

Risk Level of Factors Contributing to Waste Generation in Construction Phase

Ismail Abdul Rahman (Universiti Tun Hussein Omm Malaysia, Malaysia), Nor Solehah Akhir (Universiti Tun Hussein Omm Malaysia, Malaysia), Aftab Hameed Memon (Quaid-e-Awam University of Engineering, Science & Technology, Nawabshah Sindh Pakistan, Pakistan) and Sasitharan Nagapan (Universiti Tun Hussein Omm Malaysia (UTHM) & Politeknik Sultan Salahuddin Abdul Aziz Shah (PSA), Malaysia)

This generation of construction waste is occurred due to several f level of risk on the construction performance which is important to determine for effective waste management. Hence, this study is conducted to determine the risk level of various factors contributing to waste generation in the construction phase. A total of 32 factors identified from the literature review work investigated through using questionnaire survey. Survey was done using Delphi technique with 2 rounds. Delphi round 1 aimed to determine the risk level of each factor while round 2 focused on confirming the findings of round 1. The panel of expert participating in round one of data collection consisted of 15 experts while, in round two, 11 experts participated. Data collected for probability of occurrence and severity level during round 1, was analyzed with Average Index (AI) formula. Calculated AI values were further analyzed with a risk matrix. Results showed that 14 factors have high risk level while 18 factors have medium risk level. Analysis of round 2 highlighted that the experts agreed with the determined risk level of all the factors except 2 factors i.e. equipment failure and supplier errors. Results also indicate that the factors in the category Human Resource/Manpower are the most severe factors contributing to the generation of construction waste on site. These findings will help the practitioners to prepare an effective strategy to control the waste problem

risk level; construction waste; Malaysia