



Blockchain Integrated Fund Raising System

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ABSTRACT-

Blockchain was first exclusively utilized as the basis for cryptocurrencies, but as time goes on, we can see how this new, growing technology is being employed across a wide range of businesses. Blockchain is anticipated to be used by the majority of technologies worldwide in the future as a productive means of conducting online transactions. One way to raise money for a project is through crowdfunding, which involves asking many people for small donations online. The main topic of this research is Ethereum-based transactions based on donations. This technology, which creates smart contracts using the Solidity language, allows for the simultaneous execution of numerous tasks. We investigate user financial platforms in this study. Through the application of Ethereum smart contracts to the crowdfunding website, this project seeks to address these issues by avoiding fraud and guaranteeing that projects may be completed within the allotted time.

Keywords: Blockchain, Crowdfunding, Campaign, Cryptocurrency, Digital Wallet.

Introduction

Crowdfunding refers to a strategy for raising money that involves a lot of people working together, usually through social media or internet platforms. This strategy enables company owners, individuals, or entrepreneurs to ask a wide range of people for modest gifts or investments in order to fund initiatives, goods, or projects. The integration of blockchain technology with crowdfunding aims to improve the process's efficiency, security, and transparency. Crowdfunding platforms can offer unchangeable records of transactions through the use of blockchain technology, guaranteeing the transparency and traceability of all contributions and payouts.

peer (P2P) mechanism. Every node in the network is connected to the entire blockchain. This indicates that data held on blockchain cannot be lost or erased; to do so, it would be difficult to kill every node on the network.

When blockchain technology is used to implement crowdfunding, a strong framework that transforms the conventional fundraising environment appears. Fundamentally, this architecture uses blockchain's immutability and transparency to boost the crowdfunding process's efficiency and trustworthiness. The core of this framework is made up of smart contracts that are implemented on blockchain platforms. These contracts automate the execution of crowdfunding agreements and guarantee that set regulations are followed. Project creators can use smart contracts to clearly communicate their financing objectives, schedules, and methods of distribution, and backers can give money with confidence because their transactions are recorded on an immutable ledger. Furthermore, the decentralized architecture of blockchain removes the need for middlemen, cutting expenses and improving accessibility for project creators and backers alike. Crowdfunding facilitated by blockchain users in a new era of democratized fundraising.

A key

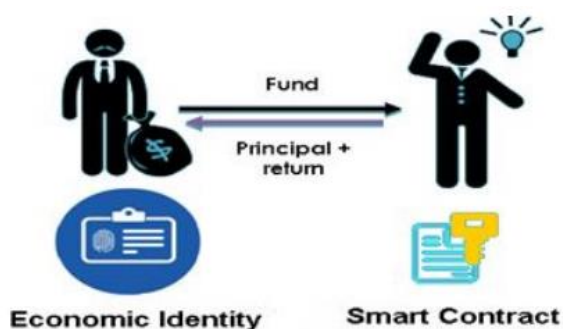


Figure 1: Framework for Crowdfunding using Blockchain

component of the blockchain's operation is the peer-to-

Our project's goal is to develop a dependable application that will enable any fresh concept to become a reality. Our blockchain-based crowdfunding platform has been designed. We offer a user-friendly interface so that anyone can generate and share ideas on this program. After then,

Literature Survey

To help market players and regulators comprehend how the current regulatory framework relates to blockchain-based crowdfunding, a paper [1] was published. Because of the unique features of blockchain-based crowdfunding, regulatory frameworks might need to reinterpret rules in order to allow for the effective application of regulations. We have examined a number of pertinent studies on the success criteria for traditional and blockchain-based crowdfunding in order to close these knowledge gaps. The outcome of this literature evaluation clarifies the paths that should be pursued in terms of further study and advancement.

Our work contributes to a deeper understanding of the differences and parallels between traditional and blockchain-based crowdfunding. The significance of blockchain technology in crowdfunding for small enterprises has been addressed by Michael Gebert [2]. Government funding availability for small businesses is vital since startups frequently experience job uncertainty and crises.

Logit and Cox regression models were utilized in a study by Felix Reichenbach and Martin

everyone can access these concepts. Contributions are welcome from anyone who wants to support their views. These procedures are all carried out in an interactive fashion.

Walther[3] to evaluate different hypotheses. The results imply that there is insufficient data to determine if an economics degree has a particular effect on companies led by college graduates.

According to Jenik et al. (2017), there are three main ways that crowdfunding can help financial inclusion efforts first it makes it easier for marginalized and underserved people and micro, small, and medium-sized businesses to access finance. Second it makes it possible to innovate current models to better serve Bottom of Pyramid (BoP) customers, such as microfinance and mobile financial services and finally it makes more complex investment products available for resilience and asset building.

Research by Cephas P.K. Coupe and Zhao Hongjiang has shown a link between crowdfunding platforms and investors[5]. Getting the right money is always the biggest obstacle facing newly established businesses. despite the fact that there are more sources. Hu (2014) claims that investor investments could be lost if fraudulent transactions are carried out by crowdfunding platforms

Research Method

The Front-end of the system was developed using ReactJs and NodeJs was used for the development of the Back-end. The development of smart contract was done by using solidity. By using the npm package solc we were able to compile contract into ABI code and Json format. After the compilation the ABI interface is passed to instance of Web3 provider for the deployment of the contract. With the help of Infura which act

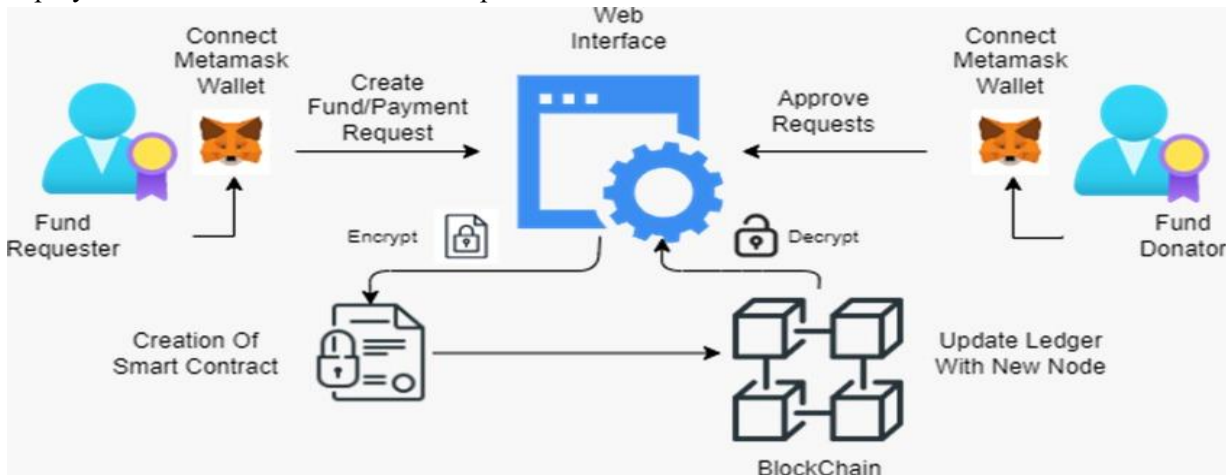


Figure 2: System Architecture

as a remote node we were able to connect to Ethereum network. We need a wallet called Metamask to store cryptocurrency. A browser extension called metamask

allows user to interact with decentralized application (dApps). The user can transfer the Etherium to his account only when they are successfully able to create account in Metamask.

The approach to crowdfunding that lets campaign organizers publish their ideas for projects or initiatives to raise money for charities, the arts, or other causes. crowdfunding platform that brings together the best developers and investors by utilizing an auction system and the power of blockchain technology. The platform makes use of the Proof of Work consensus process to guarantee the security and integrity of transactions, as well as the Ethereum network and Solidity programming language to develop smart contracts.

Platform for donation-based crowdfunding that enables people and groups to raise funds for charitable endeavors, business ventures, and other purposes. Because traditional crowdfunding platforms do not provide user identity anonymity, users who commit cybercrime cannot be detected, making them susceptible to data breaches, costly transaction and platform fees, and widespread fraud but integrating blockchain technology it became safe and secure and Unlike other applications, this crowdfunding site not only lets users deposit money but also acknowledges backers whose returns are assured.

Future Scope

Blockchain technology has had a significant impact on the crowdfunding industry, and its possibilities are practically limitless. Now let's examine the advantages that blockchain technology could offer to the creation of crowdfunding apps. Blockchain is anticipated to be used by the majority of technologies worldwide in the future as a productive means of conducting online transactions. Crowdfunding platforms are among the domains in which blockchain technologies can find application. The most prevalent issue with the present crowdfunding landscape globally is the lack of regulation around the campaigns, with some turning out to be fraudulent. Not only that, but several projects' completion was also much delayed. Through the use of Ethereum smart contracts on the crowdfunding website, this project seeks to address these issues.

In order to allow donors to assess campaigns according to how well they achieve their objectives and to share their experiences, it could be beneficial to include a rating and feedback system. Both potential contributors searching for campaigns to support and the administrators of the crowdfunding platform may get useful input from this.

CONCLUSION

- Blockchain technology is being used by the crowdfunding platform to increase transparency and lower fraud risk. This initiative intends to overcome the shortcomings of traditional crowdfunding systems, which have been criticized for being opaque and prone to fraud. It does this by offering a more reliable platform on which anyone can donate money to beneficial organizations.
- Crowdfunding has helped close the divide between those in need and those looking to help by uniting people from various backgrounds. Crowdfunding has many, many growing advantages, but it also has many, many developing concerns. More scams are reported each day. Since blockchain is a distributed ledger with several copies, editing a single transaction without affecting all of the copies at once is almost impossible. As a result, utilizing blockchain in crowdfunding raises credibility and reduces the risk of fraud.
- Therefore, before implementing blockchain, stringent cyber controls must to be put in place. The campaign's managers ought to promote it to the wider public on social media. Determining the true campaign is crucial, and distinct tactics need to be devised for this purpose. To do such, machine learning and artificial intelligence can be applied.

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