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1. **THE TITLE FOR MY PROJECT.**

BLOCKCHAIN-BASED SECURE AND TRANSPARENT VOTING SYSTEM FOR CORPORATIONS.

2. **A BRIEF OVERVIEW OF THE RESEARCH TOPIC, INCLUDING WHAT IS KNOWN ABOUT IT.**

Blockchain technology has the potential to revolutionize the way voting systems are designed and implemented. A blockchain-based voting system is secure, transparent, and tamper-proof, making it an attractive option for organizations looking to conduct secure and fair elections. In such a system, each vote is recorded as a transaction on a decentralized ledger, which can be publicly viewed and audited to ensure the integrity of the election. Additionally, the use of cryptography and smart contracts can ensure the anonymity and secrecy of each vote.

Previous studies in this field have explored the design and implementation of blockchain-based voting systems for specific purposes, such as corporate governance and shareholder voting within corporations. These studies have also examined the security, privacy, scalability, and performance of these systems. The current research will concentrate on the application of blockchain-based voting systems specifically in the context of shareholder voting processes.

Several companies have implemented blockchain technology in their operations, such as Nasdaq Linq, which uses the technology for private securities transactions, the Australian Securities Exchange, which plans to replace its current clearing and settlement system with a blockchain-based one, Chain, a company that develops blockchain-based voting systems and has worked with major companies, Fidelity, which is exploring and testing blockchain-based voting systems, and Broadridge Financial Solutions, a fintech company that is piloting a blockchain-based proxy voting system for institutional investors.

3. **A BRIEF STATEMENT OF THE RESEARCH PROBLEM**

"Evaluating the effectiveness of blockchain-based voting systems in enhancing shareholder participation and reducing voting fraud in corporate elections." This research problem aims to investigate the potential of blockchain technology in addressing issues such as low voter turnout and voting fraud in corporate elections. The research involves a comparative study of traditional voting systems and blockchain-based voting systems, examining factors such as voter turnout, accuracy of vote counting, and the level of transparency and security in the voting process. The findings of this research could inform the decision-making of corporations considering the implementation of blockchain-based voting systems and contribute to the broader understanding of the potential benefits and limitations of blockchain technology in corporate governance

4. AN EXPLANATION OF WHY THIS RESEARCH QUESTION IS IMPORTANT AND WHY THIS PROJECT IS WORTH WRITING

The process of voting in a corporation can be quite tedious for shareholders, not only due to the extensive information that needs to be reviewed but also due to the cost and security issues that arise with traditional voting methods. The cost of mailing and printing the financial documents and information packages can be significant for the corporation and may not be environmentally friendly. Additionally, traditional voting methods can be vulnerable to fraud and errors, making it difficult to ensure the accuracy and integrity of the voting process. Many shareholders often choose to vote by proxy, which requires them to appoint a representative to attend the meeting and vote on their behalf. This process can be time consuming, as it requires shareholders to communicate with the proxy and ensure that the proxy will vote in line with the shareholder's wishes.

With blockchain technology, a blockchain-based voting system could offer a more secure and cost-effective solution. The decentralized nature of blockchain technology ensures that the voting process is tamper-proof, and the use of smart contract technology can automate the voting process, reducing the need for paper-based documents and the costs associated with mailing and printing. This can also increase the trust and confidence of shareholders in the outcome of the voting process. This is why many companies are exploring and implementing blockchain-based voting system as it can potentially solve the problems and issues associated with traditional voting systems in corporations.

5. PROPOSED SOLUTION(S) TO THE RESEARCH PROBLEM IN THE FORM OF A SYSTEM

A blockchain-based voting system could be a potential solution to the problems and issues associated with traditional voting systems in corporations. This system could work as follows:

1. Shareholders would be issued digital tokens or shares that represent their ownership in the corporation. These tokens or shares would be stored on a blockchain platform.
2. When a vote is called for, shareholders would be notified via a secure online portal or mobile application. They would be able to review the information and issues to be voted on, and cast their vote using their digital tokens or shares.
3. The votes would be recorded on the blockchain platform in a tamper-proof manner, ensuring the integrity of the voting process. Smart contract technology could be used to automate the vote counting process, eliminating the need for manual counting.
4. The results of the vote would be made available to all shareholders in real-time on the blockchain platform, increasing transparency and trust in the voting process.
5. The system would also include a secure way of identification of the shareholders and also a way of auditing the process, also to make sure that the right person is voting.
6. The system would also include a way of tracking the voting history of the shareholder, to make sure that they can't vote more than once or vote in different ways.