OSCHIM Readiness and Impact Assessment among Designers in Construction Industries

Kamarizan Kidam¹, Nazruddin Mat Ali², Nuramalia Adzman³, Hamidah Kamardeen⁴, Siti Suhaili Shahlan⁴, Hafizah Mahmud¹

¹UTM-MPRC Institute for Oil & Gas (IFOG), Universiti Teknologi Malaysia 81310, Skudai, Johor, Malaysia

²Jabatan Keselamatan & Kesihatan Perkerjaan Malaysia, (JKKP), Pusat Pentadbiran Kerajaan Persekutuan, 62530 Wilayah Persekutuan, Putrajaya

³School of Chemical and Energy Engineering, Faculty of Engineering, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia

⁴Unbox Resources Sdn Bhd, Block N29A, Lengkuk Suria, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia

Corresponding Author: Kamarizan Kidam; kamarizan@utm.my

ABSTRACT

Objective: The objective of this study is to see the overall readiness of designers towards OSHCIM in terms of knowledge of OSHCIM implementation and OSCHIM's impact towards the construction project life cycle. Method: A survey was conducted among 73 designers of the project design team. The respondents were given three sets of Likert scale questionnaires regarding the (1) readiness, (2) impact assessment and (3) pros and cons of OSCHIM implementation. Findings: As for the readiness of designers towards OSCHIM implementation, the result showed that, in general, 81% of respondents understand, are aware and have a relatively good understanding of basic OSHCIM knowledge. 72% of the respondents know their roles and responsibilities in OSHCIM, 77% are already adopted and applied the majority of OSHCIM requirements, and 70% agreed that even though they have basic knowledge, the skill and practice of OSHCIM need some improvement. Overall, 74% of respondents are ready to implement OSHCIM. Meanwhile, OSHCIM implementation impact assessment toward organizations showed that 75%, 50% and 83% of the respondents acknowledge that OSHCIM has a high legal, management and documentation impact on the company, respectively. Finally, the pros and cons of OSHCIM implementation showed that OSHCIM implementation has a positive impact towards the project's lifecycle in terms of the cost (51%), project's progress (88%), safety and health (68%), reduction in accident rate (90%), productivity (88%), sustainability (79%), maintainability (56%), constructability (76%), modification(40%), operability(86%), variation order (44%), clash detection (100%), project cooperation and coordination (100%), technological advancement (100%), and waste management (77%). Conclusion: Designers are ready for OSHCIM implementation in terms of skills, knowledge, experience, exposure and training. The designers' team believes that implementing OSHCIM will bring considerable benefits to the progress of a project's life cycle. OSHCIM impact assessment reveals the true potential of OSHCIM for safer and healthier robust design, reduces the accident rate directly and supports sustainable development.

Keywords: OSHCIM, designers, construction, readiness, impact assessment