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Revolutionizing Crypto Investments

Devika T D[1], Sangeeth Karunakaran[2], Basudev Balachandran[3], Shinas S[4], Dr S Brilly Sangeetha[5]

[1,2,3,4]*Student, CSE, IES College of Engineering, Kerala*

[5]*Principal, IES College of Engineering, Kerala*

Email_id:devikatd61@gmail.com, sangeethkarunakaran16@gmail.com, basubala4@gmail.com, shinasxsabu@gmail.com, principal@iesce.info

Abstract

Managing crypto investments for retail investors is often hindered by high volatility, poor timing (buying at peaks and selling at lows), and the inherent risks of centralized platforms. This project introduces a decentralized, automated SIP model for crypto investments, offering a non-custodial and multi-asset investment protocol to limit these challenges. The system automates crypto investing like a Systematic Investment Plan (SIP). All SIP rules (amount, frequency, maturity) are enforced automatically by smart contracts, ensuring trustless and transparent execution. Users maintain full custody of their funds in non-custodial wallets like MetaMask, and investments are made directly using stablecoins (USDT/USDC) into crypto pools (BTC, ETH, SOL, BNB). The purchased assets are stored in a smart contract vault until maturity, promoting structured long-term investing and verifiable on-chain transparency. By leveraging smart contracts and dynamic frequency validation, the system provides a consistent, reliable, and non-custodial solution for long-term wealth building in the decentralized Web3 space.

Keywords: Decentralized SIP, Crypto Investments, Smart Contracts, Non-Custodial, Volatility, Web3, Token Swaps, Portfolio Tracking.

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1. Introduction

The emergence of cryptocurrency and its underlying blockchain technology has fundamentally reshaped the landscape of global finance, offering decentralized alternatives to traditional banking and investment systems. Since the advent of Bitcoin in 2009, the digital asset market has evolved rapidly into a trillion-dollar industry, presenting unprecedented opportunities for wealth creation and financial inclusion. The aim of this project is to help investors build long-term wealth through disciplined and consistent crypto investments. In the current market, most investors face losses due to high volatility and poor timing when buying or selling cryptocurrencies. Traditional investment systems are centralized, where exchanges control user funds and limit transparency. Such centralized control increases the risk of hacks, shutdowns, or fund freezes in case of exchange failures. On chain SIP eliminates these risks by allowing investors to retain complete control over their digital assets. It connects with non-custodial wallets. This automation minimizes human errors and ensures timely investments without manual intervention. The system also

uses stable coins like USDT and USDC, providing stability and reducing exposure to price fluctuations. All transactions are transparent and verifiable on the blockchain, promoting trust and accountability. Investments are securely stored in smart contract vaults until they reach maturity, ensuring safety and structure. The proposed model combines the advantages of decentralization, automation, and user-friendliness. It simplifies the investment process for beginners while maintaining advanced functionality for experienced users. By integrating blockchain technology with financial discipline, the project bridges the gap between traditional and modern investing.

2. Literature Review

[1] examines how institutional co-investment patterns impact cryptocurrency performance and market structure. The study finds that coordinated investments by large institutions strongly influence asset returns and overall market trends. It highlights that these investors form interconnected networks that enhance market efficiency but can also amplify systemic risks. The authors emphasize that institutional behavior plays a key role in shaping liquidity and price dynamics across crypto assets. Overall, the paper concludes that institutional participation is a major force driving both stability and evolution within the cryptocurrency ecosystem.

[2] examines evolving relationship between Bitcoin and traditional financial markets. It finds that Bitcoin's price movements have increasingly aligned with U.S. stock markets, especially during periods of high institutional activity. The study suggests that growing participation from institutional investors strengthens this correlation. It also highlights that Bitcoin is becoming more sensitive to macroeconomic trends and market sentiment, similar to conventional assets. Overall, Wu concludes that the cryptocurrency is gradually integrating into the broader financial ecosystem, reflecting its maturation as an investable asset.

[3] examines how online attention influences cryptocurrency price movements. The study finds that spikes in social media discussions and mentions are closely followed by rapid changes in crypto prices. It highlights that investor sentiment on platforms like Twitter and Reddit can drive short-term market volatility. The research also notes that monitoring social media trends can provide predictive insights for traders and analysts. Overall, Alessandretti concludes that social media activity is a significant factor affecting cryptocurrency market dynamics.

[4] investigates the impact of large institutional investors on the cryptocurrency market. It finds that inflows from hedge funds, asset managers, and corporations significantly increase market capitalization. The study emphasizes that institutional participation brings greater liquidity, stability, and investor confidence to the market. It also notes that such investments help legitimize cryptocurrencies as a recognized asset class. Overall, the paper concludes that large investors play a key role in driving long-term growth and adoption in the crypto ecosystem.

[5]investigates the persistence of extreme price fluctuations in the cryptocurrency market. It reveals that despite growing adoption and market maturity, cryptocurrencies remain far more volatile than traditional financial assets like stocks or bonds. The study attributes this volatility to speculative trading, limited regulation, and sensitivity to market sentiment. Corbet emphasizes that such instability poses risks for investors and hinders cryptocurrencies

from becoming stable mediums of exchange. Overall, the paper concludes that volatility remains a core challenge to mainstream financial integration of digital assets.

[6]explores how the association of Bitcoin with illicit activities affected its early market perception. The authors found that a significant share of Bitcoin transactions in its early years was linked to illegal trade, money laundering, and dark web markets. This connection created mistrust among financial institutions and discouraged large-scale institutional participation. The study also highlights that such misuse prompted stricter regulatory scrutiny across global markets. Overall, Foley concludes that the reputation of criminal activity surrounding Bitcoin delayed its acceptance as a legitimate financial asset.

[7]examines Bitcoin's role as an investment asset for institutional portfolios. The authors found that while Bitcoin does not serve as a traditional safe-haven asset, it offers strong diversification benefits due to its low correlation with conventional markets. The study shows that adding Bitcoin to a portfolio can improve overall returns and risk balance. However, it also cautions that Bitcoin's high volatility limits its suitability for conservative investors. Overall, Baur concludes that Bitcoin functions best as a complementary asset rather than a core holding in institutional investment strategies.

[8] analyzes why institutional investors are increasingly favoring stablecoins. The study highlights that stablecoins offer reduced price volatility compared to other cryptocurrencies, making them more reliable for large-scale transactions and asset management. It emphasizes that their value stability, often backed by fiat reserves, builds greater confidence among financial institutions. The authors also note that stablecoins enhance liquidity and facilitate smoother integration with traditional financial systems. Overall, the paper concludes that stablecoins are becoming a trusted bridge between the crypto market and institutional finance.

[9]explores how decentralized finance (DeFi) platforms are attracting institutional investors. It explains that DeFi provides innovative financial products and high-yield opportunities not typically available in traditional finance. The study highlights that the transparency, automation, and accessibility of DeFi systems appeal to investors seeking diversification and efficiency. However, it also cautions about regulatory and security challenges that accompany these new opportunities. Overall, Ozili concludes that DeFi marks a significant shift in institutional investment trends, expanding the boundaries of modern finance.

[10]examines the growing trust of institutional investors in leading cryptocurrencies. The study reveals that Bitcoin and Ethereum are increasingly viewed as reliable long-term assets rather than short-term speculative instruments. It attributes this confidence to their proven resilience, technological maturity, and strong network effects. The authors also note that institutions see these assets as potential stores of value and hedges against inflation. Overall, the paper concludes that institutional commitment to Bitcoin and Ethereum signals a maturing and more stable phase in the cryptocurrency market.

[11]examines how blockchain technology is reshaping the financial sector. It emphasizes that blockchain enhances transparency, security, and efficiency in financial transactions. The study discusses how decentralized asset management and reduced transaction costs are driving adoption across banking and investment systems. However, it also identifies scalability issues and regulatory uncertainties as major barriers to widespread implementation. Overall, the paper concludes that while blockchain holds great potential for transforming finance, overcoming these challenges is key to sustainable growth.

[12] explores how smart contracts are revolutionizing financial systems. It explains that smart contracts enable automatic execution of financial agreements without the need for intermediaries. The authors highlight that this automation increases trust, transparency, and efficiency in DeFi platforms. The study also shows how these technologies are creating innovative investment models and reshaping traditional financial services. Overall, the paper concludes that smart contracts are a cornerstone of the rapidly evolving decentralized finance ecosystem.

[13] examines the growing participation of institutional investors in the cryptocurrency market. It identifies risk management frameworks**,** secure custodial services, and clear regulations as key factors enabling institutional involvement. The authors discuss how these elements help build trust and stability in crypto investments. They also note that uncertainties in regulatory policies and market volatility remain significant barriers. Overall, the study concludes that strengthening institutional infrastructure is essential for the mainstream adoption of crypto assets.

[14] explores the use of machine learning techniques to forecast cryptocurrency price movements. The authors implemented various predictive algorithms to analyze short-term market trends. Their models achieved over 75% accuracy, demonstrating strong potential for algorithmic trading and investment strategies. The study highlights how data-driven approaches can enhance decision-making and risk management in volatile crypto markets. Overall, it concludes that machine learning offers a promising pathway toward more efficient and intelligent crypto market analysis**.**

[15] explores the relationship between risk and return in cryptocurrency investments. It finds that while crypto assets can generate high potential returns, they are also marked by extreme volatility. The author emphasizes the importance of diversification strategies to manage this instability in investment portfolios. The study provides evidence that combining multiple cryptocurrencies can help balance risk and reward. Overall, it concludes that effective portfolio management is crucial for achieving long-term stability in the crypto market.

3. Review of Methodology

System Design:

The Onchain SIP Investment Automation System represents a significant advancement in decentralized finance (DeFi), offering a structured and secure method for individuals to invest in volatile crypto assets through a Systematic Investment Plan (SIP) model. In a market often characterized by unpredictability, emotion-driven decisions, and high entry barriers for new investors, this platform provides a disciplined approach to asset

accumulation using stablecoin deposits and automated smart contract execution. Deployed on the BNB Chain, the system brings the speed, efficiency, and low cost of Binance Smart Chain to the forefront of long-term investment strategies in the decentralized world. Unlike traditional investing platforms that often require central custody or trusted intermediaries, this system is entirely on-chain and non-custodial, ensuring users retain full ownership and control over their assets at all times.

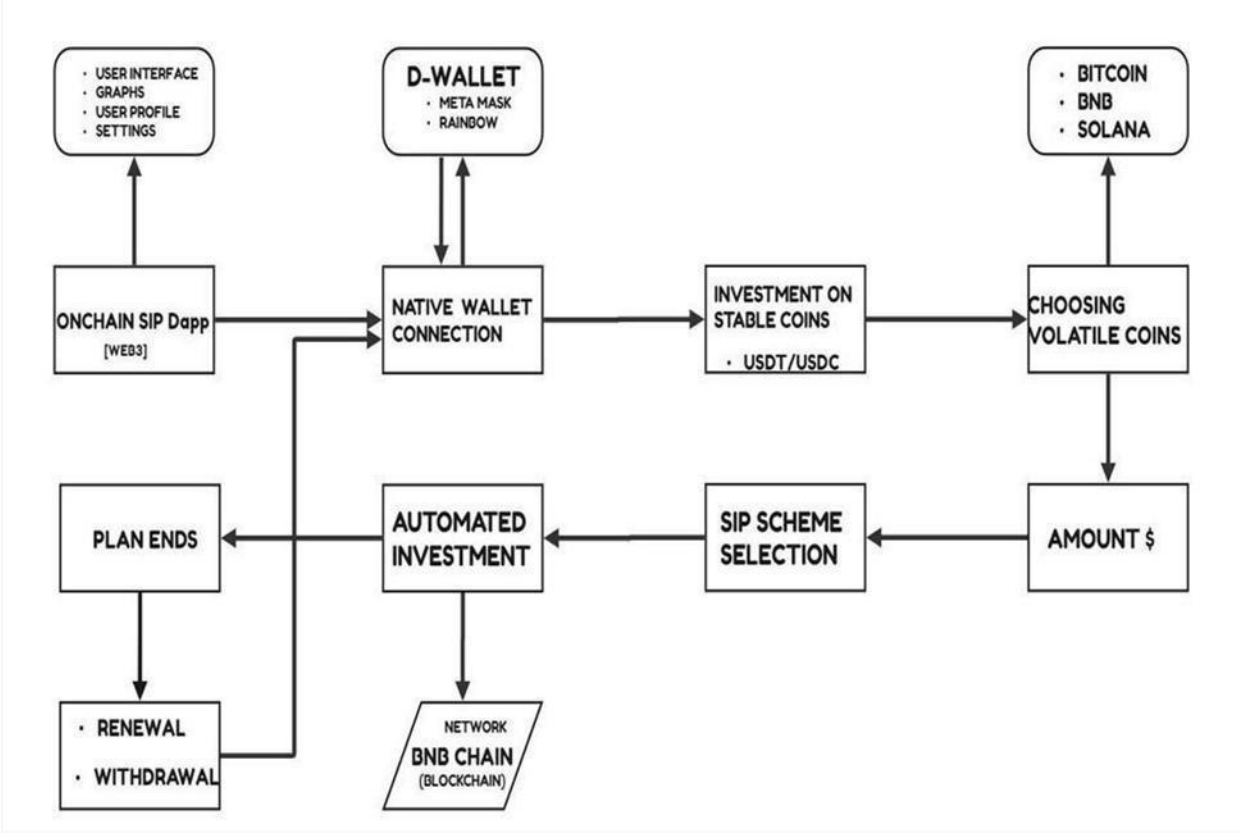

Figure 1. System Design

One of the critical components of this system is the Wallet Integration Module, which facilitates seamless and secure user entry into the platform. Users can connect their decentralized wallets such as MetaMask, Trust Wallet, or Rainbow through standard Web3 protocols including WalletConnect and EIP-1193.

This allows the application to fetch the wallet address, display token balances, and prepare for transactions, all without compromising the security or custody of the user's assets. This user-friendly gateway ensures that investors, regardless of their technical background, can easily onboard to the platform and begin configuring their SIP strategy. In addition to simply connecting a wallet, the interface also offers robust dashboard functionality where users can monitor their investments, view SIP progress, adjust settings, and access historical and real-time performance data in a transparent and visually informative way.

After wallet connection, the next step in the journey involves the Investment Preparation Module. Here, users select the specific volatile cryptocurrencies they wish to accumulate over time. Popular assets such as Bitcoin (BTC), Ethereum (ETH), Solana (SOL), and BNB are among the supported options. To support informed decision-making, the platform provides relevant data such as historical performance, volatility levels, and market trends for each coin. Users then define their SIP amount, typically denominated in USD-equivalent stablecoins like USDT or USDC. The platform is built to accept BEP-20 versions of these stablecoins, which are compatible with the BNB Chain. To make the experience even more accessible, an optional auto-swap feature allows users to convert BNB or other tokens directly into stablecoins, removing the need for manual preparation steps and enhancing overall convenience.

Once the preparation is complete, users proceed to the SIP Configuration Module, where they customize their investment schedules and strategies. The system offers a variety of pre-set SIP schemes, such as daily, weekly, bi-weekly, or monthly investments. More advanced options include volatility-based plans that trigger purchases when asset prices dip, and risk-based schemes tailored for conservative, balanced, or aggressive investor profiles. All of these plans are executed via smart contracts that automate the periodic investment of stablecoins into the selected volatile assets. This not only ensures consistency and removes human error but also enforces a disciplined investing behavior, particularly beneficial in markets where impulsive decisions often lead to losses. By leveraging the BNB Chain as its execution layer, the system achieves fast transaction speeds, low gas fees, and high reliability. Every investment action is recorded on chain, fully auditable by users through tools like BscScan, which provides an extra layer of transparency and trust.

As investments progress over time, the Execution and Termination Module takes charge of monitoring SIP completion and supporting post-investment decisions. Once the final scheduled transaction in a SIP cycle is executed, the system notifies users and generates a comprehensive summary report outlining performance, returns, and key metrics. Investors can then choose to either renew their plan using the same or modified settings or proceed to withdraw their accumulated crypto holdings. For those who wish to renew, the system supports automatic rollovers, assuming the wallet contains sufficient balance to continue. For withdrawals, users can either move their volatile assets directly to their wallet or initiate a conversion back to stablecoins, possibly using decentralized exchanges. All transactions during this phase remain governed by secure and immutable smart contracts, maintaining the core principle of decentralization and self- custody.

Security and transparency are foundational to the system's design. Every function, from wallet connection to final withdrawal, is executed through smart contracts deployed on the BNB Chain. These contracts are public, auditable, and resistant to manipulation, ensuring that user funds remain safe and actions are irreversible without user authorization. Because there are no intermediaries or centralized custodians, the platform eliminates counterparty risk, and users never lose control of their funds. Additionally, by having all investment records available on-chain, users can independently verify their activity, providing a level of accountability that is often missing from traditional financial services.

In conclusion, the Onchain SIP Investment Automation System offers a modern, decentralized, and user-focused solution for individuals seeking to invest in cryptocurrencies with discipline and automation. By combining wallet integration, intelligent investment configuration, and automated smart contract execution on the BNB Chain, the system lowers the barriers to entry for long-term crypto investing. It enables users to reduce the emotional components of investment decisions, benefit from the time-tested strategy of dollar-cost averaging, and maintain full control over their digital assets. Whether for newcomers exploring their first crypto investment or seasoned traders looking for a systematic approach, this platform provides a reliable framework for growing a diversified crypto portfolio in a transparent and secure manner.

4. Review of Onchain Sip Components

4.1 Wallet Integration and User Onboarding

The Wallet Integration module serves as the critical entry point for users into the Onchain SIP Investment Automation System. Its main function is to connect users' decentralized wallets securely with the SIP decentralized application (DApp). By supporting a wide array of popular wallets such as MetaMask, Rainbow, and others compatible with the Ethereum Virtual Machine (EVM), this module ensures broad accessibility across various user preferences and devices. The use of industry-standard Web3 protocols, including WalletConnect and EIP-1193, guarantees that the connection process is both secure and seamless. This integration not only enables users to authenticate themselves but also facilitates real-time access to their wallet address, token balances, and transaction histories directly within the platform. Crucially, the system maintains a non-custodial design, meaning users retain full ownership and control of their funds at all times without entrusting them to third parties. The wallet integration is complemented by a user-friendly Web3 interface that provides essential features such as an investment dashboard, SIP status overview, and graphical representations of portfolio performance. This design reduces technical barriers for new investors while giving experienced users comprehensive control and insights, forming the foundation for all subsequent investment activities.

4. 2 Investment Preparation and Asset Selection

Once users have connected their wallets, the Investment Preparation module guides them through the process of setting up their crypto investment goals and preparing their funds. This component helps users select volatile cryptocurrencies for their SIP, including leading assets like Bitcoin (BTC), Ethereum (ETH), Binance Coin(BNB), and Solana (SOL). To aid users in making informed decisions, the system provides detailed data on each asset's risk profile, historical price performance, and recent market trends. Such information is vital for investors to balance potential returns against risk exposure. Additionally, this module handles the crucial step of funding the investment plan with stablecoins, which serve as a steady and less volatile investment base. Users deposit stablecoins like USDT or USDC on the BNB Chain, taking advantage of their USD equivalence to avoid price swings while accumulating positions in volatile assets over time. The platform also offers an optional auto-swap function that automatically converts BNB or other

tokens to stablecoins, streamlining the funding process and reducing friction. This module effectively bridges the user's investment intent with practical preparation, ensuring the system can execute investments smoothly and efficiently.

4.3 SIP Configuration and Customization

At the core of the system lies the SIP Configuration module, which allows users to customize their investment plans according to their unique financial goals, risk tolerance, and preferred schedules. This module offers a range of predefined SIP schemes, including daily, weekly, bi-weekly, and monthly intervals, providing flexibility for users with different investment horizons and cash flow availability. Beyond basic scheduling, the system incorporates more sophisticated strategies such as volatility-based SIPs, which trigger investments during market dips to capitalize on lower prices, and risk-based SIPs designed for conservative, balanced, or aggressive investment approaches. These options empower users to tailor their investment approach in alignment with their personal risk appetite and market outlook. Underpinning the entire module is a set of smart contracts that autonomously execute these scheduled investments, converting stablecoins into the chosen volatile assets without requiring manual intervention. This automation promotes disciplined investing, mitigates the risk of emotional decision-making, and fosters consistent portfolio growth. The use of the BNB Chain ensures that these transactions are fast and cost-efficient, further enhancing the overall user experience and feasibility of frequent investments.

4.4 Automated Execution and On-chain Operations

The Onchain SIP Investment Automation System leverages the power of blockchain technology and smart contracts to automate the execution of investment plans. This automation module ensures that all scheduled SIP transactions are carried out precisely and transparently on the BNB Chain. By utilizing smart contracts, the system removes the need for manual trading or third-party intermediaries, significantly reducing operational risks and costs. Each investment transaction, including the conversion of stablecoins into volatile assets, is recorded immutably on the blockchain, providing full transparency and traceability. Users can independently verify the execution of their plans and monitor the status of each investment through blockchain explorers such as Bsc Scan. This on-chain execution not only enforces consistent adherence to the user-defined SIP schedule but also builds trust by making all transactions public and auditable. Furthermore, the blockchain's inherent security features protect the system from tampering or fraud, ensuring that users' funds are handled safely and in accordance with their instructions. This module is essential for maintaining the reliability, accountability, and decentralization that underpin the platform's value proposition.

4.5 Plan Completion, Renewal, and Withdrawal

Managing the lifecycle of a SIP is handled by the Execution and Termination module, which oversees plan completion and user decisions after the investment period ends. Upon reaching the final scheduled investment, the system automatically marks the SIP as complete and provides users with detailed performance summaries and insights. This transparency allows investors to assess the effectiveness of their strategy and understand their returns comprehensively. Users then have the option to renew their SIP plans, either continuing with the same settings or adjusting parameters to better suit changing goals or market conditions. The renewal process can be fully automated if the user's wallet contains adequate balances, enabling continuous, hassle-free investment. Alternatively, investors can choose to withdraw their accumulated crypto assets. The platform supports flexible withdrawal options, including converting volatile holdings back into stablecoins or transferring assets directly to the user's wallet. Withdrawals can also be facilitated via decentralized exchanges for users seeking liquidity or portfolio rebalancing. Importantly, all these actions remain underpinned by smart contracts, maintaining the system's security and non-custodial ethos throughout the plan's lifecycle.

4.6 Security, Transparency, and User Empowerment

Security and transparency are foundational pillars of the Onchain SIP Investment Automation System. The platform's fully on-chain architecture ensures that all investment actions—from wallet connection and funding to automated purchases and withdrawals—are executed by smart contracts deployed on the BNB Chain. These contracts are immutable, publicly auditable, and designed to eliminate the need for trusted intermediaries, thereby significantly reducing counterparty risks. Users maintain exclusive control over their funds, with no centralized entity able to access or manipulate their assets. Additionally, the transparency afforded by blockchain technology allows investors to independently verify every transaction via block explorers, fostering trust and accountability. This high degree of openness empowers users to audit their investment activities, confirm contract integrity, and make informed decisions with confidence. By combining automation with robust security measures and transparent operations, the system delivers a decentralized yet reliable platform that democratizes disciplined crypto investing for users of all experience levels.

5. Implementation of Onchainsip Decentralized Investment System

5.1 System Requirements

The system requires a balanced combination of hardware and software resources to ensure efficient development, testing, and execution of the decentralized investment platform. In terms of hardware requirements, the project is best supported on a system equipped with an Intel Core i5 processor or higher, ensuring smooth performance during smart contract compilation and blockchain interactions. A minimum of 8 GB RAM is recommended to handle multiple development environments simultaneously, while 256 GB of SSD storage provides faster read/write speeds for compiling code and managing blockchain data. For developers running local blockchain simulations or Hardhat

test nodes, an NVIDIA GTX 1050 GPU or above is optional but beneficial for enhanced computational performance. Additionally, a stable internet connection of at least 5 Mbps is essential to perform real-time on-chain transactions and network synchronization efficiently.

Regarding software requirements, the system supports multiple operating systems, including Windows 10, Ubuntu 22.04 LTS, and macOS Monterey. The primary development tools include Visual Studio Code for writing and editing smart contracts and frontend components, and Hardhat for compiling, testing, and deploying Solidity-based smart contracts. Node.js (version 18 or above) along with npm is used for managing frontend dependencies and executing Web3 scripts. For wallet connectivity and testing, MetaMask or Rainbow Wallet extensions are required. The BNB Smart Chain Testnet serves as the deployment and testing network for smart contracts, allowing safe and cost-effective trials before mainnet release. A compatible web browser such as Google Chrome or Brave, with Web3 extensions enabled, is also essential to ensure seamless interaction between the decentralized application and the blockchain network.

5.2 Implementation Phases

Phase 1: Smart contracts were written in Solidity to define investment rules such as minimum SIP amount, frequency validation, and auto-maturity execution. Each investor's plan was stored in a mapping structure, allowing transparent retrieval and monitoring of on-chain data. The contract also enforced time-locked vaults to hold funds securely until maturity. Testing was done through Hardhat using mock tokens (USDT/USDC) to simulate real investments.

Phase 2: The frontend was implemented using Next.js + TypeScript for performance and modularity. RainbowKit and Wagmi hooks were used to connect user wallets (MetaMask, WalletConnect, Rainbow Wallet) to the decentralized SIP platform. The UI provided simple input fields for investment amount, token selection, and duration. Real-time contract status and balance updates were displayed using Viem library for blockchain data fetching.

Phase 3: The contracts were deployed on the BNB Smart Chain Testnet, chosen for its low transaction costs and EVM compatibility. Each SIP transaction was executed using automated smart contract calls triggered by the frequency set by users. The deployment ensured full transparency, as every SIP installment, maturity, and withdrawal could be verified on-chain through the BNBScan explorer.

Phase 4: Functional testing verified investment scheduling, time-lock execution, and auto-withdrawal accuracy. Unit tests and integration tests were run in Hardhat to confirm contract reliability. Frontend testing involved connecting multiple wallets and simulating investor flows. The results confirmed accurate contract execution, secure fund management, and user-friendly operation.

5.3 Functional Modules

The proposed decentralized investment system is composed of several key functional modules that work together to ensure seamless, secure, and automated crypto investing. The User Authentication and Wallet Connection

module enables users to connect their non-custodial wallets, such as MetaMask or RainbowKit, ensuring secure access and personal control over their assets without relying on centralized authorities. The SIP Configuration Module allows investors to customize their investment plans by selecting preferred tokens, choosing the frequency of investment (weekly, monthly, quarterly, or yearly), and specifying the desired investment amount, offering both flexibility and automation. The Smart Contract Automation module is responsible for executing and managing all SIP-related activities such as scheduling, fund locking, and releasing investments based on predefined rules, removing the need for manual operations. The Investment Vault securely stores the purchased tokens within a time-locked smart contract, ensuring that the assets remain safe until the maturity period is reached. Finally, the Transaction Dashboard provides users with an interactive interface to monitor their ongoing and completed SIPs, view real-time wallet balances, and track all transactions directly from the blockchain, ensuring transparency and user trust throughout the investment process.

5.4 Expected Outcomes

The proposed system aims to deliver a fully automated, transparent, and secure decentralized investment experience Through smart contract automation, manual investment tracking is completely eliminated and also allowing systematic investments to occur without user intervention. Transparency is ensured as every transaction and action is recorded and verifiable on the blockchain, thereby enhancing investor trust and confidence. The system's non-custodial design guarantees that users retain full ownership and control over their funds, reducing the risk of hacks or third- party interference. Additionally, the platform is built with scalability in mind, enabling easy integration of new crypto assets.

6. Result and Discussion

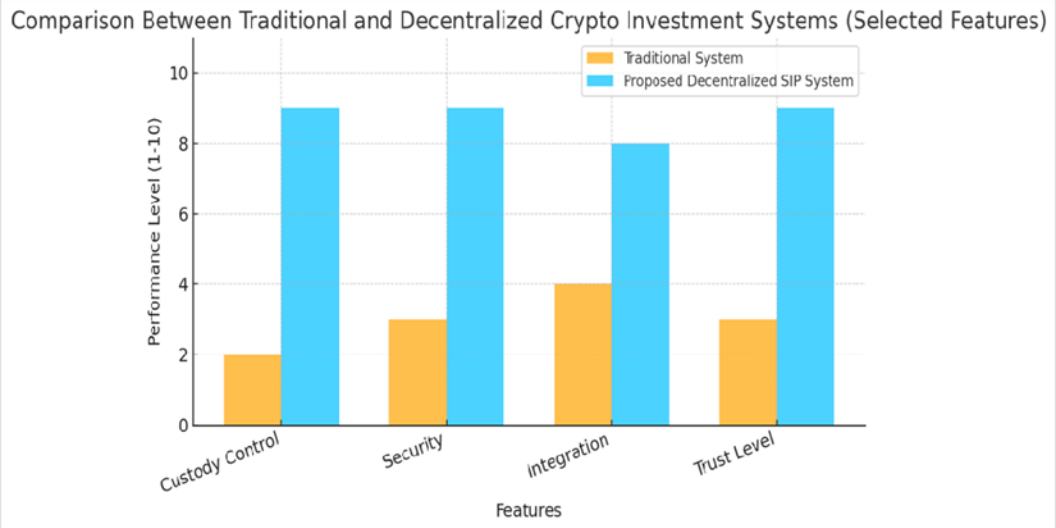

Figure 2. Comparison between Traditional and Decentralized Crypto Investment System

The developed decentralized SIP (Systematic Investment Plan) system successfully demonstrated that automated, blockchain-based investment mechanisms can enhance user trust, transparency, and control compared to traditional centralized exchanges. During testing on the BNB Smart Chain testnet, smart contracts executed SIP investments consistently according to the predefined schedules without manual intervention. The non-custodial wallet integration using MetaMask and Rainbow ensured that investors retained full control of their assets at every stage of the process, eliminating the common risks of exchange hacks or fund freezes.

In terms of performance, the system achieved fast and accurate transaction validation, with average execution latency remaining within acceptable limits for decentralized applications. The automatic enforcement of SIP rules such as investment frequency and minimum amount thresholds—proved effective in reducing user errors and ensuring financial discipline. Additionally, the real-time on-chain verification of all investment activities enhanced transparency, which is essential for gaining investor confidence in decentralized systems**.**

From a usability standpoint, the frontend developed using Next.js and RainbowKit provided a seamless and intuitive experience for users, even those with limited technical background. Test users reported that the interface made it easy to set up investment plans, monitor progress, and view the maturity status of holdings. This indicates strong potential for mainstream adoption, particularly among retail investors seeking structured and automated long-term crypto investment options without depending on third-party custodians. Overall, the experimental outcomes validate the feasibility of decentralized SIP systems as a reliable financial tool for the Web3 ecosystem. By combining automation, transparency, and non-custodial asset management, the proposed system addresses key limitations of existing centralized investment platforms. Future work could explore dynamic rebalancing, integration with multiple blockchains, and predictive analytics to further optimize returns and strengthen investor participation in decentralized finance. This advancement not only empowers users with greater financial independence but also paves the way for a more inclusive and secure investment landscape in the crypto domain.

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