



Article Title: **Charity System Based Using Blockchain**

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ABSTRACT

The charity organizations in China lack transparency and the supervision to them is difficult to achieve, which has a negative impact on the willingness of the people to donate. Blockchain as an underlying technology of Bitcoin system provides a new solution for the charity system in terms of technology. This paper proposed a charity system based on blockchain technology and expounds the design pattern, architecture and operational process of the platform. Some core functions of the charity platform have been realized and verified on Ethereum in this article. We hope to increase the transparency of charities to enhance the public's trust in charities and promote the development of philanthropy by blockchain-based charity system.

Keywords: Blockchain, Ethereum, Smart Contracts, Cryptocurrency, Consensus.

1 Introduction

In this paper, charity is an important part of a democratic society. It is well-known that there are many incidents in this world that cause terrible losses, whether related to wealth or health and causing severe damage every year. In order to recover from the various types of losses many victims need help from charities that can provide financial assistance for basic needs. Now people love to dedicate themselves to the community. Charity, therefore, is the fastest growing sector in the modern world and has shifted from its traditional organizational system to a crypto-currency-based system. The traditional system around the world suffers from various problems such as lack of transparency, mistrust between donors and charity organizations. There is a need to allow donors to track. With the development of Internet technology, there are more and more information access channels for people, philanthropy has become more open and transparent. Many problems in the process of philanthropy has been exposed. "Guo Meimei Incident" and "Hu Manli Incident" were spread widely on the Internet. According to media reports, some people sold relief supplies and tents for money in the "5.12 Wenchuan Earthquake", which showed the confusing daily management of charitable funds and materials. These caused a decline in willingness to donate and a reduction in donations between 2009 and 2012. At the same time, online crowdfunding has become a new way for the public to participate in public welfare undertakings. The crowdfunding platform has established a database for the project, a proper monitoring of the project is also an important part of the risk automatic control mechanism of the public welfare crowdfunding platform. Improving the transparency of philanthropic information is an important way to improve credibility for traditional donation and internet crowdfunding. Using Internet technology, a



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traceability system can be established to increase the transparency of charities technically. For this purpose, this paper proposed a new model of charity system based on blockchain technology.

We aimed to tackle the following main issues with current charity platforms: Security: As the funds become larger, they must be more secure. Although strict procedures such as symmetric encryption are in place to keep e-payments safe and secure, they are still subject to hackers. Blockchain [1] can give that degree of security since it has never been hacked. Transparency and anti-fraud measures: We have witnessed and continue to witness many crowdfunding frauds. There is no method to track how the monies are spent. We intended to make the whole flow of cash visible at every level so that no money could be misappropriated. Global contribution: Because certain platforms are country-specific, it might be difficult for people from different nations to participate to various initiatives. Anyone in the globe may contribute to the campaign via blockchain. Transactions are quick and easy. We were exceptionally motivated by the Crypto Relief drive, which raised ~1 billion dollars for Covid Relief in India from the whole worldwide society in a profoundly straightforward way.

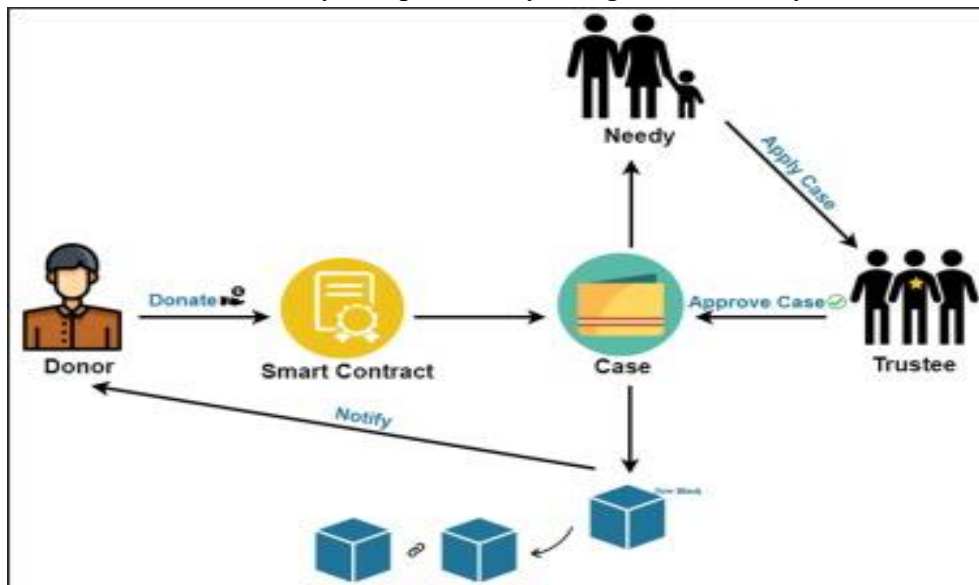


Figure 1: Blockchain-Based Donations Traceability



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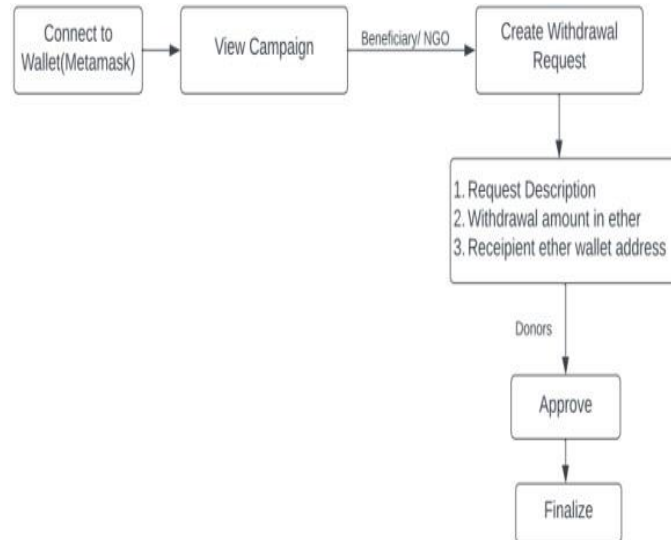


Figure 2: Creating campaign

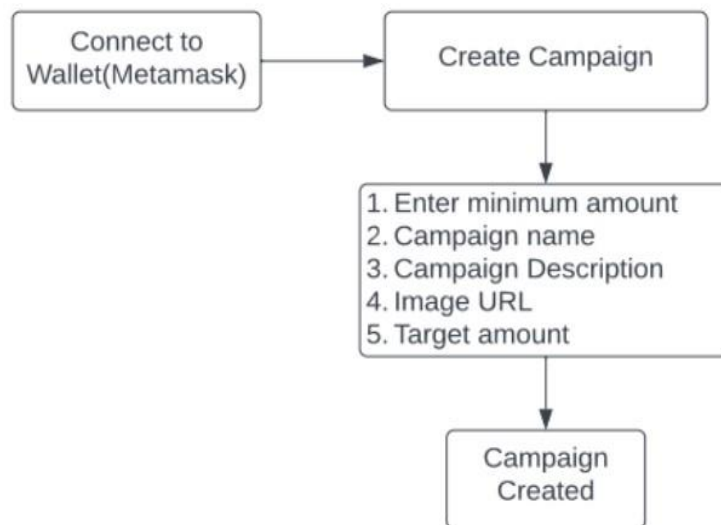


Figure 3: Withdrawal of funds

2 Related Works

[1] Aid, Charity and Donation Tracking System Using Blockchain.

In this Paper, Google Aid, Charity and Donation Tracking System demonstrate on Blockchain is a demonstrate promising technology and is becoming predominant for solving many problems in the field related to security under the control of both public and private sectors. Blockchain is gaining popularity within the domain of charity. Due to lack of transparency in the transactions involved in Donations the donor(s) are not able to know whether their donations are being utilized properly, which has made people lose trust in Charities. The paper



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proposes a Blockchain based Decentralized Donation tracking system built on Ethereum Blockchain which will provide full transparency, accountability and direct reach to the intended recipients.

[2] Platform for Tracking Donations of Charitable Foundations Based on Blockchain Technology.

In this Paper, Google Platform for Tracking Donations of Charitable Foundations demonstrate on Donors have distrust about how donated money is spent. Currently, blockchain technology is being implemented in different sectors. Blockchain technology allows you to make the process of donations and transactions of funds transparent. Single platform for tracking donations that will track all information about donations, transactions and donors need to be developed. This paper considers description of implementation of the platform for tracking donations based on blockchain technology. The System offers transparent accounting of operations donors, charitable foundations and recipients based on blockchain technology, charitable platform should provide transparent donation route, enable public users and donors to track and monitor where, when and to whom went resources of charity funds.

[3] Promoting Charity Accountability: Understanding Disclosure of Serious Incidents.

In 2018, MD Diarmuid, Rutherford A C demonstrate on Charities are under increasing pressure to be accountable. Using a novel dataset, we provide the first analysis of the characteristics of charities voluntarily disclosing details of serious incidents that may threaten their organisation. Financial loss, fraud and theft, and personal behavior account for a majority of serious incidents reported. Larger, older organisations that have previously been subject to a regulatory investigation are more likely to report serious incidents. However, it is smaller, younger charities where the regulator perceives there to be greater risk of organisational demise arising from the incident.

[4] The Antecedents of Intention to Donate in Digital Donation Platform.

In 2020, A. Farsya Kirana, F. Azzahro, P. Wuri Handayani and W. Resti Fitriani, demonstrated as the most generous country, Indonesia embedded altruism as their lifestyle. However, the donation that is often made conventionally now has been shifted to online donation. Online donation platform such as Kitabisa.com has significant users growths in recent years. Along with the increasing number of online donations, many fraud cases occurred which harm users' trust in online donation platforms. Thus, this study aims to examine the institutional mechanism and information systems success factors that influence trust and distrust in the online donation platform and how it influences attitude and online donation intention. We collected 865 data using an online survey and then analyzed it using Partial Least Square - Structural Equation Modeling (PLS-SEM). The result of this study indicates that quality aspects such as system quality, information quality, and institutional mechanism aspects such as perceived platform rules and perceived monitoring influence trust and distrust in online donation platforms.



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Additionally, trust and distrust in online donation platforms influence attitude towards donation and online donation intention significantly

[5] Online Charity Adoption Base on Trust on Information Adoption Process

In 2018, H.-y.YU, P.-w. DONG and T. MA, demonstrate with the development of internet technologies in daily life, online donation has turned to be a preferable path for most donors. Internet has developed to be an important medium for diffusing charity information. According to the exist research in this area, our study proposes a model of trust formation in online charity information, rooted in the information processing theory. The proposed model theorizes trust as a function of the structural quality of information and the expertise of the information source. Furthermore, this relationship moderated by users' internet literacy ability which also plays important roles on the information determination. Overall, the results will explain substantial variance in trust and highlight the important but distinct roles that information quality, source expertise, and donor's internet literacy ability play in determining an individual's decision to trust online charity information.

3 Conclusion

Considering India's present charity framework, low straightforwardness, data security, trust issues among individuals, and issues related to the fake foundation have become problem areas that should be tended to right away. This paper offered a novel approach to utilizing blockchain innovation to revolutionize this Charity framework. Our proposed resolution was set in motion to make a start-to-finish vigorous and a platform for decentralized foundations.

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