits on their annual tax returns, regardless of where they purchased digital coins. When it comes to

disclosing cryptocurrency gains and expenses, digital currency holders should take extra care and follow the advice of tax practitioners. Since the laws are always changing, what was legal last year or even months ago can now be illegal.

6.6.2 Decentralized status. One of the major disadvantages of many cryptocurrencies is that they are decentralized, meaning they lack a physical presence and are not supported by a central body, while governments around the world have stepped into it to assert their regulatory power in various ways. On one hand, this relieves investors of their reliance on such institutions. On the other hand, this position may lead to legal ramifications. The value of digital currencies is entirely determined by the value ascribed to them by other owners and investors; this is true of all currencies, digital or fiat. Without a central authority backing the value of a digital currency, investors may be left in the lurch.

Another potential risk associated with cryptocurrencies as a result of their decentralized status has to do with the particulars of transactions. The majority of such exchanges include the exchange of money that has a tangible appearance. A trustworthy financial institution is engaged in the creation and settlement of deposits and debt claims in the case of electronic currency. These principles do not apply to cryptocurrency purchases. Because of this fundamental distinction, there is a real risk of legal ambiguity between parties in different forms of digital currency transactions. Because of the decentralized nature of these currencies, determining the best course of legal action in these cases may be challenging.

6.6.3 Registration and licensing of businesses. A growing number of businesses are taking advantage of digital currencies as a form of payment. As in other financial areas, businesses may be required to register and obtain license for particular jurisdictions and activities. This field is significantly less evident for companies working in the crypto industry due to the dynamic and changing regulatory status of digital currency. For example, Companies who only accepts cryptocurrencies may not be required to file or procure any licenses. However, depending on their jurisdiction, they will be asked to adhere to special considerations. In both the municipal and state levels, it is the duty of company owners and administrators to ensure that they are following correct regulatory protocol with their activities. Financial institutions must maintain such practices relating to anti-money laundering and anti-fraud protections, fund transmission and more at the federal level. These considerations must also be extended to companies that work with digital currencies.

6.6.4 Fraud and money laundering. Cryptocurrencies are widely believed to provide criminal organizations with new ways of committing bribery, money laundering and a variety of other financial crimes. Many cryptocurrency investors may be unaffected because they do not want to use this emerging technology where such crimes are possible to be committed. Investors who are the unintended victims of financial crime, on the other hand, are unable to have the same legal options as traditional victims of fraud.

This problem is also due to the fact that digital currencies are decentralized. When a cryptocurrency exchange is hacked, for example, and consumers' shares are robbed, there is no common procedure for retrieving the assets. By buying and holding cryptocurrency assets, digital currency holders take on a certain amount of risk. It is for this reason that digital currency creators and startups have devoted so much time and effort on developing stable ways to store digital coins and tokens. Despite the fact that new types of wallets are constantly being launched, and cryptocurrency exchanges are constantly upgrading their security mechanisms, consumers have yet to be able to completely remove the legal risks associated with cryptocurrency ownership, and it's unlikely that they ever would.

7. Advantages and disadvantages of cryptocurrencies

The advantages of digital currency are a plenty, in addition to the fact that it is useful for the business or the entrepreneur but the buyer themselves. Obviously, on the off chance that you

Usability and volatility of cryptocurrency

(1) Advantages

- · Easy access
- Quick and easy payments
- Costs less
- Private
- · Highly secured
- · Remain anonymous
- Your details are safe
- · No chargebacks
- · No third party
- No boundaries

The advantages do not imply that there are no dangers engaged with putting resources into cryptocurrencies. Much the same as whatever else fiscally, they are not impeccable and there are disadvantages of cryptocurrencies.

(2) Disadvantages

- Difficult to understand
- · Lack of knowledge
- · Not accepted widely
- · Can lose your wallet
- No way to reverse the payment
- Uncertainty

8. Behavior of Saudi Arabia toward cryptocurrencies

In Saudi Arabia, cryptocurrencies are barely used. The public perception of such currencies in Saudi Arabia is mostly negative (connoted with crimes and criminals). However, that is changing as the value of digital currencies surpasses oil and gold and people start reading about such currencies. In Saudi Arabia, the majority of digital currency consumers are buyers looking to double their money in a short period of time. Some Saudis are considering launching a mining firm, but they are still weighing the pros and cons of such a venture (see Figure 3).

According to research, there are currently no Bitcoin-accepting online shops in Saudi Arabia. In addition, no Saudi Arabian banks consider or swap cryptocurrency for Saudi Rial. The high degree of uncertainty in the currency is one of the reasons that these online retailers are not using Bitcoin or other digital currencies. There is no bitcoin mining business in Saudi Arabia (validates transactions for the network by running complicated mathematical calculations in exchange for money). Also none of the individuals are there who performed

25

any mining tasks. While some individuals in Saudi Arabia have installed miner software on their machines and begun competing and mining bitcoins, these activities are merely exploratory, and there are no organized or technical organizations in this industry.

The Saudi Arabian Monetary Authority (SAMA) has recently announced the deployment of blockchain technology for money transfer to deposit part of the liquidity that it had previously announced to inject into the banking sector. By deploying such advanced technology, SAMA aims to enhance its capabilities with regard to emerging technologies and keeping pace with the global trends of central banks. Such a move will also allow SAMA to continue its efforts in exploring, experimenting and assessing the impact of such technologies on the financial sector.

SAMA is one of the first central banks to experiment with blockchain technology for money transfers. The move is one of the key initiatives launched by SAMA to promote fintech in the Kingdom (Hafiz, 2020).

9. Cryptocurrency and the functions of money

Cryptocurrencies can conveniently fulfill the monetary function as medium of exchange since they are electronic currency and can be used by any device connected to the Internet. It's one thing to logically fulfill that role, seeking demand for its use as a means of exchange is a different matter, one that's complicated by securing demand as a store of value or unit of account. Due to fluctuating demand and inflexible supply, as well as the lack of an entity that can control the supply to sustain a stable valuation, cryptocurrencies are actually completely ineffective as a unit of account. Unlike national currency issuers, these issuers are not subject to legislative or electoral control to ensure that they do not misuse their power to maximize supply. According to Friedrich Havek, private providers of money can compete in a free market and make their currencies attractive by offering guarantees of maintaining their purchasing power (Hayek, 1990). Of the cryptocurrencies studied here, and arguably, of all cryptocurrencies, only bitcoin can attract demand as a store of value, due to the high degree of credibility and predictability to its supply, and the resistance to manipulation and resilience it has shown in the years since its existence. It's possible that Bitcoin will continue to grow in popularity as a store of value and expand its use as a medium of exchange, however the same cannot be said about other digital currencies, which seem to provide little benefits as a store of value or unit of account, and hence are unlikely to gain traction as a medium of exchange.



Source(s): Online Survey conducted by 4SIGHT Research & Analytics in KSA in 2018

Figure 3.
Consumer perception toward cryptocurrencies in Saudi Arabia

10. Conclusion

As a bottom line we can say that anonymity and concealment are important aspects of cryptocurrencies. Few of them have risen to prominence due to their ability to ensure that all purchases are processed with due diligence and authenticity without any intervention. We must draw an analogy with a real-world transaction that are done conventionally with fiat currency. For example-

Usability and volatility of cryptocurrency

- (1) Crypto Transactions must be signed by the users like conventional transaction system and must be verifiable by others.
- (2) It should be counterfeit-proof such that no one else will fake your signature.
- (3) It must be protected against the chance of subsequent revocation by the signer that is, you cannot back out of a promise once signed.

Financial transfers and payments require a high level of trust. Individuals and organizations need assurance that their transactions are handled and executed in a reasonable and secure way, a prerequisite that places financial intermediaries (such as commercial banks) and central banks in the business of confidence by ensuring the integrity of the customer's account and financial transactions (Nelms *et al.*, 2017).

With this article I attempted to add to the literature on cryptocurrencies in four essential dimensions. First, it explained what a cryptocurrency is and how it works, that is the nature of cryptocurrency. Second, it focused on the risks that crypto transactions entail. Third, it highlighted the benefits and drawbacks of the whole cryptocurrency system, as well as the functionality of it as ideal money.

11. Limitations

Like all research, my study has certain limitations. It focuses on the issue of trust, but due to lack of facts and knowledge, it is unable to identify more technological factors that obstruct its transaction mechanism rather than reinforce it.

12. Recommendation for future research

In the future, I hope that researchers in this area will analyze the relationships between the identified trust attributes and the level of their technical skills. This will give them a better understanding of the trust-related technical characteristics that help or impede the use of blockchain and its applications.

References

BBVA (2021), "What are the differences between a Digital currency and a cryptocurrency?, *Blockchain*, January 4, 2021, [Blog], available at: https://www.bbva.com/en/what-are-the-differences-between-a-digital-currency-and-a-cryptocurrency/.

Expert Commentator (2019), "Why are cryptocurrencies so volatile?", Smart Insights, March 6, 2019, [Blog], available at: https://www.smartinsights.com/digital-marketing-strategy/volatile-cryptocurrencies/.

Frankenfield, J. (2021), "Cryptocurrency", *Investopedia*, 28 September, available at: https://www.investopedia.com/terms/c/cryptocurrency.asp (accessed 7 October 2021).

Gans, J.S. and Halaburda, H. (2013), "Some economics of private digital currency", SSRN Electronic Journal. doi: 10.2139/ssrn.2297296.

Hackett, R. (2016), "Wait, What is blockchain?", Fortune, Fortune, 24 April, available at: https://fortune.com/2016/05/23/blockchain-definition/ (accessed 7 October 2021).

JMB 2.1

28

- Hafiz, Z.T. (2020), "Saudi Arabia attitude for blockchain", Arabnews.Com, 17 June.
- Halaburda, H. and Gandal, N. (2014), "Competition in the cryptocurrency market", SSRN Electronic Journal. doi: 10.2139/ssrn.2506463.
- Hayek, F.A. (1990), "Denationalization of money: The Argument Refined (an analysis of the theory and practice of concurrent currencies series) by Friedrich A. Von Hayek (1990-06-03)", Snbchf.com, 15 October, available at: https://snbchf.com/author/friedrich-hayek/books/hayek-denationalisation-money-refined-theory-concurrent-currencies-friedrich-hayek-1990-06-03/ (accessed 7 October 2021).
- Nathan Reiff (2021), "What are the legal risks to cryptocurrency investors?", *Investopedia*, Fact checked by Katharine Beer on October 24, 2021, available at: https://www.investopedia.com/tech/what-are-legal-risks-cryptocurrency-investors/.
- Nelms, T.C., Maurer, B., Swartz, L. and Mainwaring, S. (2017), "Social payments: innovation, trust, bitcoin, and the sharing economy", *Theory, Culture and Society*, Vol. 35 No. 3, pp. 13-33.
- Rosenfeld, M. (20142009), "Analysis of hashrate-based double spending", ArXiv.org, 9 February, available at: https://arxiv.org/abs/1402 (accessed 7 October 2021).
- Wang, M. (2020), "Bitcoin and its impact on the economy", [2010.01337] Bitcoin and Its Impact on the Economy, 3 October, available at: https://arxiv-export-lb.library.cornell.edu/abs/2010.01337? context=econ (accessed 7 October 2021).
- Wang, J.C. and Lo, S. (2014), "Bitcoin as money?", Federal Reserve Bank of Boston, 9 September, available at: https://www.bostonfed.org/publications/current-policy-perspectives/2014/bitcoin-as-money.aspx (accessed 7 October 2021).

Corresponding author

Ruby Khan can be contacted at: ruby_khan123@yahoo.co.in