Improving the Cybersecurity of Financial Transactions: Assessing Blockchain Potential

TREO Talk Paper

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Abstract

Cybersecurity within financial transactions is a significant challenge in a rapidly evolving era of privacy and security concerns. When dealing with such concerns, financial institutions are presented with a serious problem in how to manage new technology and how to allocate finite resources to maximize value of such emergent technology, such as blockchain. While blockchain technology holds promise as a potential solution to the problems of cybersecurity within financial transactions, difficulty exists for both the industry and organizations in assessing numerous potential solutions utilizing this technology. Hence, it is important to understand how organizations in the financial sector can address these concerns by exploring blockchain implementation for financial transactions in the context of cybersecurity. To do this the problem question is threefold: First, what objectives are important based on the strategic values of an organization for evaluating cybersecurity to improve the security of financial transactions? Second, how can they be used to ensure the cybersecurity of financial transactions in a financial organization? Third, how can these objectives then be used to evaluate blockchain as a potential solution for enhancing the cybersecurity of organizations in the financial sector relative to existing cybersecurity methods? To accomplish this goal we utilize Keeney's (1992) Multi-Objective Decision Analytics technique, termed Value-focused Thinking, to demonstrate how organizations can assess a blockchain solution's value to maximize value-add within financial organization. Keeney's (1990; 1992; 1996) Value Focused Thinking (VFT) for decision analysis can help create a group-stakeholder objective-based framework for financial institutions and related organizations to model the necessary objectives for assessing the cybersecurity potential of blockchain-based solutions. This model can then be used to assess the efficacy of any proposed blockchain technology-based solution and demonstrate gaps in all proposed solution's performance relative to the objectives goals, acting as quantitative metrics for comparison (Merrick et al. 2005). Further, this enables organizations to make consistent comparisons of efficacy among an infinite array of blockchain-based solutions intended to enhance the cybersecurity of financial transactions.

References

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