Practical Project Risk Management[1]

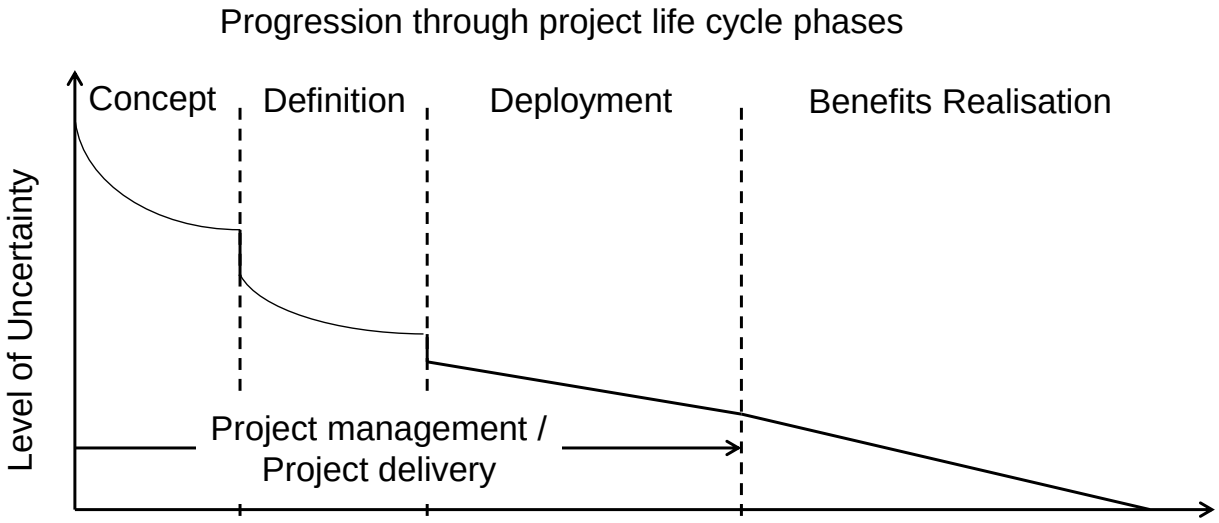
Risk in the Earlier Project Phases: A brief guide [2]

Purpose

Understand the importance and means of managing risk during the earlier project phases.

Uncertainty usually is at its greatest at the start of a project

Risk can be understood as being caused by the implications of uncertainty. Usually, the overall level of uncertainly reduces as the project progress and is thus at its greatest at the outset. The figure below is based on a simplified project life cycle model and illustrates how the overall level of uncertainty associated with a project might evolve. Points to note include:



1. The steps down in uncertainty between phases are associated with the narrowing down of scoping and planning options before authorising the project to proceed to the next phase.
2. If risk-efficient choices have been made prior to the main delivery phase (deployment), risk exposure going forwards should be much lower than it was at project commencement.
3. Having a high risk management capability is thus important during the earlier phases.

[1] This series of articles is by Martin Hopkinson, author of the books "*The Project Risk Maturity Model"* and *"Net Present Value and Risk Modelling for Projects"* and contributing author for Association for Project Management (APM) guides such as *Directing Change* and *Sponsoring Change.* These articles are based on a set of short risk management guides previously available on his company website, now retired. See Martin's author profile at the end of this article.

[2] How to cite this paper: Hopkinson, M. (2024). Risk in the Earlier Project Phases: A brief guide, Practical Project Risk Management series, *PM World Journal*, Vol. XIII, Issue V, May.

4. A project's exposure to benefits realisation risk is usually higher than its exposure to project deployment risk: see the *Risk to Project Benefits* guidance sheet (October 2023).
5. However, risk to benefits is also affected by project choices made during the early phases. This is another reason why risk management is important during those periods.

Despite these points, project risk management practice is often dominated by the use of tools and techniques such as Probability-Impact Matrices that are designed to manage risk during the deployment phase i.e. by which time there is a firmed up plan. Despite being of potentially greater value from an overall project strategy perspective, tools and techniques that are better adapted to the early project phases tend to be less well-understood and less widely used.

Examples of process, tools and techniques suitable for earlier project phases

1. Planning risk management activities using a top-down multi-pass approach. See the *Top-down Multicycle Risk Management Process* guidance sheet (June 2022)
2. Use of a strategic level prompt list e.g. as listed in the *Identifying High Risk Projects* guidance sheet (August 2022).
3. Identification and management of project strategy risks.
4. Constructively simple risk models e.g. as described by Chapman and Ward.
5. Decision trees.
6. Stakeholder analysis.
7. Parametric Cost Modelling.
8. Influence diagrams and/or Operational Research (OR) modelling.
9. Net Present Value (NPV) risk modelling. See the *Net Present Value Risk Modelling* guidance sheet (November 2023).
10. Risk analysis of alternative project options, trading off delivery and benefits risk.
11. Cost and/schedule risk analysis of alternative project design choices.

A point to note is that none of these approaches is dependent upon the existence of a firmed-up plan. They can thus be used without the need to estimate risk impacts relative to planned or assumed time, cost or project product objectives. This is in contrast to the common practice approach of estimating risk impacts relative to planned values.

Common Faults

1. Designing the project risk management process with the assumption that a Project-Impact Matrix/risk register tool is the best option at all times.
2. Delaying the implementation of the risk management process until the point at which its objectives have been set.

About the Author

Martin Hopkinson

United Kingdom

Martin Hopkinson, recently retired as the Director of Risk Management Capability Limited in the UK, and has 30 years' experience as a project manager and project risk management consultant. His experience has been gained across a wide variety of industries and engineering disciplines and includes multibillion-pound projects and programmes. He was the lead author on Tools and Techniques for the Association for Project Management's (APM) guide to risk management (*The PRAM Guide*) and led the group that produced the APM guide *Prioritising Project Risks.*

Martin's first book, *The Project Risk Maturity Model*, concerns the risk management process. His contributions to Association for Project Management (APM) guides such as *Directing Change* and *Sponsoring Change* reflect his belief in the importance of project governance and business case development.

In his second book *Net Present Value and Risk Modelling for Projects* he brought these subjects together by showing how NPV and risk modelling techniques can be used to optimise projects and support project approval decisions. (To learn more about the book, click here.)