Advances in Project Management Series[1]

Business cases, benefits and potential value: The impact of planning fallacy, optimism bias and strategic misrepresentation on the road to success

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Recent articles in this column focused on the preference for planning over plans, the wider need to consider the inevitable role of uncertainty in change programmes, the social element of projects, and the increasing necessity for flexibility, resilience and agility, in preference to strict organization and control. They also addressed a need to rethink how projects are initiated and managed.

In general, projects now encompass extended life cycles and time horizons, which require managers and stakeholders to engage with and address wider time horizons, realised benefits, decommissioning, long terms environmental impacts, societal considerations, accrued value and changing and evolving uses. The shift implies that projects are mutating from temporal operational undertakings into more influential strategic endeavours.

Such a shift places an even greater importance on the writing of comprehensive and well-reasoned business cases that can be used to underpin proposed undertakings.

Business cases

The sixth edition of the APM Body of Knowledge positions the business case within integrative management, clarifying that "all projects and programmes must have a business case that demonstrates the value of the work".

The APM body of Knowledge explains that business cases provide justification for undertaking projects or programmes. A business cases evaluates the benefit, cost and risk of alternative options and provides a rationale for the preferred solution.

During the concept phase of the life cycle an outline document is prepared and utilised by senior management in order to determine whether to give the go-ahead for the definition phase. The document is developed iteratively through a process of progressive elaboration adding and refining details as information becomes available

[1] *The Advances in Project Management series includes articles by authors of program and project management books published by Gower in the UK. Each month an introduction to the current monthly article is provided by series editor **Prof Darren Dalcher**, who is also the editor of the Gower Advances in Project Management series of books on new and emerging concepts in PM. See Darren's background summary at the end of this article.*

and the required level of accuracy is achieved. During the definition phase the detailed business case is completed. Such a document typically encompasses:

- A strategic case, including the context, background and rationale
- Options appraisal, indicating which options have been considered, and why
- Expected benefits, ideally including unavoidable disbenefits
- Commercial aspects, including costs, investment appraisal and preferred funding arrangements
- Risk, identifying the key risks, opportunities and issues and their impact on the proposal and business case
- Timescales for key outputs, and for the realisation of benefits, and delivery of value

Business cases are used to translate ideas into tangible documents, identify and compare alternative schemes, justify investment, inform decision-making, secure funding, underpin governance structures, create baselines for managing the undertaking and realising the benefits, mobilise support, establish a platform for measuring progress and defining business success and impact expectations that extend beyond the traditional measures of delivery.

Sponsors support projects and programmes in order to ensure that the benefits are realised and the promised value is delivered (i.e. in order to satisfy some business goals, strategic objectives and intentions). Business cases may be prepared by project or programme managers, although in many organisations, they may be undertaken by other domain specialists, such as business analysts, systems analysts, enterprise specialists or solution architects.

Crucially, business cases are not static documents. Once approved, cases should be kept up to date, reflecting approved changes and agreed modifications, thereby facilitating their use as a primary document during gateway reviews, governance audits, and in establishing the residual success (including in terms of benefit realisation and value delivery) of the programme or project, at the relevant timeframes.

Well-developed business cases are used to communicate a compelling argument to key stakeholders whose active support is needed to define an opportunity and deliver the required change. A convincing argument will identify and compare multiple alternative options, making a solid case for the selection of the preferred alternative whilst indicating the pathway needed to turn that choice into action.

Fallacy, bias or misrepresentation?

Given that business cases are used to drive the development efforts through projects and programmes, the projections and assumptions embedded within the cases are fundamental to assessing the success and achievement levels of such efforts.

Daniel Kahneman and Amos Tversky first identified the phenomena of *planning fallacy* in 1979. The planning fallacy implies that plans tend to embody the best-case scenario:

Planners subsequently assume that the outcome will follow the plan, when both experience and common sense suggest that they should know better.

It is often pointed out that a plan is a mere scenario, and Kahneman and Tversky observed a tendency to document overly optimistic scenarios leading to serious underestimation of the risk of failure. Kahneman's subsequent work suggests that the existence of a plan tends to induce overconfidence, as people exaggerate their confidence in the plan. Lovallo and Kahneman put forward an expanded definition suggesting a tendency to underestimate time, costs and risks, whilst overestimating the potential benefits.

A similar phenomenon is encapsulated through the idea of *optimism bias*. Optimism bias is a recognised cognitive bias, often acknowledged in the risk management literature that causes people to underestimate the risks of experiencing negative effects and impacts. In recent times it has been adopted by the project management community to refer to overly optimistic trends in estimates related to projects.

Public sector guidance in the UK now makes a direct reference to optimism bias, suggesting that "there is a demonstrated, systematic, tendency for project appraisers to be overly optimistic".

The advice given is to take such bias into account: "To redress this tendency appraisers should make explicit, empirically based adjustments to the estimates of a project's costs, benefits, and duration."

Ultimately, the suggestion is that estimates for capital and operating costs, benefits values and time profiles require informed adjustments to account for optimism bias and offer more realistic projections.

US journalist and Pulitzer Prize Winning author, Thomas L. Friedman suggests that pessimists are usually right and optimists are usually wrong; yet, all the great changes have been accomplished by optimists. The ambition to achieve and deliver may play a part in colouring perceptions and encouraging hope and confidence in new undertakings, which may imply a misjudged belief in the ability of individuals or teams, or in the presumed luck needed for achievement. Winston Churchill noted "for myself I am an optimist - it does not seem to be much use to be anything else." Indeed, optimism may provide the faith and belief that fire up the passion to achieve and deliver innovation.

"Optimism is a strategy for making a better future. Because unless you believe that the future can be better, you are unlikely to step up and take responsibility for making it so." — Noam Chomsky

Yet, while allowing people to initiate new projects, it must be acknowledged that projections, especially regarding innovation, take place as opportunities emerge prior to the establishment of formed facts. Intended or otherwise, the tendency to underestimate the costs of prospects, and overestimate the potential benefits has fuelled discovery and innovation over many centuries, emboldening pioneers to conquer new lands, search for precious resources and engage in new endeavours.

The values used in business cases are crucial to making decisions about the feasibility of projects and programmes. In some sectors, projects may be initiated on the basis of unrealistic expectations and over-optimism, occasionally referred to as a conspiracy of optimism. When different parties collude in initiating risky projects on the understanding that the estimates will be adjusted or corrected during the life of the project, it is likely to lead cost and time overruns, underutilisation of promised benefits, and inability to meet value projections. The terms *Strategic misrepresentation* and *manipulation of information* are used to refer to planned and systematic distortion or misstatement of facts in budgeting and planning systems. Ultimately, investments and business decisions are as good as the data that underpins them, and the cases that provide the overarching rationale for proceeding.

Delivering better business cases

Balancing costs and benefits is essential to making decisions about project viability. Yet, business cases rely on data derived from projections, forecasts and future plans. Alas, many completed projects show a discrepancy between initial projected estimates of costs, time, risks, and benefits, and the actual results accrued in practice.

The direct implication is that business cases can make poor predictors for the viability of projects, and the likely return on investment, expected value and potential benefits. Organisations are therefore increasingly looking for reliable and well-informed business cases that can underpin project development and management. This month's article, t*he case for Project Net Present Value (NPV) and NPV Risk Models* by Martin Hopkinson offers a new contribution and a robust method for making informed decisions about project selection and approval.

The article draws on Martin's book, *Net Present Value and Risk Modelling for Projects*, published by Gower/Routledge in the Advances in Project Management Series. The book re-positions Net Present Value as an integrating set of tools, facilitating strategic decision making about projects and programmes. NPV models are ideal for addressing uncertainty during the concept phase of the life cycle, thereby enabling managers to query available options, assess their viability, determine the feasibility of the proposed projects and evaluate and establish progress.

Martin's book makes an important contribution to the thinking around business cases by integrating project financial forecasting and sound risk management principles to build a robust approach to answering key project questions. The book utilises NPV models to forecast the financial value of the project's benefits comparing them with the costs to determine the financial viability of the business case. Risk and its discussion form an important part of the business case: The use of NPV risk modelling offers a sophisticated way of allowing inputs to fluctuate in order to represent the effects of risks on both costs and benefits, showing the potential variation in project NPV. It also enables both development and management to be informed by risk considerations allowing managers to develop risk-robust project solutions. The result is a considered and well-informed governance approach developed alongside (and in support of) the business case.

The business case as a source for determining value

Executives making big strategic choices rely on their team's ability to create reliable business cases. The business case is a key live document that underpins the project by making a direct connection between funding and promised achievement. It is particularly important because it is not focused on the project delivery itself, but on the accrued benefits and value that can be derived through the project. In other words, the interest is in the promised business value that can be realised beyond the project handover and delivery phase.

While project managers may be involved in refining and building the business case, the key audience for the document is the project sponsor who has an interest in the overall purpose of the system and in realising the projected benefits. The business case allows the sponsor to reason about the benefits, compare different options, address the risk implications, make strategic decisions and monitor the achievements against an agreed baseline.

It is unlikely the document will be owned or signed off by the project manager, as the document is required to address the considerations of the project sponsor. In some settings, project managers are unlikely to be involved in the early set-up and planning phases. Moreover, some of the decisions and questions addressed through the options analysis may invoke issues at the portfolio level and the impact on other projects and initiatives may need to be assessed at the enterprise level. Nonetheless, failure to meet the expectations and values expressed in the business case may lead to the entire project being considered a failure, and hence involvement and participation in defining the parameters, identifying the boundaries and establishing the expectations and assumptions is of great importance.

Value attainment is neglected from classical project delivery life cycles, partly because it happens post delivery and is not controlled by the project manager. Agile project management methods prosper partly because they re-emphasise the link between projects and the cumulative delivered value, offered as a continuous stream.

In a similar vein, business interest does not cease when a project is delivered. Following delivery and handover, when systems go into use, real benefits can start to accrue, allowing the projected business success to materialise. The business case utilised as blueprint for value delivery remains a key document that is monitored and consulted in order to ensure that the streams of benefits come on line as expected and that the promised business case materialises.

The greater insight afforded by well-developed business cases is essential. While we continue to engage with opportunities, we must recognise that the delivery of value begins and ends with the business case; and ultimately, so will the business success, or failure, of our endeavours.

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