

ABSTRACT

Analysis of the Implementation of the Minerva 4.0 Digitalization System in Realizing Cost Effectiveness and Cost Efficiency at PT. Petrosea Tbk (Case Study at the East Kalimantan Mining Site)

The potential of Indonesia's natural resources is very diverse, one of which is the abundant coal. In Indonesia, coal is a primary fuel alongside diesel, which is commonly used in many industries. The implementation of digital transformation in the mining sector has also been carried out to facilitate operations and enhance mining effectiveness. At the East Kalimantan mining site, digital transformation has been underway with the Minerva software, which detects damage to heavy equipment used in mining. The importance of digital transformation impacts the ability to increase efficiency and productivity to remain competitive with other energy sources. This research is conducted to identify the success factors and challenges encountered during the implementation of Minerva at the East Kalimantan mining site, which can facilitate the company's application of Minerva at the other mining site. The research method used is qualitative, the research strategy is a case study, the unit of analysis used is the organization, the researcher's involvement is minimal interference, the background of this research is an unpretentious setting and the time for carrying out the research is a cross-sectional study. The determining factors for success in implementing Minerva 4.0 used by PT Petrosea Tbk by implementing three main stages of change management from Lewin's, namely unfreeze, change and refreeze which are linked to indicators of success in digital transformation including organization, people, communication, process, project, and tech degree so that the implementation of digital transformation is influenced by success factors in organizational commitment, improving the quality of human resources, good communication management, organized mapping and planning and utilization of analytics and AI.

Keywords: Coal, Digital Transformation, Minerva, Mining Site, Efficiency, Success, Productivity, East Kalimantan