Review Article

Development and Validation of Instruments for Measuring Principal Employer Roles and Responsibilities in Occupational Safety and Health (OSH) Implementation in Malaysia

Mohd Esa Baruji,^a* Sham Zahary Sudin,^a Siti Zainatul Arafah,^a Nuraida Waslee,^a Siti Nasyrah Ibrahim,^a Nur Hidayana Abdullah,^a Norasilah Latiff,^a Ahmad Kamal Abdul Halim,^a Mohd Khan Jamal Khan,^b Zamalia Mahmud^c

^a Consultation, Research and Development Department (CRD), National Institute of Occupational Safety and Health (NIOSH), Lot 1, Jalan 15/1, Section 15, 43650 Bandar Baru Bangi, Selangor, Malaysia

^b Faculty of Safety and Health, Cyberjaya University College of Medical Sciences (CUCMS), No. 3410, Jalan Teknorat 3, Cyber 4, 63000 Cyberjaya, Selangor, Malaysia

^c Faculty of Computer and Mathematical Sciences, Universiti Teknologi MARA, 40450 Shah Alam, Malaysia.

*Corresponding author: mohd.esa@niosh.com.my

ABSTRACT: Roles of principal employer is very important in enhancing and empowering Occupational Safety and Health (OSH) implementation. This study have indeed identified four elements (i.e., high commitment, effective communication, full compliance and good behavior) as among the crucial elements required to be possessed by the principal employers in three sectors, namely manufacturing, public services and construction. In relation to this, this paper will describe the development and validation of instruments prior to the measurement of principal employers' roles and responsibilities in the implementation of OSH. Three assessment tools were developed, namely the Benchmarking Interview, Questionnaire and Workplace Inspection. Fifteen companies were selected for the benchmarking interview, 50 employers conveniently selected for the survey interview (covering three sectors) and 90 employers selected for the workplace inspection (30 respondents for each sector). The development of benchmarking interview and workplace inspection scores are briefly discussed while the main focus is on the validation of the survey constructs (or items). The reliability check on 53 items representing four elements (i.e., Commitment, Communication, Compliance, Behaviour) of employers' roles and responsibilities in the implementation of OSH showed that the Cronbach's Alpha coefficient is more than 0.90 which indicates that the internal consistency is extremely reliable. It also indicates that the set of items in each element are closely related and well understood by the respondents. Validity check on the items based on the Rasch measurement infit and outfit mean square statistics and standardized z-score found that nine items had misfitting values and finally corrected for further analysis. This study had shown that a valid and reliable instruments are important in ensuring that accurate and precise findings are obtained in measuring the roles and responsibilities of principal employer in the implementation of OSH.

Keywords: Behaviour, Commitment, Communication, Compliance, Employer, Occupational Safety and Health

All rights reserved