Factor Analysis of Elements Influencing Occupational Safety and Health Management System Development in Trinidad and Tobago

Marcia Nathai-Balkissoon [a,Ψ], and Kit Fai Pun [b]

[a]Department of Management Studies, The University of the West Indies, St. Augustine, Trinidad and Tobago, West Indies; E-mail: mnbalkissoon@gmail.com

[b]Department of Mechanical and Manufacturing Engineering, The University of the West Indies, St. Augustine, Trinidad and Tobago, West Indies; E-mail: KitFai.Pun@@sta.uwi.edu

[Ψ]*Corresponding Author*

Abstract: *It is increasingly important that organisations focus on occupational safety and health (OSH) to enhance their competitive edge. In Trinidad and Tobago (T&T) the OSH Act aims to reduce risk levels through development of safe systems of work. This paper reports on factor analysis conducted upon a recent survey of Occupational Safety and Health Management System (OSHMS) implementation in the manufacturing sector of T&T. The survey targeted a group of 40 small and medium-sized manufacturing enterprises (SMEs). It explored the factors influencing OSHMS development from among 22 elements. It was found that two overarching factors correlate significantly to OSHMS implementation in SMEs. Factor 1, "Safety Structure and Practices", consisted of 11 OSHMS elements in two groups ("OSH Oversight" and "OSH Arrangements") with factor loadings ranging between 0.599 and 0.876. Factor 2 "Improvement Drivers" consisted of 4 OSHMS elements with factor loadings ranging between 0.805 and 0.846. The remaining 7 elements were eliminated during the course of the analysis due to low correlation or low communality of elements, or double-loading on factors. The paper puts forward that government- and industry-supported systems could be critical aids to promote collaboration among SMEs and help them to set up their own formal OSHMS.*

Keywords: OSH Act, Factor Analysis, Occupational Safety and Health Management System, OSHMS