

**INVESTIGATE THE FACTORS THAT INFLUENCE
THE EFFECTIVENESS OF EARN VALUE ANALYSIS
IN SRI LANKAN CONSTRUCTION PROJECTS**

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Department of Building Economics

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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.

Further, I acknowledge the intellectual contribution of my research supervisor Ch.QS. Indunil Seneviratne for the successful completion of this research dissertation. I affirm that I will not make any publication from this research without the name(s) of my research supervisor(s) as contributing author unless otherwise I have obtained written consent from my research supervisor.

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ABSTRACT

INVESTIGATE THE FACTORS THAT INFLUENCE THE EFFECTIVENESS OF EARN VALUE ANALYSIS IN SRI LANKAN CONSTRUCTION PROJECTS

The construction industry faces inherent complexities in assessing project performance, often relying on post-activity evaluations. This research recognizes the limitations of this conventional approach and emphasizes Earned Value Management (EVM) as a robust method, considering time, cost, and quality aspects. Specifically focusing on Sri Lankan construction projects, this study aimed to uncover the challenges associated with implementing Earned Value Analysis (EVA) to forecast cost and schedule status.

Drawing from extensive literature, this research delved into project management intricacies within Sri Lanka's construction sector, establishing a foundational understanding of concepts and their profound impact on industry practices. It aimed not just to highlight challenges but to comprehensively analyze and offer viable solutions. This exploration laid the groundwork for a focus on EVA as a pivotal solution in effective project management strategies.

Employing a quantitative approach, the study leveraged the experiences of professionals engaged in Sri Lankan construction projects. By exploring both facilitators and barriers, the research aimed to unearth the nuances of EVA implementation in this context. Likert scale questionnaire survey was conducted to investigate the current status and the factors that influence the effectiveness of EVA. Through SPSS data analysis, the study identified significant barriers hindering EVA adoption effectively.

Ultimately, the research determined that resource availability and organizational culture and support play a crucial role in the effective implementation of Earned Value Analysis (EVA) in the context of the Sri Lankan construction industry (SLCI). The findings led to the proposal of specific strategies tailored to the industry, aiming to address these challenges and improve the accuracy of EVA in predicting cost and schedule status. The study serves as a valuable guide for enhancing project management practices, underscoring the importance of EVA in navigating the intricacies of Sri Lanka's construction sector.

Keywords: Construction industry, Earned Value Analysis, Earned Value Management, project management practices, project management challenges.

DEDICATION

**I dedicate this piece of work
to my beloved
parents and wife
in appreciation
of their support and love.!**

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LIST OF ABBREVIATION

EVA	Earned Value Analysis
PM	Project Management
EVM	Earned Value Management
DoD	Department of Defence
PMI	Project Management Institute
ICTAD	Institute for Construction Training and Development
SC	Schedule Variances
CV	Cost Variances
GDP	Gross Domestic Product
BoQ	Bill of Quantities
RIBA	Royal Institute of British Architect
C/SPCS	Cost/Schedule Planning Control Specification
WBS	Work Breakdown Structure
LC	Life Cycle
SLCI	Sri Lankan Construction Industry