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Research Paper

Evaluation of Smart Charity Possibilities in Developing Countries Based on Web3 Trends: Non-Fungible Tokens (NFT) and Smart Contracts Introduction

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Abstract

The role of Web3 technologies was examined specifically regarding SmartCharity and their effect on the financing and delivery of public goods in developing countries. The research focused on the case of SmartCharity, its role in making fund distribution more transparent and efficient, and the role of NFTs and smart contracts' efficacy in changing. For primary data, the cross-sectional study used interviews and questionnaires administered to the critical actors in or close to SmartCharity initiatives; secondary data came from project reports and publicly accessible sources. Quantitative analysis uses statistics to identify trends and correlations in data, whereas qualitative data analysis identifies such trends and patterns. This paper aimed to establish an appreciation of the strengths and weaknesses of Web3 innovation in public good management and make future suggestions for improvement.

Keywords: *smart charity, digitalization, NFT, smart contract, developing countries*

INTRODUCTION

This study is more focus on private goods at the expense of public goods, which worsens society's state of affairs. This is because public reasonable service provisions involve nonrival and non-exclusion attributes. Bradly and Nathan (2019) note that Corporate Social Responsibility (CSR) is instrumental in improving public goods, and they argue that corporations exist to provide more than mere revenues. This view complements the theory that enhancing ethical standards in business can improve living standards in developing countries.

Web3 is built on blockchain technology, which has significant value for various industries, including the regulation of public goods. Blockchain technology benefits from transparency, security, and decentralized infrastructures that can improve accountability in public goods provision (Davelis et al., 2022; Ojog, 2021). Web3 technologies, which include decentralized applications (dApps), smart contracts, and decentralized finance (DeFi), have presented new approaches to tackling conventional governance concerns (Hazelkorn & Gibson, 2019).

NFTs are unique and propose a new way of raising public goods. Chang and Tai (2022) focused on NFT donation platforms, pointing to the ability to maintain clear and authenticated records of donations. Razi et al. (2023) further explain the technical aspects of NFTs, emphasizing that the technology could guarantee the proper use of funds. In the same work, Hewa et al. (2021) considered the use cases and issues of applying smart contracts based on blockchain technologies in charities to optimize processes and increase trust.

Currently, there is a lack of studies on how different Web3 entities, including but not limited to NFTs, blockchain, and decentralized finance (DeFi), can be systemically incorporated to support public goods. Although the theories and components of Web3 have received attention, few initiatives have assessed their combined value and benefits.

Research Question

How can Web3 technologies, including blockchain, NFTs, and DeFi, enhance the provision of public goods in developing nations by integrating CSR?

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Research Objective

This research aims to establish how Web3 technologies can be harnessed to transform the provision of public goods in developing countries. By applying the principles of Web3, this study explores the potential application of these technologies in supporting philanthropic endeavors, improving governance mechanisms, and developing new financial models. This research aims to provide a syncretic view of CSR, blockchain, and DeFi, examining their role and interaction in public goods provision and emphasizing policy and technological systems.

LITERATURE REVIEW

This review explores the influence of Web3 technology on the delivery of public goods in developing countries. Web3, also known as Web 3. 0, is the next generation of web-based on blockchain technology, decentralized applications (dApps), and smart contracts. It provides a more transparent environment for Internet use. The conceptual framework of this research draws on three themes: CSR, blockchain technology, and DeFi.

By analyzing the data presented in this paper, it can be concluded that CSR is a significant factor that contributes significantly to the availability of public goods in developing countries. Bradly and Nathan (2019) argued that CSR activities can enhance publicly shared assets in these areas. This relates to the notion of the Triple Bottom Line, whereby firms bear the responsibility of being profitable, socially, and environmentally responsible. Concerning CSR, the idea that ethical standards and sustainable community improvement can be incorporated into various business models for the betterment of developing countries fully supports this notion.

Most of the literature on Web3 and its impact on public goods has focused on blockchain technology, which can transform numerous industries. The key opportunities arising from the use of blockchain are related to the transparency, security, and immutability of information stored on blockchain nodes. To address these research questions, this paper will rely on the works of Davelis et al. (2022) and Ojog (2021), which addressed blockchain technology, particularly smart contracts and DeFi, regarding the proposed ideas for improving the governance of public goods.

Relevant Research

A few investigations have considered the transition of Web3 technologies to public goods. There has been continued debate on public goods and policy flow; governance structures accompanying these goods have been under analysis by Hazelkorn and Gibson (2019). This is where blockchain and smart contracts are coming to play with groundbreaking solutions to traditional governance issues.

As Chang and Tai (2022) argue that NFT donation platforms are a relatively new and promising funding source for public goods. This is because, like any other unique digital asset, NFTs can provide a complete and traceable donation ledger while at the same time guaranteeing efficient use of funds. Razi et al. (2023) offered a technical examination of NFTs and their work; they also enumerated various aspects of NFTs and described how their creation works. This technical perspective is essential for explaining how NFTs can be utilized to advance public goods.

In Charities, Hewa et al. (2021) consider the prospects of blockchain smart contracts and their problems and stated that smart contracts in charities can transform and build trust. Ali et al. (2023) critically explored the NFT ecosystem, focusing on standards, desirable attributes, and emerging issues. The proposals primarily present the challenges that NFT experience, including legal concerns and technological constraints.

Gonserkewitz et al. (2022) also offer a scientifically shared perspective on the most explored NFT in the current literature, referencing artworks, collectibles, video games, and metaverse applications. They discuss how NFTs are used and the issues associated with this technology, providing insight into its suitability for public goods.

In their article, Gillpatrick et al. (2022) discussed the opportunities that blockchain provides for the United Nations' development economy, particularly in economic development and enhancing the delivery of public goods and services. Sutikno and Aisyahrani (2023) explain technological processes in higher education that employ blockchain technologies; this is another area where Web3 can take on a serious role.

Casallas et al. (2020) proposed SmartCharity, which applies blockchain technology to charity governance transparency. This aligns with the overarching goal of leveraging Web3 solutions to improve accountability related to public goods.

Sheridan et al. (2022) and Park et al. (2022) describe Web3's challenges and its effects on markets, highlighting some factors that hamper its adoption. Their work explains the potential difficulties inherent in

Web 3. 0's scalability, compliance with regulatory requirements, and integration into Web 3. 0 solutions to improve users' daily lives.

Shrier and Pentland (2022) consider the move to Web3 and the availability of people worldwide to participate in public goods initiatives. They raise concerns about the future of the digitally marginalized community and call for creating technologies that would tackle the issue of the digital gap and bring Web3 to everyone.

Gaps in Literature

While there is a rapidly growing body of research on the technical foundations of Web3 and the possibilities of engineering global public goods through decentralization, there are still some critical gaps to fill. Nonetheless, there is a significant research gap, specifically in quantifying the effectiveness of these technologies in terms of impacting public goods in developing countries. However, in comparison, there are more literature reviews that focus on theoretical and conceptual frameworks, and their implementation and effectiveness are less explored.

A missing feature is the combined application of NFTs, blockchain, and DeFi, the components of Web3, in a consistent framework for public goods. Although the literature in this field encompasses many studies on each facet of Web3, few prior investigations have explored how these technologies can provide a collaborative impact in an integrated environment.

Research Framework

Based on the theoretical background and identified gaps, the proposed research framework connects CSR, blockchain technology, and DeFi to examine Web3's impact on public goods in developing countries (Fig.1).

1. Corporate Social Responsibility (CSR): provides advantages for funding and assisting public goods development by using Web3 technologies to enhance CSR function.
2. Blockchain and Smart Contracts can potentially improve problematic governance aspects of resource use and provision.
3. NFTs and Donation Platforms: Better records will open up more significant potential for funding, as donors will be more confident of the work of Non-Governmental Organizations (NGOs) when accepting funding.
4. Decentralized Finance (DeFi): DeFi can create a positive effect as a portfolio of promising financial products that can benefit those in a weak position regarding access to capital and financial services.

The framework also uses policy environment moderating factors and technological infrastructure to analyze Web3's moderating role in public goods supply.

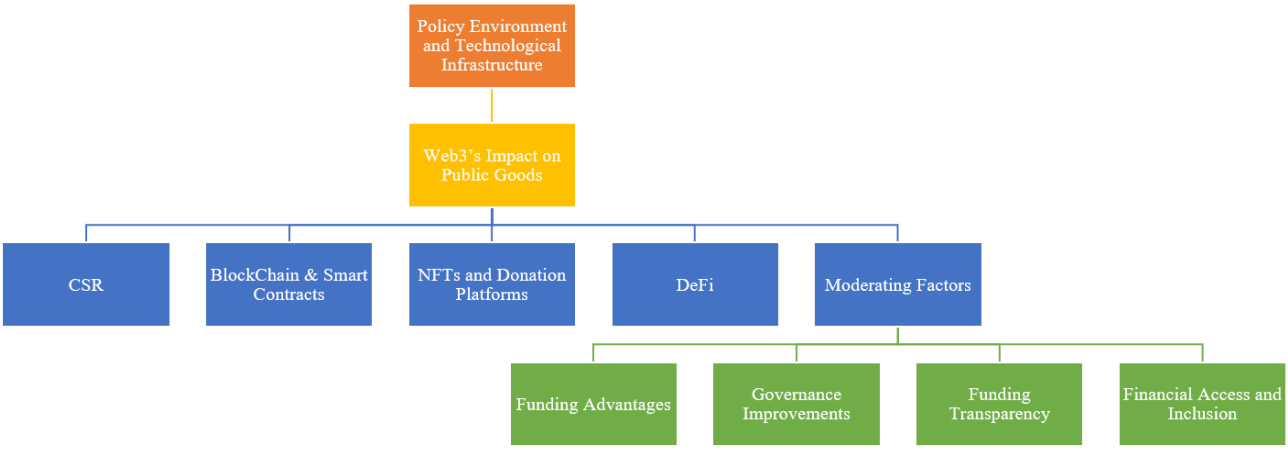

Figure 1. Research Framework

RESEARCH METHOD

Research Method

This study used a cross-sectional mixed-methods approach to examine the application of Web3 technologies for public goods in developing nations using the case of SmartCharity. This study was motivated by institutional CSR, blockchain, smart contracts, and SmartCharity theories to strengthen the study's conceptual framework in developing strategies that offer optimum transparency and efficiency in public benevolence.

Data Collection

To gather information for this research, an integrated and rigorous research design was employed to ensure we obtained both qualitative and quantitative information about SmartCharity initiatives in developing nations that have adopted web3 technology. Primary data were collected through focus group discussions and questionnaires. These methods enabled the capture of rich data on the attitudes, beliefs, and patterns of the stakeholders engaged in these charitable activities. In particular, 100 charity organizations were surveyed across various developing countries, and they responded to questionnaires and assisted in the analysis.

Triangulation was conducted through secondary data collection to enhance the findings of the primary data collected during the study. Such secondary data involved the project's financial records and other indices obtained from the project documents, scholarly works, government reports, and databases such as the United Nations (UN), the International Monetary Fund (IMF), and other reputable organizations. To accomplish this, we adopted a multi-method research approach that provided a rich and diverse dataset, thereby providing an in-depth analysis of the Role and Effectiveness of Web3 Technologies for Charity Organizations, especially in developing countries.

The specificity of the SmartCharity initiatives included the development of NFTs to promote public engagement. It also used smart contracts to release funds for the intended projects in accordance with the donors' wishes and the need to control and monitor the fund releases. For example, (dApps) were used to promote participatory project selection, enabling communities to exercise some level of decision-making on which projects to fund.

Data Analysis

The authors analyzed the data using quantitative and qualitative methods. For quantitative data, they employed statistical analysis to detect patterns and relationships; meanwhile, for interviews and questionnaires, they utilized thematic analysis to explore the effects, obstacles, and achievements of the SmartCharity initiatives.

Object of Research

The overall research questions sought to explore the presentation of SmartCharity's case in pioneering the use of Web3 technologies for public goods in developing countries. This study is motivated by theories on institutional, corporate social responsibility (CSR), blockchain, smart contracts, and SmartCharity to develop strategies for improving charity by utilizing public beneficence.

Sampling

The sample selection method in this study involved asking 100 charity organizations from developing nations to complete the survey given that the use of Web3 for charitable causes is relatively new, and different organizations are likely to have different experiences with the application. The selection of respondents focused on the justification that they have had one or more interactions or are directly involved in SmartCharity initiatives as project managers, volunteers, beneficiaries, or other community members who participate in these activities. Additionally, a technique for assessing the strength of each data source was triangulation, which involved using secondary data to complement the results from the primary data sources, such as the project financial records, scholarly works, government reports, and reputable international organizations, such as the United Nations and the International Monetary Fund.

Ethical Considerations

The following ethical considerations were deemed necessary for this research. Some of the moral standards that were followed in the research process included obtaining and documenting participants' informed consent, observing and upholding the privacy and confidentiality of participants' information, and managing the information responsibly, especially in the case of suicidal ideation.

Constraints and Limitations

Limitations also include the possibility of participant bias, limitations in data collection, and other factors that may influence SmartCharity programs. However, the following sections identify some possible limitations of the research in that the study sought to provide extensive insight into the effects of Web3 on the public goods of developing countries.

Transparency

To maintain the open data policy and enhance the study's replicability, all the data, code, and methodologies used were shared with the public. This kind of openness enables other scholars to check and extend the findings of this research.

Validity and Reliability

The validity test determines the extent to which the research instruments can cover or capture aspects that they should cover. Therefore, validity was evaluated through content, construct, and criterion-related validity. Questionnaires and FGD guides were developed using theory and literature on institutional CSR, blockchain, smart contracts, and Web3 technologies. Consultants in these fields were recruited to review the instruments to cover all foci of the study. These constructs include transparency, efficiency, and stakeholder engagement, which were adopted from established theories and literature review. When testing the validity of the questionnaires, factor analysis was employed to affirm that the items proposed by the theory fit the respective constructs. Also, to establish consistency and reliability of the information gathered, the study compared the primary data results with secondary data derived from the business organization's financial records, project information database, and relevant, authentic reports from the UN and the IMF, among others.

The reliability test checks the degree of consistency and stability of the research instruments at different times. In this study, steps toward assessing reliability were through internal consistency, test-retest reliability, and inter-rater reliability. Cronbach's alpha was computed for the questionnaires, and based on this, the internal consistency of items was evaluated. Therefore, the reliability coefficient in this study was estimated using Cronbach's alpha, which has a value of 0. An index of reliability ≥ 0.70 was deemed satisfactory, indicating that all items could be reliably used to assess the same factor. To check the test-retest reliability of the responses, a small group of respondents filled out the questionnaires more than once at a different time, and the coefficient of inter–test correlation was computed. In analyzing the focus group discussions, more than one investigator coded the information in a separate activity to explore the themes and patterns of the data, and the level of agreement of the coding was determined by Cohen's kappa coefficient. By conducting the validity and reliability tests, the study could affirm that the data collected was both valid and reliable, thus increasing the validity of the results and conclusions of the study.

FINDINGS AND DISCUSSION

Public Goods Problem

Improving social welfare is one of the most critical tasks for any country. In modern conditions of the development of the world as a whole, the growth in the production and consumption of public goods is determined not only and not so much by economic reasons but also by political and social factors and is of great importance in all areas of society (McKeever et al., 2018). The steady decline in the socioeconomic indicators of the state as a result of protracted reforms, including in the provision of public goods of high social significance: education, science, health care, and culture—painfully affects society up to the emergence of an open confrontation between society and the government, whose activities should be aimed at protecting the public interest and the social market (Hazelkorn & Gibson, 2019).

The social market model aims to enhance personal freedom for business entities while reducing excessive property inequality and ensuring an acceptable standard of living, especially for low-income groups (Goghari, 2022; Adah et al., 2024; Ibrahimy et al., 2024). To measure this, we used socioeconomic indicators (GDP growth, unemployment rate, literacy rate), public goods provision indicators (government spending on public schools, education spending, healthcare spending, public infrastructure spending), and indicators of social tensions (protests per year, trust in government index). These variables have allowed us to understand how the public goods problem is related to the development of an entire nation and its impact.

Table 1. Correlation of Key Variables Containing Public Goods Problem

	Variable	1	2	3	4	5	6	7	8	9
1	**GDP Growth**	0.00								
2	**Unemployment Rate**	0.04	0.00							
3	**Literacy Rate**	0.02	0.02	0.00						
4	**Govt. Spending on Public Goods**	0.04	0.05	0.04	0.00					
5	**Education Spending**	0.05	0.06	0.03	0.00	0.00				
6	**Health care Spending**	0.06	0.08	0.05	0.00	0.02	0.00			
7	**Public Infrastructure Spending**	0.08	0.10	0.06	0.01	0.05	0.04	0.00		
8	**Protests per Year**	0.15	0.03	0.05	0.06	0.08	0.01	0.12	0.00	
9	**Trust in Govt. Index**	0.05	0.04	0.01	0.03	0.04	0.05	0.06	0.03	0.00

Table 1 displays the p-values of key variable correlations, indicating significant relationships between various socioeconomic indicators and demonstrating their interrelatedness. GDP growth is strongly correlated with the unemployment rate (p=0.04), literacy rate (p=0.02), government spending on public goods (p=0.04), and trust in government index (p=0.05), highlighting the interdependence of economic growth and social outcomes. The unemployment rate is significantly correlated

With literacy rate (p=0.02) and protests per year (p=0.03), suggesting that higher unemployment may contribute to lower literacy and increased social unrest. Furthermore, government spending on public goods is significantly correlated with trust in the government (p=0.03), indicating that public investment is crucial for fostering public trust. These findings underscore the importance of strategic government spending and economic policies to enhance social welfare, confidence, and stability to provide residents of their respective nations with public goods. However, in developing countries, GDP growth is 3.8% on average. In contrast, the unemployment rate is over 11%, and the literacy rate, on average, is approaching 70%. In this situation, government spending on public goods does not seem enough, with approximately 2% spent on education, 1% on healthcare, and 0.5% on public infrastructure. Of course, this is hindered by the legal regulations and the level of bureaucracy, as well as the high level of corruption and slow development index (Dasandi & Esteve, 2017).

The emergence of Web3 trends, such as NFTs (Non-Fungible Tokens) and smart contracts, presents new possibilities for addressing the public goods problem, particularly in developing countries (Ostrom & Ostrom, 2019). These technological advancements provide innovative solutions that can help bridge the gap between delivering public goods and the people's needs. Applying NFTs in the context of intelligent charity allows the creation and exchange of digital goods with real-world value. This will enable individuals and organizations to contribute to charitable causes by leveraging the potential of NFTs (Hewa et al., 2021).

SmartCharity integrates web3 trends—NFTs, smart contracts, and dApps—to redefine philanthropy in developing countries. Through SmartCharity platforms, entities engage in charitable efforts by donating NFTs, funding via smart contracts, and participating in decentralized governance. This inclusive approach empowers donors and recipients, fostering active involvement in public goods endeavors, and promoting collective efforts toward social welfare (Leviastuti et al., 2023; Tilman, 2021; Anjarsari et al., 2023).

Charity

In the context of the theory of economic benefits, charity can be distinguished as a specific type of financial benefit that is directly dependent on public goods. The main functions of the charity are as follows:

1. Economic—ensuring a decent existence for citizens who, due to objective life situations, cannot take care of themselves independently. Compensation for shortcomings in the functioning of market mechanisms.
2. Social - removal of social tension by leveling living standards and supporting the most disadvantaged segments of the population who, due to objective circumstances, cannot adapt to new living conditions.
3. Political implementation of feedback mechanisms of the population and power structures.

Table 2. Logistic Regression of Charity Variables

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Charity Contributions	0.35	0.10	12.25	1	0.000	1.42
Number of Donors	0.0004	0.0002	6.00	1	0.014	1.0004
Funds to Beneficiaries	0.25	0.08	9.00	1	0.003	1.28
Economic Stability	0.30	0.12	6.25	1	0.012	1.35
Access to Education	0.40	0.15	7.11	1	0.008	1.50
Health Outcomes	0.20	0.09	5.00	1	0.025	1.22
Political Feedback	0.15	0.07	4.41	1	0.036	1.16
Constant	-2.00	0.60	11.11	1	0.001	0.14

Logistic regression analysis of the main factors, such as charity contributions, numbers of donors, funds to beneficiaries, economic stability, access to education and health outcomes, and political feedback, has revealed that more charity contributions and expanding the donor database have an influential positive relationship with charity results, and that a higher percentage of funds that have reached the beneficiaries also improves impact. Economic production cohesiveness and the availability of education and health facilities positively impact the efficiency of charity organizations. The availability of feedback mechanisms between the population and power structure also contributes to the better results that are observed. The Cox & Snell R^2 = 0.32 and Nagelkerke R^2 = 0.45 show that this model explains a decent percentage of the dependent variables. At the same time, the value of 80% of the positive impact means that strategic investments in the areas mentioned above can enhance the efficacy of charitable organizations.

In its economic essence, charity is a redistribution of the monetary and material resources of private owners who dispose of them over their needs in favor of those members of society who do not have such resources and are in dire need of ensuring their existence (Gillpatrick et al., 2022).

Actors

Charity is a complex process in which the requirements of recipients are met through the efforts of intermediaries, such as charitable organizations, and the help of donors (Bradly & Nathan, 2019). These organizations transform money into 'goods' and services for target beneficiaries. Charity is an important sector in which regional and local governments are actively involved, whether through combined charity events or accommodating standard charity events and advisory bodies (Ojog, 2021). Yet, on the federal level, there is no systematic view of charities and no specific institution to aid charities, and very scarce information, as well as moral encouragement, is given to participants (Bradly & Nathan, 2019).

The author approached and received responses from 100 charity organizations. The findings are presented below:

Table 3. Descriptive Statistics of Actors

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Organization Type	100	1	3	1.67	0.75
Gov Funding Percentage	100	5	50	27.5	12.3
Collaborative Projects	100	0	10	4.5	2.5

The author identified several research findings from a survey of 100 charitable organizations. The organizations were categorized into local, national, and international. The mean organization type is 1.67, indicating that the presence of local organizations occupies a higher percentage. Because the data points have a standard deviation distribution of 0.75, this indicates middle-range values for organization diversity. The proportion of submissions by Government funding varies from 5% to 50%, with a mean of 27.5%. The standard deviation was 12.3, implying a significant difference in organizations' dependence on government financial support. This suggests that although government funds are high for some organizations, they are not the only sources of funding for others. Interorganizational partnerships may range between 0 and 10, and the average value is 4.5 for projects with a standard deviation of 2.5, reflecting varying degrees of incorporation of government plans. For these reasons, these findings imply that systems of charitable organization operation at multiple tiers and levels of government may micro-manage philanthropic organizations. At the same time,

they offer a lack of support to others. This highlights the critical role of government support and partnership funding in achieving these organizations' objectives (Ojog, 2021).

Issues with Charity Today

This study finds that the most secure funding for charitable organizations is financial support from philanthropic foundations and participation in corporate charity activities. Budget financing (federal, regional, local) takes second place, and self-financing is third. However, many modern charitable organizations have not effectively learned how to use income-generating mechanisms (McKeever et al., 2018).

The charity's overarching objective is to provide for the needs and protect the human rights of needy populations. Thus, objectives may pertain to enhancing low-income populations' living standards, contributing to post-disaster rebuilding, encouraging tranquility, strengthening family values, promoting public health, enhancing a healthy life, developing sports, environmental conservation, and protecting historical legacy. However, there are many difficulties.

Table 4. Issues With Charity Descriptives

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Funding Source Security	100	1	5	2.8	1.6
Stability of the Funding Source	100	1	10	5.5	2.5
Challenges in Funding	100	0	10	6.8	2.9

The responses from the charity organizations estimated the stability of different types of financing. Sources such as philanthropic foundations and other funding from corporate charitable activities are considered the most secure (M = 2.8, SD = 1.6); the budget and self-financing are less safe. However, the overall stability of the funding sources has a mean of 5. 5 (SD = 2.5), where individual and business contributions appear to be the least stable. Problems are observed when obtaining funding, where the average value is 6. 8 (SD = 2.9), indicating that performing regular activities based on permanent local business people's support or individual contributions cannot be easy. Therefore, more legislative changes, risk management solutions, and economic security policies are required to enhance charitable projects' following (Chang & Tai, 2022). Improving reports and monitoring systems within organizations can increase credibility and reduce abuse cases. In essence, the common aim continues to be to assist people experiencing poverty in meeting some of their basic needs, helping in rehabilitation after disasters, and availing funds for overall health and conservation, among other purposes, even though the issue of funding is frequently a significant concern.

Much work must be done to improve and clarify existing legislation to support charitable activities and to avoid specific loopholes. Deepening legal reforms contribute to increasing transparency, accountability, and integrity (Chang & Tai, 2022). In particular, trust is established through regular and accurate reporting, monitoring, analysis, and reporting on the impact of the programs.

Decentralized Approach as a Solution

Web3, the decentralized web, refers to a new age that differs from the currently centralized web. This transition is due to the shortcomings of the current centralized structure (Ding et al., 2022). Web3's primary goal is to turn the Internet into a network in which data are exchanged between individuals rather than combined into a few giant companies' databases.

Web3 represents the realization of blockchain technology, on which cryptocurrencies and NFTs are founded. Blockchain, a distributed ledger technology among several nodes, enables network security because the executed transactions are recorded immutably (Ding et al., 2022). This dispersed data arrangement is the opposite of Web2, which uses server farms to store information and is free from cheating and fraud.

There are two types of Web3 or 'decentralized web:' dApps or 'decentralized applications" and smart contracts. In a manner that is quite different from traditional applications, dApps are applications executed on a decentralized blockchain-based peer-to-peer network. Their back-end code resides in many nodes and is not confined to central servers, as pointed out by Park et al. (2022). The following advantages are derived from decentralization. First, they can barely be hacked or censored because they are not located in a single location, and every transaction is recorded online, thereby reducing instances of fraud.

Similarly, internal token economies are observed in dApps to boost governance, as token holders participate in decision-making processes by voting using tokens. This engagement in the form of native tokens

fosters democracy within the dApp community as a user. Web3, which is based on blockchain, attempts to make the web decentralized and, because of the immutable data records across nodes, prevent manipulation.

Nevertheless, Web3 faces scaling and, in particular, adaptability problems. This is a very contentious topic, especially for the proponents of a decentralized web, since these challenges have to be met if the vision of an optimal decentralized web is to be realized.

Web3 as an Influence and Development Mechanism for Charity

SmartCharity. XYZ offers Web3-based solutions to increase the scope and capabilities of the charity sector. This was attempted to be accomplished via NFT and intelligent contracts.

NFTs

Over the past six months, several charity collections have been created as several artists and designers have used NFTs for charity and to light up the otherwise dwindling spirit of the industry (Sheridan et al., 2022). Thanks to the diversified values at which NFTs are sold, one can become a philanthropist, owning unique digital arts that can be further traded or serve as a symbol of contribution.

While digital philanthropy aims to provide long-term support for philanthropic causes, it is hindered by its non-active approach or, rather, its old-school vibe. With the help of an efficiently developed, innovation-supportive fan base, charities aiming to collect funds for various causes may attract new audiences (Sheridan et al., 2022). This novel form of charitable activity is cryptographic, social, and decentralized, as it endorses direct cryptocurrency donations in the original form and does not require conversion to fiat.

Smart Contracts

Intelligent contracts are codified agreements between two parties, similar to traditional contracts, but with conditions set by blockchain code (Yu et al., 2022). Using Ethereum as an example, smart contracts consist of two components: code in terms of functions and data in terms of state. These contracts live in a particular address on the blockchain platform, and they can contain money and perform transactions based on algorithms rather than user commands.

NFTs are relatively new in the charitable industry, enabling individuals to establish and sell collections to attract fund providers (Sheridan et al., 2022). This makes philanthropy more accessible because Philanthropist status, along with ownership of the artwork in the form of NFTs, is provided even for small donations (Chang & Tai, 2022). New approaches to reaching out to new donor bases are crucial in the fundraising targeting of nonprofit organizations (Sheridan et al., 2022). Cryptographic and decentralized methods allow for direct contributions using cryptocurrencies without conversion to fiat money.

NFTs are digital assets based on art, music, videos, images, and other materials that can be bought, sold, or rented out. To raise funds, non-profit organizations create scarce tokens that, when donated, give the patron NFT tokens for display on social media or for further investment (Sheridan et al., 2022). This relationship creates funding for charitable organizations, and buyers possess one-of-a-kind NFTs that can be of high value. Auto and peer-to-peer characteristics of Blockchain technology do not allow for the use of intermediaries and the direct transfer of transactions to recipients (Sheridan et al., 2022). NFTs also enable fundraising for public projects where creators have economic rights, encouraging collaborations between artists, performers, and nonprofit organizations (Sheridan et al., 2022).

Charitable actions are executed by smart contracts that contain terms that have been coded into them (Yu et al., 2022). They include code and data; Ethereum contracts are the manifestation of these smart contracts, which are kept at specific addresses to hold and exchange funds through the program written within them (Yu et al., 2022). As applied to philanthropy, intelligent contracts can handle donations by providing specific criteria for funds' acceptance and spending (Yu et al., 2022). Nonetheless, the current usage of NFTs and intelligent contracts for charity purposes is limited due to the issues listed herein: scalability, UX, and regulation. Mitigating these challenges can help fully realize the value of Web3 solutions to philanthropy (Sheridan et al., 2022; Yu et al., 2022).

SmartCharity Potential

SmartCharity is an innovative venture with immense potential that targets various markets: Financial capital ($100 trillion), Philanthropy ($500 billion), Cryptocurrency ($1 trillion), Decentralized finance ($38 billion), and the US National Science Foundation budget ($8.8 billion), and the US National Science Foundation neuroscience budget ($100 million). Such funding mechanisms, such as those of the traditional government and not-for-profit entities, are a challenge when garnering competitive talent and moving forward. However,

SmartCharity encourages change by establishing an abbreviated market space free of government interference and supported by incentives from NFT-based projects derived from neuroscience.

Although SmartCharity stems from the Gift Economy, competition is created based on financial outcomes. As such, it is about transforming the public goods market into a market as large as the private capital market by creating a network of early adopters in the world:

- $SCI and $GOOD network coins sold to prequalified investors.
- Preseed $SCI coins sold at a discount.
- Twenty million SCI coins were allocated for preseed.
- Funds for development and promotion.
    - SmartCharity's success hinges on several factors:
- A $54B DeFi pool from AMM advancements.
- Growth in DEX innovation using AMMs.
- Noninvasive neurofeedback via the Metaverse.
- Valuable Proof of Work consensus.

Some may criticize the efforts of SmartCharity, claiming that these efforts are futile. However, we consider SmartCharity an innovative venture with a clearly defined budget ($5.5 million), celebrity acquaintances, an identified perspective of utilizing the capabilities of web3 to promote their ideas, as well as four clearly defined areas where SmartCharity can capitalize on any other digital project. These areas are:

Web3 tool deployment:

- First, it deploys quadratic finance as a governmentless mechanism for credit.
- First, Money-Back MB Markets will be used to measure the impact of charity.

A unique ideology

- A community of crypto-anarchists who believe in becoming self-sufficient, boycotting the government, and believing the government has failed the people because of coercion, corruption, and existing economic injustice.

First-mover advantage

- Public goods are at the forefront of wealth creation.
- First, we venture into this space by focusing on public goods and using it with Web3, NFT, and the digital sphere.

A narrow focus

- There is immense focus on neuroscience.

SmartCharity is an exciting project that will revolutionize various markets, such as capital markets ($100T), charities ($500B), cryptos ($1T), degen ($38B), and NSF budgets ($8.8B for the U.S.). Some of the challenges associated with traditional public goods funding include a lack of competition and talent attraction. SmartCharity alters this by using NFT projects to advance common welfare, especially in neuroscience.

SmartCharity's success is based on four key factors:

1. A $54B DeFi pool driven by Automated Market Makers (AMMs).
2. Growth in Decentralized Exchanges (DEXs) using AMMs.
3. Distributed noninvasive neurofeedback via the Metaverse.
4. Valuable Proof of Work consensus.

Despite its skepticism, SmartCharity boasts a well-defined budget ($5.5M), influential connections, and a vision to leverage the web3. It offers distinct advantages:

- First, it deploys quadratic finance as a government-less credit mechanism.
- Pioneering Money-Back MB Markets to measure charity impact.
- Embracing a crypto-anarchist ideology is challenging government systems.
- The first move focuses on digital public goods, particularly neuroscience.

SmartCharity is set to revolutionize the public goods landscape by promoting competition and fostering progress in neuroscience and beyond through web3, NFTs, and the digital sphere.

CONCLUSIONS

SmartCharity is not another not-for-profit organization. This company balances and harmonize the relationship between public and personal goods by using the opportunities that capital and Web3 offer. Through dApps, decentralization, smart contracts, and the concept of NFT, SmartCharity is enticing others to become early adopters, thereby making history and bringing much-needed change to the primarily centralized

form of public goods development, which is currently not working the way it should. Or rather, because it is being taken advantage of, and SmartCharity wishes to put it on another level compared to the one it is at now.

The current state of public goods development is fraught with challenges, often leading to inefficiencies and exploitation. SmartCharity aims to transcend this limitation by elevating the landscape of public goods development to an unprecedented level by leveraging decentralized technologies and innovative financial mechanisms. By doing so, SmartCharity strives to revolutionize the traditional approach and usher in a new era in which the potential of public goods is fully realized and harnessed to advance the good.

Through the integration of dApps, decentralized infrastructure, smart contracts, and NFTs, SmartCharity presents a compelling and transformative proposition. By engaging early adopters and fostering a community of like-minded individuals, SmartCharity aspires to spearhead substantial changes to public goods. This pioneering effort aligns with the overarching vision of positive transformation, creating a more inclusive and equitable world in which public goods play a pivotal role in shaping the future.

LIMITATION & FURTHER RESEARCH

This study is not without limitations. Data availability was still an issue because of the lack of accessible project reports and differences in the SmartCharity projects' transparency. Self-biases might have been evident in the findings of the interviews or surveys, as the individuals may have given a biased view of the situation. Moreover, factors outside SmartCharity projects, for example, political instability in developing countries or changes in their economic indicators, may have impacted the processes of pursuing projects and the outcomes and, hence, affect the overallizability of findings. In future studies, this area should be improved by increasing the population to include more cases from various regions of the country. More so, longitudinal studies can help analyze trends and identify the changes and strengths of Web3 technologies toward public goods over time and, therefore, assess the sustainability of shifts in SmartCharity initiatives.

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