

Body of Knowledge

8th edition

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1.1.1 Projects in context

Embracing and managing uncertainty

In many contexts, project work engages with novelty and uncertainty, extending into an unknown future. Projects and programmes therefore entail management under uncertain conditions. Yet, it is widely recognised that traditional business models, which focus on efficiency, top-down control and desired predictability, address only a small proportion of a rather complex, uncertain and interconnected landscape.

Uncertainty arises from many sources (Figure 1.1.1). Leaders increasingly face new challenges, such as the emergence of new markets, interconnected global competition, new sources of innovation, rising customer expectations, disruptive technologies, the growing gig economy and the increasing diversification of the workforce. Stable and predictable contexts are hard to find, and the models and approaches used for managing need to be updated to reflect a world characterised by uncertainty, turbulence, novelty, ambiguity and complexity. Moreover, the combination of economic unknowns, with political, social and environmental concerns relating to the proposed actions and their longer-term implications, requires ways of managing this uncertainty.

The US military coined the term 'VUCA' to reflect the 'volatility, uncertainty, complexity and ambiguity' of general conditions and situations associated with a multilateral world following the end of the Cold War. The term has been widely adopted to represent increasingly vulnerable and unpredictable contexts. The key implication of VUCA conditions is that there is an inherent uncertainty that makes it difficult to predict and plan with great accuracy.

The rigidity that comes from expecting full and perfect knowledge is unsustainable and unattainable in turbulent contexts. Uncertainty defies anticipation and detailed planning. Enforcing detailed planning and fixed-price contracting on an uncertain future can be counterproductive and damaging to business. Change is natural and ongoing as managers learn more about the context they are operating in, enabling them to identify emerging opportunities, respond to new conditions, and address shortfalls and differences in outcomes. Embracing and managing uncertainty lies at the heart of good project management, and an insistence on certainty may unwittingly result in mismatches between plans, models and reality, resulting in poor project performance.

Addressing uncertainty entails developing organisational capabilities for dealing with change; this fosters readiness (1) to exploit new opportunities, and (2) to respond and adapt. This is frequently translated into strategic flexibility, corporate resilience or organisational agility (see 1.2.3). Flexible plans, iterations and prototyping offer vehicles for the experimentation and adaptation that are needed to inform, adjust to and exploit uncertain contexts. These can complement open collaboration approaches and enhanced abilities to innovate and move rapidly and flexibly in order to shape opportunities, change strategic directions and build on adversity in uncertain settings. Organisations that invest in flexible planning, options evaluation and scenario planning are already better prepared to respond to emergent conditions – and such preparation needs to be reflected in project work. Having suitably qualified and experienced project managers is a critical element of the required organisational capability. Equally important is having an open culture, the psychological safety and being able to admit mistakes, which allows wider engagement and better decision-making.

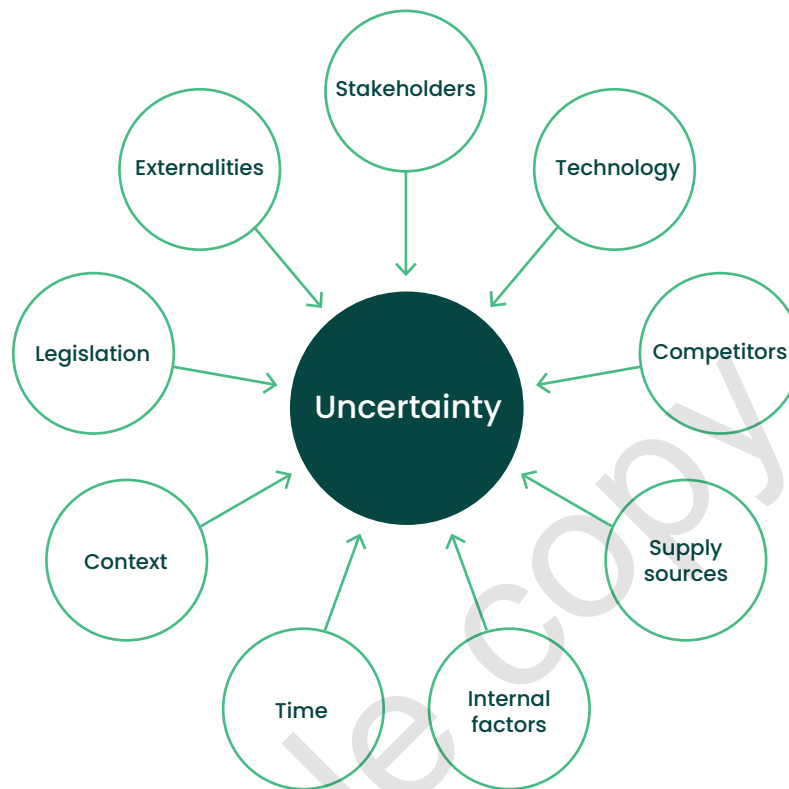


Figure 1.1.1 Sources of uncertainty

Recommended reading

- *Managing the Unknown* (2006) offers a way of looking at managing projects in novel and unknown environments. The authors propose a combination of trial-and-error learning, using multiple independent trials to identify the best options in novel projects.
- *Managing Project Uncertainty* (2016) focuses on the impacts of novelty in the uncertain world that projects inhabit, providing ways of identifying the symptoms of uncertainty and developing strategies to deal with it. The book offers senior managers ways to improve project and programme strategy by exposing new ideas and concepts that can be harnessed to tackle uncertainty in its many guises.
- *Managing in a VUCA World* (2015) is an edited collection focused on defining VUCA and uncovering the wider impacts on management. It makes the case for broader knowledge and the application of new concepts and frameworks to deal with unpredictable and rapidly changing situations.

4.3.1 The challenges of project leadership

The key requirements of project leadership

Figure 4.3.1 summarises the key requirements of a project leader.

One way of categorising these requirements is to divide them into two groups: hardware and software. The hardware can be seen and includes governance processes, application of project management tools and techniques, a capable project team, and resources, such as finance and equipment. The software is intangible, such as personal qualities of the leader, an appropriate culture and good working relationships. Although the software is less visible, its effects are absolutely tangible.

In the early leadership literature, there was a movement that considered great leaders to have certain traits, including attributes such as above-average intelligence, extraordinary energy, intuition, a particular physical appearance, and particular values and beliefs. The world has moved on and, although energy is still required and values and beliefs are extremely beneficial, our understanding of the effects of physical appearance has changed and there is now a greater emphasis on emotional intelligence.

Many of the practices contained in Figure 4.3.1 are described elsewhere – ‘Stakeholder engagement’ (4.1), ‘Building the team’ (4.4 and 4.5), ‘Governance’ (2.6) and appropriate use of tools and processes (as described in Chapter 5) – so the focus here is on personal skills and abilities, shaping the culture and creating a network of resource.

Project leaders need to be self-aware: they need to understand others and be authentic. This creates trust and enables the leader to better influence others. Being able to deal with ambiguity together with the issues of uncertainty and risk creates confidence in the leader. Developing good judgement is critical too, and often courage is required to challenge and deal with difficult situations. Good leaders develop their leadership of self (see 4.3.4) but, importantly, create the time and space to make good decisions, engage with stakeholders, and lead and develop their team.

In a project situation, the leader should create the culture within the team early. Developing the most appropriate culture is essential for successful project delivery. Each project is different, but certain principles are important:

- **Valuing all employees:** Workers will have no sense of ownership and are unlikely to give of their best if they do not believe their work is appreciated or that they will be treated fairly as individuals.
- **Allowing a level of freedom to operate:** The level of freedom will depend on the nature of the work, but individuals work best when they understand what their role is, are given guidelines and parameters within which to work, and are then allowed to do the job as they see fit.
- **Encouraging freedom of expression:** As no individual has the monopoly on good ideas, encouraging comments and thoughts adds value. Also, allowing people to speak freely about problems helps to prevent pressure building up.
- **Actively promoting learning:** This not only motivates individuals but also enhances their capabilities.

- **Setting standards but tolerating failure:** People need to know what standards are required but, equally, it is important to know when those standards are not being met or when they are not appropriate. If there is what is generally known as a ‘blame’ culture, few people will be willing to admit to errors or to voice their opinions for fear of sanction.

It is hard for any single project leader or employee to negotiate their way around the myriad of connections, overwhelming wealth of information and sometimes conflicting requirements. This is why it is important for project leaders to build ‘networks of resource’, which can comprise trusted advisors as well as reliable sources of information and reliable suppliers. Most leaders will be familiar with the need to secure reliable suppliers, but the other two categories are less well considered. These networks help in creating resilience – they can be called upon when needed. Ideally, a network should also include senior and influential people whose support can be called upon and their advice sought.

What matters here is that the sources are trusted and capable in the area in which they are being used. A trusted advisor, for example, may be reliable in their field of expertise but less so in another. The same is true of sources of information. Building good relationships with advisors means they are more likely to be available when they are needed.



Figure 4.3.1 Key requirements of a project leader

Recommended reading

- *Evolving Project Leadership* (2021) establishes a vision of what good project leadership looks like and offers concrete steps to achieving this.

5.11.2 Impact assessment

Assessing the impact of a requested change

While all the steps in the change control process are important, quickly and effectively completing a detailed evaluation of a requested change is crucial for success. An impact assessment is a structured approach to assessing the implications of a change on the project's baseline. The impact assessment underpins the detailed evaluation, ensuring the project sponsor has all the information they need to make an informed decision about the change.

Project professionals and stakeholders will need to make time to assess the change, so it's wise for the project manager to determine the effort required before commencing. To do this, they should consider three key characteristics of the requested change:

- **The size and scale:** How big is the change? Does it touch every area of the project or just specific parts of the scope?
- **The complexity:** How complex is the change? Is it likely to be technically demanding or will the solution be basic?
- **The feasibility:** Considering the capabilities of the project and the organisation, is the change feasible?

Once the context of the change is defined, the project manager can coordinate the work required to assess the impact. This typically begins with an information-gathering exercise, using the knowledge of subject-matter experts, and internal and external data sources, to understand the specifics of the change requested. An example might be understanding the best technologies for a software solution.

From here, the team should assess the work and effort required to make the change happen. While the solution isn't defined in detail at this stage, subject-matter experts will need to make working assumptions on how the change would be implemented within the project.

When the work and effort have been determined, project professionals should assess and quantify the impact of the change on the project's baseline, specifically focusing on the following:

- **Scope:** Would the change fundamentally alter the project's scope?
- **Objectives and success criteria:** Would the outcomes and definition of success change?
- **Benefits:** Would the change create new benefits, or impact existing benefits?
- **Time:** Would the schedule change, becoming either longer or shorter?
- **Cost:** Would the change drive greater costs, or would it reduce costs in other areas?
- **Resource:** Are new resources required, or could the current profile (see 5.6.2) manage the work?
- **Quality:** Would the change improve or reduce the quality of project deliverables?
- **Risks:** Would the change create or reduce risk across the project?

For most change requests, several options may be evaluated, each with its own level of impact on the project's baseline. Project professionals should work hard to present the options in a way that the project sponsor can understand, striking a balance between summarising complex information and providing enough detail to enable effective decision-making.

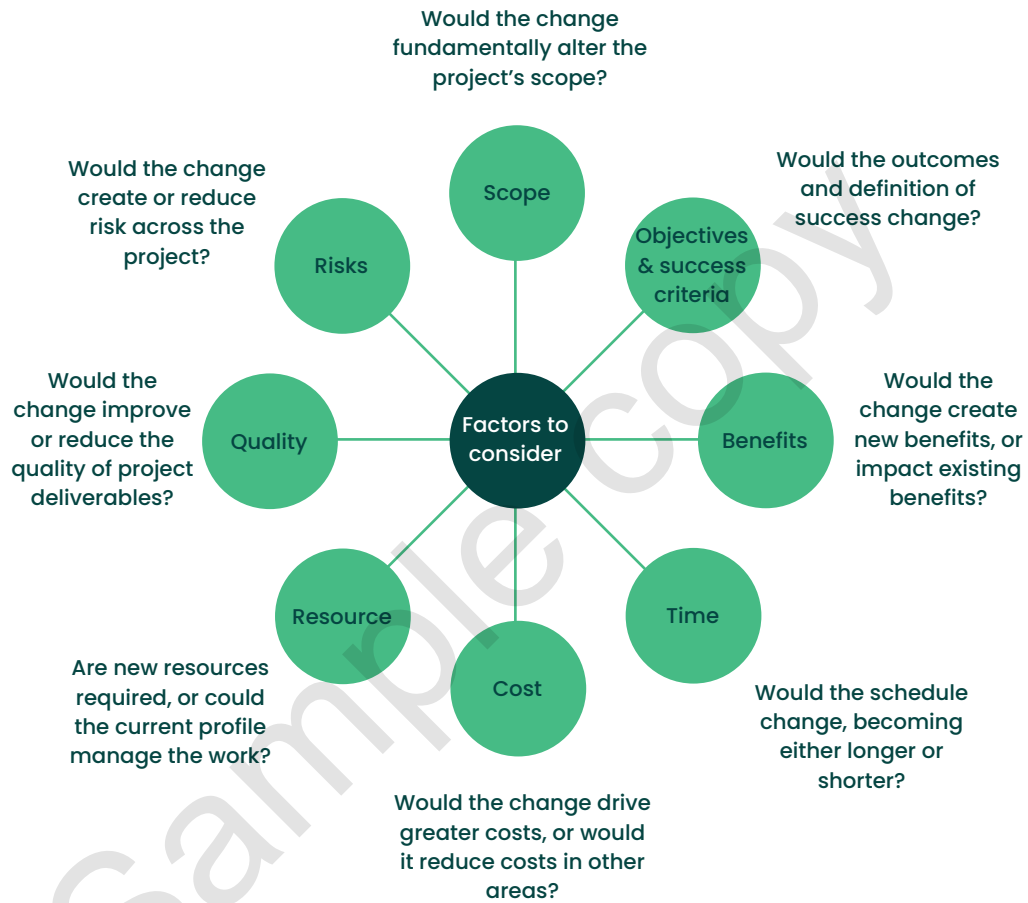


Figure 5.11.2 Factors to consider in impact assessment

Recommended reading

- *Impact Evaluation in Practice* (2016) provides an introduction to impact evaluation for policy makers and practitioners. It incorporates real-world examples to present practical guidelines for designing and implementing impact evaluations.