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An Analysis And The Future of Cryptocurrency

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Abstract

The Bitcoin ecosystem is trying to break into in the future, cryptocurrency may possibly serve as a significant currency solution, with Bitcoin playing a key role in promoting the development of those currencies. Bitcoin transactions are flooding into the Latin American and European markets, suggesting genuine legitimacy. Bitcoin and cryptocurrencies have a lot more topics to explore. A thorough investigation should be conducted on the economic effects of Bitcoin's impact on conventional fiat currency performance, with a comparison of the results to countries that are beginning to adopt state-sponsored cryptocurrencies. Despite the fact that cryptocurrency's capacity to facilitate micro transactions may allow it to bridge an economic divide that conventional state-sponsored currencies cannot, this would need a far more comprehensive economic and market study. Furthermore, the blockchain technology that underlies Bitcoin has potential uses in other fields, such as smart contracts (Hileman, 2016). These contracts involve scheduled payments that occur upon the fulfillment of a specific condition. This is a very interesting topic for further change because predetermined payment agreements are usually carried out by the entire accounting team of a corporation. Lastly, a digital asset is created using cryptography in cryptocurrency. The idea of digital property was greatly advanced by the music industry's shift to a cloud-based infrastructure. This frontier, which is mostly composed of different types of media, is still fairly new and unexplored. Other forms of digital assets may surpass music and cryptocurrency in popularity. The world of digital currency, which was non-existent eight years ago, was single-handedly revolutionized by the creator of Bitcoin.

Keywords: Bitcoin, Crypto Currency, Block chain, Digital Currency.

Introduction

The most popular and well-known cryptocurrency, Bitcoin, has grown in popularity. Although it still has the same fundamental framework it had when it was established in 2008, the changing world market has repeatedly created a demand for cryptocurrencies that is far greater than what it

first demonstrated. Users can exchange value digitally without third-party supervision by using a cryptocurrency. The concept behind cryptocurrency is that it creates a limited number of unique hashes by solving encryption algorithms. Users may exchange hashes as though they were physical money thanks to a network of computers that verifies transactions. Bitcoin's scarcity is guaranteed by the fact that there will only ever be a finite quantity produced, which also prevents an excess. Because water is so plentiful, it is usually recognized as being either free or very inexpensive, notwithstanding its need as a life-sustaining substance. Water would be more precious than diamonds if it were scarce. As long as the users continue to believe that they can use bitcoin elsewhere to buy something they want or need, the valued item can be anything. Bitcoin has value because its users trust that they can use it as payment. Much like wampum, a seashell that served as currency for Native Americans, Bitcoin's worth lies within its ecosystem. Unlike gold, which has intrinsic worth because it may be used to create valuable tangible items like jewelry, Bitcoin does not have intrinsic value. However, trust and acceptance ensure that value remains. The current financial and legal frameworks were not developed with a technology like this in consideration. Older types of money served as the foundation for financial organizations. In certain respects, it is comparable to the IT sector. The foundation of computing still depends on sending and processing ones and zeros, which only provides two dimensions of input. However, because it has been adopted, developed, and there has been no need for newer systems, all of our current technology relies on this outdated technological architecture. If cryptocurrencies became the worldwide standard for transactions, traditional trade systems would have to be extensively remodeled to accommodate this kind of rivalry. Because of this, cryptocurrencies might be the most disruptive technology ever to affect the world's economic and financial systems. The world's largest bitcoin processor, BitPay, has experienced a 110% increase in transaction volume over the last year. An increase in transactions suggests that users are becoming more accepting. The factors necessary for Bitcoin's widespread adoption may be compared to a "fire triangle." Similar to how fire requires fuel, oxygen, and heat to burn, Bitcoin needs innovation, user acceptance, and vendor acceptance to start. Bitcoin may never really become a legitimate mainstream currency without all three factors. The increasing user acceptance and adoption of Bitcoin are propelling the other two components of the "fire triangle." The adoption of cryptocurrencies will be a crucial topic to monitor in the future since it has the potential to significantly change how money is transferred globally. The global market

changes have been closely associated with Bitcoin's growing use. The global market, which is driven by the Internet, is highly intertwined. If one regional market starts to decline, it may easily pull the others down with it. Similar to the Euro, Bitcoin may freely cross numerous national boundaries, fostering an atmosphere that is conducive to international trade, shared prosperity, and perhaps even peace.

Strengths

Bitcoin's fixed cap, which ensures that only a certain number will ever be in existence, has contributed to its status as a viable currency over the years. Its design also includes intrinsic strengths. According to King (2013), Bitcoin will be mined with decreasing returns every four years until the maximum of 21 million bitcoins is reached. This facet of Bitcoin is crucial for its worth. It will never become inflated by an excess of bitcoins because of the scarcity of bitcoins. Additionally, bitcoin and other cryptocurrencies are widely perceived as being insulated from inflation caused by changes or limitations imposed by national governments (Magro, 2016). This makes it a "safe haven" for investors to invest their money in because it typically doesn't decline in value due to inflation. Bitcoin is rapidly demonstrating its effectiveness as a protection against depreciating national currencies. However, as with most commodities, the price can vary greatly due to a variety of other external circumstances. Bitcoin became the best-performing currency of 2015 according to the US Dollar Index (Desjardins, 2016) due to the demand for a safe haven option and its price volatility. This implies that at the end of last year, Bitcoin was the most valuable cryptocurrency globally. In a global economy with powerhouses like the United States and China influencing the scene, this is no little accomplishment.

Weaknesses

Bitcoin has a number of intrinsic flaws that are inherent to its architecture and difficult to change. The block chain, or public ledger, allows all users to view every transaction. Semi-anonymity exists because bitcoin wallet owners cannot be readily identified, but this makes some possible users uneasy. Because all users have access to the public block chain, it is vulnerable to assaults as a result of its easy accessibility (King, 2013). The Bitcoin network has so far undergone a number of “stress tests” that were essentially DDoS assaults (Hileman, 2016). Exchanges and miners initiated these "tests" in an effort to demonstrate a fact about Bitcoin's architecture: that the network is incapable of supporting a large number of transactions at once. An unfortunate design flaw in Bitcoin's code is the ability for its operators to disrupt the network in order to make a point. These two components of Bitcoin's architecture are essential to its

function and 不可更改. These features must be disregarded in order for hesitant users to adopt them. Recent events have given Bitcoin a questionable reputation. Stories like Silk Road can create a unfavorable perception of digital currencies as a whole, not just Bitcoin. Silk Road was an online marketplace hidden in the dark net that facilitated illegal drug transactions between thousands of drug dealers and almost a million customers. Because of the semi-anonymity and absence of government oversight, they mostly traded in bitcoin. It generated close to one billion USD in revenue between 2011 and 2013 (Bearman, 2015). Law-abiding citizens may view the semi-anonymous nature of bitcoin as a disadvantage since they desire that criminals be punished. The general user population will believe that criminals are the only ones who use cryptocurrencies in the absence of effective promotion of the benefits of semi-anonymity for ordinary users. Cryptocurrencies have also gained a reputation for having dubious security. Mt. Gox, which stands for Magic the Gathering Online Exchange, was the world's leading bitcoin exchange until it went bankrupt due to a hack in 2011 that stole around $460 million (McMillan, 2014). Mark Karpeles, the CEO and lead developer, was not employing version control for new code. He would also let bug and security fixes sit unaddressed for weeks (McMillan, 2014). Hackers were able to skim bitcoin from the exchange thanks to these security vulnerabilities and lapses. When users sold their bitcoins out of concern that it would be stolen, this breach caused a significant drop in its value. A comparable type of theft occurred recently to Etherium, another type of digital money, in the amount of 50 million USD (Price, 2016). Typically, these assaults are aimed at significant cryptocurrency holders who do not adhere to current security protocols. They are the primary cause of the sharp decline in the value of these coins and contribute significantly to the negative perception of cryptocurrencies. Until future companies that trade cryptocurrencies comprehend how these attacks can be caused by security vulnerabilities, these incidents will persist to impede adoption. The fact that cryptocurrencies may be traded like commodities could be seen as a drawback. Commodity-based markets experience significant value changes due to a variety of marketplace occurrences. Ultimately, this value fluctuation diminishes investors' confidence in the commodities. An unexpected occurrence might result in a significant financial loss for the investor, which would lower investor confidence. Additionally, the factors that influence Bitcoin's price have not been clearly defined, contributing to a volatile trading atmosphere. Investors who adopt a "buy low, sell high" approach are also susceptible to trading commodities, which causes value fluctuations and has far-reaching consequences for

those who use bitcoin as currency. The risk associated with price volatility dissuades both buyers and sellers from retaining cryptocurrency for an extended period of time. Lower consumer trust poses too much risk, which restricts the validation of authenticity. Despite having the greatest capacity of any cryptocurrency, Bitcoin's price is also vulnerable to being in a shallow market.

Opportunities

Cryptocurrency is in a unique position as a pioneer in a potentially revolutionary technology that could alter longstanding financial systems. Being a peer-to-peer system, it naturally addresses issues with conventional banking and has the potential to plug holes in existing financial technologies. By eliminating the middleman, Napster, another peer-to-peer service, revolutionized the music business (Kelly, 2014). Transformative technologies begin by addressing a particular issue within an industry. Cryptocurrencies, for example, are well-positioned to address the issues faced by unbanked consumers. A large portion of the population in developing nations lacks access to banking services. According to Magro (2016), 60% of 600 million people in Latin America lack access to bank accounts. Bitcoin's technology enables users to trade currency without the need for a trusted third party, such as a bank, to facilitate the transaction. A mobile phone is all that is required to use Bitcoin, and 70% of Latin Americans have access to one (Magro, 2016). Two users may exchange bitcoin with one another by scanning QR codes that the application has printed out on their phones, thanks to bitcoin's ad-hoc networking functionality. For some people, this has been a problem for years, but it is a genuinely original answer. As the user base expands, this will inevitably rise, bringing the need for improved cryptocurrency networks and applications to the forefront. Given that this technology has the potential to impact any sector that uses a trusted third-party clearing system (PwC, 2015), there is a huge market for prospective developers to create these apps. Any developers who improve Bitcoin's usability through graphical user interface and application enhancements will be quite successful. Bitcoin is advancing toward becoming a breakthrough technology because of its capacity to address persistent issues and its expanding, supportive community of developers and users. Companies are starting to recognize the benefits of using cryptocurrencies for cross-border payments, particularly when transactions must be expedited in an emergency. Due to the quick and easy transactions in the peer-to-peer model, cryptocurrencies are uniquely suited to address this issue. Although money can be sent overseas, it usually arrives days later and not for the entire amount (Team, 2016). As the transaction

crosses borders, it may be subject to an unlimited number of inexplicable costs, complicating the process of sending the right amount to another company. An online business experiencing a denial-of-service attack and seeking immediate defense from a network security firm is a classic illustration of this kind of urgent requirement. In this situation, quick transactions are crucial because the company is losing money for every minute its website is unavailable. Due to its agility in facilitating quick peer-to-peer transactions, particularly in international business-to-business contexts, cryptocurrency has a significant advantage over conventional currencies. Online marketplaces have been flourishing and are genuine competitors to traditional physical retail establishments. The growth of Amazon.com has been surprising to the point that. They've even started recruiting "on-demand" delivery drivers who use their own vehicles to deliver regular packages. This kind of expansion indicates an effort to more strictly regulate the company's logistics expenses, which rise dramatically with more activity. Ebay.com has been very successful in using PayPal, a Bitcoin-like payment system, to handle all transactions on its site. Silk Road was another instance of a successful online marketplace, despite its extreme illegality. It linked buyers and sellers, the majority of whom used bitcoin for transactions. This marketplace demonstrated that a digital currency can thrive while linking buyers and sellers with minimal involvement from ruling governments. Online shopping is booming, and bitcoin is ready to expand its footprint by offering seamless and simple payment options for both buyers and sellers. In the second quarter of 2015, almost 23% of Bitpay's transactions were for individuals using the service for general-purpose online shopping. For vendors, cryptocurrency has the advantage over traditional card-based systems in that it removes transaction costs. Recent international legislation on taxation has established cryptocurrency's validity as a mainstream tool. Before digital currency can be regarded as a genuinely legitimate method of transaction, laws on the taxation of cryptocurrencies are necessary. The European Court of Justice declared towards the conclusion of 2015 that it considered bitcoin transactions to be excluded from value-added tax. Actions like this will greatly boost the movement of cryptocurrencies. One of Bitcoin's biggest advantages is that it can function like a commodity, much like gold. As demonstrated by the Brexit vote, the price of gold can surge dramatically at any time an event jeopardizes the stability of the global market. As investors grew unsure about how the markets would respond to the vote, the precious metal climbed in value to a two-year high, being utilized as a safe haven. Cryptocurrency has apparently started to imitate the qualities of gold, and the

commodity market is a universally recognized trading method. Gold's long history as a valuable asset is rooted in the widespread acceptance and confidence in its worth. Cryptocurrencies have the potential to become significant players in the commodity market. They have the distinctive feature of being able to be bought directly online, which makes it simple for buyers to enter. If Bitcoin remains a viable haven for depreciating currencies, it will gain credibility with investors and make further strides toward becoming more mainstream.

Threats

For widespread user acceptance, bitcoin must overcome a number of obstacles. The value volatility that affects cryptocurrencies causes skepticism among investors and users alike. General acceptance is eventually a constraining factor for cryptocurrencies. [PWC]. Trust in the overall value of the currencies is restricted because value changes diminish confidence that a consumer's value will be maintained on a daily basis. According to a PwC survey, 83% of respondents were somewhat familiar with bitcoin (PwC, 2015). Since bitcoins are not centrally owned, any effort to address this marketing issue through advertisements could, in theory, benefit the rival investing company. This is not a perfect circumstance for a marketing strategy. Due to exchange firms' poorly configured systems, cryptocurrencies have also experienced fraud and theft. These breaches typically hit the headlines and may readily persuade the average person that they are not good places to invest their money. Additionally, there is a significant void in legislation governing cryptocurrency use. User acceptance will be restricted as long as cryptocurrencies stay in a space that is not typically regulated by law. Users must have confidence that all cryptocurrency transactions are both lawful and enforceable. The new technology provokes sluggish responses from both markets and authorities. All of these elements ultimately undermine consumers' trust in bitcoin and other cryptocurrencies. This distrust also causes problems with investors. The dead pool of unsuccessful businesses has grown to 24, with "security" listed as the primary reason for shutting down. Future investors may want to take this measure into account before investing in bitcoin. The Mt. Gox and DAO hacks demonstrate how careless management may not only result in the loss of millions of dollars' worth of digital currency, but also a significant decrease in its value. New startups are aware that launching a business randomly and without a plan is at best bad advice, and that entering new markets will be restricted. Since improving security and user acceptance depends on creating better software, this may eventually be detrimental to bitcoin. Although it may seem like an obvious issue, the

adoption of security measures and patches for new technologies is generally sluggish. The DAO hack exploit was even listed as a possible issue a week prior to the assault. One of the problems with security is that it is impossible to mount a coordinated attack to fully secure every server that executes the code due to its decentralization. Before the peer-to-peer network can be really secured, a united front in the cryptocurrency world may be required. In order for cryptocurrencies to create security standards that go beyond the application criteria for bitcoin, it may be necessary to establish a standards committee akin to the American National Standards Institute (ANSI). This kind of regulation might drive independent miners out of the market and can only be enforced at the expense of the liberty of peer-to-peer networks. There are also rivals to cryptocurrency that are trying to offer a substitute for digital money. With its Apple Pay product, Apple is one of the top rivals. They are utilizing their hardware and infrastructure to enable users to recharge their debit or credit cards linked to their iTunes accounts using their mobile devices. Traditional credit card companies like Visa and MasterCard are gladly joining ApplePay's infrastructure because they are permitted to retain their charges (Gerber, 2015). Bitcoin will consistently struggle to compete with these well-known brands. PayPal has been quite successful as eBay's exchange mechanism and might be able to transition to mobile payments. Businesses like Apple, Google, and Amazon, which have a presence in the mobile app market, enjoy a significant edge over Bitcoin's relatively small time competitors because they have entire marketing budgets dedicated to it. Mobile customers wish to make direct purchases using their smartphones, and it will be difficult for bitcoin to come together as a community to defeat rivals. The labyrinth of American rules that would have to be navigated before widespread user acceptance is another major danger to cryptocurrency. Bitcoin's asset class has not yet been determined by the US government, which will hinder many market players from embracing business models that use cryptocurrencies (PwC, 2015). Depending on how bitcoin is accepted, cryptocurrency might be categorized as a currency, commodity, capital asset, or security. Based on Bitpay's analysis of transactions, bitcoin appears to be viewed favorably, although international opinions vary by nation. regarding bitcoin and cryptocurrency. In Europe, transactions have reached an all-time high at 102,221 per quarter (Patterson, 2015), which may be the cause regulations being passed. The European Court of Justice has effectively recognized bitcoin transactions as a legitimate form of payment in Europe by exempting them from value added tax (VAT) (Perez, 2015). This just implies that there will be no taxes on bitcoin

transactions in Europe. Although European bitcoin users are rejoicing, important legislation on bitcoin taxes is still lacking in other big markets. U.S. legislation could have a detrimental impact on the processing of bitcoin transactions, dealing a serious blow to its credibility as a currency.

Conclusion

Cryptocurrency appears to have passed the initial adoption stage that all new technologies go through. This occurrence was even felt by motor cars. Bitcoin has start to establish itself in a niche market, which might either be the primary reason for its failure or aid in advancing cryptocurrencies toward mainstream acceptance. Cryptocurrencies are still in their early stages, and it is hard to tell whether they will ever gain a genuine mainstream foothold in the global markets. The Bitcoin community is attempting to break into the mainstream via innovation and the resolution of existing issues. Other types of cryptocurrency have already appeared, each that is somewhat distinct from Bitcoin and perhaps as legitimate, and have established their own followings. Iceland is one of several countries that have even attempted to launch their own national cryptocurrencies (Hofman, 2014). Cryptocurrency may potentially have a role as a major currency solution in the future, and Bitcoin will play a crucial role in facilitating the growth of those currencies. Bitcoin transactions are pouring into the European and Latin American markets, indicating real legitimacy. There are a lot more subjects to examine about Bitcoin and cryptocurrencies. Comprehensive research should be conducted on the economic impact of Bitcoin's influence on traditional fiat currency performance, with a comparison of the findings to nations that are starting to embrace state-sponsored cryptocurrencies. Although cryptocurrency's ability to conduct micro transactions may enable it to close an economic gap that traditional state-sponsored currencies cannot, this needs a far more thorough market and economic analysis. Additionally, the block chain technology that underpins Bitcoin has potential applications in other areas, such as smart contracts (Hileman, 2016). These contracts are scheduled payments that take place when a specified condition is met. The fact that predetermined payment contracts are typically executed by a company's whole accounting division makes this a really fascinating subject for further change. Finally, cryptocurrency is the result of employing cryptography to generate a digital asset. The music industry's move to a cloud-based infrastructure helped popularize the concept of digital property. This frontier, which is primarily made up of various forms of media, is still relatively recent and uncharted. Music and cryptocurrency may be eclipsed in popularity by other kinds of digital assets. The originator

of Bitcoin single-handedly transformed the world of digital currency, which was nonexistent eight years ago. The foundation science of bitcoin and all cryptocurrencies, cryptology, may be the driving force behind the frontier for innovative and intriguing digital creations.

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