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ADOPTION OF QLASSIC ASSESSMENT IN INDUSTRIALIZED BUILDING SYSTEM (IBS) PROJECTS

Dissertation submitted in partial fulfillment

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ABSTRACT

The Malaysian construction sector is underway a shift from an industry using conventional method to a more standardized and mechanized system utilizing the latest modern technology, the Industrialized Building System (IBS). IBS which has implemented is supported by demands on the huge quantity of affordable and sustainable low-cost housing for the rising middle class. Whenever there is a change in a large industry, it is always difficult to control the quality standard and the implementation scale. Quality Assessment System in Construction (QLASSIC) is an independent tool for determining and evaluating the workmanship quality of a construction work on the basis of an approved standard in addressing the problems in Malaysian construction quality. Therefore, the aim of the research is to analyse the impact of adoption of QLASSIC assessment in the Industrialized Building System (IBS) projects. In order to achieve the aim of the study, the objectives of this research are to review the current implementation of QLASSIC for IBS projects, to identify the barriers of QLASSIC assessment for IBS projects and to determine the impacts of QLASSIC assessment for IBS projects. Generally, there are only small numbers of IBS contractors who are aware on the benefits of the application of QLASSIC and comply with QLASSIC in their construction projects. The methodology used are literature review and the questionnaires. The descriptive statistic like the frequency and percentage were used for describing the respondent background. While the mean distribution analysis was used to analyse the three objectives in this research. The result of the study shows that, the views of the respondents toward the current implementation of QLASSIC in IBS projects, and the main impacts of the QLASSIC were identified. The barrier in which the main reason that stops them from applying QLASSIC also have been identified. The significance of this study is it can help the IBS contractors to understand the impacts and the important of using QLASSIC in their projects.

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CHAPTER 1: INTRODUCTION

1.1 BACKGROUND OF RESEARCH

Quality is an important aspect in the construction industry. According to (Nair, 2016), the main concerns among property buyers are the quality of construction work and the materials used. Sohimi et. al (2016) also stated that to meet the building quality requirements demanded by property buyers, quality issues are the main concern for all stakeholders, particularly developers. Building quality has become one of the important aspects for construction project success. In building construction, flaws and defects are common and the standard of landed housing, strata-titled housing or public building may be reduced by this problem. Construction defects may be the result of the design mistake of an architect, a manufacturing failure, faulty materials, incorrect use or installation of materials, the failure of the contractor to comply with the specification or any combination thereof (Ahzahar et al., 2011). According to Abdel-Razek, (2001), the quality of construction projects is influenced by nine components, which are design, contract, material, labour, equipment, subcontractors, site layout, systems, site personnel and execution.

Malaysia construction industry is currently in innovation mode where prefabricated and modern methods of construction are being implemented rapidly. According to (Mohd Nawi & Lee, 2011), IBS has been adopted as a method of construction in which components are fabricated, delivered, positioned and assembled into a structure in a controlled environment (on or off site), with limited additional site work. Haron (2009) noted that the construction industry has begun to recognize IBS as a way of achieving improved quality and efficiency in construction, reducing workplace safety and health hazards, alleviating skilled workers' problems and reliance on manual foreign labour, and achieving the ultimate goal of reducing