

The Application of Procurement Systems in IBS Housing Project

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Abstract— Traditional procurement system has been critique due to inefficiency dealing with innovation and industry development. As the industry developed, modern and alternative procurement systems has been introduced such as Design and Built and Management fees. Malaysian National Housing Policy 2012 has focused on the implementation of industrialized building system (IBS) to transform the housing industry by improving its quality, more economical, speed to construct and less dependency on foreign labors. The success of these development will highly be depending on procurement system management. This paper explores the type of procurement system currently been used in the industry, the procurement system management and issues arise from the practice. The findings revealed that under the two most popular systems that are Traditional and Design and Built; there are no differences in terms of appointment of IBS Manufacturer where the IBS Manufacturer will be appointed late under the Main Contractor. Thus, it is hypothesized that the issues arise due to the practice of these 2 procurement system are almost similar which does not comprehend the need to cater innovation in the industry.

Keywords— *industrialized building system (IBS), payment, construction industry, procurement*

1. Introduction

Procurement system in construction is defined as a process to organize and coordinate the related parties in the project, especially on defining their contractual relationship. It includes the contract responsibility, the duties that every party has, their rights, liabilities and roles towards the project [1]. Procurement for construction project is only temporary where it is used during the construction process and dissolves when the project is completed [2]. Research by Hall et al., (2000) revealed that in order for a construction project to be completed, it must be governed by a suitable

procurement system that can be used to control and manage the process and activities involved. For example, to construct a building project, this requires the related materials, technology, services, and many other resources [27]. To procure all these materials and services will need negotiations with many suppliers, service providers, building professionals and consultants [3]. Therefore, in broad-spectrum, construction procurement can be referred as the project guidelines that determine the responsibility of the parties involved, including their contractual obligations and the activities to assist the client in obtaining competent construction services to complete their desired projects [4].

Due to the increasing project demands and the changing construction nature, several types of construction procurement were developed to fulfil these new requirements [5]. The aim of this development is also to provide better procurement that effective and efficient in satisfying the clients' needs. In the early construction era, Traditional construction procurement system was developed to organize the tradesman such as carpenter, masonry, craftsman, builder etc. and dealing with materials suppliers. However, as clients' needs has changed and construction has developed, alternatives construction procurement were introduced such as Design and Build, Management Contracting and Construction Management [6]. These new construction procurements are aim to fulfil and adapt the project with the new construction environment. The differences between each procurement are mostly on the contractual relationship, roles and liabilities among parties involved and the procurement strategy towards achieving the project priority such as speed to construct, fast track construction, price certainty, level of clients' interference, single point responsibility etc [2].

In Malaysia, the housing sector is also one type of major projects that contribute a lot to construction activities. Therefore, the housing sector should also