

# **MINIMIZING THE CONCRETE WASTE BY IMPLEMENTING CONTEMPORARY PRACTICES TO REDUCE THE PROJECT COST IN SRI LANKAN CONSTRUCTION PROJECTS**

**BLSH PERERA<sup>1</sup> and DR SENARATHNE<sup>2</sup>**

**<sup>1</sup>Undergraduate, <sup>2</sup> Lecturer (Probationary)**

**Department of Quantity Surveying, Faculty of Built Environment and Spatial Sciences  
General Sir John Kotelawala Defence University, Sri Lanka**

## **ABSTRACT**

Material waste is one of the main significant reason for the client to suffer due to increments in unnecessary costs. Therefore, most of the construction projects have made several attempts to reduce these wastes. Among all construction material wastes, concrete waste highly draws expenses to the all project stakeholders. As a main component in construction, the volume of the concrete waste in Sri Lankan construction projects are considerably high, when comparing with the other material wastes. Currently, most of the countries are moving towards the sustainable developments while reducing the concrete waste. Therefore, adopting traditional practices to reduce the concrete waste have not been successful over the years. The aim of this research study is to adopt contemporary practices to minimize the concrete waste towards reducing the project cost in Sri Lanka.

In order to achieve the aim, comprehensive literature review, a questionnaire survey and semi-structured interviews were conducted to gather data in both qualitative and quantitative procedures. The empirical findings revealed that the concrete waste has a positive relationship with the project cost. Concrete recycling, precast elements, lean construction techniques, value engineering methods and few more other contemporary practices were identified to reduce the concrete waste, which directs to administrate the project cost in Sri Lankan construction industry. The results from the interviews found that many projects are willing to implement the contemporary practices within their construction projects although there are few barriers.

This research findings deliver a valuable evidence to the practitioners with an in-depth understanding about the essential necessity of contemporary practices and thereby benefiting to reduce the project cost in the construction projects.

**Key words** – Cost reduction; Concrete waste; Contemporary practices; Construction industry; Sri Lanka