

**STRATEGIES TO MANAGE THE IMPLEMENTATION
CHALLENGES OF PUBLIC SECTOR DESIGN & BUILD
CONTRACTS IN SRI LANKA**

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Degree of Master of Science in Project Management

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University of Moratuwa

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Thesis/Dissertation submitted in partial fulfillment of the requirements for the
degree Master of Science in Project Management

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DECLARATION

“I declare that this is my own work and this dissertation does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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ABSTRACT

Strategies to manage the implementation challenges of Public Sector Design & Build contracts in Sri Lanka

“Design and build” is a procurement strategy in which the main contractor is appointed based on the Employer’s requirements and as per the principle design by Employer’s principle advisor. Contractor needs to perform both design and construction of a particular Construction project. Design & Build procurement method has several advantages, but the standard of service experienced by Employers during the implementation stage of D&B projects has been found to be less than satisfactory. This “Applied research study” investigates the challenges faced by the public sector construction industry in Sri Lanka. when implementing D&B projects; and it also investigate as to how mitigation measures help to face successfully for these challenges.

The preliminary survey conducted to find out various ongoing/recently completed government sector D&B projects and contact details of professionals engaged with those projects to take part as questionnaire respondents. Types of current D&B practices related information also gathered through preliminary survey. Factors affecting for the selection decision of procurement method and various D&B challenges were identified through literature review. Accordingly, the questionnaire survey was developed using the information gathered through preliminary survey and literature review.

Through the study it was found that the 72.5% of procurement decisions were based on purposeful reasons such as need of single point of responsibility, requirement of specialized knowledge, being cost driven projects, need of variety of innovative designs. When considering the satisfaction level of respondents, research found that 67.5% of the employers have successfully identified the real necessity of incorporating D&B method to their projects out of other procurement methods. However, the rest of the respondents, stated that it would have been much more successful under traditional procurement method.

Research found extreme D&B challenges as limited pool of qualified D&B contractors, Project delay, cost overrun, difficulty in tender evaluation and variation valuation. As per expert view those can be mitigated mainly by setting up practical milestones, using change control mechanisms, proper planning, and monitoring, clearly defining the scope etc.

Keywords: *Design and Build, Procurement, Challenges, Strategies*

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LIST OF ABBREVIATIONS

Abbreviation	Description
AIA	Australian Institute of Architects
BOT	Build, Operate, Transfer
CIDA	Construction Industry Development Authority
CIPS	Chartered Institute of Procurement & Supply
D&B	Design and Build
IPC	Interim Payment Certificate
NACC	National Advisory Council on Construction
NEC	New Engineering Contract
NPA	National Procurement Authority
OBG	Oxford Business Group
QS	Quantity Surveyor
RHP	Request for Proposal
RII	Relative Importance Index
SBD	Standard Bidding Document
SL	Sri Lanka