

BENCHMARKING, PLANNING AND DECISION MAKING PROCEDURES IN PUBLIC PROJECTS

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ABSTRACT

The investment risk in projects financed by public capital is different from those financed by private means for several reasons. In the former case, the decision-makers are not risking their own resources which might lead to what is commonly referred to as moral hazard. Another difference is the accountability of the decision-maker subsequent to the go/no-go decision. In the later stages of the project, accountability will have shifted from the legislative power to the executive power. This change in accountability can lead those with primary accountability to make unrealistic or overoptimistic forecasts of project outcomes because they will not be responsible for delivering the project. Many developed countries have responded with a governance framework to provide the public with some assurance that there will be optimal use of public capital. The study presented here examines and compares the governance framework in three countries – Iceland, Norway and UK. The findings highlight significant room for improvement in Iceland concerning strategic intention as introduced under Icelandic law. Specifically, the Icelandic governance framework on decision-making and planning procedures lags far behind two countries with which it can be reasonably compared. The governance framework for capital projects needs to be strengthened and would benefit from considering the practices adopted in those countries.

Keywords: Public projects, decision-making, governance framework, project management

INTRODUCTION

Over the last two decades, a change can be seen in the received doctrines of public accountability and administration (Winch, 2010). An approach aimed at increasing the quality of public governance has now been widely implemented and is generally referred to as the New Public Management (NPM). NPM was a response to the assumption that politicians are inherently venal and likely to abuse their authority to enrich themselves and their friends leading to high-cost, low quality products (Hood, 1995). One of the doctrines for ensuring public interest via NPM is the use of an elaborate structure of procedural rules designed to guarantee integrity, transparency and professional service to the public. This makes sense as it is impossible to manage without reference to a conceptual set of rules to form a governance framework. Only what we know can be managed and controlled.

Bevir et al. (2003) referred to NPM as a focus on management over policy. They emphasized the necessity of performance appraisal and efficiency as a consequence of fiscal pressures, determination to redraw the boundaries of the state, increased international regulation due to trends in geopolitics, public expectations to government performance, international management fashion and improvements in information technologies. In a similar vein, Bovaird and Löffler (2003:316) noted that NPM “is about ensuring that the outcomes are right” and, furthermore, that one of two criteria for “good governance” is “implementation by all stakeholders of a set of principles and processes by means of which appropriate public policies will be designed and put into practice”.

OECD emphasizes the need for an effective governance framework to impact overall economic performance (OECD, 2004:17). “Corporate governance involves a set of relationships between a company’s management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined” (OECD, 2004:11). On the corporate level, the economic objective of governance is to reduce transaction costs in a project by the most efficient organization of resources (Müller, 2012). Public governance is defined by the OECD as: “the formal and informal arrangements that determine how public decisions are made and how public actions are carried out, from the perspective of maintaining a

country's constitutional values in the face of changing problems, actors and environments" (OECD, 2003:16). Principles and processes may well differ from country to country but it is reasonable to assume that a detailed conceptual framework will reduce the risk of corrupt, unrealistic and overoptimistic forecasts when public capital is invested. The official procedural guidelines on how to manage and control projects are important source documents as they set the standards for decision makers, planners, consultants and other stakeholders involved in the lifecycle of a public project.

The study reported in this paper focuses on Icelandic government strategy and how it ensures that sound practices, in keeping with those found in other developed countries, are applied. Two countries, Norway and the UK, were selected for comparison. Iceland is by far the smallest with a population just exceeding 300,000 inhabitants. Norway is a Scandinavian country with a government and legislature almost identical to Iceland and a population of 5 million people. The United Kingdom has a population of 63 million people. The UK is also the second largest importer of Icelandic products (Hagstofan, 2013) and British influences on Icelandic business life and attitudes are significant. Williams et al. (2010) and Klakegg et al. (2008) investigated public governance principles in Norway and the UK and found both had clear similarities and differences.

GOVERNANCE AND PROJECT MANAGEMENT

In the context of project management, it can be reasonably assumed that the principles of good governance will increase the quality of project planning and clarify the accountability on different levels of the project lifecycle. It may be argued that, in the case of public projects, a solid procedural foundation is even more critical than for private projects because public capital is being invested. In spite of the NPM paradigm, public projects are frequent victims of controversy and overruns (Flyvbjerg, 2011). A decade ago, Flyvbjerg et al. (2003:110) found that the main shortcomings in the appraisal of a large project were the lack of mechanism to ensure accountability, a shortage of objective driven performance specifications instead of technical objectives and the lack of explicit formulations of the regulatory regime.

Recent trajectories in the development of project management as a discipline are sometimes referred to collectively as the "third wave" (Morris et al., 2012). From the 1950s, project management has evolved from being foremost a scheduling tool to include a wide range of management disciplines, professional associations and bodies of knowledge (Morris, 2012). Söderlund (2012:41) identifies the current period as the "Decision School" referring to the importance of investigating the interplay among decisions makers in projects from the perspective of psychology and political science. Jugdev and Müller (2005:23) named this period "strategic project management", emphasizing the significance of the initial steps of a project.

PUBLIC PROCUREMENT

When the Icelandic law on public project procurement (no. 84/2001) received ascent in the Parliament in 2001 (Althingi, 2001), the Minister of Finance stated that "[the] objective of this legislation [was] to ensure optimal use of capital invested in public projects" (Haarde, 2001). The legislation outlines the government's goals regarding the conception, planning and execution of public projects. The law notes that the Minister of Finance will issue further guidelines for planning and other procedural work on projects. The official guideline on the methods and procedures to apply in this case is the Public Procedure Policy on Conception, Planning and Implementation of Public Projects (3PCPI) for the pre-study, planning and execution of public projects in Iceland (Ministry of Finance, 2002). The 3PCPI is used by the GCCA (Government Construction Contracting Agency) specifically named in the legislature as the control agency. It can therefore be said that the governmental strategy in Iceland on how to conceive and manage a public project is outlined in law and the 3PCPI. Norway and the UK also have a relatively new governance framework brought forward and enacted in the same period as that in Iceland.

The Norwegian Ministry of Finance requires a quality assurance procedure to ensure "adequate quality at entry, compliance with agreed objectives, management and resolution of issues that may arise during the project, etc., and standards for quality review of key governance documents" (Samset et al., 2006).

In the UK, HM Treasury has adopted the Green Book where the following phrasing can be found: "[the] Government is committed to continuing improvement in the delivery of public services. A major part of this is ensuring that public funds are spent on activities that provide the greatest benefits to society, and that they are spent in the most efficient way" (HM Treasury, 2011:v).

It is apparent from these quotations that the aforementioned governments' intentions are broadly similar, i.e. to ensure optimal use of public capital by introducing professionalism and integrity and is well in line with the NPM paradigm.

According to Icelandic law, public projects begin with a project idea or awareness of a project proposal. The idea is then subject to some initial studies, usually within the respective ministry. Once these pre-studies have been completed, the executive power prepares a proposal for funding and if the project is considered feasible it enters the state budget as a liability. This process is shown in Figure 1. Beyond this stage, accountability for the project is anchored in the Ministry of Finance or other concerned ministries. As a rule, accountability is transferred to a public institute or a public agency via a contract at this stage (Althingi, 2001: article 6).

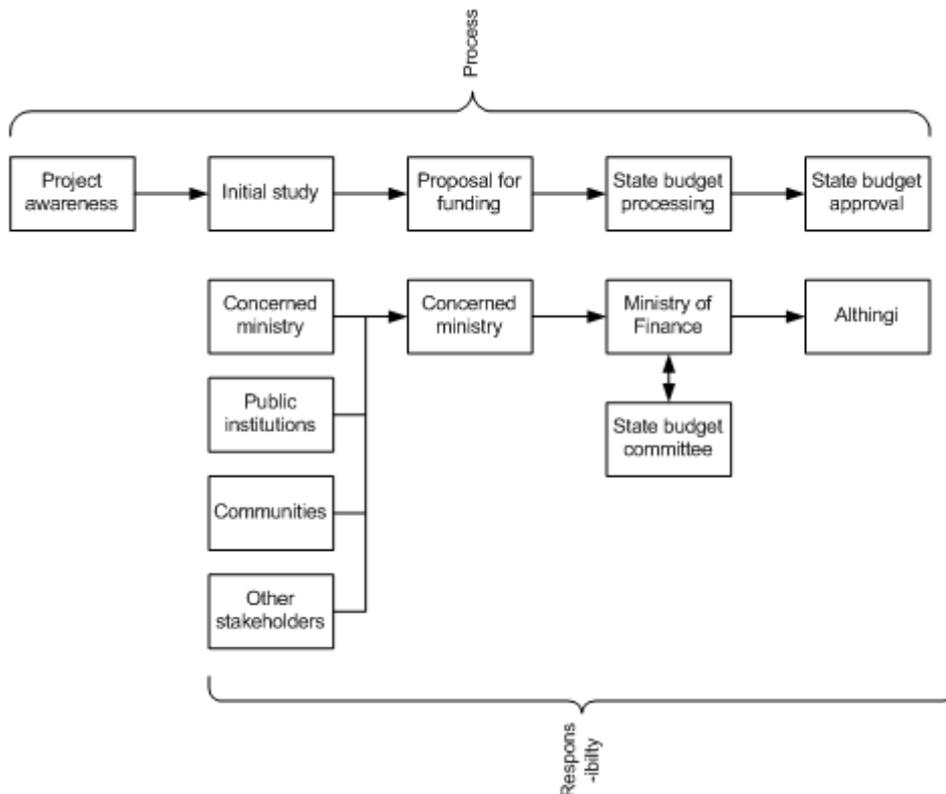


Figure 1. The path from awareness to approval for public projects in Iceland.

In the international project management arena much effort is invested in how to ensure professionalism and understanding of methods and principles that work. Part of this development is the issuing of detailed protocols in regard to project portfolios and project programs to connect strategy, tactics and operations. In the UK, the Association for Project Management (APM) issues the APM Body of Knowledge an up-to-date collection of topics that should be knowledgeable to practitioners, academics and experts. However, APM body of knowledge is not a set of competencies or methods (APM, 2006). The most detailed conceptual framework on project management is issued by the Project Management Institute (PMI) in the USA. PMI currently issues standards on project portfolios (The Project Portfolio Standard) which specifies that a portfolio is a component collection of programs and projects applied to achieve strategic objectives. PMI also issues standards on project programs (The Program Management Standard) providing guidance to manage multiple projects (PMI, 2006). Furthermore PMI issues standards on projects (Project Management Body of Knowledge) (PMI, 2008). Although PMBOK is mainly focused on the management techniques, tools and processes to manage project for a successful outcome the standard also emphasizes the role of projects to achieve a strategic plan and how projects, programs and portfolios interact (PMI, 2008:8-10).

RESEARCH METHOD

The methodological approach is based on document analysis or, more specifically, comparative content analysis. As a part of documentary research, it has advantages over other methods – insofar as it is unobtrusive and non-reactive – and is a viable technique for making reliable, replicable and valid inferences (Robson, 2011). Documents can also be used for triangulation and for longitudinal studies, where the latter has a relevance to the longer-term study of the Icelandic case.

Official documents have provided data and insights for the analysis of official definitions and explanations of management and decisions-making with regard to public project procurement. The research aimed at analyzing a problem for further understanding and clarification. On a more detailed level, the research method represents a qualitative, structured content analysis resulting in a quantitative appraisal. A Likert-scale was adopted for the purpose of quantitative comparison. We also estimated the extent of treatment by a simple word count and searched for particular terms by word search.

This approach is generally named multi-strategy research design and is becoming increasingly popular (Robson, 2011:28). Multi-strategy research design comes not without some skepticism. One critic, Guba (1987:31), claims, “The one [paradigm] precludes the other just as surely as belief in a round world precludes the belief in a flat one”. Howe (1988:12), on the other hand, argues that combining quantitative and qualitative methods is a good thing and denies that any epistemological incoherence is found by the wedding of these methods.

First, we analyzed the written and publically-available documents describing how projects should be prepared initially in Iceland and Norway. The result was expected to reveal if there were differences in the strategic and tactical requirements in relation to the first stages in the project lifecycle in terms of assuring the quality of the decision-making and conception prior to project commencement. Second, we analyzed how the 3PCPI in Iceland and the Green Book issued by HM Treasury in the UK address best practice project management as outlined in the PMI standard on project management practices (PMBOK). The result was expected to reveal if there were differences between the operational requirements and methods used to ensure sound project planning and implementation in Iceland and the UK.

The content of the documents was compared to best practices as defined by PMI Organization Project Management Maturity Model (OPM3). A best practice is defined as: “... an optimal way currently recognized by industry to achieve a stated goal or objective” (PMI, 2003:13). A benchmark is sought in OPM3 with reference to what are termed key performance indicators (KPIs). A KPI is a criterion by which an organization can determine quantitatively or qualitatively whether or not an outcome is sufficient. OPM3 cross-references the PMBOK standard (2008: 43) where eight management “knowledge areas” are defined: scope, time, cost, quality, human resources, communication, risk and procurement. These knowledge areas are attached to the following “process groups”: initiating, planning, executing, monitoring and closing. This arrangement rhymes well with the 3PCPI (Ministry of Finance, 2002). The PMBOK maps knowledge areas and process groups to identify the methods applicable at each stage.

THE ICELANDIC APPROACH

The aforementioned law no. 84/2001 (Althingi, 2001) is four pages and approximately 1,700 words. No specific reference to best practice project management or procedures can be detected in the document. The content is mainly generic descriptions of terms such as cost plans, planning and construction without clarification of what is considered a minimum requirement in terms of rigor or quality of deliverables. The main purpose of the law is to place the accountability for the delivery of public projects in various ministries with overall responsibility at the Ministry of Finance. The official guideline on methods and procedures is, as noted earlier, the Public Procedure Policy on Conception, Planning and Implementation of Public Projects (3PCPI) (Ministry of Finance, 2002), which covers of the following requirements.

Project inception, including project argumentation, stakeholder analysis, feasibility study, appraisal of alternatives, estimate of initial investment cost and operation cost, comparison of alternatives and decision-making. At this stage the initial scope is determined and the cost baseline and schedule are prepared with a detailed report on the decision.

Planning which moves the project to the next stage, with further information on design, cost, materials and tender preparation.

Implementation describing how contracts are made, accountability and the project control mechanism.

Close down evaluation and audit, with study on the differences on planned results and actual results together with a close down report.

No information can be found on the 3PCPI authorship. Neither is it possible to detect the identity of the author(s) nor whether the guideline is subject to formal revision and regular modification. No further definitions or explanation of the various management terms used in the 3PCPI can be found and there are no references or suggestions on further reading or sources of information. The 3PCPI is 11 pages or approximately 3,700 words.

THE NORWEGIAN APPROACH

In Norway, a “quality-at-entry” regime has been developed to improve governance of large projects. Projects are subject to a quality assurance and uncertainty analysis prior to the parliament's appropriation of the project. This regime consists of two gateways, QA1 and QA2. The focus for QA1 is the rationale for the project. It covers the early choice of the concept/project where the objective is to ensure that the chosen project is appropriate and viable, particularly regarding cost-benefit and social terms (Christensen, 2009). QA2 is, on the other hand, “aimed at providing the responsible ministry with an independent review of decision documents before Parliamentary appropriation of funds. This is partly a final control to make sure that the budget is realistic and reasonable and partly a forward-looking exercise to identify managerial challenges ahead” (Samset et al., 2006:6). Regime decisions and analysis are conducted in a logical and chronological sequence that eventually leads to the selection and implementation of the preferred project without unforeseen interventions or conflicts.

The responsible ministry/agency is required to prepare a concept evaluation (known as the KVV), which should include the following: needs analysis, overall strategy and goals, overall requirements, possibility study and alternatives analysis which should include the zero-option and at least two alternative main concepts.

Additionally, independent consultants are used on a strategic level to provide an external view and a set of documents are required as a minimum decision object (Samset et al., 2006). There is no requirement in the 3PCPI to use consultants for quality assurance purposes. The role of consultants is not discussed here.

Certain general descriptions do not have much significant meaning unless some clarification is provided to explain the minimum demand for such an activity. The definitions are clarified in detailed public guidelines from the Ministry of Finance on cost-benefit analysis (Norwegian Ministry of Finance, 2012). These guidelines are prepared by an expert committee of 21 people from industry, academia and the government. The committee revises the work and arranges seminars with international participation on related issues. Moreover, the affected ministries submit written inputs to the committee. The Norwegian guidelines were last revised in October 2012. The cost-benefit analysis guidelines also provide a list of references to the technical approach adopted in other countries, including The Green Book from the UK (HM Treasury, 2011). Overall, the guidelines run to 178 pages or approximately 120,000 words.

A key determinant in the Norwegian guideline is the economic principle of the “willingness to pay” for the perceived project outcome when seen from the public perspective. The guideline describes at length economic and managerial terms including utilities, stakeholder analysis, time value of money, growth theories, pricing of uncertainties, risk assessment, the capital asset pricing model, project lifecycle cost, NPV and environmental impact.

It is difficult to compare the guidelines from Norway with those from Iceland as the conceptual difference and level of detail between them is enormous. Simple observation of the differences in quantity of material makes formal comparison almost meaningless in regard to usability and guidance for decision makers, planners and other stakeholders.

THE UK APPROACH

The OGC Gateway Process was introduced by the Office of Government Commerce (OGC) in the United Kingdom (UK). The OGC does not exist today as an independent agency as it was absorbed by the Efficiency and Reform Group of the Cabinet Office with effect from June 2010.

The OGC Gateway Process examines programs and projects at key decision points in their lifecycle to provide assurance for successful progress to the next stage (OGC, 2007). A crucial element of the OGC Gateway Process is an evaluation from independent practitioners (consultants) from outside the project, which is similar to the Norwegian approach. These practitioners use their experience and expertise to examine the progress and likelihood of successful delivery of the project. Their role is to provide a valuable additional perspective on the issues facing the internal team and an external challenge to the robustness of plans and processes (OGC, 2007).

Another document used to define what is expected in context of a methodological approach for decision-makers and planners is the Green Book issued by HM Treasury (HM Treasury, 2011). The Green Book is a guide to how project proposals should be appraised, before significant funds are committed, and how past and present activities should be evaluated. This is done to ensure that government funds provide the greatest benefits to society and that they are spent in the most efficient way. The Green Book runs to 114 pages including appendices, or approximately 43,000 words and cites several other sources of knowledge and reference materials.

COMPARISON OF PRACTISES

Two objectives of the research were to produce and analyze measurable outputs describing the consistency of the guidelines with best practice and an internal comparison of two guidelines from the Icelandic Ministry of Finance (3PCPI) and the HM Treasury (Green Book). This was done to analyze the degree to which the guidelines were likely to aid decision-makers in making well-founded decisions regarding the preparation and management of public projects.

The project management key performance indicators (KPI) in the 3PCPI and the Green Book that were benchmarked against the practices in PMBOK are referred to in the following knowledge areas: project integration management, project scope management, project time management, project cost management and project risk management. These knowledge areas overlap and interact during the project lifecycle. Three knowledge areas, namely human resource management, communication management and quality management were intentionally left out of the benchmark analysis as they were considered to introduce a bias towards conventional project management disciplines under investigation in the research. They are not considered in the Green Book or the 3PCPI and so the absence of these knowledge areas is not considered to impact the results.

PMBOK is a comprehensive 500-page standard on the project management discipline. The standard is organized into knowledge areas on the required management activities within the project lifecycle. The knowledge areas are mapped against process groups addressing the management techniques and methods to apply in each knowledge area. The principles of each management method are also described making the PMBOK ideal for benchmarking against the governmental procedures under screening for consistency (or alignment).

The Likert rating scale for consistency was from 0 to 3. 0 = no consistency, 1 = limited consistency, 2 = some consistency, 3 = full consistency.

Table 1. A mapping of selected knowledge areas and processes.

PMBOK knowledge areas	Process groups				
	Initiate	Plan	Execute	Control	Close
Project integration management	Project charter	Project plan	Execution	Work control, change control	Close phase or project
Project scope management	Requirements, scope and WBS		Verification and control		
Project time management	Activities, sequence, resources, duration and schedule		Schedule control		
Project cost management	Cost estimate, budget		Cost control		
Project risk management	Risk identification, analysis and response		Monitoring and risk control		

Document analysis reveals close to full consistency between PMBOK and the Green Book. The structure of the PMBOK and the Green Book is similar, but the terminology referring to procedural arrangement is different. The terminology referring to methods and techniques is similar.

Table 2. Comparison of the Green Book and the 3PCPI with PMBOK knowledge areas.

PMBOK knowledge areas	Green Book	Rating	3PCPI	Rating
Project integration management	Some consistency	2	Limited consistency	1
Project scope management	Full consistency	3	No consistency	0
Project time management	Full consistency	3	Some consistency	2
Project cost management	Full consistency	3	Some consistency	2
Project risk management	Full consistency	3	No consistency	0
Overall		93%	33%	

The consistency between the PMBOK and the 3PCPI is mostly on the procedural level, i.e. general requirements. The methodology and techniques are not addressed significantly. Some methodological areas have been omitted and one knowledge area, project risk management, is missing. In addition, the word “risk” is not to be found in the body of the text of the 3PCPI or Law no. 84/2001.

DISCUSSION

The NPM wave has reached Norway and the UK and this evolution in project management disciplines is supported by a detailed conceptual framework. Other than the publications previously mentioned one can mention the OGC’s guidance manuals on PRINCE2, Managing Successful Programs and Management of Risk. These publications were issued in the beginning of the century and have proved highly influential (Morris, 2012). In Norway the Ministry of Finance funds the Concept Research Program to support good governance. It can arguably be assumed that in a developed country one would expect to find governance framework with this purpose even if they are named differently (Klakegg, 2010:101).

Iceland seems to lag significantly behind. In a study by Fridgeirsson and Bragason (2013), the authors benchmarked the pre-requisite reports for an Icelandic road tunnel project against Norwegian standards for projects of similar size in monetary terms. At the time of writing, this is the latest large public project in Iceland in progress. Problems in financing meant that the Icelandic government had to step in and finance the project by guaranteeing the investment capital. As the required private equity was not available the Icelandic parliament had to approve, by law, a divergence from the general rule. In the written argumentation for the

law, a number of reports by consultants and specialists were cited. These reports, and some additional ones, were compared with the Norwegian “at-entry” standards for a large public project. The objective was to investigate if this project would have been approved in Norway on the grounds of the accessible collective studies of the kind prepared in Iceland in the decision phase. Compliance with the Norwegian standards was less than 40% and the authors concluded that if this project had been Norwegian it would not have been approved.

Further research should focus on the overall governance of public projects and its alignment with the managerial values and principles stated in the official legislative framework. A clear point of reference of the true status of the managerial quality would be instrumental as a platform for improvement on the gaps documented in this study.

CONCLUSION

It is apparent that the NPM has had significant impact in the UK and Norway. Detailed standards and guidelines on management practices are in place and have been validated by experts. This is not the case in Iceland. The results of document content analysis and comparison of current practice and procedures adopted in Iceland with those of Norway and the UK highlight room for improvement in regard to strategic intention as introduced by the Icelandic Law. No 84/2001. The Icelandic governance framework on decision-making and planning procedures lags far behind. Formal procedures can be considered negligible as no formulation of the content is in place, merely generic descriptions of technical terms to be interpreted at will. It would seem appropriate, therefore, that Icelandic decision-makers should respond to the opportunity to improve the procedural guidelines.

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