

## ABSTRACT

Knowledge sharing is one of the crucial fact, which enables government organization's prosperity, customer services, adaptation, and customer satisfaction. According to the current condition, the Employee's Trust Fund Board (ETFb) countenance knowledge sharing gap between internal and external aspects of the organization. Under this condition, organizations like ETFb were unable to perform their full potential to provide the best service to consumers all around Sri Lanka. With the proper distributed blockchain solution, ETFb would have been able to expand the knowledge sharing aspects and provide a sophisticated platform for ETFb employees to execute day to day customer service support tasks at a super level.

The research aimed to find facts that influence knowledge sharing and propose a modern solution that enables knowledge sharing in ETFb.

According to the first objective, based on the literature review, able to find highlighted facts that influence knowledge sharing. Able to find modern technologies that can enable knowledge sharing on a higher scale as the second objective. The third objective of this research was the analysis of knowledge sharing facts and relate those highlighted knowledge sharing facts (education, maturity, management structure, information technology) to ETFb and understand the knowledge sharing and contribution structure at ETFb. Therefore, the analysis had been conducted under hypothesis testing by using methods such as crosstabulation and able to explore facts using frequency analysis, and group interviews. According to the analysis of knowledge sharing facts, the researcher had been able to reveal that the education, maturity, and management structure does not illustrate any impact to knowledge sharing inside the ETFb. Nevertheless, IT infrastructure showed a negative impact on knowledge sharing at ETFb. After further investigation using frequency and group interviews, the researcher had been able to explore facts which influence to the negative behavior of IT structure. Some of them are low transparency, lack of transition, restriction of the first design, and security strategies.

Subsequently, modern technology had been proposed which encourages the knowledge sharing process. An opportunity to implement a prototype using blockchain will be discussed in this research which promotes knowledge sharing in ETFb. The proposed solution able to coverup technology gaps and has the potential to leverage other knowledge-sharing facts (management, communication, maturity, educations, human resource management) as well. As the final objective, research, able to prove findings and show further directions to explore knowledge sharing attributes in ETFb as well as blockchain development which supports knowledge sharing on a higher scale internally and externally.

**Keywords:** Knowledge sharing, Blockchain, Distributed technology, Knowledge management, Automation.