ABSTRACT

Data nowadays is important, especially data that contains sensitive information that can harm certain parties if misused. The data itself needs to be kept secure, especially in organizations that store and process public data that are private and sensitive. Even though there have been many efforts to improve security in data storage systems, in fact there are still many organizational data storage systems that are not in accordance with standards, so cases of data breaches still occur in Indonesia. One of them is the case of BPJS Kesehatan data leakage which resulted in losses of up to Rp600 trillion, calculated from the impact after the hack. Based on this case, it is necessary to strengthen the security system for data storage and processing because BPJS Kesehatan itself still has vulnerabilities in systems that still involve parties outside their internals, namely health service facilities in the BPJS claim system. One solution is to conduct a digital transformation as a whole by making changes to many aspects such as people, internally or externally, such as work culture, ways of thinking, and ways of interacting. One of the technologies that support digital transformation is blockchain, which has a fairly high security aspect with the characteristics of a decentralized system, transparency, traceability, anonymity, and permanently stored data.

This study aims to determine the safe and private business process model in the BPJS Health claims system through health care facilities using blockchain technology as well as the security and privacy of participant data at the stages of submitting files, verifying files, and paying claim funds. This study uses a qualitative method with data collection methods through interviews with BPJS Health staff who understand or are directly involved in making decisions related to the BPJS Health claim process and collecting secondary data related to the BPJS Health claim process. Then the researcher will design a business process model for the BPJS Kesehatan claim system that uses blockchain technology.

Keywords: Blockchain, Business Process, Digital Transformation, BPJS Kesehatan, Data Security and Privacy.