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SUPPLY CHAIN MANAGEMENT (SCM): CRITICAL SUCCESS FACTOR TO IMPLEMENTATION IN USING IBS CONSTRUCTION PROJECT MANAGEMENT

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ABSTRACT

Industrialized Building System (IBS) is a system where the building components are produced in a factory and the structures will be transported to the site. Supply chain management (SCM) is a system in which IBS products are delivered from the manufacturer to the site. The aim of this research is to determine the critical success factor for supply chain management to the implementation of IBS construction project management. Therefore, the objective of this research were i) to identify the issues of supply chain management implementation on IBS in the construction industry, ii) to identify the challenges of supply chain management on IBS implementation and iii) to determine the factor for success the integration of the supply chain. This research was the focus on the contractor in Klang Valley, Selangor. Data were collected using questionnaires. Questionnaires were distributed to 25 contractors registered with Construction Industry Development Board (CIDB). In addition, secondary data were gathering from articles, journals, newspaper, and relevant websites. To ensure the success of IBS construction, the research looked at the integration means and factors that helped to integrate the IBS supply chains. The main issue for this research was supply chain logistics, involving multiple stakeholders that can affect profitability. The main challenge was lack of communication between manufacturers and IBS players. Roles, responsibilities and leadership was the factor for achieving success in supply chain management for IBS construction. Significantly, the study was benefical to the contractor and manufacturers to get more better supply chain management in construction industry.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Industrialized Building System (IBS) has been introduced to cope with the growing demand for affordable housing, solving problems related to foreign labor and improving the construction industry's image, quality and productivity. The limited acceptance of IBS has triggered many research initiatives aimed at scrutinizing the challenges and seeking the way forward. The call for IBS is less attractive for contractors because of cost and risk issues, lack of IBS professional training, limited IT adoption and lack of guidance. (Kamar, Alshawi, & Hamid, 2009).

The process of transformation from traditional practice to IBS has left contractors with noticeable challenges in implementing IBS while remaining competitive and profitable. There has been little discussion so far about the Critical Success Factors (CSFs) of contractors that have been transformed into IBS from traditional contractors.

Therefore, as reported from literature works, the paper tends to investigate the CSFs on the perspective of contractors involved in IBS. The paper then validates the CSFs through a pilot interview with Manubuild Consortium representatives. Manubuild Consortium is a technical group set up by key construction organizations across Europe to promote the Open Building Manufacturing (OBM) concept. (Kamar, Hamid, & Alshawi, 2010)