

Share risks and rewards with all of the team and provide them with incentives for achieving/improving on the Project Objectives

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The following pages explain how to do this.

Identify and assess risks as part of your project procurement strategy

- You should have established the desired outcomes of your project and clarified the key success factors (see section 4.4 of Strategic Issues). While you develop the Project Procurement Strategy (see section 5.5 of Strategic Issues), think about the things that can prevent these outcomes from being achieved.
- Identifying things that can go wrong (the risks) and then taking effective action to avoid or reduce them will substantially increase the probability that your project will be successful.
- Do this by identifying critical activities and events within the project process and then plan accordingly. Assess risk by using value management techniques to determine the 'value' of each part of the process and how it can be improved to drive out waste and inefficiency.
- Remember though, that pushing high risks on to potential contractors can deter smaller firms from expressing an interest in your project and may lead to larger firms adding premiums to their bids.
- During the process, accept that you are never going to identify and remove all risks. However, it is vital that all involved get together early to discuss the potential pitfalls within your plans.

"No construction project is risk free. Risk can be managed, minimised, shared, transferred or accepted. It cannot be ignored."

Sir Michael Latham, 1994

Value Management is a structured approach to:

- ▶ Establish what value means to a client in meeting a perceived need;
- ▶ Clearly defining and agreeing the project objectives, and
- ▶ Establishing how they can best be achieved.

Value management incorporates value engineering, which is a systematic approach to delivering the required functions at optimum whole life cost without detriment to quality performance and reliability.

'Value Management' Fact Sheet
Construction Best Practice 1998

Involve all team members in helping to identify potential risks

- Start by holding a workshop for your project, attended by all team members as well as representatives from the client, stakeholders and end users. Use 'prompt lists' to brainstorm and help identify what could go wrong and what can happen.
- Focus on identifying what could potentially prevent the project from achieving its purpose or from meeting or exceeding the desired outcome/quality. To do this, the client's objectives and constraints must be firmly identified. Having identified potential problems, discuss what action could be taken to avoid/reduce/manage them.
- Do not blindly use standard checklists. They may be useful to start with, but every project is different and needs to be considered separately.
- Having identified risks, at the end of the workshop produce an Action Plan for how the risks are going to be managed. Keep this under review throughout the project.
- Recognise that risk management has a risk and a cost in itself.

Example 'Prompt' List:

Fire, explosion, blight, theft, errors, non-completion, access, availability, reliability, lifting, dropping, falling, programme, abandonment, commissioning, user, public, labour relations, cost...

Example 'What can go wrong' list:

Design brief unclear, inadequate project funding, poor team relations, contractor goes bankrupt, delays in obtaining planning permission, unforeseen ground conditions encountered, unproven design solution adopted...

Examples of sources of risk include:

- Political (e.g. change in government policy);
- Damage to client reputation;
- Environment (e.g. pollution, contaminated land);
- Hazards (e.g. fire, flood);
- Market (e.g. competition, demand, obsolescence);
- Economic/Financial (e.g. inflation, interest rates, bankruptcy);
- Natural (e.g. error, ignorance, incompetence, work at night/dark);
- Safety (e.g. CDM Regulations, collisions, collapse, flood, fire);
- Criminal (e.g. vandalism, theft, fraud, corruption);
- Project (e.g. procurement strategy, planning and quality control, culture, labour and resources).

3.3

Set up a Risk Management Team for major projects

- For many projects, simply considering and recording risks at initial workshops and monitoring Action Plans will be sufficient. However, for major projects a Risk Management Team should be established that includes client and stakeholder representatives.
- The Risk Management Team should have been involved in considering the procurement route (see Section 5.4 in Strategic Issues) as selection of the best route involves close consideration of the risks involved.
- The Team should examine data and records regarding the occurrence of risk in the past, from either within the authority or from professional organisations.

3.4

Choose the right form of contract

- One of the best tools you have for managing risk on every project is the contract document. Ensure your choice of contract is commensurate with the risk allocation you envisage, as different forms of contract allocate the risks differently (see Section 2.4 within Strategic Issues).
- You need to choose the form of contract that suits your project objectives and reflects the degree of risk you have accepted.
- Have a look at 'Which Contract?' published by RIBA Publications, for detailed guidance on the advantages and disadvantages of various procurement methods and the standard forms of contract that are available. This will help you to select the best contract and procurement route for your requirements.

Risk is "the chance of an adverse event occurring".

The impact of a risk is usually measured as 'likelihood x consequence'.

Utilise Risk Registers for your projects

- Include all identified risks in a Risk Register. For each risk, the Register should indicate the probability and consequences in accordance with a set scale. For example:

Probability

- | | | |
|---|------------|---|
| 4 | Frequent | Likely to occur frequently, many times during the period of the contract. |
| 3 | Probable | Several times in the period of concern; |
| 2 | Occasional | Some time in the period of concern |
| 1 | Remote | Unlikely, but possible |
| 0 | Improbable | So unlikely that it can be assumed that it will not occur. |

Consequence

- | | | |
|---|--------------|--|
| 4 | Catastrophic | Death, complete failure to achieve objectives, permanent damage to reputation, criminal guilt, £100V |
| 3 | Critical | Major damage/delay, substantial damages, exceeds contingency, damage to reputation, £10V |
| 2 | Serious | Damage/delay, consumed float/contingency. £V |
| 1 | Marginal | Accommodated within float or contingency £0.1V |
| 0 | Negligible | So minor as to be regarded as without consequence £0.01V |
- * For financial consequences, V represents what you would consider to be a serious loss.

- Ensure that the Risk Register identifies the actions to be taken to minimise (mitigate) each risk. For example:

- ▶ Unforeseen ground conditions: additional site surveys
- ▶ Fire: install sprinklers

- Once risks have been identified and assessed take decisions as to:

- ▶ Accept (e.g. cost in avoiding is too high)
- ▶ Reduce (e.g. training project staff, appoint a design checker to reduce the possibility of design fault going unnoticed)
- ▶ Avoid (e.g. have contingency plan, exemption clause in contract)
- ▶ Eliminate (e.g. by removing particular hazard from project)
- ▶ Transfer (e.g. to someone else e.g. insurance – but does not eliminate it)

- Once the Risk Schedule has been quantified, use statistical techniques to arrive at a total sum, and ensure that an appropriate allowance is placed in your budget as a Risk Contingency

- Re-run the Risk Schedule periodically throughout the duration of the project. Normally, the financial total of the updated risks should reduce as the project nears completion. The remaining budget contingency allowance can then be reviewed accordingly.

- For detailed guidance on how to identify and control risks on construction projects see 'Control of Risk – A Guide to the Systematic Management of Risk from Construction' 1996 (special publication no. 125) available from the Construction Industry Research and Information Association www.ciria.org.uk

3.6

Share risks with your partners and place risk where it can best be managed

- Make the sharing of risks part of your tender evaluation process. Within tender invitation documents include a proposed Risk Allocation Schedule that indicates the risks you expect to be accepted by the successful candidate, those that will be accepted by the client, and those that you expect to share. See Appendix 8 within the Supporting Information for an example.
- Make responses to the proposed Risk Allocation Schedule a tender evaluation criterion. Expect contractors to take on risks if they are best placed to manage them but be fair and expect to pay them for it in accordance with the values you have attributed to the risks concerned.
- If you are operating strategic partnering agreements, you will better placed to discuss the allocation of risks with your partners at the earliest possible stage.
- Remember that transferring a risk to a contractor means transferring the control of that risk. Contractors, understandably, focus on construction activities while your interest is in the life of the project beyond completion. Make sure then, that risks transferred to a contractor do not adversely effect your management objectives for the project.

3.7

Provide incentives to contractors for exceeding targets and expectations

- Provide contractors with simple incentives for doing well.
 - ▶ The simplest incentive is the promise of repeat business, which can be achieved through the operation of long-term strategic partnering arrangements.
 - ▶ Agreeing to 'reinvest' a portion of any savings achieved from your budget, say 50%, back into the project will also provide an incentive to your contractors.
 - ▶ You will benefit too, from their increased commitment and higher quality work.
 - ▶ Bear in mind that simply being involved with your project as a real team member, may provide your contractor with an incentive in itself. To be publicly associated with the success of your project, will enhance their image and raise their profile within the Industry.
- The greatest scope for financial savings is at the pre-contract stage. So, engage contractors as partners at the outset and let them work with you to arrive at a Target Cost. Provide them with incentives for achieving savings from your budget through their ideas and value engineering. Share any reductions achieved in your budget with them equitably and in accordance with a pre-defined methodology (e.g. 50:50). If this worries you, agree to compare final costs with the initial budget and share savings then.

Involve key or major supply chain members in risk management and incentives

- Don't award incentives just for fulfilling the original specification. Look at the whole life of the project, and not just from the point when a contractor has submitted a tender in accordance with a specification. Link incentives to exceeding your expectations and benchmark targets, by providing them with the opportunity to provide you with innovative solutions to construction methods (i.e. before your specification has been prepared!).
- Remember, success factors may include issues other than price (e.g. few complaints from tenants, few defects on completion). Focus on these success factors (the desired outcomes), and ensure you have a robust methodology for measuring performance against them (e.g. recording the number of tenants complaints).
- Build incentives into payment mechanisms, that are linked to the performance indicators you have established. This should result in reduced payments in the event of poor performance. Appendix 9 within the Supporting Information gives an idea of how a reward strategy may be developed.
- There is not just one contractor delivering your project. You need to remember to provide incentives to all participants such as the major subcontractors and suppliers.
- These participants should also be involved in deliberations regarding risk management
- Supply chain management and the extent to which your partner involves members of their supply chain in these issues should be part of your quality criteria when selecting them. You will also need to monitor whether the supply chain is being managed effectively.

Adopt a true open book approach

- An 'open book' approach does not mean simply asking your contractors to provide access to you or your auditors to their accounts, invoices, timesheets etc.
- True open book means working together closely with your contractors to compile target costs and risk assessments. This approach should be in place right the way through the supply chain.
- Remember that a collaborative approach to risk management and costs throughout the supply chain, will help significantly to reduce litigation.
- Profit margins for all parties should be established at the outset for your project. Protecting the profit margins of contractors is not something you should be scared of, it facilitates open team working, leading to protection for the client and certainty for contractors and suppliers.

Further information

Fact Sheet on Risk Management from Construction Best Practice

www.cbppp.org.uk

'Cost reduction systems, target costing and kaizen costing' Yasuhiro Monden, Productivity Press, Portland 1995.

'Worth the Risk' Audit Commission
www.audit-commission.gov.uk

Achieving Excellence Guide 4
'Risk and Value Management' within the OGC Toolkit

'Risk and Value Management' and 'The Integrated Project Team' Procurement Guides numbered 4 and 5 within the Achieving Excellence in Construction: Procurement Guidance Pack from the OGC www.ogc.gov.uk

Why do all this?

- Because by identifying potential problems at an early date will enabling you to consider avoiding/corrective action to be taken before things get out of hand or become more costly to remedy.
- To enable everyone to work together to identify the risks and design them out.
- To help minimise risks to acceptable levels and help to improve the predictability of outturn costs and time.
- Because incentives influence performance!