

PROJECT GOVERNANCE: DEFINITION AND FRAMEWORK

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Project governance has become part of the project management vocabulary. As a formal definition of the term lacked, it has been used in various contexts that caused confusion and misunderstanding. This paper provides a formal definition for 'project governance' based on a Delphi study. Combining the results from the Delphi study with existing corporate governance principles led to a concept project governance framework that was validated and developed further by means of two primary case studies and 15 secondary case studies. The end result is a final project governance framework that provides a practical checklist for the governance of major capital investments.

Key phrases: Project governance, project management, project control, audits

1 INTRODUCTION

The term *project governance* is a popular, and probably one of the most misunderstood, terms in modern project management. Due to a the lack of a comprehensive, formal definition, various industries, institutions and organisations have adopted the term and derived their own connotations to suit their specific applications. The information technology industry, for example, associates project governance with protection of and access control to information (Turbin 2003:Internet; Liu and Yetton 1995; OGC 2005:Internet), while the public-private partnership (PPP) related organisations (Miller & Hobbs 2005) use the term to describe the macro controlling environment within which projects should function. The Association for Project Management (APM) even developed a Guide to Governance of Project Management (APM 2004:Internet) that aims at 'governing' the actions of the project manager. A common thread through all the definitions is the quest to improve overall project performance.

In order to define a common understanding of the term *project governance*, and to provide guidelines for the governance of capital projects, a five step process was followed:

- A detailed literature study to investigate the origin of *governance* in general and its association with project management.
- A Delphi study to stimulate discussion and debate around the definition and interpretation of *project governance* and to reach consensus on a definition
- From the Delphi results a concept framework was developed for *project governance*.

- In order to test and refine the concept framework two comprehensive case studies were conducted.
- Lastly, by collating the results from the case studies, a final framework for *project governance* is proposed.

The above steps are discussed below and a definition of *project governance* is provided. A framework that can serve as checklist for the governance of capital projects is also proposed.

2 LITERATURE REVIEW

The vast majority of research efforts in the field of project management are concerned about project performance. Completing a project within the predetermined time and cost constraints and with the end product or service performing to expectations remains the ultimate project quest. Studies in various industries, from information technology (The Standish Group 1995:Internet) to large capital projects (Miller *et al* 2000; Merrow *et al* 1988; Morris & Hough 1987; Flyvbjerg *et al* 2003; Skamris 1994), have proved that project performance is well below acceptable performance levels. In response to this concern, various studies have been conducted in the past to identify parameters that cause poor project performance and even failure. Belassi and Tukel (1996) collated seven such studies and together with the results from studies by Gioia (1996) and Black (1996) the common parameters of *monitoring and control* surfaced. This observation is also supported by Ives (2005). These parameters are the foundation of project management and with various tools, techniques, training, software, etc available to the project manager to monitor and control projects, the question remains; 'why do projects still fail?' With research on factors causing project failure being to a large extent exhausted, an attempt was made to look beyond the immediate project environment to factors in the environment that affect the management of projects.

Project management is part of the macro organisational and business environment and a project is usually initiated to achieve corporate goals. The macro environment has also experienced failures, including significant corporate scandals like Enron, Worldcom and Parmalat to name but a few. The corporate world responded to these failures and established, through much research and consultation, the concept of *corporate governance*. The word 'govern' is defined by the Cambridge Dictionary (1995) as "to have a controlling influence on, to have a direct effect on or to fix or decide". Corporate governance became synonymous with large institutions with country-specific guidelines, and even the development and promulgation of legislation in the form of the Sarbanes Oxley Act (The United States of America,

2002). As a result of a significant decrease in corporate misconducts and failures since instituting corporate governance the question was raised whether project management should not also investigate governance principles. Obviously projects are subject to corporate governance guidelines; however the multi-company, multi-industry and especially multi-country nature of projects pose a challenge for the application of corporate governance principles in project environments.

Corporate governance is not about corporate control (McGregor 2000) – it merely provides the overall framework within which corporate control should be exercised. From a management perspective, projects have nearly all the functional components of corporate organisations, including human resources, finance, administration, etc. Due to these similarities projects are often referred to as *temporary organisations* (Lundin & Söderholm 1995; Miles 1964), with *temporary* referring to the finite duration of projects as opposed to the more or less permanent nature of corporate organisations. This observation prompted the idea to learn from corporate governance by investigating the similarities and differences between corporate organisations and projects from a control and governance perspective and to conclude with a definition of project governance that will remove misunderstanding about the concept and also provide a practical framework within which projects, like corporate organisations, can function and be properly managed.

3 DEFINING ‘PROJECT GOVERNANCE’ – A DELPHI STUDY

Given the lack of a formal definition for project governance, as well as the lack of consensus in the project management fraternity of what it entails, a study was launched to obtain the views of knowledgeable and experienced academics and practitioners regarding their view of what the term should entail.

Arguably the most appropriate research method to obtain the most reliable consensus of opinion from relevant parties is the Delphi technique (Dalkey & Helmer 1963; Lindeman 1975; Phillips 2000). This technique lends itself to obtaining independent, objective responses from individuals that are geographically dispersed and facilitates the objective of this study of obtaining a globally representative definition of project governance (Xiao *et al* 1997).

The Delphi method is often criticised for not providing empirical evidence. Since this study is predominantly exploratory by nature it was argued that such evidence would not be required.

The selection of the Delphi participants was aimed at involving credible individuals that would include both practitioners and academics from a number of different

countries. Eventually a total of 23 practitioners and nine academics from eight different countries were identified and contacted, either telephonically or via electronic mail. Of these potential participants 13 practitioners and only two academics responded. Attrition occurred between the first and second rounds of responses solicited and resulted in a final panel of eight respondents. Literature on Delphi studies indicates that a number of eight responses is still acceptable for this type of study (Phillips 2000; Linstone 1978; Cavalli-Sforza & Ortolano 1984).

Given the exploratory nature of the study the first round sample of 15 was considered sufficient. The 15 participants had an average of 24.8 and a total of 372 years' experience, had managed projects with a combined value of US\$ 43.95 billion, and authored a total of 12 books as well as 30 international papers. The two academics and one of the practitioners were in possession of PhD degrees while eight of the practitioners had master's degrees and the other four bachelor degrees.

Deciding on the type of questions required a fundamentalist approach. The key objective was to get to the core of project governance and to formulate a definition for practical use. Therefore the questionnaire had to start with open-ended questions and progress to questions that would help refining the definition of *project governance*. The following questions were:

- 1 How would you define/describe the concept 'project governance'?
- 2 Do current project management frameworks and practices fail to address project governance? Please explain.
- 3 What are the similarities between corporate governance and project governance?
- 4 What are the differences between corporate governance and project governance?
- 5 What are the differences between project control and project governance?
- 6 To what extent should a project governance model for large capital projects be project specific and/or company specific?
- 7 Much effort currently goes toward establishment of global corporate governance principles. What challenges need to be considered and overcome towards the development and establishment of a formal, global project governance model for large capital projects that involve multiple countries and companies?
- 8 How should role player liability towards eventual project performance be incorporated in global project governance model?
- 9 Please provide any other comments that you might have regarding the development and implementation of a project governance model.

The feedback from respondents was diverse. In many cases the feedback was elaborate and necessitated a careful selection of techniques to analyse the responses and the obvious requirement of testing the consolidated results by means of a second round. According to Page and Meyer (2005) the most suitable technique to be used for this type of qualitative research proved to be *informal content analysis*. The technique consists of scanning the content for recurring and repeated themes/concepts/words and constructing a summarised/consolidated description of the feedback. To verify the summarised/consolidated feedback the results were returned to the respondents for comments, confirmation or criticism.

The overall feedback from respondents confirmed the belief that a need exists to define and formalise project governance. A strong view from respondents was that, whatever form of project governance model to be developed, focus should be on practicality, alignment with corporate governance and general applicability. Summarised feedback of first-round responses is provided below:

Question 1: The results confirmed that no generally accepted definition existed and resulted in the following provisional definition: Project governance is a set of management systems, rules, protocols, relationships and structures that provide the framework within which decisions are made for project development and implementation to achieve the intended business or strategic motivation.

Question 2: The results provided overwhelming confirmation of a lack of frameworks for project governance. Specific issues that were raised included concerns about the definition and management of risk, non-alignment of projects i.e. lack of integration with strategic business parameters, authorities of project leaders, practical application of governance concepts in projects and the discipline to refine and apply project governance principles.

Question 3: There was general consensus that the principles of corporate governance apply to project governance and half of the respondents added that project governance should not only be aligned to corporate governance but be a subset of corporate governance. Project governance should reflect the temporary nature, and address the uniqueness, associated with projects. For example, where corporate governance addresses the functioning of a corporate board, project governance should do the same for the project steering committee.

Question 4: Corporate governance is clear regarding the level of detail of financial and legal disclosures while the details of disclosure regarding projects are unclear. The difference in timeframes - the project life-cycle has a much shorter life-span than

a corporate entity - requires an alternative approach towards the process and speed of decision making.

Question 5: Project control is a subset of project governance. Project governance should be a proactive measure that sets the scene for, and the framework within, which project management – and subsequently project control – should function.

Question 6: A project governance model should be largely generic with room to incorporate project-specific and unique requirements.

Question 7: International projects pose a number of challenges, including: (a) accommodating a financier's requirements and risks, (b) application in countries with weak corporate governance, (c) application in countries where senior or influential individuals "do not want better control" for selfish reasons, (d) complexities associated with globalization and virtual work, (e) making project governance simple and practical to apply and (f) overcoming stakeholder resistance to "another" form of statutory requirements.

Question 8: The panel was divided about the incorporation of role player liability towards performance: about half of the panel members proposed that stakeholder liabilities should be clearly defined in detail while the other half argued that any items or actions that could create potential adversarial situations should be avoided and handled outside of the project context.

Question 9: Additional comments confirmed some of the previously mentioned notions, e.g. that project governance should be a framework for decision making and should contain an element that promotes self-governance. Project governance should also aim at preventing runaway project spending in the same way that corporate governance aims to reduce uncontrolled losses and financial mismanagement.

A summary of the above results was sent for comments to the 15 respondents. They could accept the results, reject it or else agree in principle and indicate specific conditions or constraints. Eight of them replied and they were, in general, in agreement with the direction followed. One respondent indicated that project governance should be project specific while the other seven agreed on a generic model with flexibility to accommodate project specific aspects. This round set the scene for the development of a concept framework for project governance.

4 A CONCEPT FRAMEWORK FOR PROJECT GOVERNANCE (CFPG)

A key requirement from the respondents was that the project governance framework or model should be aligned with that of corporate governance requirements. A review of various corporate governance guidelines and laws, including Sarbanes Oxley Act (The United States of America 2002), British Cadbury Report (Cadbury 1992), Organisation for Economic Co-operation and Development (OECD 2004) and the United Nation guidelines on Governance in Public-Private Partnerships (2005), indicated that guidelines from the developed world and the developing world differ in context. Guidelines from the developed world focus more on financial control while the developing world emphasise social responsibility. The South African King II Report (King Committee on Corporate Governance 2002) is one of the most comprehensive corporate governance guidelines that could be found from developing countries. Since many projects are developed and implemented at a global scale where the developed and developing world has to work together, the governance needs of both should be addressed. For this reason the principles of the Sarbanes Oxley Act and the King II Report (King Committee on Corporate Governance 2002) were used as anchor documents to develop a Concept Framework for Project Governance (CFPG) with input from other guidelines.

From the guidelines mentioned above the following general categories for corporate governance were derived:

- Composition and functioning of the Steering Committee,
- Cost and Benefit Management,
- Project Reviews and Audits, and
- Ethical, responsible conduct and conflict of interest.

These categories were populated with sub-categories to ensure proper and detail attention to each of the governance requirements. The CFPG was then used as protocol for testing and refinement against two primary, detail case studies and 15 secondary case studies obtained from literature.

5 CASE STUDIES

The case study part of the research was aimed at validating the CFPG and also assess to what extent the practical application of the CFPG principles could have an impact on potential project outcomes. The case studies were divided into two main categories namely primary case studies and secondary case studies.

a Primary case studies

The two primary case studies were studied in-depth and included a nominal group technique (NGT) and personal interviews. The two case studies were selected based on the multi-company and cross-country nature as well as the large scale of capital investment involving developing and developed countries. The first case was the Mozal 1 project, a large smelter project in Mozambique that won the 2001 Project of the Year Award of the Project Management Institute (Mozal 2005:Internet). The second case study investigated the Lesotho Highlands Water Project (LHWP 2005), also a fairly successful project. In both cases various representatives were invited to participate in a NGT with follow-up interviews where required. Representatives in each case study included investors, project managers and government officials. The only stakeholders not involved were representatives from construction contractors.

For the primary case studies the CPGF were used as reference and protocol to facilitate questions and discussions. The main questions discussed were:

- To what extent were concepts contained in the CPGF applied formally and / or informally to each specific case and what was the impact thereof?
- What changes and / or refinements are required to the CPGF to make it more complete?
- Rank the components in the CPGF from most important to least important.

The Mozal I project had private funding and it was clear that private investors will be especially protective regarding their capital investment. General notes and observations included the following:

- For privately funded projects, the chairperson of the steering committee will almost always be from the main sponsoring entity.
- A significant portion of remuneration should be performance based.
- Despite the success of the project it was quite evident that project governance was not applied formally in the format proposed in the CPGF. However, because of the high level of experience and skill of the senior managers on the project, most of the items were addressed.

Towards the end of the session all participants unanimously agreed that a formal project governance framework and guideline would have helped to reduce the time spent in addressing the most important items.

For the LHWP the following results were obtained (Bekker & Steyn 2008):

- As in the case of Mozal, the NGT panel agreed that a governance environment for the project manager is usually lacking in projects. Thus, the necessity of a formal approach towards project governance cannot be disputed and currently documented theories and practices do not cater for the required approach.
- The importance of skilled personnel, consultants and contractors cannot be over emphasised. As with the Mozal I project, most of the items were addressed because of the high level of experience and skill of the senior managers on the project.
- Clarity of project scope is a determining factor. If the scope is clear, the manageability of the project increases drastically, thereby simplifying the establishment of a project governance framework. The core competency of scope development listed in the CPGF is of critical importance.
- The LHWP had the luxury of sufficient time (3 years) to develop a Treaty which contained many of the project governance items. Not all projects have this luxury and therefore some guideline would be beneficial.
- In the Treaty it appears that issues of potential misconduct and unethical behaviour as well as the environment were not dealt with in as much detail as managerial arrangements and thus the project could have benefited from a formal project governance framework.
- A prominent feature of the project was the lack of attention to health and environmental issues. This was partly due to the fact that safety, health and environmental issues were not such critical issues during the mid 1980s when the project was initiated and planned and few legal requirements on the subject existed.

The participants in both case studies agreed that the CPGF provided a comprehensive guideline to address the most important governance issues on especially large capital projects. Participants also agreed unanimously that ranking of the items will not be possible since different projects might require different approaches, depending on specific sensitivities.

b Secondary case studies

Secondary cases studies were sourced from literature and assessed against the CPGF guidelines. Case studies considered met the following criteria:

- A capital value of more than US\$ 10 million
- Each project should have multiple stakeholders, including the broader society
- Preferably various sources of funding.

- The secondary cases studies were eventually retrieved from the following main sources:
 - United Nations (www.un.org)
 - World Bank (www.worldbank.org)
 - European Bank for Reconstruction and Development (EBRD); www.ebrd.org

Qualifying projects were categorised as being successful, failed or questionable. The successful and failed projects were categorised in terms of their eventual outcomes, economical / social / environmental and sustainability impact, whilst the questionable projects still had pending issues during the evaluation. . In total, eight projects were successful, four were failures and three were still questionable upon writing of this paper.

From the results, it was clear that for every project at least one CPGF category could be linked to the main causes of the project outcomes.

An important observation made during the secondary case studies was that certain assessment categories have a higher frequency of occurrence than others. Although this could be due to the type of projects assessed, the following two criteria seemed significant:

- The composition of the steering committee, especially the members' ability, or inability, to structure the project financially and contractually, had a major impact on project outcomes, contributing equally to project success and failure.
- The adherence, or non-adherence, to a code of ethical, responsible conduct and conflict of interest, also had a significant impact on project outcomes. In most of these cases, addressing socio-economic sustainability and environmental concerns proved to be key to ensuring a positive project outcome.

Thus, in terms of general application and completeness, the CPGF content proved to be sufficient and these fifteen cases did not indicate any further need for fundamental modification of the CPGF.

6 THE PROJECT GOVERNANCE FRAMEWORK (PGF)

Considering the basic requirements for a Project Governance Framework (PGF), as stipulated by the Delphi participants, and the results from the primary and secondary cases studies, a PGF is proposed for application and further refinement in industry. The PGF content is given below in Table 1.

The PGF provides a generic baseline for country, company or project specific requirements and offers a practical guideline and checklist for the governance (including auditing) of capital projects.

Table 1: Project Governance Framework – adapted from PICMET [34]

P. Project Governance	
A. Project Steering Committee	
1 Composition	<p>1 Core Competencies</p> <ul style="list-style-type: none"> • Project finance and cost management • Project scope development and confirmation • Risk assessment • Project control requirements • Business / project alignment • Upfront phase management • Crisis response • Industry knowledge • International experience • Leadership • Strategic alignment capability • Contract management capabilities • Understanding of social and environmental requirements • Political influence • Local legal requirements <p>2 Steering Committee Size Determined by project type, complexity and magnitude. Sub-committees for cost control, environmental, socio-economic, etc.</p> <p>3 Member Mix Comprise members with direct interest, as well indirect stakeholder representatives i.e. socio-economic and environmental.</p> <p>4 Chairperson Independent</p> <ul style="list-style-type: none"> • For state expenditure - the chairperson should be independent from all project stakeholders • For own / private capital funding, the chairperson should be from the major shareholder and / or operating company
2 Responsibility	<p>1 Committee Accountability</p> <ul style="list-style-type: none"> • Overall accountability • Bridging gap between project and immediate external and statutory environment • Project promotion and stakeholder enablement • Obtaining finance • Establish levels of authority <p>2 Charter Development and adherence to project charter, including project policies and philosophies.</p>
3 Audit Committee to Board of Directors	<p>1 Levels of Independence The project audit committee should be independent, with the steering committee excluded from the audit committee.</p> <p>2 Project Literacy The audit committee should have extensive project experience.</p> <p>3 Scope of the auditors to be vetted by the steering committee</p>
B. Cost and Benefit Management	
1 Financial Reporting Responsibility	<p>1 Steering Committee Report against approved budget.</p>

	<p>2 Project Governance Charter Report on adherence to the Charter.</p>
2 Financial Disclosure	<p>1 Project Finance For any financial activities outside the GAAP requirements, full disclosure will be required.</p> <p>2 Reports Project's financial status to be reported on a quarterly basis.</p> <p>3 Corrections and Adjustments To be reported quarterly.</p>
3 Internal Controls	<p>1 Risk Management Process Formal risk management processes should be in place.</p> <p>2 Risk Management The steering committee must actively ensure that proper risk identification, quantification and mitigation planning is done on the project and not only on the financial aspects, but covering all aspects of the project.</p> <p>3 Risk Disclosure Disclosures must be made about all the risks on the project during the total project life-cycle.</p> <p>4 Risk Certification Requirement for monthly certification by the chairperson of the steering committee of disclosure controls and procedures.</p>
C. Project Reviews and Audits	
1 Independence	<p>1 Objectivity Independence and objectivity of the project auditors and reviewers must be ensured.</p> <p>2 Scope Project reviews and audits should not be confined to adherence to in-house methodologies and practices, but should include items that the review / audit deem necessary to protect stakeholder interests.</p> <p>3 Rotation Auditors should have no direct or indirect interest in the project or in the contractors / suppliers involved with the project.</p>
2 Interaction with Companies	<p>1 Internal Charter The internal charter should include the approach to the auditing of project management, the adherence to project methodologies, processes and agreed practices and the project team's functioning.</p> <p>2 Communication As with corporate governance, it requires mandatory communication between the external auditor and the audit committee.</p>
3 New Attestation Report	<p>1 Report External auditor must issue an attestation report on the project's internal control report.</p>
4 Disclosure	<p>1 Non-audit services As with corporate governance, it is required that separate disclosure of the amounts paid to the external auditor for non-audit services is provided, together with a detailed description of the nature of services.</p> <p>2. Fees Requires disclosure of fees paid to a company's principal external auditor since project commencement.</p>
D. Ethical, responsible conduct and conflict of interest	
1 Code	<p>1 Standards A code of ethics should be established and signed by each member of the steering committee. The code should include (as a minimum):</p> <ul style="list-style-type: none"> • Environment • Social aspects

	<ul style="list-style-type: none"> • Socio-economic aspects • Conflict of interest guidelines <p>2 Adherence Adherence to the code of ethics should be disclosed and reported on a monthly basis.</p> <p>3 Disclosure Code should be made publicly available and any changes to the code or waivers from the code must be disclosed.</p>
2 Compensation	<p>1 Performance Performance-related elements of compensation should represent a substantial portion of the total compensation package.</p>
3 Safety, Health and Environment (SHE)	<p>1 Adherence SHE requirements should be to international standards as minimum and be supplemented by host country requirements.</p>
4 Social	<p>1 Adherence Social and socio-economic considerations should be to international standards as a minimum and be supplemented by host country requirements.</p>

7 CONCLUSIONS

Project governance can be defined as: a set of management systems, rules, protocols, relationships and structures that provide the framework within which decisions are made for project development and implementation to achieve the intended business or strategic motivation. To assist with the practical application of project governance principles, a project governance framework was developed and validated by means of two case studies. The proposed framework provides a guideline and serves as reference for project stakeholders to establish their own governance principles and protocols. The framework supports corporate governance principles and incorporates views from both developed and developing countries regarding governance.

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