



cutting through complexity

PROJECT ADVISORY

Project Portfolio Optimisation: Do you gamble or take informed risks?

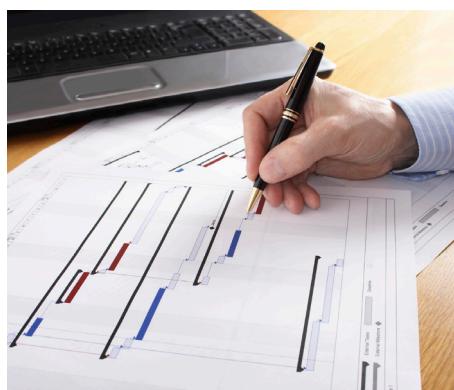
Leadership Series 8

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About the Leadership Series

KPMG's Project Advisory Leadership Series is targeted towards owners of major capital programmes, but its content is applicable to all entities or stakeholders involved with major projects. The intent of the Project Leadership Series is to describe a framework for managing and controlling large capital projects based on the experience of our project professionals. Together with our simplified framework, we offer a sound approach to answer the questions most frequently asked by project owners.



Introduction

You have probably heard the phrase "cannot fail," "too big to fail," and "bet the company" used to describe major capital projects such as gas pipelines, bridges and roading. For these types of projects, wouldn't it be nice to know that your decision to select or proceed with a project is the best decision for the company or organisation? Wouldn't it also be nice to know how to optimise the project screening and selection process throughout the project delivery lifecycle?

This paper addresses these questions by highlighting some of the challenges and pitfalls of inefficient capital allocation and portfolio optimisation. It also provides examples, approaches and practices for identifying, screening, selecting and budgeting projects throughout the project lifecycle.

1. How much does inefficient capital allocation cost an organisation?

Given the proposition that major capital projects are lengthy endeavours often taking more than four or five years to complete, how do you evaluate the project decision-making process? How many years can an organisation, whether a public entity or private company, misallocate capital before it is forced into bankruptcy or the organisations leaders are voted out or fired? These are difficult questions but it is clear that capital allocation across a project portfolio is something all governments and companies wrestle with on a continual basis. For many industries, the relative success or failure of this allocation process determines which companies thrive and which may not even survive.

Every capital allocation process should have core components that drive the overall process. For owners, the first component is a capital budgeting and planning policy that links the organisations business strategy to its project portfolio needs. The policy must describe in detail how projects are funded and address both in-cycle and out-of-cycle capital allocation and approval. The second component of an owner's capital allocation process are capital budgeting and planning procedures that describe in detail how the policy is to be implemented. Those procedures should include appropriate project management processes and controls and establish performance timelines. The third and last core component is a cross functional capital review committee that is tasked with overseeing the overall capital allocation process. This review committee should be instituted above and beyond any required executive management or board of director's involvement. Included on the following page is an example of a high level project portfolio optimisation framework.

This is by no means the only framework that will work; the key is having a framework that is supported by policy and by established guidelines, so business development teams pursue projects that fit the organisations strategies and overall growth and profitability targets.



Asset management

For asset intensive organisations, one of the pillars of the portfolio project optimisation framework is asset management. Asset management, if executed well, involves much more than merely the tracking of assets. It requires an integrated approach to optimising a portfolio of assets throughout the asset lifecycle – from planning, specification, and development through utilisation monitoring, maintenance and disposal. As with any integrated lifecycle process, the benefits are the greatest when individual processes and resources are functionally aligned. The key benefits of strong asset management processes are improved transparency, risk management, and intelligent data utilisation for making informed decisions. Due to the increasing cost of capital and focus on capital governance, asset management is an area that has also gone through tremendous development over the past decade. In 2004, the UK Institute of Asset Management, in conjunction with British Standards Institution, developed PAS 55, the first publicly available specification for optimised management of physical assets. The International Standards Organisation (ISO) has now accepted PAS 55 as the basis for development of the new and soon to be released ISO 55000 series of international standards.

2. How do you efficiently identify all of the most critical and beneficial potential projects?

Identifying which projects to consider from the endless pool of possible projects can be tricky, as it requires balancing a number of competing interests. If you cast the net too wide and do not employ some basic guidelines, you will likely suffer from information overload and unnecessary organisational conflict. However if the process is too narrow and does not provide a mechanism for innovative thinking, many valuable projects can be missed. In order to maintain the balance, here are some examples to consider: (See **table 1**)

For most organisations, authorisation requests will be for capital projects in the conceptual stage, which means the information available for any given project may be limited. During this stage, it is important to gather a consistent set of facts and information for each potential project to avoid a lot of follow up work. The information does not have to be extremely detailed, but it needs to cover all the basic areas such as the requestor, project names, project number or ID, department / business unit, brief description, justification / purpose, project type, ROM estimate, and target completion date. It is important at this stage to ensure that all projects are unique and that any inter-relationships between projects are identified. For example, if one project is predicated on another, or if one project cannot proceed until another project is completed, these relationships need to be specified so that they can be taken into account during analysis and project screening.

3. How do you screen projects and avoid utilising costly resources analysing projects that are not viable?

After all of the projects are identified, the hard work of screening the large pool of potential projects begins. Qualitative and quantitative risk analysis are two approaches for identifying the best candidates. Risk analysis is often attractive when screening complex projects that need to be assessed from multiple dimensions such as operational, schedule, financial, safety, environmental, legal, and market/commodity risks. Risk analysis only

provides one view of the viability of a project. Consequently, additional financial analysis is needed to address NPV, IRR and payback schedule. An example financial analysis summary table is included below. (See **table 2**)

Some projects in the portfolio may be unique and more difficult to assess accurately with a risk or financial analysis. For those projects, the screening process should always include qualitative factors such as public relations, availability and competency of project and support resources etc, as opposed to blindly churning out figure from a quantitative risk or financial analysis. To compare projects easily, the results of the analysis phase should be consolidated into a single document.



Table 1

Example area	Identification process
Asset management	» Asset inventory & condition assessment » New safety & regulatory requirements » Safety & regulatory violations or Issues
Growth	» Customer demand growth
Stakeholder needs	» Customer satisfaction & service levels » Company planning and HC forecasting
Sustainability	» Sustainability targets for existing & new facilities
Government	» Grants » Tax incentives » Other Government programmes / opportunities

Table 2

Projects	Financial analysis						
	Financial score	IRR	Payback (years)	NPV (\$M)	IRR score (30%)	Payback score (30%)	NPV score (30%)
Project A	2.60	275%	1.00	\$450	3	3	3
Project B	3.00	175%	1.45	\$1,099	3	3	3
Project C	3.00	145%	1.75	\$628	3	3	3
Project D	3.00	125%	1.90	\$684	3	3	3
Project E	2.70	175%	6.60	\$965	3	2	3
Project F	2.30	85%	5.25	\$375	3	2	2
Project G	2.70	65%	2.30	\$1,599	2	3	3
Project H	1.90	47%	2.30	\$72	2	3	1
Project I	1.80	14%	5.70	\$965	1	1	3
Project J	1.80	18%	7.70	\$88	1	1	3
Project K	0.70	14%	10.20	\$34	1	0	1

Included on the right is an example summary table of the consolidated results of a project prioritisation exercise. (See **table 3**)

The effectiveness of your analysis will depend heavily on the accuracy of the data compiled for the analysis. That is why organisations with extensive databases regarding historical project costs and current trends will have more accurate financial and risk analysis models to compare capital projects.



Table 3

Projects	Tier	Financial Score	Aggregate Risk Ranking	Other Factors
Project A	1	2.60	Low	Weather is extremely limited
Project B		3.00	Medium	Local government officials are due for re-election
Project C		3.00	Medium	Requires several potential challenging land purchases
Project D		3.00	Medium	Area is prone to flooding increasing operating costs
Project E	2	2.70	Medium	New & unproven technology
Project F		2.30	Medium	Lack of experience in geographic region
Project G		2.70	High	Land purchases may become very costly
Project H		1.90	Medium	Local opposition to the project
Project I	3	1.80	High	Site permit may take several years
Project J		1.80	Medium	High potential for competition in the region
Project K		0.70	Low	Limited local market

Risk Legend

Low = Aggregate Risk <\$50m
Medium = Aggregate Risk <\$500m
High = Aggregate Risk >\$500m

4. What are some of the key factors to consider in prioritising project according to your business needs?

Developing an objective project scoring process is one of the most critical steps in the capital allocation process. It would be nice to have a standard scoring template that works in all organisations for every capital project; unfortunately no such template exists. Each organisation must develop a tailored scoring process to address its specific organisational strategy, operational model and business drivers. To avoid bias in project selection, the process of prioritising capital projects should be both multidepartment as well as multi discipline. Many organisations like to group projects into tiers included in the analysis section above. Grouping projects into tiers also makes it easier to develop project hurdle rates and thresholds that can be used to analyse out-of-cycle projects. Out-of cycle-projects are often difficult to analyse in isolation. However if there are established hurdle rates and targets based on current project priorities it is much easier to make quick and informed decision regarding specific out-of-cycle project requests.

Once the capital project portfolio has been grouped into tiers, the top tiered projects should be analysed and reviewed further detail by gathering additional project information. This is where there is the greatest degree of variation among organisations. Organisations that routinely deal with very large, high-risk/high-reward projects will often proceed to the feasibility stage or beyond with many projects at one time. Other organisations will make the go/no go decision much earlier in the project lifecycle.

This means that during the annual project screening phase, some companies will continually shuffle the pipeline of eligible projects as opposed to employing a more linear process. As shown in the graphic below, an organisation may have several tiers of eligible projects in varying stages of the project lifecycle. Low tiered projects either graduate to a higher tier or remain low and are cancelled.



5. How do you align final project selection with capital budgeting and forecasting?

Whether your organisation utilises an ongoing approach to project selection or more of an annualised approach, the final and most important stage is the capital project selection process. Having a capital review committee at this stage provides tremendous benefit. Assuming the projects presented to the capital review committee have followed the required policy and guidelines and are appropriately aligned with the business strategy, the selection process should be straightforward and methodical. Typically, all top-tier projects are reviewed by the capital review committee and issues are raised and discussed in face-to-face meetings between the committee members and project proponents. Projects either receive full approval or are flagged for further discussion at a later date.

The organisation's financial situation may change during the project analysis, prioritisation and selection process. Therefore, it is important for the capital review committee to work closely with the organisation's financial team to help ensure the final selection of projects is based on the latest financial information for the organisation. Some projects may be approved tentatively pending the next quarter's financial results. Even after a

project is selected, the process of evaluating performance against the original business case should be assessed and lessons learned as well as financial data should be documented and incorporated into the overall process.

6. How do you build in capacity to address emergency projects as well as opportunistic projects?

The realisation of a business need or the identification of an opportunity may be initiated outside the normal project investment cycle. This can occur in response to an emergency, immediate market demand, or regulatory requirement. For these projects, a rigorous analysis and economic considerations must be performed along with an appropriate alternative analysis to accomplish the desired objectives. Out-of-cycle projects can be expedited, but the same level of capital allocation control and transparency must be performed as is the case with in-cycle projects. Today, with capital construction levels at their highest in years and with intense pressure and competition for market share, companies and organisations have great incentives to enhance their project portfolio processes and controls. Aimed at optimising capital across a wide range of projects, an effective approach is strategic, comprehensive and properly designed to meet your organisation's needs.



About KPMG Project Advisory

KPMG's Project Advisory services are objective, professional approaches to managing the many risks associated with major change: risks that involve complexity, technology, governance, selection and management of vendors and partners, implementation of solutions and acceptance of change throughout the organisation.

KPMG applies leading concepts and practices, supported by:

- › Experienced practitioners
- › Recognised best practices
- › Effective tools and templates
- › International standards
- › Built-in knowledge transfer

Project Advisory Services can assist organisations to generate significant cost savings by minimising poor selection decisions, costly overruns, misalignment with business needs, poor quality deliverables and failed projects.

Our project advisory services include

INDEPENDENT QUALITY ASSURANCE (IQA)

Is your project or programme on track? Are the key risks and issues being effectively managed and addressed? Independent Quality Assurance is KPMG's approach to providing objective, practical and open feedback to senior executives, independently assessing project status, risks and issues. Advice is provided by experienced staff who are not part of the delivery team.

PORTFOLIO, PROGRAMME AND PROJECT MANAGEMENT (P3M) PRACTICES

P3M provides services for the purpose of designing or evaluating portfolio, programme, or project management practices. The objective is to assist in implementing or improving P3M practices to reduce project costs, increase project success and create an organisational P3M support environment which is valued by internal and external stakeholders alike.

LARGE PROJECT AND PROGRAMME MANAGEMENT ASSISTANCE

This cornerstone service of KPMG's Advisory practice is designed to address the full lifecycle of a project or programme, providing an integrated approach to managing large initiatives – the result: significant efficiencies and enhanced outcomes. The methodology incorporates concepts from well-known risk, benefits, project and quality management disciplines to help companies achieve the results they expect during every phase of a large project or programme.

PROJECT RISK ASSESSMENT AND MONITORING

These services provide a highly focused, activity-based approach to project risk management. They provide management with an objective and independent assessment of the risks associated with a business initiative, programme or project, and evaluate the effectiveness of planned or implemented controls to mitigate the risks.

BENEFITS MANAGEMENT AND REALISATION ADVISORY

KPMG professionals help you identify the measurable business changes that you will see at the successful completion of your project and to tie these into an effective Benefits Management and Realisation strategy which can be referenced in your Business Case. Even for projects where outcomes are "enabling" or "intangible", our Project Advisory team will be able to assist with the identification of proxy indicators and benefit relationships to support the approval of your Business Case and its successful delivery.

PORTFOLIO MANAGEMENT

Effective portfolio management helps large organisations make sound decisions by prioritising the deployment of scarce resources to change initiatives and maximising their value to help achieve the organisation's strategy. Organisations operate in increasingly dynamic environments, which often make it a struggle to satisfy fluid business requirements.

KPMG's Portfolio Management (PfM) Advisory and Assistance services help organisations to develop appropriate processes and capabilities to achieve this aim. We provide practical guidance for conducting capability development, maturity assessments and performance reviews. Our methodology provides a flexible, comprehensive approach that can help our clients achieve their goals.

PROGRAMME MANAGEMENT OFFICE ASSISTANCE

Programme Management Office Assistance is intended to help our clients develop the processes to support a Programme Management Office. We assist with the development of a client's programme office processes and facilitate communication across client leadership to help make sure that enterprise programme initiatives are aligned with the organisation's business strategies. The focus of the PMO is to increase project visibility across client leadership in order to help achieve strategic programme performance.

PROJECT ADVISORY

Our practitioners know that successful projects are the result of clear vision, careful planning, and meticulous execution.

Bottom line: Project Advisory services drive speed and effectiveness of change within your organisation by reducing costs and increasing success.

Leadership Series

Please look for important topics covered by our Project Advisory Leadership Series in the coming months:

- » Project Risk Management

Contact us



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