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EXPLORING CRITICAL SUCCESS FACTORS FOR RECYCLED CONCRETE UTILIZATION IN CHINA

Yuanyuan Li[1], Min Li[2], Chunlu Liu[3], Zhigang Zhang[1*], Zhengjie Wei[4], Zhi Wang[5]

[1]*School of Management Engineering, Shandong Jianzhu University, Fengming Rd, Jinan, 250101, China*
[2]*China Construction Civil Engineering Co. Ltd, Fengtai District, Beijing, 100071, China*
[3]*School of Architecture and Built Environment, Deakin University, Geelong, VIC 3220, Australia*
[4]*Shandong Science & Technology Consulting Center Co. Ltd, Jingshi Rd, Jinan, 250013, China*
[5]*Shandong Information Association, Shengfuqian Rd, Jinan, 250011, China*

Abstract

Although China has produced a huge amount of waste concrete, the recycling rate of waste concrete is still very low. At present, the techniques of recycled concrete are relatively mature and how to promote its development from a nontechnical perspective needs to be investigated. This paper aims to thoroughly analyze the critical success factors (CSFs) of recycled concrete utilization and explore the complex relationships between them. The stakeholders and related 42 CSFs were initially identified. Then, social network analysis (SNA) was employed to analyze the empirical data of 192 questionnaires collected in China. The results indicated that market demand for recycled concrete, establishment of government information platform, willingness to separate and recycle waste concrete of demolition enterprise, higher recovery price paid by resource-based enterprise, government's supervision intensity, government's demonstration project, government's economic incentives and government's publicity and popularization of recycled concrete knowledge were the key factors. Government, demolition enterprise and recycling enterprise were found as the pivotal players. The CSFs and stakeholders explored in this study will provide useful guidance for decision-making in the recycled concrete utilization process. The findings also lay the foundation for searching ways to control these key factors and formulating policies in China, which need be studied in the future.

Key words: China, critical success factor, recycled concrete utilization, stakeholder

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* Author to whom all correspondence should be addressed: e-mail: sdjn000111@163.com, Phone: +86 15098991551, Fax: +86 531 86361579