Green building technology initiatives to achieve construction quality and environmental sustainability in the construction industry in Malaysia

Yeong Liang Sim and Frederik Josep Putuhena
Department of Civil Engineering, University Malaysia Sarawak (UNIMAS), Kota Samarahan, Malaysia

Abstract

Purpose – The purpose of this paper is to identify mechanisms and approaches involved in the local construction industry to enhance environmental concerns and the adoption of capacity development model to manage the environment and up keeping of the quality in Malaysian construction industry.

Design/methodology/approach – This paper describes an innovative approach to understanding the role of internal and external influence through LEGO® concept. This approach builds on the theory of change management, in which includes learning about the domain of enabling environment, organisation, individual and knowledge management process. New ideas, practices or technologies occur through integration of efforts particularly from the above mentioned domains. The approach also analyses the challenges faced by construction stakeholders. It draws on findings from different studies including some other countries of sustainability in which the engagement of previous research has been incorporated to further enhance the construction and environmental quality in the Malaysian construction industry.

Findings – Environmental sustainable development construction requires a holistic thinking and decision making and more innovative solutions that enhance sustainability and result in mutually benefited outcomes for all stakeholders. A dedicated effort especially government and government link company is in strong demand. A valid reason for capacity development to develop in organisations and individuals to perform functions needed to keep green management operating and evolving to meet new challenges. The construction sector will benefit from learning advances in capacity development which are designed to improve and enhance construction and environmental quality governance. The coverage of LEGO® conceptual framework at which capacity development operates was identified in each domain of change management.

Research limitations/implications – A limitation of the study was the relatively little literature information provided and thus affects the expounding and reliability of data. For this reason, these findings cannot be generalised to the other countries based on this study alone. The access to information is limited as public and private organisations hesitate to share information on their strategic planning and tactics.

This research was supported by Mybrain15 scholarship programme under the Malaysian Ministry of Higher Education. The author would also like to thank Professor Ir. F. J. Putuhena for his initial encouragement with this paper and editing.