Understanding value-drivers for major projects

A value-driver based approach for ensuring projects deliver value-based outcomes

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Using value-based management to improve capital project outcomes

The Australian infrastructure backlog, and the opportunity isn’t going away

Infrastructure Australia in their latest priority list (2013), identified at least 16 projects of significance, either at threshold level or ready to proceed in a budget range of $20bn+.

The majority of these projects have strong business cases and positive economic impacts.

In addition the priority list identifies over 55 projects in total with a combined project value between $80bn and $90bn.

This list indicates that Australia faces a major infrastructure backlog – especially if these projects represent larger and more complex undertaking.

Yet too often projects that seek to address this demand fail

Even with more sophisticated methods of project delivery and the clear social and economic benefit for the country, it is widely evident that too often those major projects fail.

It is not difficult to point to examples of large scale infrastructure projects that have run over-time, over-budget, or do not ultimately meet the needs of stakeholders.

In fact, 48% of projects fail to meet their time, cost and quality objectives, according to The Review of Project Governance Effectiveness in Australia compiled for Infrastructure Australia in March 2013. An overwhelming driver of this failure was identified as the effectiveness of Project Governance – and a significant sub-set of this failure, was seen as a failure to adequately measure or manage Project Value.

A wide range of reports have made strong recommendations around resolving some of the root causes of major projects failure – including Infrastructure Australia’s National Plan – across a number of remedies including better funding models and stronger governance.

Major projects are a challenging complex beast to tame – and understanding drivers of value is even more challenging

Despite the best efforts of considerably qualified practitioners, it is a challenging process to construct a project that delivers strong economic and social impact, as well as strong financial outcomes for those involved as suppliers or partners.

A document of considerable importance is the final, detailed “business case”. Although a significant amount of effort goes into the business case or original “commercial plans” for any given infrastructure project, these cannot always deliver the required detail to provide an accurate roadmap for the ultimate implementers of the project.
Identifying project value in business cases

A report cited from Infrastructure Australia on Project Governance presented findings from a survey that was conducted on infrastructure projects in Australia that failed to meet their baseline time, cost and quality objectives.

Some key results from the report are:
- The report identified that “the business case is generally accepted as being the place where the benefits and value of a project are expressed”.
- “69% of respondents identified that the business case is the correct reflection of the value to be delivered”.
- 32% of respondents then drew a distinction between project deliverables and value delivery,
- 70% believe that project value should be a success criteria.
- The report suggests that KPI’s around project value clearly belong in the domain of project governance.

What’s not clear from this report, is how Senior Project Executives should go about understanding “Project Value” given the constraints of the classic business planning process.

Current investment management standards provide a valuable starting point

Structures for review and analysis in the investment management life-cycle are already well established across most levels of government.

They provide critical steps and create valuable output which is an essential element in establishing an infrastructure project business case. For example in Victoria, a number of tools are used including the Investment Logic Map, the Benefit Management Plan and the Strategic Options Analysis process.

These tools build a profile of the project during the planning phase to: 1) Best understand the core rationale for the investment; 2) The way in which that benefit can be captured; and 3) The analysis of options for delivering the outcome. These methods are highly useful and should be incorporated in any sound project-planning process.

By their nature these tools are strategic and relatively high level. The rigour required to understand the value delivered on a major project once the strategic business case has been signed off is far deeper and requires some additional thinking.

Exhibit 1: Value Drivers – Hospital (indicative)
Some of the key questions that can be better answered include:

• What are the specific things that, if I get them right & control them properly, will significantly lever-up the value-based outcome from the project?

• How do I identify size and manage these tasks and/or activities?

**Value-driver analysis takes this one step further**

The value-driver concept was first developed by DuPont over a century ago.

It extends basic cash-flow analysis to allow companies to make both major strategic and everyday operating decisions – predominantly by understanding the biggest drivers of value inherent in the business, whether they be revenue or cost driven. Typically a value driver is an item that is controllable and that can have strong impact on a financial or social result.

When the value driver concept is executed well, management typically succeeds by focusing decision making and outcomes on the key drivers of value. Analysis of value drivers typically starts with a “driver tree”, mapping out the major drivers of value on an enterprise – in the previous case (page 3), for a hospital project.

**Other sectors have used value-based management to great effect**

Businesses have been using the value driver tree analysis concept for many years. It provides a precise and unequivocal metric (often expressed as a Net Present Value) around which organisations can be designed and options for growth or change tested.

Value driver analysis has become an important foundation of strategic planning, encouraging management to focus closely on growth and/or optimisation strategies and helps to understand the returns from specific investment projects. The approach is not uncommon in mining project assessments.

A good example of a value driver analysis which derived value for a telecommunications company in the USA which identified new services and premium pricing as a key driver of value. As a result of this analysis, around 40% of planned developed business projects in one business unit were discontinued and sales-force expansion plans were completely revised after discovering how much value they would actually destroy. The impact of this change was a 240-260% potential value increase in each business unit.

**Identifying major project value and benefits**

A value driver is any variable that affects the value of the project, which is controllable by the project team. These drivers must be organised so that project leaders/manager can identify which have the greatest impact on value and assign responsibility for them.

For example, seating capacity was one of the key focal measures for an infrastructure project that was building a new multi-purpose sporting complex and stadium. In this case, key drivers impacting optimal seating capacity can include integration with existing public transport infrastructure, membership and subscription sales to ensure seats are actually filled, or even seat comfort and spectator field of view.

Assigning a team member to manage these KPI’s, can help the project deliver significantly greater value than if the outcomes were left to a standard design consultation process.
Managing value drivers in major projects

The approach to undertaking value-driver analysis on a major project is not dissimilar to the approach used on a business.

Key drivers of both revenue and cost, from an operational and a capital perspective, are identified and broken down into their constituent parts. For some social, health, and other types of infrastructure project, the non-quantifiable elements should also be considered – but in this case, an index might be used to quantify their ultimate impact on project outcome.

Once the components are modelled, sensitivity analysis is used to see which of the “controllable” factors have the most significant impact on project outcome. From there – a set of management tactics can be put into place to ensure that these “drivers of value” are carefully managed for maximum outcome.

For example, on a major new industrial project it may be critical that rents from tenants are maximised. As a result, the Project Director may decide to hire a business-development executive to purely focus on this as an outcome given how critical this is to success.

The design team might focus on ensuring the project remains attractive to tenants and the overall owner (whether government or private sector proponent) and may also focus on ensuring close consultation with potential customers, in order to maximise the chance of securing tenants.

By incorporating (not replacing) one more detailed analysis tool in the project planning phase, controllable variables which drive value and success in major projects can be readily identified.

The results of a value-driver analysis will then uncover an important roadmap highlighting areas upon which to concentrate in order to maximise project value. Although they are not always readily discernible, an analysis of this type can significantly increase the chance of project success. An example of the same analysis that is applied to a Hospital project, is provided below.

Exhibit 2: Value drivers are the factors with maximum impact and controllability
Value drivers are also not always readily discernible; they require an investment of considerable time and energy to recognise. However an initial framework of financial (cash), economic, social, environmental and strategic value-drivers should form a basis to be able to begin identifying factors and their impact on the overall value or benefits of a project.

Considering and quantifying both the direct cash benefit and a broader range of benefit themes (indexed and weighted appropriately), will provide a comprehensive and quantitative analysis of the overall project’s ability to deliver on objectives.

Each of these themes should be broken down into its component and sub-component elements to the point where an individual component is a finite element of the project.

For example, the cash benefit of an infrastructure project is typically a function of operational revenue and capital expenditure. In turn, operational revenue is made up of operational income and expenses, and that income is likely to consist of rents and fees (e.g. membership or subscription fees). At this finest level of granularity, the value-drivers specific for each element will need to be considered.

Next steps to capitalise on using value-based management on your major project

The next step to take this approach further is to ask some questions:

Think about your key performance indicators or value-based metrics and how they will be achieved.

It is essential to consider what factors impact on your project’s value-based outcomes and how best to achieve each outcome. Identifying the “how” is likely to be an iterative, consultative process that would require significant stakeholder engagement. However, this may actually be the most important part of the exercise!

Consider using the value-driver tree framework to review your project.

Consider whether your project is focused on the key elements that deliver the most significant value. If there are key value-drivers that the project is not addressing, consider what measures and steps need to be taken to realign the project with those drivers.

Track your performance against the value-driver tree framework.

A regular review of progress and performance against the key value-drivers and overall output can be completed regularly. Best practice suggests that this should be quarterly, or as required by significant decision points.
About SPP

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• Simple communication
• Bringing experience to bear

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Phil started SPP with the aim of bringing good strategy and general management practice to businesses with a minimum of fuss, and maximum impact. Phil has worked in financial services, not for profit, transport & infrastructure and telco, and across strategy, corporate development and major capital projects.

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