

■ A GUIDE FOR MITIGATING THE IMPACTS OF PROCUREMENT UNCERTAINTY UPON CONSTRUCTION PROJECTS

Introduction

Procurement is a key part of any project. Centred around *the buying of goods and* services required to deliver an agreed scheme of works.

Procurement activities aim to ensure you obtain the right goods/services, at the right time, for the right price.

It plays a key role in the success of a project; poor procurement can negatively impact established budgets and cause delay. These risks are particularly relevant during times of heightened uncertainty, caused by either national or global factors, such as the current Russian invasion of Ukraine or the crash of the global financial markets in 2007/2008. The susceptible nature of goods and services within an uncertain procurement market creates project risk. If these risks are not managed, or mitigated, then the consequences will be realised throughout the project.

A key aspect of successful project delivery is risk management, this is inclusive of risks associated with the procurement of goods/services and the management of a project's supply chain. In this guide, we will identify key mitigation measures that can be utilised to minimise the impact of procurement risks within the construction sector during times of uncertainty.



PROCUREMENT THROUGH THE PROJECT LIFE CYCLE

Management of procurement risk applies at all stages of a project life cycle to a greater or lesser degree. Procurement decisions taken at project inception can vastly alter the path a project takes, as well as the overall risk profile. Whilst procurement decisions taken later in the project life cycle, such as varying scopes of work, typically have a more limited impact, they are equally capable of producing negative outcomes.

Initiation

Typically, a project develops out of a business case, which not only determines the strategic context of the project, but also how the project is to be procured.

To assess how best to procure a project, the below needs to be considered:

- Are the strategic objectives of the project understood?
- Has a cost plan been developed which identifies realistic budgets?
- How is the project to be funded and are there any restrictions/ criteria to release funding?
- Over what period is the project to be procured?
- Is the project affordable and fundable over time?
- Is the project commercially viable and attractive to the supply side?
- What are the market conditions influencing how attractive the project is to the supply side?
- Have the primary project risks been identified and does a plan exist for allocating risk?

Answering the above points creates a basic framework of understanding and allows for informed decision-making regarding project procurement.

Planning

In the project planning phase, the strategic goals of a project are developed into detailed programmes, policies, initiatives, and targets. For procurement risk, this means developing detailed cost models, forecasting projected expenditure, and identifying risks. When planning for procurement within more volatile market conditions, a series of 'what if' style scenarios can be applied to the cost model based on the most significant risks identified.

For example:

If a project is to be procured by Q2 2025, what would delaying the procurement to Q1 2026 do to the allocated budgets and cashflow, and how would this affect the financial resilience of the project? Or,

What would happen in the event of a global shortage of a particular component or material and the unit price increased by 20%?

The answer is likely that the total cost of the project gets more expensive. However, the test is how well does the project respond to the increased stress, is there sufficient float in the programme and cost plan to respond to an unexpected event, is the allocation of risk understood by all parties or does the 'what if' event plunge the project into crisis?



Implementation & Execution

In this stage of the project contracts are being placed, goods and services procured, and the project is acting upon the rigorous planning which has been undertaken.

Management of procurement risk through the implementation phase is about sticking to the plan. Typically, it is the unexpected events or momentary lack of diligence which creates situations requiring the plan to be amended and revised.

In practical terms this means continuously reviewing risks registers, maintaining execution plans, placing orders, executing appointments and warranties, and updating programmes and cashflows.

Performance & Monitoring

Performance and monitoring are not necessarily a discrete stage in a project lifecycle but rather a process which works alongside the implementation and execution.

In volatile markets this could take the form of benchmarking returned market costs against the cost model, identifying outliers, and subsequently working with supply chain partners to create improvements, and find efficiency. Equally, this could be targeting a reduction in the period from engaging a supply chain partner to having all appointments and warranties executed, in order to reduce the period of exposure (and subsequently risk) for the organisation procuring the project.

It is important to understand which factors have the greatest potential to negatively affect the outcome of the project and monitor the performance of those factors. On less complex projects this may be as simple as supply price or subcontract costs, but for more complex projects there could be any number of project critical factors.

Closing / Review

From the prospective of procurement risk, this stage should represent a significant reduction in risk. The procurement of the project will likely have been completed; however, the procurement process will have generated new data which can be integrated with an organisations cost model to inform future decision making.

Processes and policies can be reviewed to understand what worked well and lead to successful outcomes, and which processes need to be refined or changed.





PROCUREMENT RISK MITIGATION MEASURES

Detailed below are a series of mitigation measures for procuring in unpredictable market conditions, which should be implemented through all stages of the project lifecycle:

1. Business Case

One of the challenges with delivering long duration projects is adherence to the business case and brief, as the business needs can shift during the delivery of a project or newer technologies may become available.

Whilst a Project Manager cannot directly control or even influence the business case underpinning a project, control measures can be put in place to help respond to sizable shifts in a project's direction. These include:

- Establishing a Project Board
- Setting up an efficient and robust change control process
- Setting up design stage controls or implementing a gateway review process
- · Regular reporting which identifies any change in scope from the project brief
- Recording decision making

In relation to procurement risk management, during the development of the project's business case an understanding of project timing and durations is required, so that the fundamental question of buy now versus buy later can be explored.

2. Communication

It is important that at the start of any project the risk profile associated with the buying of goods and services has been assessed and that there is a compelling case for change.

Communicating with key stakeholders at all stages of the project is important, this applies doubly during inception, as this is the point during which expectations and goals are being formed. It is important that stakeholders are aware of the current market challenges and how this may influence the design and development of the scheme.

Project control documents such as programmes, cost plans, execution plans, etc., should be developed and maintained to assist in communicating complex information.

It is also critical that a Project Manager understands the audience with which they are communicating, as this will determine the way in which procurement challenges are communicated. Different approaches to discussing risk profiles and market conditions needs to be adopted depending on how informed a client is.

3. Cost Control

Before starting the design of the project, cost control and management processes need to be considered. This includes:

- On what basis will the project budget be set?
- Has the project budget been bench marked against similar types of projects; are those project's time frames and geographical locations relevant?
- Has cost model data been used?
- · If benchmarking cannot be used has any soft market testing been undertaken?
- Is the likely impact of inflation understood and has this been allowed for within the cost model?
- Has consideration been given to prototyping or allowing for mock-ups?
- Have statutory imposed costs been allowed for, this could include: S106, S278 costs?
- Has specialist tax advice been sought?
- · Have levels of contingency or management reserve been included?

Particularly during uncertain times, costs must be managed effectively and understood. Poor control or forecasting may result in cost increases throughout the project's lifetime.

It is vital that the project execution plan identifies who is responsible for managing cost on a project and what reporting information that individuals are expected to produce. This must then be clearly communicated to the Project Manager or Project Board.

4. Governance and Process

With any project, the use of good governance and clear processes will help ensure the success of the project. Developing or building a project within an uncertain market requires a robust project brief that captures the key requirements and provides clear direction. This will guide the project team throughout the design stages to develop a project that meets the needs of the brief and eliminates the risk of additional design features being incorporated. This will prevent project budget increases and ensure, once the design is established, that the project is only procuring goods and services needed.

Establishing a project broad with the inclusion of a financial or commercial representative can be beneficial for challenging the decision making of internal stakeholders, and helping the project achieve its budgetary and procurement targets.

www.provelio.com



5. Design Management

A Project Manager's input to Design Management, is tied to change, value, and programme management. In unpredictable procurement conditions this means ensuring the design is progressing in line with the programme, that the design is a true response to the brief free of architectural embellishment and over-engineering, and that changes to scope have been managed.

Change Management is integral to facilitating the development of the design. The Project Managers role is to determine what constitutes a change to the brief and how the incorporation of the change should be managed.

During challenging procurement conditions, it may be appropriate to challenge changes to the brief which increase the scope of the project, particularly if the change is 'nice to have' rather than being core to the brief. Clients can become concerned with committing all of a project's budget too early in the project delivery cycle to avoid 'leftover' budget at the end of the project, which may be reclaimed. During periods of uncertainty, it is prudent to protect the projects management reserves until the later stages of the project.

6. Collaboration

Throughout the project, communication and collaboration amongst the project team will further mitigate risks arising from procurement activities. Regular meetings and reporting with the project contractor will enable them to feed information up from the supply chain, providing early warning on potential increases or delays. Communicating and working together in this way will enable the project team to make informed decisions about the development and purchasing of goods for the project.

7. Value Management

At its core, value management is concerned with the ratio between project inputs and outputs.

Undertaking value management exercises can help ensure that the project is developed based on what it needs. In effect increasing the ratio of outputs (benefit) to inputs (cost or effort). Value Management can mitigate the risk of developing an unaffordable design that goes beyond the identified requirements of the project brief, a key mitigation measure in an uncertain procurement market.

It is the responsibility of the Project Manager, in conjunction with the Cost Manager, to challenge the design response to the brief to minimise the potential for over-design or "scope creep". This can take the form of identifying unnecessary complexity in the design, over specification of products, and identifying redundancy in floor areas.

Value Management and Value Engineering can be a key tool to mitigate and offset the effects of procuring in challenging and uncertain market conditions.

A Project Manager needs to consider the upfront procurement cost of the design or element of the design against the whole-life cost. There is little point in procuring a product which has marginally lower upfront costs only to cost 5 to 10 more over the operational lifespan. This decision-making requires input from the Client to understand the balance that needs to be struck between managing capital costs and whole-life costs.

8. Procurement Routes

Contractors will ultimately work with the clients who are most ready to collaborate and compromise with them. They will expect clients to understand the nature of the market and adjust their position. An element of procurement is about the transfer of risk to another party, it is therefore important to remember throughout these challenging times you may not be able to transfer risks that you have historically done so without paying extra costs or extended durations (eg Liquidated and Ascertained Damages may need to reduce, responsibility for securing materials may not be possible, fluctuations of price etc).

This means the choice of procurement route is vital when engaging the supply chain during times of uncertainty. With market conditions and rates relatively unknown, many suppliers will not engage in a single-stage procurement process due to the transfer of risk. In competitive procurement markets contractors have the ability to select projects. For many contractors, a two-stage approach is preferred as it provides an opportunity for both themselves and primary supply partners to gain familiarisation with the project. This means, it may be necessary to change procurement routes altogether (Design & Build/Traditional/Management) Contracting to facilitate a two-stage process. However, all procurement routes come with their own risks, therefore it is vital to assess each one and determine suitability on a project-by-project basis.

The end game with any procurement is that both parties have a contract where the risks are well understood and held by the most appropriate party. Risks that cannot be distributed need to be clearly identified and then cost and time set aside to cope with them should it not be possible to deal with them in due course. The key deliverable is a meaningful risk schedule that clearly demonstrates any strategic risks that have not been included in the contract.

9. Early Engagement & Market Testing

Early engagement of the main contractor will allow them to manage the development of the project's design. This will enable them to input into buildability vs budget and provide insight from their experience of dealing with the supply chain.

Early engagement should enable more accurate cost planning and modelling, as a contractor will be able to soft market test key packages of work or seek feedback from supply chain partners about the availability of specified products.

A contractor should also be able to review the design and engage with the design process to find inefficiencies which are being created by the likely sequencing of works.

10. Risk Management

Risk management is crucial when building in an uncertain market. To mitigate the risks of cost increases or project delays project teams should look to undertake a work package risk analysis across the entire supply chain. This process involves:

- Finding all project work packages
- Analysing the risks of each package, such as:
 - Rate of cost increases (hourly, daily, weekly etc.) a high increase rate may significantly affect the project budget and make items unaffordable
 - Availability and speed of delivery long lead times may affect the project programme
 - Supply chain assessing the viability of suppliers within a volatile market
- Establish high-risk packages using a red, amber, and green system
- Put mitigation measures in place, these could be in the form of:
 - Buying materials at today's price and storing to mitigate against high-cost increases
 - Placing materials on order sooner to align with project programme to mitigate against programme delays
 - Engaging multiple suppliers to limit project exposure if a supplier fails







ABOUT PROVELIO

Provelio is a strategic project management consultancy focused on delivering value-driven solutions that change organisations for the better.

Since 2002, Provelio have provided project management and consultancy services across the UK to public and private sector clients to enhance project delivery, minimise risk and ensure successful outcomes.

Our promise is to provide our clients with certainty of delivery, through the combination of our expertly trained people, proven project management processes, and investment in the latest technology. This combination, utilised in conjunction with our experience of providing solutions to complex projects, makes us the experts in strategic project management consultancy services.

We provide professional management services to carry out such projects, ensuring that our clients can go through this transition phase as smoothly as possible, whilst being able to carry out 'business as usual'. These services include:

- · Programme and project management
- Procurement and contract management
- Estates and data visualisation
- Change management
- Management consultancy

We believe that management is not just about processes and best practice. It is about fostering good, motivational relationships between people. We therefore deliver management solutions with integrity, transparency, clarity, and a constructive style.

For more information on procurement within the UK construction sector contact us at:



www.provelio.com



0117 302 0001



mail@provelio.com

www.provelio.com 15



Provelio Ltd

6 St Stephens Avenue

Bristol, BS1 1YL

