

Cryptocurrency and Bitcoin as Buzzwords in Fintech: An In-Depth Review

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ABSTRACT

Unlike many other nascent technologies, Bitcoin seems to have progressed past the first phases of acceptability. This issue even impacted autos. It is probable that one of the key causes leading to the fall of cryptocurrencies is the fact that Bitcoin has begun to carve out a niche for itself. At this point, we cannot say if Bitcoin will ever attain broad adoption in global markets, although it is possible. (www.ijbmcnet.com) 8 The Bitcoin community has given itself the goal of infiltrating the mainstream via the development of new features and the resolution of long-standing difficulties, according to the Center for Contemporary Research. Not alone does Bitcoin have a committed following; other cryptocurrencies do as well. You may learn more about bitcoins and other cryptocurrencies by researching them. It would be advantageous to do study on the long-term influence of Bitcoin on the performance of fiat currencies, and then compare the results to those acquired in countries that are beginning to embrace government-issued cryptocurrencies. Microtransaction capabilities may enable bitcoin to satisfy a need in the economy that traditional state-sponsored currencies are unable to meet; nevertheless, this will require a thorough examination of the markets and the economy. Block chain technology, which underpins Bitcoin, may also be used to create smart contracts (Hileman, 2016). When a certain incident occurs, a pre-programmed payment is made. Given that this is often handled by the whole accounting department of the organisation, there is a lot of space for future progress in this area. Finally, a cryptocurrency is a kind of digital asset created when data is encrypted. Through the deployment of a cloud-based infrastructure, the music business has raised public awareness of digital property.

Keywords- Cryptocurrency, Bitcoin, Digital trade, blockchain, mining.

I. INTRODUCTION

Bitcoin, the world's most extensively used cryptocurrency, has recently seen a boom in demand. Despite the fact that its essential design has remained constant since its introduction in 2008, current changes in the health of the global economy have resulted in considerably more interest in cryptocurrencies than before. Transactions in digital money may be carried out between cryptocurrency users without the requirement for a mediator. Deciphering encryption methods in cryptography leads in the generation of a limited number of one-of-a-kind hashes for each transaction. Users may exchange hashes in the same way that actual money is

exchanged for, using a computer network that checks credentials. The total amount of bitcoins that may ever be created will be limited due to the possibility of an overstock of bitcoins and to maintain their individuality. Although water is necessary for life, there is a popular misperception that since it is so abundant, it can be gotten at little or no expense. Water would be worth more than diamonds if it were scarcer. Since of this, bitcoin has value because its users believe they can use it to buy anything else they want or need (Kelly, 2014). When buying anything of worth, the customer's trust is more crucial than practically anything else. The value of bitcoin is affected by its environment in the same manner as the value of wampum, a seashell used as land money by

Native Americans, did (Kelly, 2014). Given that Bitcoin cannot be used to create physical goods such as jewellery, it is reasonable to conclude that it does not have the same amount of value as gold.

Bit Pay, the world's biggest Bitcoin processor, reported a 110 percent increase in the number of transactions completed in the previous year! Team (2016) The number of transactions on the Center for Contemporary Research's website, www.ijbmnet.com, has increased, which may imply that consumers are happier than in the past. It's feasible that a "fire triangle" will be necessary before Bitcoin is accepted by the general population. To catch fire, the Bitcoin ecosystem will need a mix of customer and vendor acceptance, as well as new initiatives. Bitcoin may not become a popular currency until all three of these prerequisites are satisfied. The general public's rising acceptance and usage of bitcoin is now powering the second and third legs of the so-called "fire triangle." Because bitcoin is a new technology with the potential to revolutionise the global money sector, it is critical to keep a watch on this issue in the next years.

The expansion of the global financial industry has played a key role in the general public's adoption of bitcoins. Modern global enterprises fueled by the Internet are intertwined. If a market drop happens in one place, it is quite likely that it will spread to the others. Bitcoin, like the Euro, may be able to traverse national borders, benefiting international commerce, economic development, and even even global peace.

II. STRENGTHS

In addition to having a limited quantity of money, its intrinsic worth has grown through time, resulting in a rise in its value. It will take another four years to mine the maximum number of bitcoins, which is 21 million (King, 2013). The fact that Bitcoin has this attribute may be used to assess its worth. There will never be any cases of inflation since there are only a limited quantity of bitcoins in circulation. Furthermore, it is often assumed that the price of bitcoin and other cryptocurrencies will not increase in reaction to national government acts or regulations. in 2016 (Magro). Due to the lack of inflation, this offers a "safe haven" for anybody looking to invest their money. Bitcoin is quickly becoming a viable alternative to inflated national currencies, and this trend is projected to continue in the foreseeable future. Their prices, like those of other commodities, are susceptible to significant fluctuations owing to a variety of external variables. Bitcoin's rise to the top of the US Dollar Index in 2015 might be linked to a number of reasons, including growing demand for an alternative safe haven and price volatility. Desjardins & Company (2016) According to this, Bitcoin was the world's most valuable currency at the end of the previous year. [Citation required] Achieving something of this size in a global economy headed by behemoths like China and the United States is no simple undertaking.

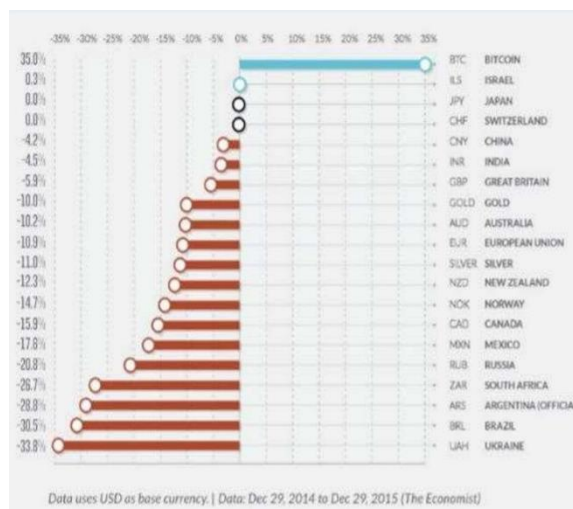


Figure 1: The currency that had the best performance in 2015

The volume of bitcoin transactions in South America increased by 51% between 2014 and 2015. Published in 2015, A New Global Economy According to Bitcoin) Despite the country's high inflation rate and a large section of its people without access to conventional financial institutions, Bitcoin adoption is increasing in Argentina (Magro, 2016). Argentina's currency was often traded for US dollars in order to retain its worth. Rather than enabling its residents to convert an unlimited quantity of US dollars, Argentina has imposed limitations on the number of US dollars they may change into local currency. The popularity of bitcoin has grown as a consequence of the establishment of an unauthorised currency exchange (Magro, 2016). In recent years, it has been plainly obvious that Argentinians utilise cryptocurrencies as a popular and legal option for sustaining the value of their country's currency.

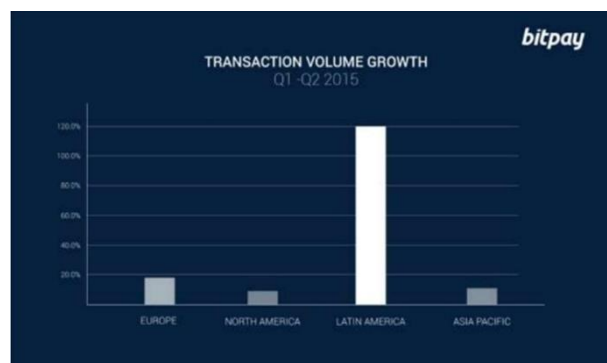


Figure 1: Increase in the number of Bitcoin transactions

Argentina's position is not unique. For investors, global markets often fail owing to political challenges, but crypto currencies have experienced a recent increase in both their value and their application. Because of the

unexpected nature of the departure, the media has given the United Kingdom's decision to resign from the European Union the label "Brexit." Prior to the election, the value of bitcoin fell by more than 15%. (Bovaird, 2016). The price increased from \$550 to \$650 the day following the Brexit vote. Despite this, the value of global stock markets fell as investors lost faith in the financial ramifications of the Brexit decision. Cryptocurrency is the only kind of money that can be acquired and exchanged in seconds while also being accepted everywhere in the globe. While other fiat currencies may be changed, doing so requires a trip to a money changer, and the converted monies can only be used if they are recognised on the local market. A person from the United States, for example, would be unable to make a purchase in Japan using USD. If you want currency exchange, you should usually head to the closest international airport. Second, since the yen is not generally accepted in the region, they would be unable to utilise it as a form of money. Bitcoin, on the other hand, is immune to the effects of this issue (or any other cryptocurrency). All that is necessary to get bitcoin is an account with an online exchange, and the transaction can typically be completed in a matter of minutes. Customers who have bitcoin in their digital wallet will be able to make purchases from tens of thousands of businesses all around the world. A currency with a high value should utilise Bitcoin to enter and leave the market swiftly.

III. WEAKNESSES

Bitcoin's unique structure, the cryptocurrency faces a number of basic issues that are difficult to solve. Every transaction is recorded in the public ledger, which is also known as the block chain. Even when utilising a bitcoin wallet, there is still some degree of anonymity, which may turn off some individuals who are thinking about adopting bitcoins. The public block chain's openness and accessibility make it especially vulnerable to assaults (King, 2013). In the past, the Bitcoin network has been subjected to so-called "stress tests," which are more appropriately defined as distributed denial of service assaults (Hileman, 2016). These so-called "tests" were started by Bitcoin exchanges and miners in order to highlight a weakness in the Bitcoin network's design. The system's design has a weakness in the form of the possibility that Bitcoin users would destroy the network in order to prove their argument. Both of these characteristics of Bitcoin's architecture are critical to its functioning and, as such, cannot be modified. Those who are hesitant to adapt must do so despite these disadvantages; they cannot escape it. As a consequence of recent occurrences, Bitcoin's reputation has suffered. As a consequence of the Silk Road stories, there may be an unfavourable view of virtual currencies in general, not just Bitcoin. Silk Road was a dark web marketplace used by a significant number of drug traffickers and their consumers to conduct illicit drug transactions. This was

their favourite method of payment due to the lack of governmental supervision and the semi-anonymous nature of Bitcoin transactions. Over the preceding three years, total revenues of one billion dollars were realised (Bearman, 2015). People who obey the law and want offenders brought to justice may see Bitcoin's semi-anonymity as a negative. If the advantages of semi-anonymity are not well conveyed to regular cryptocurrency users, the general public may conclude that digital currencies are solely utilised by dishonest individuals. Furthermore, there is a widespread belief that the security of cryptocurrencies is unclear.

Mt. Gox, an abbreviation for Magic the Gathering Online Exchange, filed bankruptcy in 2011 after being hacked to the tune of 460 million dollars (McMillan, 2014). When developing new programmes, Mark Karpeles, who acts as both CEO and chief programmer, did not employ version control. Furthermore, he was known for spending weeks without installing security upgrades (McMillan, 2014). Cybercriminals were able to steal bitcoin due to weaknesses and omissions in the exchange's security safeguards. The value of bitcoin fell as a result of people selling their bitcoins out of fear that they would be stolen. Separate digital currency ETH, or Ethereum, had its security breached to the tune of \$50 million (Price, 2016). The great bulk of these attacks are directed at large Bitcoin holders who have not upgraded their security mechanisms. These people are mostly to fault for the drop in bitcoin's value as well as the harm done to its reputation. It will be difficult to acquire broad popularity until bitcoin exchanges realise how security flaws render them vulnerable to hacks like this. People are realising that the price of bitcoin is starting to level out and that the prospective rewards on investment are not assured. Since June of 2016, the difficulty of successfully completing the algorithm has risen, causing the cost of bitcoin mining to rise. A "halving event" occurs when the number of bitcoins that are returned to miners is slashed in half. Because the expenses of maintaining the machines would surpass the earnings earned by bitcoin mining, up to 25% of the Bitcoin network may be compelled to move to more contemporary equipment (Kar, 2016). Changes in the mining industry may render the network more susceptible to attack in the future. As a consequence of diminishing profitability and rising mining expenses, new miners are growing less interested in joining the network. When the frequency of block halving is increased, only the most powerful miners will be allowed to continue mining; this will continue until all bitcoin has been mined.

IV. OPPORTUNITIES

Cryptocurrency is in a unique position since it was one of the first implementations of a technology that has the potential to outperform established financial institutions. P2P (peer to peer) systems have the potential to address some of the gaps in today's financial

technology and assist in resolving some of the issues that have plagued conventional banking. Another significant achievement that may be credited to Napster, another peer-to-peer technology, is the removal of intermediaries as a vital component of the music business (Kelly, 2014). The first stage in creating a game-changing innovation is to give a solution to a specific issue faced by an industry. Customers who do not have bank accounts, for example, may profit from the use of cryptocurrencies. The population of underdeveloped nations has a considerable lack of access to financial services. Latin America has roughly 600 million inhabitants, however around 60% of them do not have access to a financial institution (Magro, 2016). Because of the technology underpinning bitcoin, anyone may send and receive monetary transactions without the intervention of a third party, such as a banking institution. Only a mobile phone is required to use the digital currency Bitcoin, which is held by 70% of Latin Americans (Magro, 2016). Because bitcoin employs ad hoc networking, two users may exchange bitcoins by scanning QR codes on their phones. This is made feasible by the features of bitcoin. This is unquestionably a one-of-a-kind answer for individuals who have been fighting with this issue for years, and some people have been struggling for decades.

V. THREATS

Bitcoin has a long way to go before it is considered a mainstream currency. Because of the significant degree of price volatility connected with cryptocurrencies, both consumers and investors are sceptical of them. The general public's strong opposition to cryptocurrencies is a last impediment to their widespread adoption. [PWC]. When the value of a currency varies, the public's belief in its overall worth is harmed. According to a PwC study, 83 percent of respondents polled understood very little or nothing about bitcoin (PwC, 2015). Because cryptocurrencies lack a centralised authority, the investment firm's competitors may benefit from attempts to solve this marketing challenge via promotion. This is a completely ineffective marketing strategy. Aside from fraudulent bitcoin transactions and robberies, exchange organisations have been impeded by inefficient system architecture. When presented in a manner that captures the audience's attention, the argument that these investments are risky may easily influence the average person. People's propensity to use bitcoin is also influenced by the absence of regulation. Cryptocurrency competitors are also attempting to give customers with an alternative kind of digital currency. Because of their product, Apple Pay, Apple is a key rival. Customers may charge purchases made through iTunes to their linked debit or credit cards by using the corporation's capabilities and infrastructure, as well as their mobile devices. Visa and MasterCard, for example, are both delighted to be a part of Apple Pay's infrastructure since it would enable them to maintain their

rates the same (Gerber, 2015). Bitcoin will never be able to compete effectively with these well-known enterprises as long as they continue to exist. PayPal will be a huge success on eBay as a way of conducting financial transactions if it is integrated for use with mobile payments. In contrast to the newbies in the Bitcoin sector, Apple, Google, and Amazon have massive marketing resources dedicated only to the mobile app business. If customers want to be able to make purchases directly from their mobile devices, it will be difficult for the bitcoin community to unite in order to compete in this market.

VI. CONCLUSIONS

In contrast to many other new technologies, Bitcoin seems to have progressed past the period of early acceptance. This conundrum had an impact on automobiles as well. One of the primary reasons for the cryptocurrency market's demise might be that Bitcoin has started to carve out a niche for itself. It is conceivable that cryptocurrencies may one day be broadly accepted in global markets, but we cannot be certain. 8 The Center for Contemporary Research may be accessed on the internet at www.ijbmcnet.com. The Bitcoin community has set itself the objective of becoming popular by creating new features and fixing long-standing issues. Bitcoin has not just lately gained a considerable following. Reading about bitcoins and other cryptocurrencies may allow you to have a better understanding of them. It is suggested that a study of the long-term effects of Bitcoin on the performance of fiat currencies be conducted, with the findings compared to those acquired from nations that are starting to adopt government cryptocurrencies. The features of Bitcoin's microtransactions may allow it to satisfy a need in the economy that conventional state-sponsored currencies are unable to meet; nevertheless, this would require a thorough examination of markets and economics. Smart contracts may be written using the same technology that runs Bitcoin, known as block chain (Hileman, 2016). When a certain event occurs, pre-programmed payments will be made. Because it is often handled by the whole accounting department of the organisation, this is a very attractive area for future development. To summarise, a cryptocurrency is a kind of digital asset created by data encryption. The transition of the music industry to a cloud-based infrastructure aided in the general public's comprehension of digital property.

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