

Blockchain Security on Stablecoin as a Global Payment System

Effects of Blockchain Security on Stablecoin as Global Payment Implementation

Hina Riaz
Department of CS & IT
Ghazi University
Dera Ghazi Khan, Pakistan

Muhammad Jamil
Department of CS & IT
Ghazi University
Dera Ghazi Khan, Pakistan

Madiha Zahir Khan
Department of CS & IT
Ghazi University
Dera Ghazi Khan, Pakistan

Muhammad Younis
Department of CS & IT
Ghazi University
Dera Ghazi Khan, Pakistan

Muhammad Farhan Ali
Department of CS & IT
Ghazi University
Dera Ghazi Khan, Pakistan

Muhammad Haris Sarfaraz
Department of CS & IT
Ghazi University
Dera Ghazi Khan, Pakistan

Abstract:- Bitcoin is the most commonly supported cryptocurrency used during transactions with these systems, and some gateways provide the ability to pay with alternative cryptocurrencies like an emerging stablecoin. In the past year, USD-pegged stablecoins circulating on public blockchains have seen an explosive growth. Stablecoin is a type of decentralized payment system that is new and under studied to make meaningful predictions. The effect of stablecoin adoption on traditional banking and credit provision depends on the source of inflows and the composition of stablecoin reserves. A two-tiered banking system can support both stablecoin issuance and traditional forms of credit creation. In this paper, we present the comprehensive summary of effects of blockchain on stablecoin as a global payment method. I investigated the different use cases and their affects/role to the global accuracy graphs. After that, we discussed the different challenges that can affect the implementation of stablecoin as a global payment system. Finally, we drew open research directions for building future researches in conclusion.

Keywords:- *Stablecoins, Cryptocurrency, Blockchain, Decentralized Payment Systems.*

I. INTRODUCTION

Stablecoins are digital currencies whose value is pegged like gold or US dollars. Their extreme price swings, investments are inappropriate for use in day-to-day transactions. Stablecoins are an attempt to provide a solution to this.

Since Nakamoto's [1] theoretical proposal, a large number of other cryptocurrencies have been generated, and they are actively traded on the internet. With the price of bitcoin nearing \$20,000 in December 2017 [2], the market cap of all cryptocurrencies has risen to \$796 billion [3]. At the time, this put cryptocurrency market capitalization at \$211 billion, second only to Apple Inc.'s \$911 billion [4].

Numerous studies [5],[6] have focused on the advantages that cryptocurrencies may offer as Decentralized Payment Systems (DPSs), which are becoming increasingly popular in the realm of online payment processing, such as

- The Dispersal Of Power To A Wide Variety Of Players;
- The Provision Of Global Consistency And Transparency On A Shared Ledger
- The Potential To Disrupt The Rents Extracted By Centralized Intermediaries In The Process Of Facilitating Business.
- The Ability To Participate In Trustworthy Commerce Without The Need For A Centralized Intermediary. [8].

Despite these advantages, however, cryptocurrencies are now difficult to work as practical DPSs due to their high price volatility.

Stablecoin is a cryptocurrency designed to mitigate the effects of market fluctuations. To put it simply, it is a digital money that is linked to either a major fiat currency like the US dollar, the Euro, or the Pound, or to a more stable asset like gold. [7] The term "stablecoin" refers to a cryptocurrency designed to reduce price fluctuations. The requirement for cryptocurrencies as functional DPSs was reflected in the market for stablecoin, which more than doubled from \$1.4 billion in 2018 to \$3 billion in 2019 [8].

Possible advantages of using a global stablecoin include expediting some payments, boosting competitiveness, and decreasing the cost of making cross-border payments. Stablecoins with a global reach have the ability to increase payment system robustness by spreading out the system's underlying technical components. Stablecoins could also be attractive to countries that use currencies other than the US dollar or the euro in international trade. Moreover, stablecoins may give commercial banks a practical means of resolving the payment leg of a wholesale transaction including the sale of another digital asset.

However, there are several difficulties associated with stablecoins that must be overcome. Despite the advantages that stablecoins could provide, they also present certain difficulties. Legal disputes are likely to emerge as a result of the global currency's interaction with the laws of the many countries it will pass through. These differences must be resolved before the currency can be widely used.

For instance, all parties' rights and responsibilities, including the stablecoin holder's claim on whom or what, must be made clear, as well as when the payment is finalized. Another example would be the necessity for unambiguity regarding who is responsible for what. For this type of payment system to be compliant with international safety and soundness criteria like the principles for financial market infrastructures, regulators will need to know who is in charge of operating the various components of the system.

Fed Chair Jerome Powell recently testified before Congress, where he expressed concern about the Fed's ability to comply with consumer privacy and protection requirements such as know-your-customer, anti-money laundering, and consumer data privacy [9].

There is an added burden on policymakers to assess the dangers to financial stability posed by the increased usage of stablecoins. The availability of stablecoins may strengthen payment systems, but it may also weaken them if there is a crisis of faith in a global stablecoin, which would cause a rush to redeem stablecoins and destabilize the system. Research priorities should also include assessing the potential impact of stablecoins on the effectiveness of conventional monetary policy measures.

Figure 1 displays a breakdown of the total circulating supply of the top 10 USD-pegged public stablecoins by market capitalization. The time frame covered by the numbers is all the way from the start of 2019 to the end of the year in September of 2021. The "Other" category includes the Fei, TerraUSD, TrueUSD, Paxos Dollar, NeutrinoUSD, and HUSD. The legend corresponds to the position of each stablecoin in the figure 1.

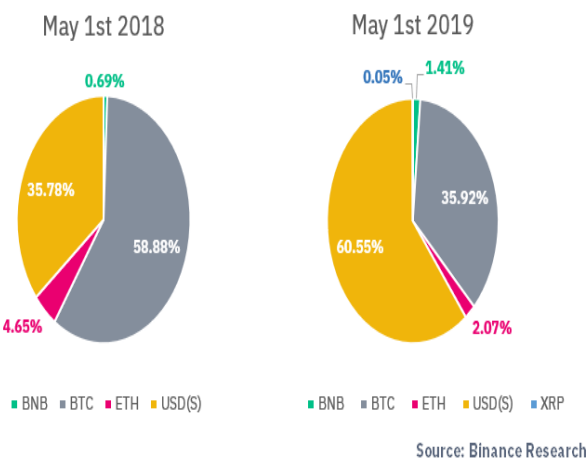


Fig 1 Circulating Supply of USD-Pegged Public Stablecoins 2018-2019

A. Benefits

There may be three major benefits that can be gained via stablecoin-based initiatives.

To start, stablecoins can drastically alter the current state of international currency exchange. By using a distributed ledger, stablecoin technology facilitates instant, cheap, transparent, and trackable cross-border payments. The ability to monitor these exchanges enables this.

Second, stablecoin-using projects may be able to help people who are currently unbanked or underserved by the financial services sector. Considering that this programme would affect roughly 1.7 billion people, its potential impact should not be underestimated.

Third, worldwide initiatives to develop stable cryptocurrencies could be beneficial to the people of countries with unstable currencies. Like the familiar dollarization process, stablecoins may soon become an important means of settling financial transactions.

Additional complications may occur as a result of this method, as will be detailed in the following paragraph. While it's easy to see the benefits of stablecoin efforts, it's also important to recognize the risks that come with them, especially on a worldwide scale (G7 Working Group on Stablecoins, 2019)

B. Challenges and Risks

Stablecoins offer a few obvious advantages, but they also come with a lot of challenges and dangers. Stablecoins have the potential to impact many different areas, including monetary policy, financial stability, the battle against money laundering and the support of terrorist organizations, and monetary sovereignty. Furthermore, the difficulties will be proportional to the stablecoin project's size. Certain challenges and risks are universal, whereas others are especially typical of large-scale, worldwide projects. No stablecoin project, especially one with global ambitions, should launch before all potential roadblocks have been recognized and adequate answers developed.

In addition to the aforementioned challenges, the creators of new stablecoin initiatives also have to deal with a maze of rules, regulations, and jurisdictions. However, the existing regulatory, supervisory, and monitoring structures do not account for all potential threats.

C. Stabilization Mechanisms

The European Central Bank has found that stablecoins can be broken down into three categories based on these criteria.

This stabilization mechanism is depicted graphically in Figure 2.

Think about how everything is spread out. Based on the work of Nakamoto's (2008), the blockchain technology that underpins cryptocurrencies has the potential to create a trustless, decentralised transaction system. Stablecoins' level

of decentralization might vary widely depending on the technology they're built on top of.

Second, whether or not an issuer is present who is responsible for the investments. Due to the decentralised nature of the vast majority of cryptocurrencies, users are solely responsible for their financial decisions.

Third, think about the features of their collateralization. The collateralization and, by extension, the stabilization mechanism of the stablecoin, may be isolated as fundamental features of the stablecoin's design (Bullmann, Klemm & Pinna, 2019). As the stabilization mechanism plays a crucial part in the tokens' ability to sustain a steady value, a more in-depth explanation of the four mechanisms that are currently known in the industry will be provided in the following chapter.

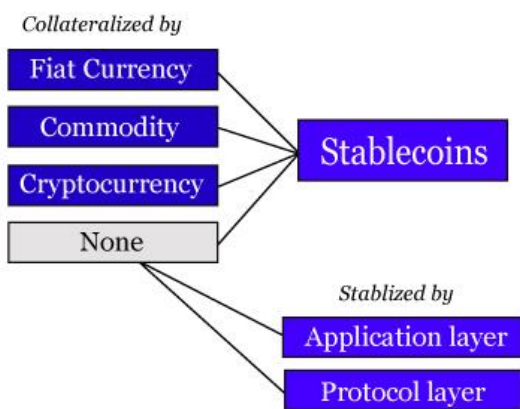


Fig 2 Stabilization Mechanisms

D. Tokenized Funds (FIAT-Collateralized)

Commonly used stablecoins are FIAT-collateralized stablecoins, which are essentially tokenized versions of traditional currencies. They are the most beginner-friendly stablecoin because of their simple construction (CB Insights, 2018).

Reference currencies, typically fiat currencies like the US dollar, Euro, or Swiss Franc, back tokenized funds on a one-to-one basis.

Each stablecoin unit must be backed by either the stablecoin's issuer or a custodian chosen by the issuer. Given this setup, the value of a tokenized fund is relatively immune to fluctuations in the exchange rate between the reference currency and any other currency.

Stablecoins, which are pegged to tokenized funds and function as a means of price regulation, are not, nevertheless, a novel kind of assets. They are more likely to be seen as representations of actual monetary units in a decentralised ledger. The availability of redemption funds is often guaranteed by the issuer (Bullmann, Klemm & Pinna, 2019). Tokenized monetary issues typically begin with a user initiating a bank transfer from their account to the issuer's account. After the issuer confirms receipt of funds, the smart contract generates stablecoins and sends them to the user who made the initial deposit. Stablecoin

transactions follow the conventional procedure for recording financial dealings on a distributed ledger.

The entire (active) network is involved in evaluating and validating the transaction, yet it is only taking place between the two parties involved. The procedure for redeeming a security is quite similar to that for issuing it, with the important difference being that it proceeds in the reverse way. Following issuer confirmation that sufficient tokens exist for redemption, the smart contract will automatically withdraw (burn) the tokens and subsequently send the backing currency to the user (Bullmann, Klemm & Pinna, 2019). Tether is a stablecoin that has been around for a while and has recently been tokenized. Two stablecoins are available from Tether: USDT, which is pegged to the US dollar, and EURT, which is pegged to the euro, the main currency of the European Union (Bullmann, Klemm & Pinna, 2019). The most popular stablecoin today is Tether, which is also the fourth largest market player by market valuation (Coin market cap, 2019).

Table 2 describes the Taxonomy of stablecoins in terms of Collateralization, Decentralization and Dual Stability.

E. Off-Chain Collateralized (Commodity Collateralized)

The off-chain collateralized stablecoin is similar to tokenized money in a number of ways. Stablecoins are different from other cryptocurrencies since they are tied to a fixed number of units of one or more underlying assets (Bullmann, Klemm & Pinna, 2019). Commodity-collateralized stablecoins, as defined by CB Insights (2018), typically have the value of its backing pegged to a stable asset like as precious metals. Other commodities, like oil or real estate, are also an option for investors. Off-chain collateralized stablecoins are distinct from other stablecoins due to the fact that their reference value fluctuates over time. In order to ensure that each unit of a stablecoin is backed on at least a 1:1 ratio, the value of the assets that are used to back them must incorporate a certain margin. Stablecoins, by design, typically have an excessive amount of collateral supporting them. Furthermore, the underlying asset that is collateralized by off-chain collateralized stablecoins is not represented digitally, which is a key differentiator.

As a direct result, the issuer must provide certain services integral to the digital representation of the asset. The issuer must store the commodity securely and make it readily available to recipients at any time they request it. In most cases, a custodian will be hired for these two tasks (Bullmann, Klemm & Pinna, 2019). Tokenized funds and off-chain collateralized stablecoins use the same framework for their issuance processes.

The issuer will convert the investors' funds into Off-Chain collaterals, which can be either fiat currency or cryptocurrency. This is due to the impracticality or high cost of transferring ownership of physical assets to the issuer. New stablecoins will be generated after the Off-chain collaterals have been received. There are two main types of

redeemed things. It is not necessary for you to take part in the redemption process to begin. When it comes to voluntary redemptions, the process is carried out in a manner that is similar to its inverse. The idea of compulsory redemption is the second one. If the ratio of the stablecoin's value to the collateral's value drops below a threshold, the stablecoin must be redeemed.

To put it simply, this ratio is exactly 1:1. When this occurs, the user is prompted to replenish the necessary

amount of collateral in order to keep the Stablecoin's value stable. The user's collaterals will be sold if they don't respond, and the proceeds will be used to buy stablecoins on the market to match the user's worth if they don't respond.

Upon receipt of this Stablecoins payment, all of the user's previously held Stablecoins will be wiped out. When this method generates income, the user will receive a cut of it, although normally a penalty "fee will be deducted first.

Table 1 Taxonomy of Stablecoins

Name	Examples	Backing	Management	Analogue in conventional finance
Fiat tokens	Monerium, Gemini	Cash, electronic money, bank money, reserves	Discretionary	e-money
Off-chain collateralized	Saga, Tether	Conventional financial assets	Discretionary	Eurodollars, money market fund
On-chain collateralized	BitUSD, Mine coin	Crypto-assets	Discretionary	
Algorithmic	Steam, NUBITS	Not predetermined	Automated	Algorithmic trading

F. On-Chain Collateralized (Crypto Collateralized)

Collateralized stablecoins that exist on the blockchain are backed by other coins. This type of stablecoin is very comparable to traditional cryptocurrencies for this reason. The great degree of decentralization and liquidity achieved by on-chain collateralized stablecoins is the direct outcome of their reliance on a distributed ledger. This is a citation-needed paraphrase from: To prevent fluctuations in value relative to his reference currency, this sort of stablecoin is typically over-collateralized, just like its counterpart, the Off-Chain collateralized stablecoin (CB Insights, 2018). Users can purchase stablecoins from the system's smart contract after providing on-chain collateral. This is because there is no lone entity authorized to issue tokens. Afterwards, the user will receive stablecoins from the smart contract.

It is the user's obligation to keep the collateralized tokens' value stable from the moment he receives them. According to the tenet of blockchain technology, which specifies that there should be no centralized control unit, On-Chain collateralized stablecoin transfers are carried out. It is preferable for each participant on the distributed ledger to verify transactions independently"

Crypto-collateralized tokens, like off-chain collateralized stablecoins, have two redemption options.

- First, the voluntary, which follows the issuance process in opposite steps.
- Second, compulsory.

Since there is no unified trust mechanism, the required procedure is murky. Initially, the smart contract should buy as many stablecoins as there are vulnerable assets. This could be accomplished through the utilization of in-process revenues (transaction fees) or by the sale of future revenues.

When enough stablecoins have been repurchased, the smart contract will destroy the newly preserved coins. Because of this, he can reconnect the stablecoins that lacked

sufficient collateral with the collateral of the stablecoins that were just burnt.

Inadequately collateralized stablecoins now have sufficient collateral. After that, the rights to the stablecoins that were just destroyed can be repurchased using the collateral held for the coins that were short on collateral. If some of the original collateral still exists, the user may be able to collect it, but doing so may incur a penalty for under-collateralization (Bullmann, Klemm, & Pinna, 2019).

G. Algorithmic (Non-Collateralized)

Non-collateralized or algorithmic stablecoins are still in the realm of speculation. One major tenet of the concept of algorithmic stablecoins is that they are not totally backed by the currency to which they are tied. Instead, the supply of stablecoins on the market is managed by algorithms in order to maintain a stable price (Bullmann, Klemm & Pinna, 2019). Algorithmic stablecoins use supply and demand in the market to create new stablecoins in response to rising demand and to buy up existing stablecoins in response to prices falling below the coin's equilibrium value (CB Insights, 2018).

By using on-chain assets generated by existing activities in the form of transaction fees or sales for future income, it is possible to regulate the monetary supply. This means that algorithmic stablecoins rely heavily on tertiary processes to maintain stability (Bullmann, Klemm & Pinna, 2019). Algorithmic stablecoins are more decentralised than conventional stablecoins because they are not backed by any physical goods.

As there is no collateral that can be used to sell the stablecoin in the event of a crisis, consumers run the risk of losing all of their investments (CB Insights, 2018). Stablecoins that are generated by an algorithm are easy to disperse. When this happens, coins are often dispersed in exchange for on-chain assets. The smart contract will utilize

these funds as collateral for any investments it makes in the future, helping to keep the price of the coin stable.

With network effects in mind, another option to investigate is the "air-drop," in which new users receive a free supply of stablecoins. Because algorithmic stablecoins are not convertible to any other assets, the redemption process is unnecessary.

If there is an abundance of coins, the algorithm may decide to stop minting new ones to keep the price stable. Similar to mandatory redemption of on-chain collateralized

stablecoins, this procedure accomplishes its goal. Either the smart contract can sell the rights to future earnings in exchange for stablecoins, or it can use reserves that have built as a result of the existing activity, to remove stablecoins from circulation.

Stablecoins in circulation can be bought using reserves, but the algorithm is not allowed to utilize assets created through issuance. As the assets are put to use, the reverse of the issuance process, their value falls, making the coin unstable“(Bullmann, Klemm & Pinna, 2019).

Table 2 Taxonomy of Stablecoins

Collateralized by	Decentralized	Dual Stability (less-volatile collaterals)
Fiat currency** (e.g., USD)	—	✓
Cryptocurrency (e.g., BTC)	✓	—
Commodity** (e.g., gold)	—	✓
None (mentioned in §III)	✓	✓ *

A non-collateralized” stablecoin is called dual stable since its value is unaffected by fluctuations in the prices of underlying collaterals. This table shows that there is no difference between fiat-collateralized investments and commodity-collateralized investments.

However, their issue counts are not the same. The total quantity of fiat currency that can be issued under a managed currency system is infinite.

However, there is a limit to how much can be produced of finite resources like gold and petroleum.

H. Use Cases and Growth Potential of Stablecoins

The current proliferation of stablecoins is mostly driven by compelling use cases. The main points of these applications are summarised in Table 3. Stablecoins are now most useful for their role in bitcoin transactions recorded on public blockchains. To avoid the delays inherent in using non-DLT payment systems or custodial storage of fiat currency balances, many investors prefer to trade cryptocurrencies using public stablecoins instead of cash. There is also no need for investors to fret over the safety of holding fiat currency reserves.

Table 3 Current Stablecoin use Cases

Use case	Details
Digital markets	Stablecoins are used to trade digital assets and serve as an onramp from fiat currency to digital assets recorded on blockchains.
Payments	Stablecoins are used to facilitate fast peer-to-peer and cross-border payments. They also hold the potential for new payment innovations, such as programmable money (see below).
Internal transfers and liquidity management	Institutional stablecoins facilitate transfers of funds within a firm and allow efficient movement of internal cash across subsidiaries to manage liquidity risk and regulatory requirements.
DeFi	The programmability and composability of stablecoins currently supports decentralized, blockchain-based cryptocurrency markets and services, known as decentralized finance or DeFi. Protocols allow for market making, collateralized lending, derivatives, asset management, and other services.

II. LITERATURE REVIEW

❖ Literature Review Includes Insights on:

A. Inclusive Theories

Inclusive theories are theories related to information system management academic discipline.

B. Disruptive Technology

To increase their competitive edge, firms and organizations are increasingly adopting disruptive technologies [10].

Disruptive technologies include artificial intelligence (AI), the Fourth Industrial Revolution (IIoT), the Internet of Medical Things (IoMT), big data, virtual reality (VR), drones and autonomous robots, fifth generation (5G) wireless, and blockchain [11]. As blockchain is the sole topic of study, other important technologies will be ignored.

C. Industrial Revolution 4.0

The current period of change across global industry is commonly referred to as the Fourth Industrial Revolution. The concept centers on the application of cutting-edge technology, with machines performing most of the work that was once done by humans. The goal of this next phase of

industrial development is to replace all existing corporate processes with more efficient alternatives. [12].

D. Blockchain

According to Blockchain Research Lab, "values can be safely conveyed directly between parties on the Internet via the blockchain." The removal of middlemen allows for greater efficiency and transparency, while the implementation of so-called smart contracts automates processes and reduces human error. Unique encryption, data verification, and reconciliation procedures make it extremely difficult to alter or erase past transactions. The blockchain technology has various iterations, such as [14] the following:

- **First**, a permissionless blockchain, in which programmers can be users or run nodes, allowing anybody to take part in the consensus process to decide whether or not the state is genuine. (2) A permissioned blockchain, where users are obligated to supply their own private keys. A public blockchain is one that anyone may access without needing any particular authorization. Permissionless blockchains exist in the form of the blockchains supporting cryptocurrencies like bitcoin and ethereum. This blockchain is deeply intertwined with digital currencies and the consensus mechanisms that underpin them, such as proof-of-work and proof-of-stake. As a result, it is more suitable for use in the creation of new cryptocurrencies.
- **Second**, a permissioned blockchain, which allows users to specify which nodes have access to which portions of the distributed ledger. Permissioned blockchains are blockchains that only select persons or organizations are allowed to join. Decision-making authority is delegated to appropriate individuals or bodies by concerted efforts of all parties involved. Tendermint, IrohaSumeragi, MultiChain, and HydraChain are just a few of the platforms that can be used to build the permissioned blockchain.
- **Third**, a private blockchain, in contrast to the preceding two types, has only one trust domain, signifying that there is only one entity with network authority.

Hyper ledger Fabric, developed by the company's team of blockchain experts, is a great example of a private blockchain. At present, this private blockchain variant sees the most widespread application. It's important to remember that not all blockchain implementations are geared at making it easier to create digital currency. Hyper ledger Fabric, Quorum, R3 Corda, and MultiChain are just a few of the blockchain platforms available to users today.[15].

E. Cryptocurrency

Satoshi Nakamoto's controversial 2008 white paper "Bitcoin: A Peer-to-Peer Electronic Cash System" is widely credited as the inspiration for the creation of cryptocurrencies, also known as digital assets. Although the white paper may seem dated now, it was the only available idea that sparked the creation of the first cryptocurrency, hence it is still relevant to this day. They came up with a system for doing business online that would do away with trust entirely. Bitcoin (also written as BTC) was the first

cryptocurrency, and its ticker symbol reflected its name and initials when it first began trading [16].

There is a lot of overlap between ticker symbols and stock symbols, which are acronyms used to represent the names of particular stocks on the stock market. All digital currencies include this universal ticker symbol (coins and tokens).

Ether, or ETH for short, is the original cryptocurrency. Ether is the first token if Bitcoin is the first coin. The Ethereum platform, suggested in 2013 and built in 2015 by Vitalik Buterin and his colleagues [17], uses the cryptocurrency Ether as its native token. In a digital context, ether might be viewed as a proxy for ether. As the second most valuable cryptocurrency behind Bitcoin, it is a major player in the industry.

F. Hard Fork

To convert invalid blocks or transactions into legitimate ones, existing Bitcoin protocols might establish new rules through a process known as a hard fork [18]. Due to the upgrade to a new protocol, there will be a permanent separation in the long run. Because the state of change is irreversible, hard forks are increasingly being employed as a technique to construct a new blockchain for the development of cryptocurrencies [19], which is where the framework design used in this investigation will draw inspiration from. For this reason, hard forks are employed on purpose as a means of generating a new blockchain for the advancement of cryptocurrencies.

In an effort to lessen the country's reliance on the Central African CFA franc, a fiat currency, the aforementioned referenced work [19] proposes using cryptocurrency instead. However, the analysis offers no actionable recommendations for improving the country's monetary system. This study will remedy a problem found in earlier studies by providing a blueprint for a cryptocurrency-based payment system appropriate for cross-border transactions as shown in figure 3.

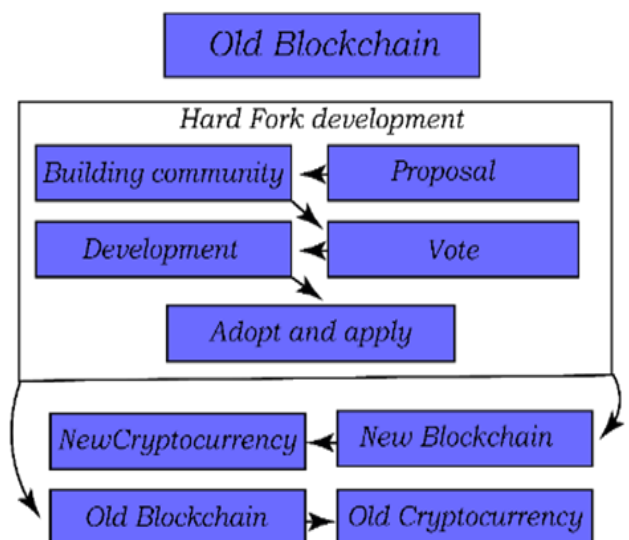


Fig 3 Hard Fork Approach of Cryptocurrency Development

III. FUTURE GROWTH POTENTIAL

Stablecoins are unique in several ways, the most salient of which are their cryptographic security and their programmability, both of which are backed by the strong use cases currently driving the adoption of existing public and institutional stablecoins. The current use cases for blockchain technology are primarily limited to cryptocurrency markets, narrow forms of peer-to-peer payment, and the institutional liquidity management conducted by extremely large institutions. However, these features have the potential to spur innovation beyond these narrow confines.

There is potential for stablecoin technologies to be widely adopted and a driving force behind innovation in a wide range of fields, including more accessible payment and banking systems, tokenized financial markets, and the facilitation of micro transactions for developments like Web 3.0.

IV. RESULTS

To further understand how many factors may influence the effects of bitcoin use, a poll was conducted in 2020 (Reference [20]). The survey's questions are structured around three variables that represent common user concerns: perceived ease of use, perceived advantages, and actual user behavior. The study aimed to give supporting evidence for the following hypotheses:

- A user's opinion of the product's ease of use is highly correlated with the user's actual ease of use.
- The extent to which people believe they will benefit from using something is strongly correlated with how they perceive its ease of use.

What people do after they get an idea of the rewards they'll receive is strongly correlated with how they feel about those benefits.

The results of the poll showed that there was no correlation between respondents' reported ease of use and their felt benefit, and that respondents' perceptions of benefit had no bearing on their actual usage patterns. The perceived ease of using cryptocurrencies is the only characteristic that correlates significantly with how individuals actually utilize them. All of the survey data can be found in the paper cited in the citation [20]. All of the surveys, descriptive statistics, and correlation analyses, as well as the respondents' demographic information. The next step in this investigation will be to build a new cryptocurrency system that focuses less on the advantages of cryptocurrencies and more on the convenience they provide for users.

In addition, [21] conducted a survey as part of a study for 2021 that outlined the pros and cons of smart contracts, a crucial component for blockchain technology.

There will be two phases to the investigation: the first and primary phases.

Twenty developers engaged in the creation of smart contracts for various businesses were interviewed during the planning process. These twenty people represent a diverse pool of participants due to their varied backgrounds and life experiences. There is an average of 11.35 years of experience in software development and an additional 1.27 years in smart contract development.

V. CONCLUSION

The concept of stablecoin represents a potentially revolutionary technological advance, with broad applicability and the potential to usher in a paradigm change from the status quo. Both public and private initiatives hold promise for improving our financial system, especially for those who lack access to conventional banking or who live in countries with volatile currencies. This continual march of globalization corresponds with the fundamental possibility of a global stablecoin to improve daily commodities flows. Whatever the case may be, a stablecoin faces significant challenges and risks. Firstly, it is the job of legislators to make sure that, despite the existence of regulation, innovation is not suppressed. However, they must ensure that the monetary system is an extraordinarily sensitive entity, capable of dramatically responding to any possible instability, regardless of technological advancements.

With four distinct stabilization methods at their disposal, a vast array of uses is now feasible. Because of the potential they have for the creation of a domestic digital currency, central banks are expected to pay the most attention to tokenized money. Both off-chain and on-chain collateralized stablecoins will be analyzed by prospective buyers to see if they meet the criteria for being good long-term investments. Moreover, off-chain collateralized initiatives provide up new investment options for those with constrained funds. In this case, the algorithmic stablecoin is the most crucial unknown. Due to the infancy of the technology and the lack of data, reliable predictions cannot be made at this time. Stablecoins are a promising new financial technology, but more study is needed, and central banks should serve as industry leaders.

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