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Decentralized Crowd-funding Ecosystem For Start-Ups

Dr. Uttara Gogate[1], Amey Bhoite[2], Meet Bhanushali[3]
[1]*Associate Professor,* [2,3]*Student Computer Engineering Department, SSJCOE, Maharashtra*

Abstract: ***Crowd-funding platforms running on centralized servers earn off commissions on funds raised by projects on their platforms. Also, donors lose power over their funds once invested. There is lack of transparency on spending of the funds. Donors are not guaranteed any incentives it solely depends on the campaign hosts to do so. Decentralized Crowdfunding helps us achieve complete transparency by having all transaction data on the blockchain. Furthermore, we distribute power to donors by having a voting mechanism to make any spending requests from the campaigns through our contracts. Hosts are free from any underlying commission and donors are incentivized through our integrated marketplace.***
Keywords: Decentralized, Crowd-Funding, Blockchain, Liquidity, Token.

I. INTRODUCTION

Throughout time, the main issue with centralized storing of funds has always been of trust and authority over its usage. With the introduction of blockchain technology the issue of transparency is with respect to storage and transfer is fairly resolved. Along with increase in trust as there is little to no human involvement but moreover a work of machine consensus in terms of verification and validation of transactions and keeping tabs. Thus crowd-funding on blockchain helps triumphs over its centralized counterparts. But just plain crowd-funding is bound to fail if there is no ease of circulation of funds and no liquidity options for the fundraisers. Therefore, with the help of our token 'Tachyon' which circulates through our three component ecosystem we tend to achieve our goals for a ideal crow-funding ecosystem. The ideal state, where in order to avail the services of our platform the consumer (the person hosting his idea/project) would require to have 'x' amount of our Tachyon tokens in his wallet. The person can achieve the following in two ways. The first, is to get our Tokens from our liquidity pool, in which they would be held against the blockchain's cryptocurrency, creating a trade which would ultimately lead to a deficit of our tokens in the pool thus incrementing their value. The second way is to swap our tokens on our exchange with the chain's currency, the generated currency will be further dumped into the liquidity pool in uniform cycles to maintain its stability and achieve the same incrementation of value.

II. LITERATURE SURVEY

The following literature survey below shows the limitations and reviews of different decentralized swaps, exchanges and its usage with respect to a type of coin and token. These help us determining the type of amm that would be suitable for the stability and liquidity of our token.

TABLE I. LITERATURE SURVEY

Paper topic	Methodology	Review	Limitation
Sushi multichain AMM	Most competitive rates for DeFi bluechips anywhere. Switch to other chains in one click..	Constant product model based exchange platform	Good for bluechip coins but high waiting times in ether conversions
Kashi Lending & Leverage	Isolated lending markets, elastic interest rates. Leverage long short or create your own market.	Good freedom of AMM to user Let's create new market and decide pre-sale value	Risk of rug pull attacks is More in this

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xSUSHI staking	Earn governance rights and 0.05% of all swaps from all chains in one simple place.	Good staking incentives for new Investors in this space	0.05% might not be very lucrative to get senior investors interested
Onsen Program – Sushi swap	Accelerate your project with onsen. Find the best yields anywhere in DeFi hands down	Good to search investable projects with real investor reviews	Just a search engine for defi projects based on sushi
Pancake swap	AMM for BNB chain	Good for starter projects with low presale value on BNB smart chain	Doesn't support cross chain exchange

III. PROBLEM STATEMENT

In the current world of crypto-currency, its usage is the main goal to achieve along with its circulation. First, to create a purpose to spend crypto-currency and at the same time achieving spender's trust, achieving transparency and easing the use of transactions thus needing to create a one stop platform to spend/invest your cryptocurrency directly. The worth of a digital currency is often linked to its usage thus to enable its growth in value it is necessary to provide efficient circulation and liquidation. Providing ease and efficiency in transactions is just one side of having goof tokenomics, in order to achieve a truly transparent crowd-funding we need to enable storing of funds with complete transparency in our decentralized treasury and distribute power by providing voting rights to investors/donors on transactions made by their funded projects/campaigns. Thus through this problem statement we aim to create an ecosystem around crowdfunding that not only acts as a stand in digital currency but instead helps us to create a parallel economy for start-ups by creating a token which rewards on its staking and generates funds by attracting investors through appealing guaranteed incentives with an integrated NFT marketplace.

IV. PROPOSED SYSTEM

In order to tackle problems with reguards to transparency, liquidity and circulation of our digital token we devised a three module system which will be working while being interlinked with each other where crowd-funding is where the tokens will be spent. The liquidity pool will help determine and stabilize it's value and the Decentralized exchange will provide ease of exchange of currency.

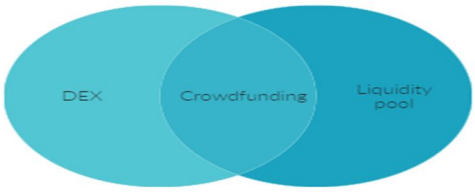


Fig. 1



Fig. 2

V. IMPLEMENTATION METHODOLOGY

A. Tokenomics

1) *Crowd funding:* The Face of our Ecosystem is our decentralized crowdfunding platform where people can host fundraising campaigns for their ideas, where we provide them a smart contract treasury to raise their funds in transparent and decentralized manner. In order to start a campaign on our platform the host users must have the minimum required amount of our tokens in their account that will host the campaign. The amount must be greater or equal to the cap set at that point in time, thus resulting in a type of staking of tokens to access the platform and prove trust and consensus.
2) *DEX:* In order to increase their stake i.e. token balance the users can trade the blockchain's cryptocurrency, that is, ether in exchange for our token from our decentralized exchange. The exchange will follow a general order book and process trades with transparency. The revenue generated from the Dex will further be used in a cycle of dumps for our Liquidity pool to keep our token price stable.
3) *Liquidity Pool:* In our liquidity pool, 'x' amount of our tokens will be held against 'x' amount of ether to generate the base price of our token. Then the further increase in value of out token can go about in two cases

Case 1: If the users swap directly from our liquidity pool

In order to reach their minimum token balance users can swap ether for our tokens directly using the liquidity pool thus creating a deficit of our tokens as against ether in the pool which in terms increases the price of our token. Though there is a limit to how much you can swap in one transaction in order to keep price stability in the pool.

Case 2: Uniform dump cycles from the Dex

The revenue of Ether generated from the Dex due to transactions and trade would be directed stored into our platform's account. The ether in revenue will then be dumped into our liquidity pool uniformly in order to create a surplus of ether pegged against our tokens, which will lead to increase in value of out token with respect to ether.

B. Parallel Economy with Donor Incentives

The Tachyon tokens staked by the campaign hosts not only act as a validator for our platform but can also be used to hold and trade for liquidity too. The greater you stake at a low price value, the more would you gain as the token rises in price due to its circulation, turning our platform's stake fee into a form of investment. In order to attract contributors and investors and to guarantee incentives, the campaign hosts could mint their project related NFTs on our integrated marketplace and set a minimum cap limit for donations to avail their NFTs thus making a mining cycle of limited NFTs which would lead to an rise in their prices and influx the number of investors/donors.

VI. EXPERIMENTAL RESULTS

Tachyon Test Evaluation Value of Tachyon token was calculated under real like circumstances on test net Uniswap liquidity pool and an expected outcome was achieved. In Nov 2021, value of Tachyon token was found to be 0.14 eth in a 1:1 TAC ETH liquidity ratio. In Feb 2022, value of Tachyon token was found to be 0.39 eth These results were derived on the Ropsten Test Net.

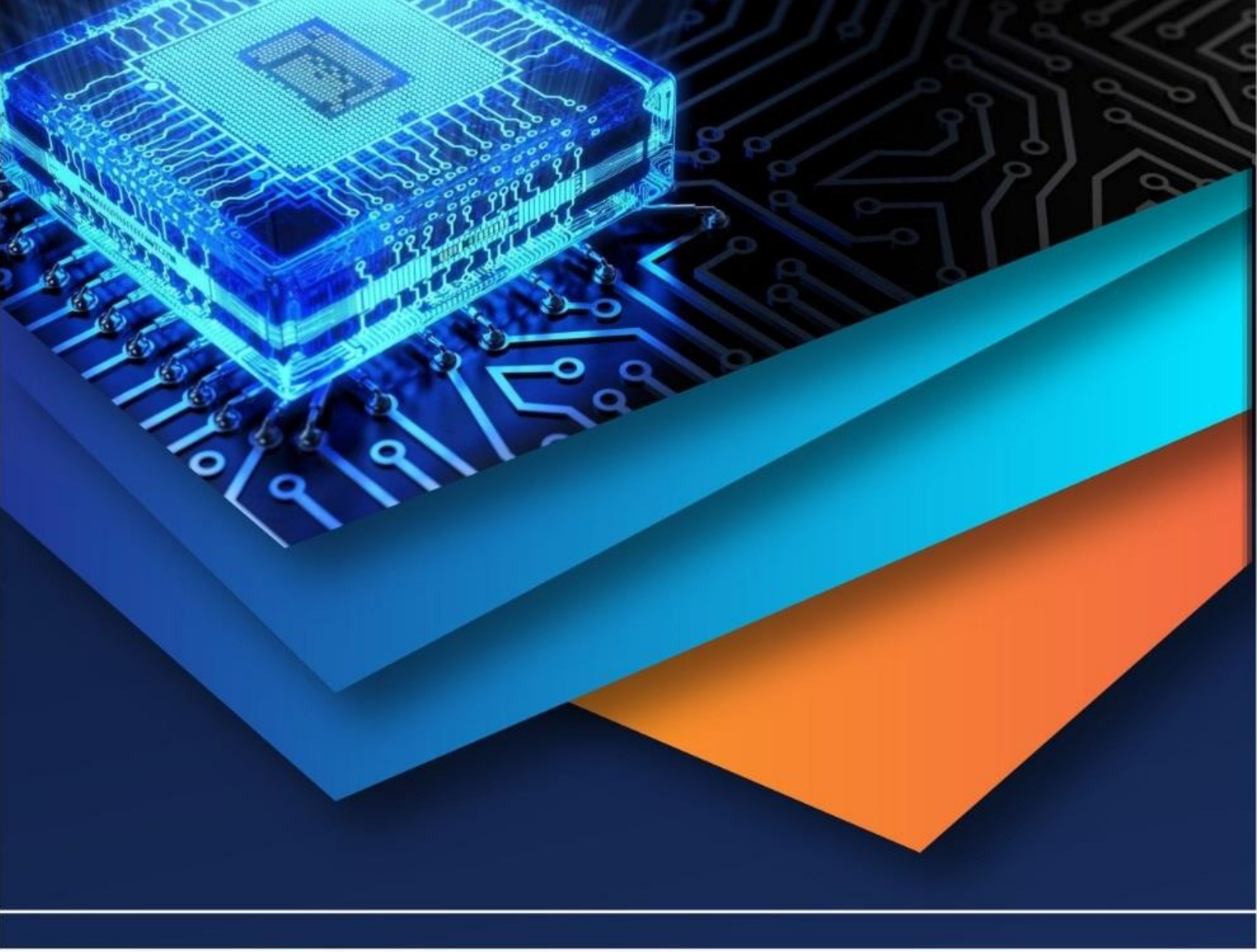
VII. CONCLUSION

Start-ups will get a platform to raise funds without sharing a huge chunk of their raised funds with crowd funding websites. Start-ups can raise funds without making the company public and splitting shares. Many businesses and technology companies would prosper because of this ecosystem. A holistic decentralized ecosystem will be created where a single currency will have multiple use cases unlike the tokens we see today. Gaming start-ups will use our NFT platform to promote their collectibles Many companies would opt Tachyon as their closed ecosystem currency because of the innumerable use cases and increasing value. Thus our token economics and ecosystem will not only provide funds to new projects and start-ups but also act as an investment which can prove to be a parallel economy for start-ups and donors.

REFERENCES

[1] MetaMask (Official documentation)
[2] Truffle (Official documentation)
[3] Solidity (Official documentation)
[4] Lioba Heimbach, Ye Wang and Roger Wattenhofer , Behaviour of Liquidity Providers in Decentralized Exchanges
[5] Gamals Ahmed, SushiSwap .
[6] Stave Walters, Pancake Swap .

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