

## ABSTRACT

### **DEVELOPMENT OF GUIDELINES FOR IMPLEMENTING VALUE ENGINEERING IN CONSTRUCTION PROJECTS IN TRINIDAD AND TOBAGO**

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The increased level of investment in infrastructure projects in Trinidad and Tobago has led to a need to maximise the financial resources utilised, as they are based mainly on the exploitation of non-renewable resources – oil and gas. Current and future projects must therefore optimise on the use of the resources allocated and Value Engineering has been found to be a tool exactly suited to this purpose.

The study seeks to investigate the standard methodologies, recommended techniques, benefits and limitations of Value Engineering principles as utilised in construction projects abroad and in Trinidad and Tobago. The aim of the study is the development of guidelines which will aid in the implementation of Value Engineering in local projects. Through comparison with literature the objectives of the study are to demonstrate that Value Engineering is a technique that helps to produce optimal project results, through the conservation of resources and will do so in Trinidad and Tobago.

In order to achieve the objectives, the study has been divided into four sections: research conceptualisation, literature review, empirical study and development of VE guidelines. The study utilised a survey questionnaire

among Clients and Professionals in the Trinidad and Tobago construction sector. The findings of the study demonstrate that VE is not very widespread in Trinidad and Tobago but where it has been used it has created a large number of opportunities for conservation of resources with a minimum of limitations, similar to that found in literature. The analysis has allowed suggestions to be made as to how best to adapt Value Engineering methodology and techniques to the construction sector in Trinidad and Tobago to achieve an optimal use of resources.

**Keywords:** Sean Anthony Mellowes, Value Engineering in Trinidad and Tobago, Function Analysis, FAST Diagram, Life Cycle Costing.