UNIVERSITI TEKNOLOGI MARA

AN IMPROVED IMPLEMENTATION OF CONSTRUCTION WASTE MANAGEMENT INITIATIVES IN MALAYSIA

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of the requirements for the
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AUTHOR'S DECLARATION

I declare that the work in this thesis/dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Illegal dumping of construction waste is indeed a key issue to be addressed in achieving environmental sustainability. A higher demand for new developments in Malaysia has led to the increase in construction activities, which result in a significant impact on the environment. Thus, it is important for the Malaysian government to address this issue. With that, this research had developed strategies that can be implemented pertaining to construction waste management initiatives in Malaysia. In order to achieve the stated aim, the objectives outlined in this research had been cascaded to identify the issues that reflected the existing construction waste management initiatives in Malaysia; to explore the implementation of initiatives in managing construction waste; and to propose recommendations to further improve the implementation of construction waste management initiatives in Malaysia. Hence, mixed methods of both qualitative and quantitative approaches had been adopted. The result also supported by a validation survey through a likert scale survey. The obtained results indicated that the construction waste management initiatives offered by the government were insufficient in terms of inert landfill to meet the increasing construction waste generated and seemed to be less efficient due to lack of enforcement, as well as implementation. Even though the Malaysian government attempts to assist stakeholders in managing construction wastes and moving towards sustainable construction practices through the initiatives, it seems to be less efficient because there are lack of enforcement and implementation. Hence, the government required to enforce the initiatives by providing a legislative and regulations to manage construction waste. The role among the Malaysian government authorities in managing construction waste also needs to restructure and improve by embedding the duties to local authorities. In short, the monitoring and inspection by government authorities are very important to ensure the contractor implement the construction waste management on site effectively. Apart from that, awareness on the existing construction waste management initiatives is crucial in ensuring the effectiveness of the construction waste management initiatives implemented in Malaysia. Thus, the government and contractors play a significant role to implement the construction waste management initiatives effectively to achieve the sustainable development. A set of recommendations pertaining to the implementation of construction waste management initiatives in Malaysia had been proposed in ensuring the achievement of sustainable development, besides indirectly improving the quality of construction waste management in Malaysia.

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CHAPTER ONE
BACKGROUND OF THE RESEARCH

2.1 INTRODUCTION

Construction industry is important for economic growth because it increases the standard of living and allows opportunities in providing jobs. Unfortunately, the increase of developments in Malaysia have caused damage to the environment and affected the ecosystem. This damage has become a major problem in recent years (Nagapan, Abdul, Asmi, & Fadhilah, 2013). In conjunction with Nagapan et al.'s statement, Jain (2012) reported that the construction industry produces a large amount of construction waste. On the other hand, it is well accepted that the construction activities such as construction work, renovation or demolition are generate inert and non-inert materials, which are normally being addressed as construction wastes. Moreover, statistical data confirms that 10-30% of wastes originated from construction and demolition works (Jain, 2012).

According to Bal, Bryde, Fearon, & Ochieng (2013), the most dynamic and challenging business sector is the construction industry. Even so, the industry contributes to the significant amount of wastes. As mentioned earlier, despite being a waste contributor, construction wastes are also linked to serious environmental issues such as destroying the habitat and ecosystem; creating pollution; and generating waste (Papargyropoulou, Preece, Padfield & Abdullah, 2011; Abd Kadir, Yin, Sulaiman, Chen, & El-Harbawi, 2013). Another author added construction industry generates large amount of waste (Jaillon, Poon, & Chiang, 2009).

Nevertheless, the contractors' generally only conscious on profit without considering the effects to the environment. Essentially, all the resources originated from nature to construct a building. Consequently, the construction process led to environmental problem such as; destroying the habitat and ecosystem; create pollution; and generating waste (Abd Kadir et al., 2013).

In line with that, Begum, Siwar, Pereira, & Jaafar (2007) re-affirmed that Malaysia is facing the issue of waste disposal due to the significant increase of construction wastes. The quality and quantity of products that have been produced for