

**THE USE AND EFFECTIVENESS OF CONSTRUCTION MANAGEMENT
AS A BUILDING PROCUREMENT SYSTEM IN THE
SOUTH AFRICAN CONSTRUCTION INDUSTRY**

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DECLARATION:

I, Siyabonga Mbanjwa, do hereby declare that this treatise is entirely my own work, except where otherwise stated and has not been produced in any manner or form before. All references used have been accurately reported.

Signed:

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ABSTRACT

Title of treatise: The Use and Effectiveness of Construction Management as a Building Procurement System in the South African Construction Industry

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Project objectives are no longer being determined in terms of time, cost and quality only. Other factors such as employment creation, transfer of skills, use of small medium and micro enterprises (SMMEs) and community empowerment now play a role in determining project objectives and success. Is project management, applied with the traditional building procurement system the best method to achieve these unique project objectives ?

Some have argued that construction management, as a building procurement system, could be the most suitable method to use in the South African situation considering the unique project objectives described above. This research proposed to determine whether the use of construction management,

as a building procurement system, can improve the attainment of client objectives in the South African construction industry.

Based on the problem statement, the following hypothesis was formulated:

“The use of construction management as a building procurement system on construction projects with a strong focus on the empowerment of previously disadvantaged individuals (PDIs) and affirmable business enterprises (ABEs) leads to an improved attainment of project / client objectives.”

It was further broken down as follows:

- The choice of building procurement system does influence project success or failure.
- Construction management can improve the attainment of client objectives on certain projects.
- Construction management in South Africa has not been widely used and understood hence may have failed in its use thus far.
- Construction management can be applied successfully on certain projects by following international best practices.

The problem was resolved firstly through a literature survey, followed by an empirical survey. Respondents targeted for the empirical survey were clients or developers and project managers based in the following provinces: Gauteng, KwaZulu Natal and the Western Cape.

Literature reviewed indicates that this procurement system leads to cost savings and shorter project duration, thereby resulting in improved client satisfaction levels. Furthermore, it can also be of benefit as it allows affirmative construction to take place. This may be of particular interest to public sector clients.

Construction management has been widely used in the United States of America and the United Kingdom. In certain instances, it achieved good results, whereas in other instances the results were disastrous.

Authors such as Kweku *et al* (1987) argue that this is due to poor implementation. In the light of this, it is important to note that this method has its shortcomings and can be poorly implemented resulting in unsuccessful projects. Ensuring that “recipes of success” identified herein are applied, can go a long way to ensuring that the system is properly applied and that favourable results are achieved.

In theory, therefore, construction management can lead to more satisfied clients as it can achieve better results in terms of their objectives, when properly implemented. Based on literature reviewed and the empirical survey findings, it is concluded that the hypothesis is proven.

Based on the literature review, empirical survey and conclusions reached, It is recommended that:

- Private sector and public sector clients (such as the National Department of Public Works), consider the use of construction management as a building

procurement system on some of their future projects, especially projects with a strong empowerment component.

- Clients select suitably qualified and experienced individuals (such as construction project managers) and/or organisations (such as established building contractors) to perform construction management services on their projects.

- Existing best construction management practices are applied on construction management projects.

- Further research be undertaken on, *inter alia*, the role of the construction manager and the project manager on construction management projects, the development of emerging contractors on construction management projects and the development of guidelines for the implementation of construction management projects in South Africa.

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DEFINITION OF TERMS

- **Affirmable Business Enterprises:** A business which is as least two thirds owned by Previously Disadvantaged Individuals and whose management and daily business operations are in the control of one or more previously disadvantaged individuals, who effectively own it. (Department of Public Works, 1998)
- **Building Procurement System:** This is a process by which a building is designed and constructed to suit a specific client or buyer (Hindle, 1991).
- **Construction Management:** An alternative building procurement system that is a fusion of old established construction practices with current technological advances and latest management methods into one completely integrated working system to control time, cost and quality. It unites a three party team of a client, the design team and professional construction manager (who is responsible for the co-ordination of various trade contractors) with a common goal to best serve the needs of the client.
- **Emerging Contractors:** Small, medium and micro construction enterprises that were previously disadvantaged due to Apartheid policies (Cattel, 1994).

- **Empowerment Projects:** Projects whereby empowerment of emerging contractors and SMMEs is of paramount importance in the success of the project
- **Previously Disadvantaged Individual (PDI):** South Africans that were previously classified in terms of Apartheid Legislation as Africans, Coloureds and Indians. (Department of Public Works, 1998)
- **Small, Medium and Micro Enterprises:** Those persons engaged in business activities who have been unable to gain a firm foothold in the mainstream economy due to lack of access to relevant skills and expertise, finance, premises and markets; they need assistance, encouragement and commitment from the existing established business community (BON, 1996).
- **Sophisticated Construction Clients:** Clients with construction industry knowledge, expertise and capacity to manage construction projects.
- **Value Engineering:** A systematic use of techniques which identify the required function of a component or system, establish a value for the function and, finally, provide the function at the lowest cost (VM Services, 1992).

- **Value Management:** This is a collection of techniques designed to examine all the cost components of a product or system in order to determine whether any cost item can be reduced or eliminated without detracting from its functional and quality elements (VM Services, 1992).

LIST OF ABBREVIATIONS

ABE	Affirmable Business Enterprise
ACPM	Association of Construction Project Managers
APSP	Affirmable Professional Service Provider
BOOT	Build Operate Own and Transfer contract
BOO	Build Operate Own contract
BOT	Build Operate and Transfer contract
CIOB	Chartered Institute of Building (Southern Africa)
CM	Construction Manager
CMAA	Construction Management Association of America
CPM	Construction Project Manager
DBFO	Design Build Fund and Own/Operate contract

DPW National Department of Public Works of
South Africa

PDI Previously Disadvantaged Individual

SAPOA South African Property Owners Association

SMME Small, Medium and Micro Enterprise