

CENTRE OF STUDIES FOR QUANTITY SURVEYING FACULTY OF ARCHITECTURE, PLANNING & SURVEYING UNIVERSITI TEKNOLOGI MARA CAWANGAN SARAWAK

THE POTENTIAL BENEFITS OF RECYCLING CONSTRUCTION WASTES

ALDRINNE ANAK CYRIL

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ABSTRACT

Recycling is one of the methods which focus on handling construction waste. Promoting the benefits of the recycling method for construction waste can create a positive perception in using recycling for handling construction waste. The number of construction wastes genuinely increase due to the high demand for buildings and infrastructure works for development. Lack of exposure to recycling can affect the regularity and efficiency of recycling practices. Disposing of construction waste to landfill involves large area and cause availability of land to deplete. Therefore, this research focus on the benefits of the recycling method for handling construction waste in the construction sector. This study aims to promote the benefits of the recycling methods for construction waste. It focused on interviewing 2 contractor companies in Kuching, Sarawak for the selected case studies located at Kuching and Samarahan Divisions. In this study, the objectives include determining the potential benefits of recycling methods for construction waste, identifying the best practices of recycling method and recognise the success factors of the recycling method for construction waste. Major findings in this research are regarding the benefits of the recycling method for construction waste. The benefits are including money-saving, time-saving, reduce pollution, less manpower and waste minimization. These benefits are related to the recycling practices being used by the contractor. The outcome of this research highlight that conducting suitable practices of recycling method for construction waste can generate various benefits.

Keywords: recycling on-site, recycling off-site, save cost.

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CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

Construction and demolition waste are significant issues in the construction industry because they give impacts on the environment (Aslam et al., 2020). The construction industry is involved with the development and urbanization of the city. According to Aslam et al. (2020), the urbanization rate today has reached 55% globally which consider a magnificent rate compared with previous years. The increase of the urbanization process in construction has caused tremendous construction wastes to generate. Problems regarding construction wastes are increasing because of the rise of population and demand for infrastructures globally. Mainly, the construction consists of solid wastes found on the construction site.

In Malaysia, the management of solid waste contributes biggest environmental issues since landfilling method is highly dependant on managing the generation of solid wastes (Moh & Abd Manaf, 2017). The generation of waste in construction gradually increases because of the demand for new development. An increase in the number of wastes may affect the process of disposal of wastes to landfills which might lead to illegal dumping. Construction wastes need to undergo a pre-treatment process where the concept of reducing, reuse and recycle (3R) implemented in waste management. The recycling rate in Malaysia is as low as 15% behind other developed countries like Singapore, South Korea and Germany which their annual rate of recycling ranges between 50% to 75% (Reza et al., 2017). Low recycling rate shows that handling construction wastes using landfilling method is being emphasized for waste management in the construction industry. Thus, progress has been made for establishing an effective solid waste management system including source separation,