



University of Pretoria

# **Project Governance for Capital Investments**

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## Declaration

I, Michiel Christiaan Bekker declare that the thesis *Project Governance for Capital Investments* is my own work and that the views and opinions expressed in this work are those of the author and relevant literature references as shown in the reference list.

I further declare that the content of this thesis is and will not be handed in for any other qualification at any other tertiary institute.

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**Michiel Christiaan Bekker**

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**Date**



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## Thesis Dedication

I dedicate this thesis to my wife Evandr  and two boys Christiaan and Werner.

Despite the knowledge, materialism and capitalist demands of modern society, the quest to live within the Will of God remains paramount. It determines our family project life-cycle and any deviation from this path will be corrected through the mere blessings, gifts, wishes and talents God bestowed uniquely upon us. The collection of these special blessings in our family sets the path towards God's Will.

Christiaan, your love for people, passion for your interests and special relationship with the Holy Ghost inspires me towards the things that are most important in life.

Werner, your cunning sense of humour, kind heart, wisdom, love for the simple things in life and ability to defuse any situation makes you a blessing, not only in our family but also for God's Kingdom.

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Above all, the honour, praise and recognition to our Lord Jesus Christ – beholder of the ultimate Love and Wisdom.

**1 Corinthians 13: 9-10;**

***For our knowledge is fragmentary, and our prophecy is fragmentary. But when the complete and perfect comes, the incomplete and imperfect will vanish away.***



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## List of Acronyms

AKFED	Aga Khan Fund for Economic Development
APM	Association for Project Management
BEE	Black economic empowerment
BHP	Broken Hills Properties Co Ltd
BLI	Bird Life International
BOOT	Build-Own-Operate-Transfer
BSTDB	Black Sea Trade and Development Bank
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CPGF	Concept Project Governance Framework
CPM	Certified Project Manager
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EBRD	European Bank for Reconstruction and Development
EU	European Union
EV	Earned value
FCO	Foreign and Commonwealth Office
FEL	Front-end-Loading
GAAP	Generally Accepted Accounting Practise
GDP	Gross domestic product
GOL	Government of Lesotho
GoSA	Government of South Africa
IBA	Important Bird Area
IFC	International Finance Corporation
IGM	Interacting group method



IMEC	International Program in the Management of Engineering and Construction
IMF	International Monetary Fund
IPMA	International Project Management Association
IPQMS	Integrated Planning and Quality Management System
IT	information technology
JPTC	Joint Permanent Technical Commission
LCP	Large capital projects
LHWP	Lesotho Highlands Water Project
LFG	Landfill gas
NGT	Nominal group technique
NYSE	New York Stock Exchange
OECD	Organisation for Economic Co-operation and Development
OTML	Ok Tedi Mining Limited
PERT	Programme evaluation and review technique
PFI	Private Finance Initiative
PGF	Project Governance Framework
PMI	Project Management Institute
PMP	Project Management Professional
PNG	Papua New Guinea
PPPs	Public-private partnerships
PUHCA	Public Utility Holding Company Act
RSA	Republic of South Africa
SA	South Africa
SAAS	South African Auditing Standards
SADC	Southern African Development Community
SDI	Spatial Development Initiatives
SEC	States Securities and Exchange Commission



SHE	Safety, Health and Environment
SIG	Specific Interest Groups
SME	Subject matter experts
UNECE	United Nations Economic Commission for Europe
USA	United States of America



## Research Summary

The performance of capital projects, in terms of meeting cost, time and performance requirements, has always been questionable. Despite the availability of project management tools, techniques, processes and advanced software applications, the overall non-performance of large capital projects has seemed to stagnate over the past century. Calls by financiers and participating stakeholders have been surfacing since the 1980s for a different approach to the management of development and implementation of capital projects, especially those that extend into multiple countries. Rather than exploring the development of radical new ways for managing the life-cycle of large capital projects, this research focussed on conducting a review of general management areas and their response to institutional failure.

Towards the end of the 20<sup>th</sup> century the corporate world experienced much turbulence and controversy with respect to responsible financial and corporate management. Various corporate scandals were reported, the result being the development and implementation of various forms of corporate governance principles. The roll-out and application of corporate governance soon became a global imperative with a fairly positive impact on responsible corporate citizenship. Given the success and global acceptance of corporate governance, the potential application of the principles contained in corporate governance guidelines, and even legislation, in the field of capital projects, was investigated. The view of projects as a form of temporary organisation was used to establish the parallel between general and project management practices, resulting in reference to the term *project governance*.

In general project management literature, the term 'project governance' is used in various applications, namely information management protection, project control and even to indicate project portfolio management. However, no commonly agreed upon definition for the term was found. In order to contextualise the term 'project governance', an in-depth literature study was done on the evolutionary development of corporate governance as well as the



characteristics of large capital projects. Given the literature background, a Delphi study was conducted among experienced and knowledgeable project practitioners and academics to establish a common definition and framework for project governance. Two important observations from the Delphi study were first the requirement that project governance should be strongly aligned with corporate governance principles and second and that a typical project governance framework should be fairly generic with flexibility to allow for customisation for specific applications.

Given the input from the Delphi study, two corporate governance frameworks were selected as the basis from which to compile the principle backbone for a Concept Project Governance Framework (CPGF). In order to allow for the multi-country, multi-company participation of large capital projects, especially where established companies from the West are involved in projects in the developing world, the corporate governance frameworks of the United States of America (USA), namely the Sarbanes Oxley Act and the King II Report from South Africa, were used. These two frameworks represented the thinking and corporate drives of the two respective countries, and for that matter, the developed and developing worlds. With input from the Sarbanes Oxley Act, King II, Delphi results and literature review, the CPGF was constructed for testing on various case studies.

The case study research was conducted in two phases. The first phase, also referred to as the primary case studies, comprised an in-depth study on two large projects involving cross-border participation by various local and international companies and stakeholders. Although it was intended to select a mix of successful and unsuccessful projects for the primary study, the unwillingness of project managers involved in unsuccessful projects to reveal information made the inclusion of these project cases not viable for this study. The two primary case studies selected were based on successful projects. The extent to which these projects formally or informally adhered to or did not adhere to project governance principles as stipulated in the CPGF was evaluated. Apart from a review of literature on the primary case studies, the nominal group technique (NGT) was also employed to extract embedded



information from project role players. Their input was documented and incorporated into the CPGF.

In order to confirm the general application of the CPGF, a set of secondary case studies was conducted. These case studies comprised a total of 15 capital projects, selected from various sources and industries. These projects were categorised as being 'successful', 'questionable' or 'a failure'. The reasons for the outcomes were plotted against the existing CPGF criteria and it was evident that the reasons for success or failure could be traced to specific areas in the CPGF. According to the CPGF, the most prominent areas that determined project performance, whether failure or success, were the composition of the steering committee as well as adherence to ethics, responsible conduct and conflict of interest.

Given the results of the research, the study concludes with a proposed Project Governance Framework (PGF) to be applied to large capital projects, especially during the initiation phase of the project. It is believed that adherence to the generic stipulations listed in the PGF will contribute positively to the successful outcome of large capital projects.