AN EMPIRICAL STUDY ON THE PROBLEMS OF RUNNING DESIGN AND BUILD PROJECTS IN CONSTRUCTION

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Abstract
The drawbacks of the traditional design-bid-build procurement system (design then build) have led project participants in the construction industry to opt for alternative procurement systems, like design-build (D&B) (design and build) to deliver their projects. Previous research reported the better time performance of the D&B method and the benefits of the single-point contact from the contractor. While D&B has been popularly used in some western countries, the identification of problems in running D&B projects can arouse the concern of project stakeholders, namely, clients, contractors and consultants, especially in countries where D&B is at a germinating stage. This paper presents the empirical findings on the problems of running D&B projects from the perspectives of clients, contractors and consultants. Inter-group comparisons reveal that there is generous consensus in problem ranking in the client-consultant and contractor-consultant groups, while significant differences exist between the clients and the contractors on the ranking exercise. Based on a better understanding of the problems faced by the major participants in running D&B projects, the authors suggest further research on identifying the critical success factors for D&B projects in order to enhance the well being of the construction industry at large.

Keywords
Procurement, design-build, problems, cross-comparison, construction, Hong Kong

INTRODUCTION

Design-build (D&B) is one popular alternative procurement method in the UK as it seeks less adversarial and more integrated project procurement strategies (Palaneeswaran and Kumaraswamy, 2001). In fact, D&B has been used over the world extensively for around 40 years and its popularity has gained substantially over the last ten years (Ernzen and Schexnayder, 2000). More significant moves towards D&B are evident from statistics and examples from the UK, USA and Australia (Palaneeswaran and Kumaraswamy, 2001). In Japan, 10% of construction projects are acquired through D&B and the method is also gaining popularity in Singapore (Chan et al., 2001; Lip, 2001).

In the last decade, D&B has been used extensively in Hong Kong to help deal with the problems associated with the traditional procurement method (Chan, 2000). Three forms of variants, namely pure D&B, enhanced D&B and novation D&B are most widely used. The pure form requires the contractor to accept total responsibility for both the design and construction to meet the requirements of the client (Lam, 1998). The enhanced D&B enables the client to ensure the conformance of the basic design to his requirements by retaining control of the initial design whereas the contractor under novation D&B is required to employ the same team of consultants after the award of contract (Chan, 2000; Ng and Skitmore, 2002). While the pure D&B form is normally used for simpler building types like residential buildings, the