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ASSESSING PREDICTING FACTORS: GOOD MANAGEMENT PRACTICES TOWARDS THE SUCCESSFUL IMPLEMENTATION OF GREEN SUPPLY CHAIN MANAGEMENT (GSCM) IN IBS CONSTRUCTION PROJECT

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Abstract

The increasing push to use Industrialised Building System (IBS) in the current Malaysian construction industry has opened up opportunities for the implementation of Green Supply Chain Management (GSCM) in IBS to optimise the advantage of environmental sustainability and the green concept. This research aims to investigate the relationship of good management practices towards the successful implementation of GSCM in IBS construction project by adopting a quantitative method through a questionnaire survey and qualitative method to verify the responses. A total of 30 valid responses were analysed by using Regression method. The response obtained is within the IBS key players and evaluated using regression analysis. The results are validated by three (3) IBS industry experts to identify the relationship between good management practices towards successful GSCM implementation in IBS construction. Preliminary findings from the analysis found that all the management practices are significant to the successful implementation of GSCM in IBS construction. Successful implementation will lead to the investigation on how the performance of GSCM can help to digitalize the supply chain management towards the Fourth Industrial Revolution (IR 4.0) in IBS construction.

Keywords: *Industrialised Building System (IBS); Green Supply Chain Management (GSCM); management practice; successful implementation.*

INTRODUCTION

Malaysian is currently driving the implementation of a new construction method like IBS as an alternative towards sustainable and improvement of construction performance (Nawi et al., 2018; Oleiwi et al., 2017). It has stated that construction in IBS could promote sustainable construction as production related to the environment, through which waste on site can be reduced, hence protecting and conserving the surrounding environment. It is in line with the statement by Luthra et al. (2014) and Malviya (2015) who have defined green and sustainable element as integrating environmental thinking into construction. According to Luthra et al. (2014), the green supply chain management is a practice of monitoring and improving environmental performance of the supply chain in the IBS approach.

Previous studies in literature also point out that IBS technology can promote better control of resources, reduce cost and minimise construction time span (Muhammad et al., 2016). These benefits prove that the supply chain in IBS technology is a suitable platform to integrate sustainable building practices in a project through implementation of green concepts. Involvement of the Malaysian government in transforming the current construction practice into a modern construction system is supplemented by the implementation of the IBS Roadmap, the Construction Industry Master Plan (CIMP) 2007-