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RECONNAISSANCE SURVEY TO IMPROVE PREPARATION PROCESS OF TENDER DOCUMENTS IN NATIONAL WATER SUPPLY AND DRAINAGE BOARD

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The Dissertation was submitted to the Department of Civil Engineering of the University of Moratuwa in partial fulfilment of the requirement for the Degree of Master of Science.

University of Moratuwa

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DEDICATION

To the most venerated persons in my life; my father and my mother, for their continuous blessings, guidance and encouragement in all my endeavors.



Declaration

I hereby certify that this thesis is a report on the research carried out in the Department of Civil Engineering, University of Moratuwa, Sri Lanka by me and is submitted in partial fulfillment of the requirement for the degree of Master of Science. I also certify that this submission is original and does not contain any materials without acknowledgement and materials previously published or written or orally communicated by others except where due reference made in the text.

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This is to certify that this thesis submitted by S.S.S.Vipulanandan is a record of the candidate's own work carried out by him under my supervision. The matter embodied in this thesis is original and has not been submitted for the award of any other degree.

UOM Verified Signature

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ABSTRACT

Preparation of tender documents is carried out as an essential activity in accomplishment of procurements. In procurement situation, improvement of work practices can predominantly take place time. Adoption of standardised practices in procurement activities facilitates continual improvement in work practices.

This dissertation presents a strategy to improve tender documents in the National Water Supply and Drainage Board (NWSDB) in a systematic manner. This objective has been achieved under this study together with the identification of deficiencies in the currently adopted practices for the preparation of tender documents in NWSDB. A questionnaire survey was carried out among the engineers of NWSDB to identify such deficiencies. Analysis of results identified not only the shortcomings and drawbacks but also the areas to be improved in the current practices.

Under this study, a set of proposals has been suggested as solutions for the removal of the identified shortcomings. Among the engineers of NWSDB, another questionnaire survey was carried out to validate the suggested proposals. This validation process has not only validated some of the suggested proposals but also has given feedback on some of the issues that had been originally identified as shortcomings. Statistical hypothesis testing was used to arrive at decisions in both questionnaire surveys.

A set of proposals have been formulated ultimately to improve the quality of tender documents and the procedures involved in their preparation. Recommended proposals included standardisation of tender documents in NWSDB and areas that need to be given priority during their implementation.

Findings and conclusions of this study can be used to achieve process-based efficiency in NWSDB procurements. It could also be useful for other government organisations in their procurements with customisation.

Key words: continual improvement, process-based efficiency, procurement, standardisation, tender document,

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ABBREVIATIONS AND ACRONYMS

AGM Assistant General Manager

BOQ Bill of Quantities

DGM Deputy General Manager

DI Ductile Iron

EA Executing Agency

FIDIC International Federation of Consulting Engineers

GoSL Government of Sri Lanka

IBRD International Bank for Reconstruction and Development

IDA International Development Agency

ICTAD Institute for Construction Training & Development

NPA National Procurement Agency

NWSDB National Water Supply and Drainage

P&D Planning and Designs

PE Procuring Entity

PSB Procurement Support Bureau

PVC Poly Vinyl Chloride

SBD Standard Bidding Document

TB Tender Board

TOR Terms of Reference

T&C Tenders and Contracts