ABSTRACT

This study aims to analyze the factors influencing individual acceptance of Upstream Cloud technology adoption at PT Pertamina Hulu Energi Regional 4. Upstream Cloud is part of the company's digital transformation strategy, expected to enhance the efficiency of oil and gas data management—particularly in remote work contexts that require flexible access to data and technical applications.

Using a quantitative approach based on the Technology Acceptance Model (TAM), this research examines the influence of Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Confidence Level of Users (CL), and Cost Effectiveness (CE) on the level of individual acceptance of the technology. Data were collected through a survey of 75 employees at PHE Regional 4 and analyzed using inferential statistical techniques to determine the relationship and magnitude of each variable's influence. The data were processed using multiple linear regression analysis with the assistance of SPSS software.

The results show that PU has a positive and significant influence of 33.3%, PEOU of 9.2%, CL of 39.1%, and CE of 14.9% on technology acceptance. Simultaneously, all four variables contribute a combined total of 96.5% to the acceptance of Upstream Cloud technology.

These findings provide strategic implications for the company, including the importance of enhancing user competence and confidence through training and mentoring, intensifying communication of the tangible benefits of cloud technology, and strengthening technical support. Although PEOU showed a relatively smaller effect, ease of use remains essential to minimize initial adoption barriers—especially for non-technical users. Regular evaluations of implementation effectiveness are also recommended to adapt to evolving operational needs and technological developments in the oil and gas industry.

***Keywords**: cloud, technology acceptance, oil and gas, digital transformation*