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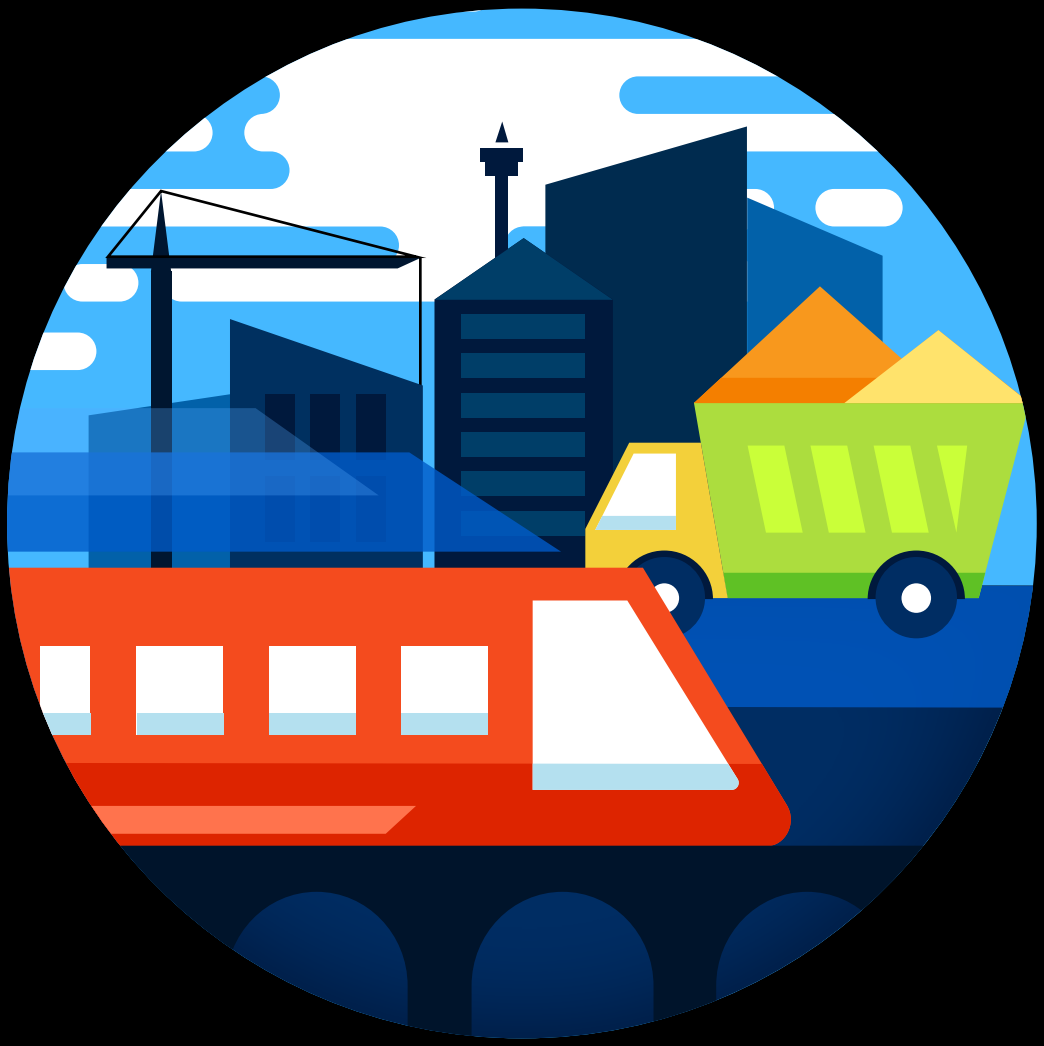


Improving ROI for Capital Projects through Capital Procurement Excellence

Contents

Introduction 1

Point of view – current challenges in managing ROI 2

Improving ROI through a holistic Capital Procurement approach 5

Conclusion 12

Endnotes 13

Contributors 14

Introduction

ROI has always been a leading key performance indicative ratio for most CEO's and CFO's globally, in assessing efficiency of an investment or compare the efficiency of a number of different investments. Through Deloitte's capital procurement excellence in capital project execution, the ROI can be improved within the threshold of 2 to 5% as a result of efficiencies brought about the capital procurement methodology. The end result and value offering enables our clients to grow profitably and maximize the value of their capital expenditure investments.

Point of view – current challenges in managing ROI

As many as 90% of major capital projects suffer from an average of 28% budget overrun. This in turn extends the rate of return of capital invested to achieve organisational growth, and significantly erodes the intended benefit of the delivered asset.

Common Capital Procurement challenges that contribute to overall value leakage in projects can be attributed to:

Insufficient front end planning

The evolution of a capital project starts with the identification of a specific opportunity, driven by a business case to justify a capital investment that will ultimately deliver growth in either social or capital objectives. The development of this opportunity to a complete capital asset is driven by the development of a business case that is often optimistic with full focus on the benefits with little evaluation of realistic challenges to achieve these benefits.

In as many as 90% of major capital projects, poor planning, integration management and identification of value drivers results in cost and schedule overrun. Inadequate stakeholder mapping and requirement analysis, lack of understanding of business objectives to achieve long-term strategies and lack of clearly defined battery limits on incomplete designs eventually lead to inaccurate cost and time requirements to achieve completion.

Segregated Project Teams

Integration of every aspect of a capital project requires interface management between various core and supporting project stakeholders, each accompanied by a unique expectation and requirement that varies depending on the phase of the project. Project stakeholders include project owners, regulatory bodies, design and engineering, finance, assurance, local communities and suppliers and contractors. It is expected from the project management team to have a holistic view of the status of the project, with effective optimisation of the schedule and costs to deliver a capital asset that is of benefit to the owner.

Inevitably, and depending on the degree of their involvement, each stakeholder has a different set of value drivers for the ultimate successful completion of their activities, and these value drivers are often in conflict with other stakeholders. As an example: where design and engineering value is driven by optimised performance and constructability, financial value is driven by actual vs planned costs.

Due to a lack of utilisation and integration of management systems and processes, inadequate identification and quantification of misaligned value drivers that, if corrected, could have realised cost improvement opportunities. In addition, identification and management of risks related to interdependencies between the various stakeholders are also exacerbated.

Misaligned Procurement Skills and Competencies

The activities of the capital procurement function are mostly reactive and administrative, performing a "post-office" like, buyer function. Traditionally, few opportunities exist within the procurement function to generate value. A lack of understanding of risks associated with the development of the value chain during the initial phase of the project result in poor evaluation of key partners, improper contracting strategies, misalignment of risk and benefits and a piecemeal approach to engaging the market. Although approximately 80 % of the capital project cost is managed through the procurement function, the lack of early involvement in the strategic planning phase of the project results in few opportunities to monitor and drive performance of outsourced functions and leverage market intelligence to ultimately mitigating risks and drive value through costs and performance.

Improving ROI through a holistic Capital Procurement approach

Best in class Capital Procurement methodologies that improve ROI are fundamentally based on three pillars:

Investing Enough Time in Planning

As a key principal in a project life, the planning stage is the most critical as it affects the success of the following stages of the project. Proper project planning and investing adequate time to planning is paramount.

Involvement of the Capital Procurement function during the early stages of the Capital Project will improve the accuracy of establishing the CAPEX and OPEX budget by applying appropriately skilled resources that will enable the integration of market intelligence and commodity trends. This will also allow for the development of an informed and market appropriate packaging and contracting strategy that allows for appropriate risk and benefit allocation as well as integration of the FEED into the construction schedule. Additional benefits include benchmarking of cost and schedule performance as well as appropriate establishment of performance metrics.

Strategic Partnerships in Capital Projects

Partnering with like-minded business equivalents as an organization ensures that the right level of effort and input is obtained from each participating partner.

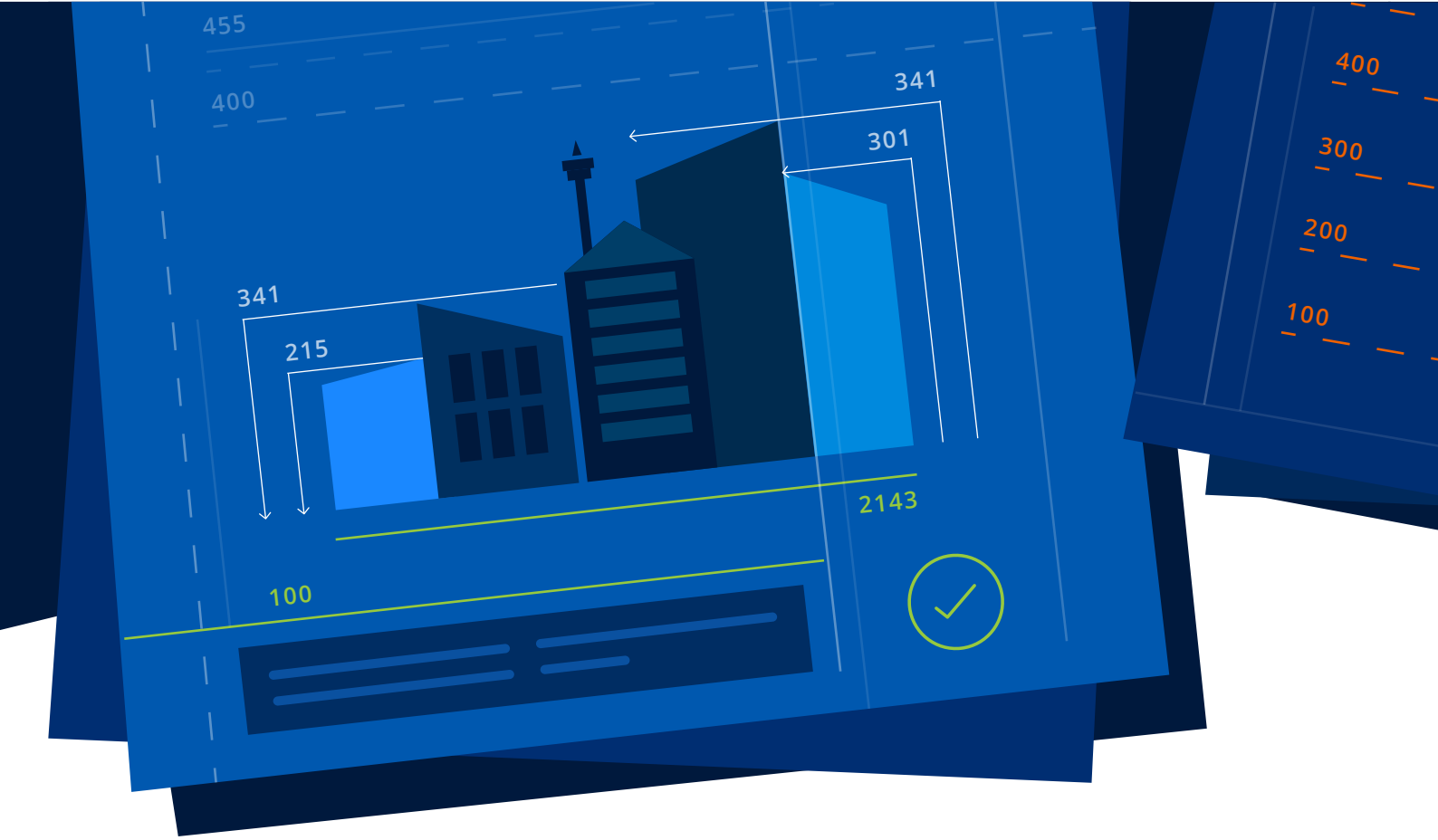
It is crucial that the partner selection process is guided by the below principles:

Understand what makes each partners business unique:
Having a clear grasp of your own intellectual property and the value you bring to a partnership and the rest of the partners as well. Collaborations are required in order to increase the value offerings by leveraging each others strengths.

Alignment of value systems of the organisation:
Establishing an alliance or partnership with organisations' that have similar core business values allows for smooth and effective operating principles between the organisations. Commercial models applicable to such partnerships ought to be agreeable and viable for both parties.

Establish clear objectives:
Making sure all parties are on the same page greatly improves your chances of a good outcome. It also gives you benchmarks for measuring a project's success. Understand what you want to get out of a partnership, and have a solid grasp of your partner's goals. This will make sure that everyone is aligned and has the same or complementary visions.

Continuous communication:
Once you have found a strategic partner, established a good rapport and aligned on the key objectives, always ensure consistent communication. Maintain contact with frequent check-in's to proactively identify and respond to any issues. This will keep confidence levels high on both sides, and means you can deal with any unexpected issues or changes swiftly.

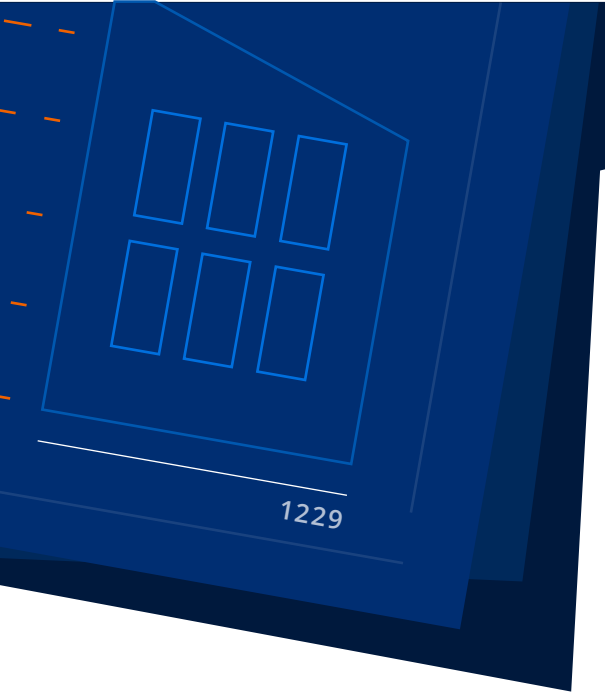


Once such partnerships have been forged, a key element in capital procurement projects is the early involvement of strategic supply partners. This philosophy allows for modern adaptation and evolution from traditional sourcing methodologies. When strategic supply partners are involved in the project earlier they are able to bring about agility in their sourcing plans resulting in better project execution. Without also overlooking the importance of involving the local community in large-scale capital procurement projects. Stakeholder engagement strategies should also be put in place to ensure regular consultation with all stakeholders and detailed plans must be put in place for the uplifment of the local community thus meeting regulatory requirements and advancing local economic development.

Value Engineering

Successful Value Engineering is only achievable through an effective cross-functional team with the appropriate technical and commercial skills that allows the development and facilitation of value-chains within capital projects. The capital procurement function facilitates the shaping of product and service deliverables through the analysis of: planning and budget requirements; technical specifications; and quality standards.

Integration of capital procurement within the project functions enables early identification of cost optimisation strategies though evaluation of scope and design requirements, engineering assumptions, appropriate interface and battery limits, and performance requirements.



Involvement in the early stages of project planning will leverage value from informed procurement strategy development. Applying appropriate skills and competencies within the procurement function is crucial if organisations are to derive value, as skilled personnel will deter from only functioning as a purchase order process, and interrogate the base of assumptions, whilst incorporating performance improvement and risk management practices that are critical to extract values.

Digitisation

As industries become more data intensive, disruptive technologies are increasingly taking a digital form.

Data, and specifically the ability to organise, manage, process and utilise that data has become a competitive differentiator.

Beyond cost and productivity benefits (typically targeted at 10-20% improvement), the digital revolution represents a terrific opportunity to forge much closer relationships with project stakeholders, facilitate knowledge sharing and decision making, drive performance improvement, provide access to new markets and most importantly, make day-to-day operations safer for operators.

Utilising LEAN project management principles in the Capital Procurement function and to drive new technologies such as the integration of artificial intelligence to predict cost and schedule planning, and digitising manually exhaustive administration processes that will optimise work and procurement packages, the Capital Procurement discipline is capable of maintaining ROI expectations and often improve ROI by between 2% to 5% when applying best in class methods to achieve a commercial model that best suits the project objectives.

These improvements are evidenced by an Ethiopian government commissioned capital infrastructure project that achieved a 48% reduction in capital costs by employing an integrated project management approach in conjunction with the utilisation of disruptive technology. Overall, the project was able to

achieve the savings by reducing waste, using prefabricated components, and SOTA technology, increasing Ethiopia's student teaching capacity fourfold2.

Deloitte's has a firm believe that much can be done in capital procurement process in order to improve the return on investment in the capital projects. To achieve this, one has to take an all round/ 360 degree approach.

This approach can be viewed in five high level phases:

- Planning
- Strategy & Value Engineering
- Technology Intergration
- Sourcing
- Contract Lifecycle Management & Operational Readiness.

Individual elements of this model allows organisations to have full view and application of opportunity improvement areas. All areas executed well bring about many advantages, such as:

- Cost optimisation
- Lean processing
- Digitization of technologies
- Operational efficiency

Thus brings value in various aspects and ultimately, procurement excellence.

Capital procurement office acts as an intelligent control unit

Operational Readiness

- People, process, infrastructure and systems readiness
- Developing policies & procedures for operational requirements
- Material Requirements planning
- Master Data Management
- Inventory Norms
- Integration

Planning

Integrating information from FEED Construction Schedule, Capex and Opex Budget, POP and Local Content requirements

Strategy

Packaging strategy based on POP, Market Intelligence (PESTEL Analysis, accommodated trends, commodity and currency trends, benchmarking) to make informed decision)

Capital procurement office acts as an intelligent control unit

Contract Lifecycle Management

- Governance & risk management
- Monitor and evaluate the contract management cycle to manage cost, schedule, quality and contractual terms compliance, KPIs tracking & performance reporting

Value Engineering

Cost optimisation strategies focusing on scope, engineering, battery limits, and performance requirements

Source to Contract

- Analyse suppliers & contracts organisational capabilities and capacities (safety, technical, commercial, technologies, logistics and project delivery) including contract award and supplier onboarding
- Establishing systems & processes for smart procurement

Technology Integration

Integration and innovation to increase capital procurement efficiency, transparency and holistic decision making

Conclusion

Accordingly, ensuring the application of these key factors with an integrated management approach can significantly contribute to the improvement of ROI for Capital Projects thus allowing for profitability growth as well as maximization of the value of client expenditure investments. The essential mechanisms, as suggested, should include; investing sufficient time in project planning especially on the front end strategy. This must be accompanied by the integration of market intelligence and commodity trends by deliberately involving the Capital Procurement function during early stages of the Capital project and employing appropriately skilled resources.

Moreover, continuous integration of project teams is a key characteristic of a capital project with all core and supporting project stakeholders understanding their delivery expectations and requirements at each phase of the project. On the other hand, partnership within the organization allows for the right level of effort and input from each participating partner is attained. Without a doubt, the digital revolution offers unique opportunities to enhance and mange project communication among all stakeholders, facilitate rapid knowledge sharing and decision making while fast-tracking performance improvement, providing access to new markets and especially contributing to safer project operations thus ensuring capital procurement excellence.

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