

CRYPTOTREND: A BLOCKCHAIN-BASED CRYPTOCURRENCY WALLET AND VALUE TRACKING APPLICATION

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ABSTRACT The project is an Ethereum management dashboard that aims to give users an user-friendly and efficient way for managing Ethereum transactions and assets. Dashboard allows users to easily transfer ether to other clients along with a message. This feature allows users to keep track of their transactions and easily send ether to other people. The dashboard also displays the user's current ether balance, providing an overview of the user's assets. The transaction history feature allows users to view all of their past transactions, providing a complete record of their Ethereum transactions. The QR code functionality allows users to easily share their Ethereum address with others, making it easy to receive ether from other people. The dashboard also has a prediction column that predicts the price of ether whether it will rise or fall. This feature helps users to make informed decisions about their ether holdings. The prediction is based on historical data and AI models. The prediction column will assist the users in take an informed decision and making changes in their ether portfolio accordingly. The project is made to allow transactions of ethereum more efficient and user-friendly by providing an easy-to-use interface. The project's aim is to develop an efficient platform for managing Ethereum transactions and assets. The project aims in order to simplify the process of monitoring and organizing Ethereum transactions and assets for users.

INDEX TERMS Assets, Dashboard, Ethereum, Interface, Management, Prediction, QR code, Transactions.

I. INTRODUCTION

BLOCKCHAIN is one of the revolutionary technologies that enables secure and transparent transactions without intermediaries. It is decentralized, tamper-proof, and has potential for diverse applications. However, there are several challenges associated with blockchain that hinder its widespread adoption. Previous research papers have identified usability issues in the use of blockchain technology, including lack of user-friendly interfaces, technical knowledge requirements, complexity of smart contracts, difficulties with private key management, and lack of standardization. These issues can make it challenging for non-technical users to use blockchain-based applications effectively and efficiently. Addressing these usability issues is essential to enhance the adoption and usage of blockchain technology.

A. CONCEPT OF BLOCKCHAIN

"Blockchain is a digital ledger that grants for the safe and clear exchange of information and value without the need for

intermediaries". The fundamental technology underpinning the well known digital currency Bitcoin was initially released in 2008, although it has now grown to a range of different uses [1].

Blockchain is fundamentally a distributed and decentralized database, which retains information data across a computer network known as nodes. Every node in the chain have number of deals, formerly a node added to the chain, it is immutable and unchangeable. This creates a endless, tamper evidence record of all deals that have passed on the network [2].

Key features of blockchain is to operate without the need for intermediaries. Traditional transactions often require intermediaries such as banks, lawyers, or other third-party service providers to verify and process transactions. In contrast, blockchain uses a consensus algorithm that allows users to verify transactions themselves, without the need for a central authority.

This decentralization also provides increased security and

privacy for users. Because the network is distributed, there is no single point of vulnerability, thereby increasing the level of difficulty for hackers or other bad actors to compromise the network. Additionally, because transactions are recorded on the blockchain using complex cryptographic algorithms, user identities are protected, providing a greater degree of privacy [3].

Blockchain technology are used for a wide range of applications beyond digital currencies. For example, it is possible to utilize it in the development of decentralized databases that can store and exchange information, as well as for developing smart contracts. They are contracts which execute themselves, where the contractual terms between the parties involved are coded directly into the system. These smart contracts are utilized to automate various types of transactions, including financial trades and supply chain management [4]. Overall, blockchain technology has the potential to revolutionize a wide range of industries, providing increased security, transparency, and efficiency. As the technology continues to evolve and improve, it is likely that we will see even greater adoption and integration of blockchain systems across a variety of applications.

This technology has the potential to revolutionize various industries by offering improved security, transparency, and efficiency. As the blockchain technology continues to advance, we expect greater adoption and integration of blockchain systems across various applications. Essentially, blockchain being a digital ledger that securely retains transactions across a network. This is accomplished through a series of nodes, where every node contains a comprehensive list of transaction records along with the previous node's block hash listed in the block header. The very first node in a blockchain is called the genesis block and has no parent block. Each block consists of a title and a body [5].

Important details including the block interpretation, "Merkle tree root hash, timestamp, nBits, nonce, and parent block hash are all included in the block title". The block body consists of a sale counter and deals, with the block size and the size of each sale determining the maximum number of deals that a block may include. [6].

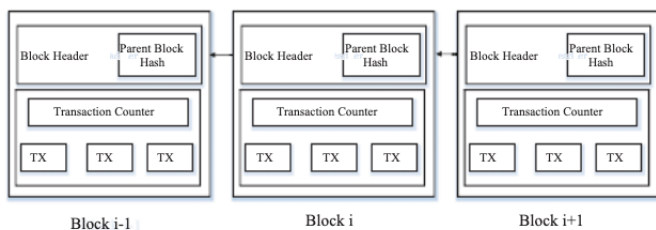


FIGURE 1. Connecting blocks

Using asymmetric cryptography, blockchain verifies the validity of transactions. This involves each user possessing

a private and public key pair, where the private key is used to sign transactions, and these signed transactions are then transmitted throughout the network. The elliptic curve digital signature algorithm (ECDSA) is commonly utilized as the digital signature algorithm in blockchains [7].

In blockchain technology, a block is a data structure that holds transaction records and relevant information, such as a header that contains significant details about the block. These blocks are then sequentially linked together to create the blockchain, which is an unchangeable ledger of all transactions.

Blockchain technology boasts several noteworthy characteristics, including decentralization, security, and transparency. With decentralization, there is no central authority that governs the network, while advanced cryptographic techniques are employed to safeguard the blockchain, ensuring its security. Additionally, the blockchain furnishes an open and transparent record of all transactions.

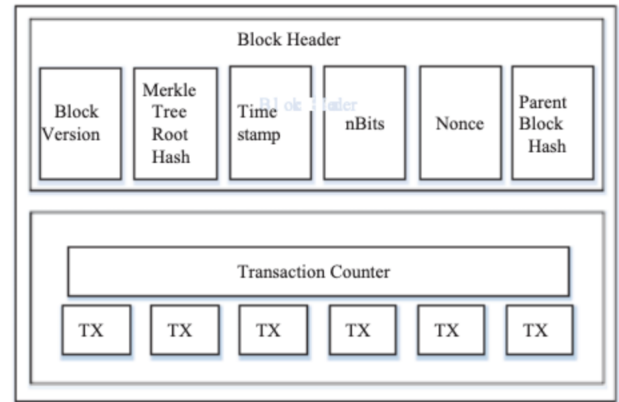


FIGURE 2. Single Block

Another significant aspect of blockchain technology is its immutability, which means that once a block is added to the blockchain, it cannot be modified or deleted. Moreover, the blockchain employs a consensus mechanism to maintain its integrity. Overall, blockchain technology has the potential to transform numerous by offering a safe, open, and decentralised network, means of conducting and transactions exchanging information.

"The use of blockchain technology is to secure a network and decentralised digital ledger that keeps track of transactions. It is composed of a sequence of blocks, each containing a complete list of transaction records along with the previous block hash found in the block header. The first block in a blockchain is known as the genesis block and is the only block in the chain without a parent block".

They found that people who control keys might encounter challenging security problems. They employed a cognitive walk-through inspection approach in addition to a set of rules with four key responsibilities for bitcoin, however they did

not offer any data or numerical depiction of the usability issues with bitcoin wallets.

In blockchain technology, a block is a data structure that holds transaction records and relevant information, such as a header that contains significant details about the block. These blocks are then sequentially linked together to create the blockchain, which is an unchangeable ledger of all transaction.

B. SMART CONTRACTS

Smart contracts are digital understanding between multiple parties that is stored on a blockchain. It is essentially a computer program that is able to keep data, processing inputs, and produce outputs according to its predetermined functions. For example, "a smart contract may have a constructor function that allows it to be created on the blockchain. When a user submits a transaction to create the smart contract, the constructor function is executed, and the sender becomes the owner of the contract. A further instance of a function that might be created in a smart contract is a self-destruct function that can only be used by the contract owner.

In its most basic form, a smart contract can be thought of as a class that contains state variables, functions, function modifiers, events, and structures. These elements work together to execute and enforce the terms of the contract. Additionally, a smart contract can call other smart contracts, creating a network of interlinked contracts".

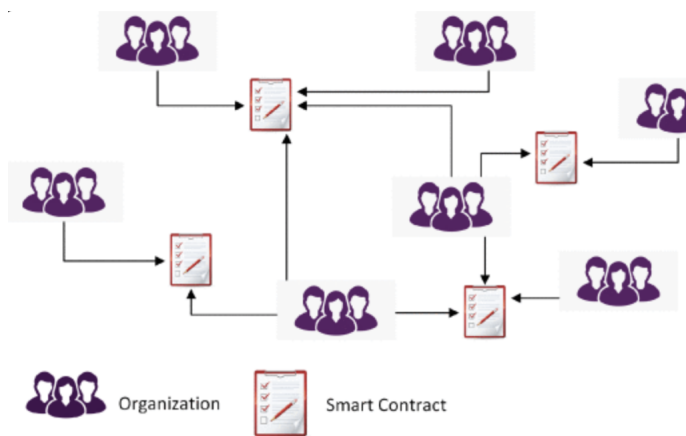


FIGURE 3. Smart Contract

Each smart contract includes state variables and functions. State variables are responsible for storing data or the contract owner's address. There are two categories of state variables: constant and writable. The former cannot be modified, while the latter can be modified by the contract's functions and saved on the blockchain. Functions, on the other hand, are code snippets that can read or modify state variables. There are two types of functions: read-only functions that do not consume gas when executed and write functions that do require gas consumption since they must be processed by

the blockchain [8].

The deployment of a smart contract on the blockchain involves the invocation of its constructor function through a transaction, following which the final code of the smart contract is recorded on the blockchain. This code is immutable, indicating that it cannot be modified once deployed. Given that smart contracts are executed on the blockchain, it necessitates a cryptocurrency payment to incentivize miners to process the contract's transactions and avoid infinite contract runs. In essence, a smart contract refers to a digital agreement stored on a blockchain and executed by a computer program. It encompasses state variables, functions, and other elements that function together to enforce the contract's terms. To host a smart contract on the blockchain, its constructor function must be invoked via a transaction. Thus, smart contracts require payment in cryptocurrency to avoid infinite contract runs.

C. TRANSACTION SYSTEM IN BLOCKCHAIN

In the world of electronic currencies, we define an electronic coin as a chain of digital autographs, wherein the current proprietor transfers the coin to the coming proprietor by digitally subscribing a hash of the former sale and the public key of the coming proprietor and adding these to the end of the coin. To insure that the chain of power is valid, a payee can corroborate the autographs of the former possessors. still, one of the major problems with electronic coins is the possibility of double-spending, where an proprietor could spend the same coin multiple times, which is hard to descry. A common result to this problem is to calculate on a trusted central authority, also known as a mint, to check every sale for double spending. still, this approach has the strike of counting on a central authority to manage the entire plutocrat system, just like a bank [9].

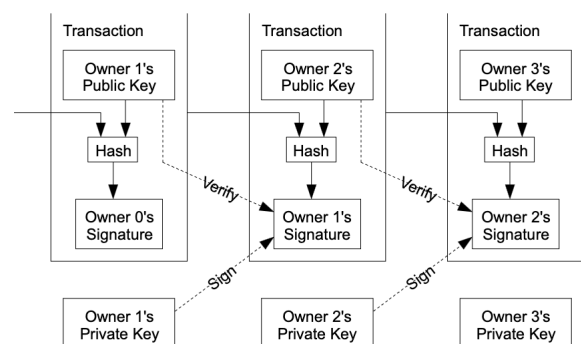


FIGURE 4. Transaction System

To address this issue without the need for a central authority, we need a system that allows the payee to confirm the absence of any earlier transactions by the coin's previous owners. To achieve this, all transactions must be publicly announced, and participants must agree on a single history

of the order in which they were received. To ensure that a transaction was the first received, the payee needs proof that the majority of nodes agreed at the time of the transaction that it was indeed the first.

Therefore, to eliminate the need for a central authority and enable a trustless system, we need a mechanism that allows transactions to be publicly announced and agreed upon by the network participants. This would enable payees to confirm the validity of the chain of ownership and the absence of any earlier transactions without relying on a central authority. By eliminating the need for a central authority, we can create a decentralized system that empowers users to manage their electronic currency with greater security and independence [10].

D. USABILITY ISSUES RELATED TO BLOCKCHAIN

"The emergence of blockchain technology has been seen as a revolutionary development that has the potential to disrupt several industries, including financial domains. However, the technology has been subject to criticism for its complexity, which has been cited as a barrier to its widespread adoption. One of the most successful applications of blockchain is cryptocurrency, and as such, identifying potential obstacles and usability issues that may hinder its adoption is crucial. To this end, a study was conducted to investigate common usability issues with desktop and mobile-based wallets used to manage cryptocurrencies. The study aimed to identify potential obstacles and usability issues that may hinder the widespread adoption of blockchain wallets. The study applied the analytical cognitive walk-through usability inspection method along with a set of guidelines with four fundamental tasks for Bitcoin".

The four fundamental tasks identified in the study include:

1. Starting a wallet on a device and checking one's balance.
2. Making a transaction of some Ether amount to a valid receiving address.
3. Having a permanent proof of record that a transaction has occurred.
4. Having a backup of an account in case of failure.

The study investigated three existing wallet applications: Exodus wallet, Bitcoin core wallet, and Ethereum MetaMask wallet. The results of the study reveal that both desktop-based and smartphone-based wallets lack good usability in performing even the fundamental tasks. The study found that around 20 percent of fundamental task completion problems exist in the case of Exodus and Ethereum wallets, and up to 40 percent in the case of the Bitcoin core wallet. The study highlights the importance of addressing these usability issues to improve the user experience and adoption of blockchain wallets.

Based on the findings of the study, a user-friendly Ethereum management web-based app is being designed using NextJS, Solidity for smart contract creation, TailwindCSS for UI, and SQL for data backup. The aim is to create a wallet application that performs better than the existing wallet applications and addresses the usability issues identified in the study. The

design of the new wallet application will incorporate user-friendly features and intuitive navigation to make it easy to use for both novice and experienced users.

Additionally, the app will provide a seamless experience for performing the fundamental tasks identified in the study. The use of Solidity for smart contract creation will enable the app to provide a secure and transparent platform for managing Ethereum-based transactions. This will ensure that users have a permanent proof of record for every transaction they make using the app.

The use of TailwindCSS for UI design will enable the app to have a modern and attractive design that is both aesthetically pleasing and easy to navigate. The app's UI will also be responsive, ensuring that it works seamlessly on both desktop and mobile devices. In conclusion, the study highlights the importance of addressing the usability issues that exist in existing blockchain wallets. The design of a new user-friendly Ethereum management web-based app using NextJS, Solidity, TailwindCSS, and SQL aims to provide a seamless experience for users and address the usability issues identified in the study. The new app has the potential to improve the user experience and adoption of blockchain wallets, thereby contributing to the widespread adoption of blockchain technology.

II. LITERATURE SURVEY

The author Monika di Angelo; Gernot Salzer states that The paper addresses an important issue of smart-contract wallets in blockchain technology. Paper presents a comprehensive analysis of contracts of wallet deployed on Ethereum, which is one of the most popular platform for smart contracts and tokens. The paper provides a detailed explanation of the six types of wallet contracts and their characteristics. The paper presents a reliable approach to identifying contracts of wallet by analyzing execution traces, bytecode and source code. The paper provides useful insights into usage scenarios and patterns of wallet contracts. The paper's analysis is limited to Ethereum blockchain and may not be applicable to other blockchain platforms. The paper does not provide any new solutions to address potential security issues with wallet contracts. The paper does not discuss the ethical implications of the use of wallet contracts, such as the potential for fraud or misuse. The paper's focus on technical aspects may make it difficult for non-technical readers to understand the content. [11].

The author Rui Liu; Tien Tuan Anh Dinh; Meihui Zhang; Ji Wang; Beng Chin Ooi; Gang Chen proposes a comprehensive survey of state of the art in private blockchain mechanism, which can help readers gain a better understanding of core technologies their capabilities. The BLOCK-BENCH benchmarking framework introduced in the paper can be a useful tool for evaluation of performance of private blockchains against data processing workloads. The evaluation of three major blockchain systems (Parity, Hyperledger

Fabric, and Ethereum) using the BLOCKBENCH framework provides insights into the design trade-offs and performance gaps between blockchain and database systems. The paper discusses research directions for bringing blockchain performance closer to the realm of databases, which can help enhance the efficiency and scalability of private blockchain systems. Paper focuses only on private blockchains, which may not provide a complete picture of the entire blockchain landscape. The performance evaluation conducted in the paper may not reflect the real-world performance of blockchain systems in all scenarios, as the performance of blockchain systems can vary depending on the specific use case and network conditions. The paper does not address the environmental impact of blockchain technology, which is a growing concern as the energy consumption of blockchain systems is significant. [12].

The author S. Eskandari et al. "first evaluated the usability and security issues in bitcoin key management and summarised the bitcoin key management approaches analysing 6 representative bitcoin clients and found that users performing tasks involving key management can be stuck with complex security issues. They also applied a cognitive walk-through inspection method along with a set of guidelines with four fundamental tasks for bitcoin but didn't showed any stats or numerical representation regarding the usability issues in bitcoin wallets". [13].

The author Kazerani et al. performed a study using Coinbase and Chagnetip to determine the extent to which usability and user experience were factors for bitcoin utilizing Chagnetip and Coinbase. Participants in their research had never used bitcoin before, and they were asked to remark as they worked through a given assignment. They discovered that almost half of those who took part had difficulty comprehending the ideas and were perplexed by their behaviour. They used a cognitive step-through method of inspection along with a set of guidelines with four essential tasks for bitcoin, but they did not provide any numerical or statistics representation of the usability problems with bitcoin wallets [14].

The author Krombholz et al. presented the first large scale survey to investigate how users experience Bitcoin ecosystem in terms of anonymity, privacy and security. They discovered that most of the users did not make full use of the security features of the Bitcoin management application that they chose and had serious misconceptions about how to safeguard their privacy and remain anonymous on bitcoin network. Additionally, they discovered that 22% participants had lost money as a result of self-inflicted mistake or security flaws. [15].

The author Xin, Praitheeshan, P., L., Y.W., Pan, R., Doss proposes the paper addresses an important issue of security vulnerability in the Ethereum wallets. The systematic analysis conducted in the paper provides valuable insights

into the existing literature on hacking methods in Ethereum wallets. The experiments conducted by the authors add empirical evidence to the paper's findings. The paper highlights the importance of using complex password credentials to secure keystore files. The paper's scope is limited to only one aspect of Ethereum wallet security, i.e., the vulnerability of keystore files. The paper does not provide any new solutions to address the security vulnerability of keystore files in Ethereum wallets. The paper's findings are not generalizable to other types of cryptocurrency wallets. The paper does not discuss the potential ethical implications of its findings, such as the responsibility of wallet providers to ensure their users' security. [16].

The author Nilesh P. Sable; Vijay U. Rathod; Rachna Sable; Gitanjali Rahul Shinde pro- poses "a payment system that is based on permission and privacy laid by blocks-to-blocks for use in the financial sector, which could potentially lead to more secure transactions. The pro- posed architecture integrates digital wallets with various banks to give a strong foundation of blockchain for secure transactions. The peer-to-peer network that shares transaction and dis- tributes the load can help minimize the load on central banking systems and keep overall data centers secure." The paper recognizes the importance of addressing security concerns in online payment systems, which is a critical issue in the digital age. The paper does not provide details on how the proposed payment system will be implemented and the potential challenges that might arise. The paper does not discuss the potential cost of implementing the proposed pay- ment system, which could be a significant barrier for smaller financial institutions. The paper does not address the potential impact on customer experience and usability, which is an impor- tant factor in the adoption of any new payment system. The paper does not provide evidence or research to support the claims made about the proposed payment system [17].

The author Saurabh Suratkar; Mahesh Shirole; Sunil Bhirud states that The paper provides a detailed overview of different multi-currency wallets and their features, which can be helpful for people who are new to cryptocurrency. The paper covers important aspects of wallets such as cost, supported currencies, platform support, anonymity, wallet recovery methods, key man- agement and fiat currencies supported, which can help readers make informed decisions when choosing a wallet. The paper acknowledges the blockchain's increasing penetration in many industries, which highlights the relevance and importance of understanding wallets. The paper does not provide any new or groundbreaking insights, as the information presented is readily available online. The paper does not provide any analysis or comparison of different wallets, which may not be helpful for readers looking for a detailed comparison between different wal- lets. The paper does not provide any recommendations or suggestions on which wallets are best suited for specific use cases or preferences. [18].

The author Mihai, Razvan and Ozkul, Omer Faruk and Datta, Gora and Goga, Nicolae and Grybniak, Sergii and Marian proposes a blockchain-based prototype that can address fundamental financial, economic, and accounting challenges. The prototype showcases an innovative solution for recording and tracking recurring economic transactions more effectively, efficiently, and in quasi-real-time. The paper utilizes the Ethereum blockchain, which is a widely used and evolved smart contract platform that offers various functionalities and capabilities. The asset rental contract is used as an example to show how economic transactions can be recorded and tracked on the blockchain, and how the prototype can be extended to a range of recurring transactions. The research paper focuses only on the asset rental contract and does not explore other types of recurring transactions. Therefore, the scope of the paper is limited. The paper includes technical jargon that may not be easily understandable by readers who are not familiar with blockchain technology. The paper does not discuss the risks associated with blockchain technology, such as cybersecurity threats, regulatory challenges, and scalability issues. [19]

On continuing research paper conducted by the author Saurabh Surattkar; Mahesh Shirole; Sunil Bhirud we have created an application cryptotrend. One advantage of this project over the research paper is that it offers a practical solution for managing Ethereum transactions and assets, whereas the research paper provides only an overview of different multi-currency wallets without providing any analysis or recommendations on which wallets are best suited for specific use cases or preferences. Additionally, the Ethereum management dashboard project offers a user-friendly interface that simplifies the process of monitoring and organizing Ethereum transactions and assets, making it easier for users to manage their holdings. Overall, the project appears to be a useful tool for anyone looking to manage their Ethereum transactions and assets efficiently.

III. PROBLEM STATEMENT AND PROPOSED SOLUTION

A. PROBLEM STATEMENT

Based on previous researches we can show that blockchain usability issues specifically lies in:

Lack of user-friendly interfaces: Many blockchain-based applications have interfaces that are difficult to use and understand, which can create usability issues for non-technical users.

Technical knowledge requirements: Using blockchain-based applications often requires significant technical knowledge, which can create a barrier to entry for many users. **Complexity of smart contracts:** Smart contracts, which are self-executing contracts with the terms of the agreement between buyer and seller being directly written into lines of code, can be complex and difficult to understand for non-technical users. **Difficulties with private key management:** Private key management is an essential aspect of using blockchain-based applications, but it can be challenging for non-technical users

to manage and keep secure.

Lack of standardization: The lack of standardization in blockchain can create usability challenges, as users may need to interact with different blockchains or blockchain-based applications that have different interfaces and require different technical knowledge.

B. PROPOSED SOLUTION

We are providing solution to this by creating an Ethereum management dashboard, which is designed to provide users with a streamlined and efficient way to manage their Ethereum transactions and assets. The dashboard offers a range of user-friendly features that simplify the process of transferring ether to other clients, as well as providing users with an easy-to-use interface for keeping track of their transaction history and current asset balances.

One of the key features of the Ethereum management dashboard is the ability to easily transfer ether to other clients. This feature allows users to quickly and easily send ether to other people, while also providing them with a record of their transactions. By offering users a simple and intuitive way to manage their transactions, the dashboard aims to make Ethereum transactions more accessible and user-friendly.

In addition to the transfer feature, the dashboard also displays the user's current ether balance, providing an overview of their assets. This allows users to keep track of their assets in real-time, helping them to make informed decisions about their portfolio. Furthermore, the transaction history feature allows users to view all of their past transactions, providing a complete record of their Ethereum transactions. This gives users a comprehensive overview of their transaction history, which can be useful for tax or auditing purposes.

The dashboard also includes a QR code functionality, which allows users to easily share their Ethereum address with others. This makes it simple for other people to send ether to the user's account, without the need for manual input of the wallet address. This feature not only saves time but also reduces the potential for errors when transferring assets between users.

Another unique feature of the Ethereum management dashboard is its prediction column, which predicts the price of ether and whether it is likely to rise or fall. This feature is based on historical data and AI models, providing users with valuable insights into the market trends of Ethereum. By providing users with accurate and reliable predictions, the dashboard can assist users in making informed decisions about their ether holdings and adjusting their portfolios accordingly.

Overall, the Ethereum management dashboard is a powerful tool that simplifies the process of managing Ethereum transactions and assets. By providing users with an intuitive interface, real-time asset tracking, and advanced prediction tools, the dashboard aims to make Ethereum more accessible and user-friendly. Whether you are an experienced cryptocurrency trader or a newcomer to the world of blockchain, the Ethereum management dashboard offers a range of features

that can help you to achieve your investment goals and manage your assets more efficiently.

IV. CONDUCTED SURVEY

Once the crypto trend project was implemented, 100 beta users were invited to test the platform and provide feedback. The aim was to compare crypto trend with other wallets available in the market, such as bitcoin core, exodus wallet, and metamask wallet. The survey conducted among the beta users revealed that crypto trend was superior to other wallets in performing basic tasks such as ease of login, creating a new account, checking balance, making a transaction, and recovering after losing credentials.

The beta users found it easy to log in to crypto trend compared to other wallets, which suggests that the platform has an intuitive and user-friendly interface. Starting a wallet for the first time in a new device was also easier in crypto trend, which shows that the platform is well-optimized and can run smoothly across multiple devices. Creating a new account and checking the balance was also found to be more efficient in crypto trend compared to other wallets. The survey showed that users found it easy to make transactions of a given amount of cryptocurrencies to a valid receiving address on the crypto trend platform. Additionally, the users found it easier to get insight about their digital holdings on the crypto trend platform compared to other wallets. Lastly, the survey revealed that recovering after losing the credential was better in crypto trend than other wallets, which indicates that the platform has robust security features.

Overall, the survey findings suggest that crypto trend is a superior wallet compared to other wallets in performing basic tasks. The platform offers an intuitive and user-friendly interface that makes it easy to use for beginners. Additionally, the platform has robust security features, making it a reliable choice for storing and managing cryptocurrencies.

Which application provides ease of login ?

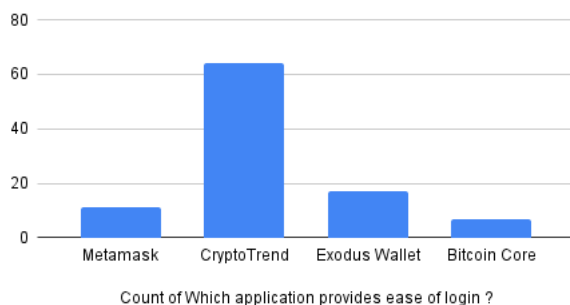


FIGURE 5.

According to the chart, Crypto Trend appears to offer a more user-friendly login process compared to other wallets in the market, as it has a simple authentication method on the

client side. Out of 100 beta users, more than 60 found the login process to be easier with Crypto Trend.

Starting a wallet for the first time in a new device, creating a new account and checking its balance.

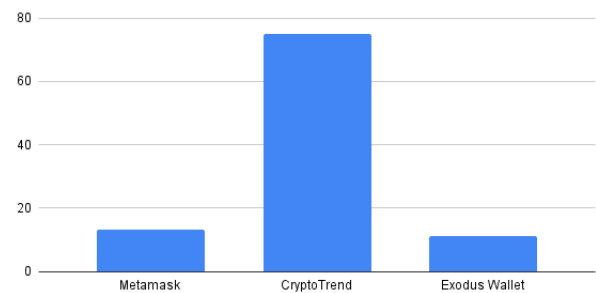


FIGURE 6.

When compared with other wallets such as Metamask and Exodus, Crypto Trend appears to be the most user-friendly option. Out of 100 beta users, over 70 found Crypto Trend easier to use when starting a wallet for the first time on a new device, creating a new account, and checking the account balance. These findings suggest that Crypto Trend has an advantage in terms of user experience, which could make it a more appealing choice for individuals who prioritize ease of use when selecting a wallet.

Making a transaction of a given amount of cryptocurrencies to a valid receiving address.

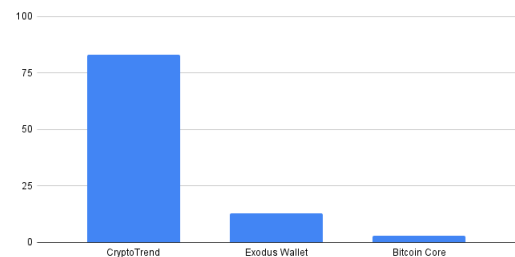


FIGURE 7.

According to a survey of 100 users, Crypto Trend appears to be the best wallet for conducting transactions. More than 75 users found that Crypto Trend outperformed other wallets in this regard. This indicates that the platform's transaction processing capabilities are a significant strength and may be a key factor in attracting and retaining users.

Crypto Trend appears to have a superior user interface compared to other wallets such as Exodus, Metamask, and Bitcoin Core. More than 75 beta users found that Crypto Trend is more visually appealing, providing a comprehensive overview of their digital holdings. The inclusion of a prediction column that indicates whether the value of the user's assets will rise or fall is another feature that was well-received by users.

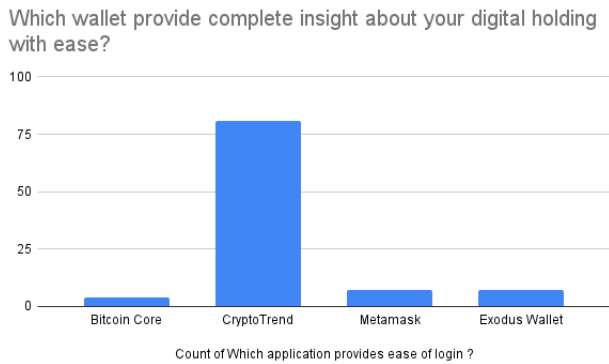


FIGURE 8.

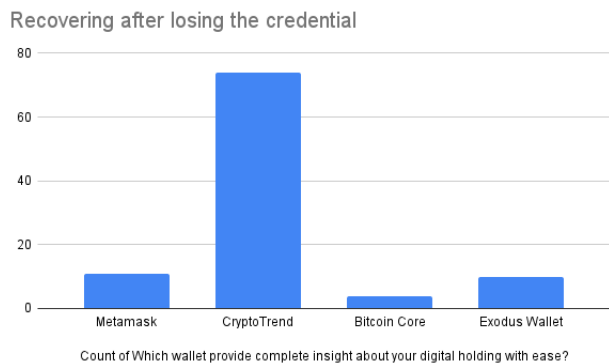


FIGURE 9.

One of the features that sets CryptoTrend apart is its robust backup system, which allows users to securely store and recover their credentials. The platform provides multiple backup options, including the ability to save a backup to an external device or cloud storage service. This feature ensures that users can quickly recover their wallet and credentials if they experience a device failure or lose their login information. Additionally, the backup system makes it easy for users to transfer their credentials to a new device without the risk of losing their digital assets.

V. RESULT

Blockchain technology has been growing rapidly in recent years, with many industries exploring its potential applications. However, one of the main challenges in the widespread adoption of this technology is its usability. Fortunately, there are now user-friendly applications that simplify the complex nature of blockchain and help individuals perform basic tasks such as logging in, creating new wallets, checking account balances, and making transactions. Among these applications, CryptoTrend stands out as a promising solution for improving the usability of blockchain technology.

In a conducted survey, it was found that CryptoTrend is

much easier to use compared to other crypto wallets. This user-friendliness is due to its intuitive design and simplified features, which make it accessible to both novice and experienced users. With CryptoTrend, users can easily manage their digital assets and perform transactions with just a few clicks. Additionally, CryptoTrend provides insightful predictions about users' Ethereum holdings through its AI-powered prediction model. This feature utilizes historical data and machine learning algorithms to forecast the future price of Ethereum, helping users make informed decisions about their investments and optimize their portfolio. The management dashboard also presents users with their current Ethereum balance, transaction history, and a QR code feature for easy sharing of Ethereum addresses. With its combination of user-friendliness, security, and insightful prediction features.

The need for user-friendly blockchain applications is crucial in driving the adoption of this technology. As more industries and businesses explore the potential applications of blockchain, it is important that they have access to user-friendly tools that simplify the complex nature of this technology. With its user-friendly design, enhanced security features, and simplified features, CryptoTrend is a promising solution for improving the usability of blockchain technology and driving its widespread adoption.

VI. CONCLUSION

Based on the above paragraphs, it can be concluded that blockchain technology has the potential to revolutionize various industries. However, its adoption has been hindered by its complexity and usability issues. The development of user-friendly blockchain applications such as CryptoTrend project can help overcome these issues and promote wider adoption of blockchain technology. CryptoTrend offers a range of features, including enhanced security, prediction models for cryptocurrencies, and a user-friendly interface that simplifies tasks such as creating a wallet, checking balances, and making transactions. Overall, these developments show that blockchain technology is evolving to become more user-friendly and accessible. As a result, it is likely to become more widely adopted in the future, leading to greater innovation and opportunities in various industries.

VII. FUTURE WORK

Future work for CryptoTrend includes integrating more cryptocurrencies to provide users with a wider range of options for managing their digital assets. Additionally, improvements to the user interface will be made to enhance the user experience and make it more intuitive for new users. Furthermore, the prediction models will be refined and improved to provide more accurate forecasts of cryptocurrency prices, allowing users to make more informed investment decisions.

To ensure the security of users' digital assets, advanced security measures such as biometric authentication, two-factor authentication (2FA), and decentralized storage will be incorporated. This will provide users with greater peace of mind and protection against potential security breaches.

In addition, the team will work on presenting a mobile app version of the project, which will make it even easier for users to manage their Ethereum transactions and assets.

Overall, the future work for CryptoTrend is focused on improving the user experience, enhancing the accuracy of the prediction models, and implementing advanced security measures. These efforts will further cement CryptoTrend's position as a leading blockchain application that provides users with a secure and user-friendly platform for managing their digital assets.

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