ABSTRACT

The development of promotional strategies related to Occupational Safety and Health (HSE) in the current era must be adapted to information and communication technology. The development of automation innovations, super computers, artificial intelligence, and flexibility in work patterns have brought about changes in the digital-based economy, automation as the lifeblood of Industry 4.0, influences in HSE aspects such as recording information or data from real-time HSE observation results. This research was conducted at PT. Nindya Karya (Persero) - EPC Division in one of their Project "Pipeline Lomanis – Rewulu CY III" located in Cilacap-Yogya on periode 2020 - 2021 has used the HSE Management Information System (SIM) application which is integrated with the Head Office. The aim is to find out and analyze what factors can affect the behavior of implementing HSE effectively using variables from the Technology Acceptance Model (TAM) model. Collecting data through literature studies and questionnaires on a population of 76 people in three layers of management (top, middle, lower). Data processing uses a statistical approach - Structural Equation Model-Partial Least Square (SEM-PLS) with Smart PLS 3.0 software. The results of the study recommend increasing the perceived usefulness as a variable that has a large enough effectiveness effect on the HSE management information system.

Keywords: *Technology Acceptance Model (TAM), Structural Equation Model-Partial Least Square (SEM-PLS), Occupational Safety and Health (HSE), Construction.*

ABSTRAK

Perkembangan strategi promosi terkait Keselamatan dan Kesehatan Kerja (K3) di era saat ini harus disesuaikan dengan teknologi informasi dan komunikasi. Perkembangan inovasi otomasi, super komputer, kecerdasan buatan, dan fleksibilitas pola kerja telah membawa perubahan dalam ekonomi berbasis digital, otomasi sebagai urat nadi Industri 4.0, pengaruh dalam aspek HSE seperti pencatatan informasi atau data dari real-time. Hasil observasi HSE. Penelitian ini dilakukan di PT. Nindya Karya (Persero) - Divisi EPC dalam salah satu Proyek "Pipeline Lomanis – Rewulu CY III" yang berlokasi di Cilacap-Yogya pada periode 2020 - 2021 telah menggunakan aplikasi HSE Management Information System (SIM) yang terintegrasi dengan Kantor Pusat. Tujuannya untuk mengetahui dan menganalisis faktor-faktor apa saja yang dapat mempengaruhi perilaku penerapan HSE secara efektif dengan menggunakan variabel dari model Technology Acceptance Model (TAM). Pengumpulan data melalui studi literatur dan kuesioner pada populasi 76 orang dalam tiga lapisan manajemen (atas, menengah, bawah). Pengolahan data menggunakan pendekatan statistik - Structural Equation Model-Partial Least Square (SEM-PLS) dengan software Smart PLS 3.0. Hasil penelitian merekomendasikan peningkatan persepsi kegunaan sebagai variabel yang memiliki efek efektifitas yang cukup besar terhadap sistem informasi manajemen HSE.

Kata kunci: Technology Acceptance Model (TAM), Model Persamaan Struktural-Partial Least Square (SEM-PLS), Keselamatan dan Kesehatan Kerja (K3L), Konstruksi.