

Specialist PM and more generalist project-related contributors to organisational strategic management¹

By Alan Stretton

INTRODUCTION

In the last seven issues of this journal I have been discussing various contexts in which projects are undertaken. In this article I want to revisit the context of organisational strategic management (Stretton 2019f) and look further at two types of *project-related* contributions to organisational strategic planning and execution.

The first type is the familiar specialist project management (PM) input to organisational strategic management, which is very widely practised, and tends to dominate the mainstream project management literature. The second, and more generalist type, is typified by those EPC (Engineering, Procurement, Construction) contributions which are particularly involved in FEL (Front End Loading) activities. This type is often associated with mega-projects (very large complex projects), and is widely used in such industries as oil, gas and minerals. It appears to me to receive less attention in the mainstream project management literature than its importance deserves.

The co-existence of these two approaches can pose some interesting questions about the place of specialist and generalist modes of contributing project management inputs to organisational strategic management. This article will first present a five-stage framework for the latter. It will then discuss the two main forms in which specialist project management is practised, before discussing more generalist project-related approaches. I will then broadly align both the specialist and generalist types of contributions with the stages of the organisational strategic framework, and discuss some key differences between the two, and their implications for the organisations involved.

ORGANISATIONAL STRATEGIC MANAGEMENT

Projects and organisational strategy

I noted in Stretton 2019e that, as far as I have been able to ascertain, virtually all projects, no matter how originated, are, or soon become, direct components of organisational strategic plans and their execution. Whilst the project management literature rather naturally tends to focus on projects *per se*, there are also frequent recognitions of their place in the broader context of contributing to the achievement of organisational strategic objectives.

¹ How to cite this paper: Stretton, A. (2020). Specialist PM and more generalist project-related contributors to organisational strategic management; *PM World Journal*, Volume IX, Issue I, January.

For example, Cleland & Ireland 2002:106 say:

An emerging conviction among those professionals who do research on, publish, and practice project management is the belief that projects are building blocks in the design and execution of organisational strategies.

Amongst the many other authors who also relate projects directly with organisational strategies, Shenhar & Dvir 2007:23 say, very directly,

Most projects are part of the strategic management of their organizations,...

A basic organisational strategic management framework

I introduced a basic organisational strategic management framework in Stretton 2017I in this journal, and later discussed it in more detail in a series of five articles on organisational strategic planning and execution, starting with Stretton 2018d. It has also been used in later articles, including Stretton 2019b. As can be seen in Figure 1, the framework has five stages.

1. Establish and shape strategic objectives	2. Develop strategic initiative options, evaluate, choose best	3. Elaborate/consolidate strategic initiatives	4. Execute strategic initiatives	5. Achieve strategic objectives.
Establish and shape both deliberate and emergent strategic objectives; Confirm desired outcomes/ benefits	Develop alternative strategic initiatives to achieve strategic outcomes / benefits; Evaluate alternatives; Choose the best	Elaborate and define chosen strategic initiatives; Confirm feasibilities; Prioritise and consolidate	Execute strategic initiative component projects/programs and <i>other strategic work</i>	Achieve strategic outcomes and realise benefits

Figure 1: A basic organisational strategic management framework

In relation to this framework, Booth 2018 made the observation that “...no single ‘standard’ strategic planning process can meet the needs of all organisations”. I certainly agree with this, and indeed believe this applies to the entire scope of strategic management presented above. However, judging by feedback from the many previous articles in which I used this framework, there are some grounds for believing that Figure 1 is sufficiently representative to justify its use in the upcoming analyses of two very different types of project-related contributions to the various stages of this framework.

Most of the project management literature focuses on programs and projects alone as the vehicles to achieve strategic objectives. However, as I discussed in some detail in Stretton 2019a, what I have described as *other strategic work* is also involved in most cases. Sometimes this can be handled as part of the project management work. In other cases it can be the dominant component, and has to be handled separately. I have labelled the combination of the two *strategic initiatives*, and will maintain this descriptor in all depictions of the strategic framework.

However, in the majority of contexts, projects are the dominant component of organisational strategic initiatives, and their contributions to the achievement of organisational strategic objectives will be the main focus of this article.

SPECIALIST PM CONTRIBUTIONS TO ORGANISATIONAL STRATEGIC MGT.

Representing specialist PM contributions to the strategic mgt. framework

In a series of articles starting with Stretton 2018d I represented specialist project management contributions to the organisational strategic management framework in a project life-cycle (PLC) format, along the lines shown in Figure 2.

As with organisational strategic management processes, there is no universal ‘standard’ project life-cycle. However, I believe that the two central groups of phases in Figure 2 are sufficiently broad-based to be reasonably representative.

With regard to *Project incubation*, I first adopted this descriptor in Stretton 2017k (from Archibald et al 2012) for what others have called *transition*, *studies*, or *conception* – because *Project incubation* seemed to me to best describe the project situation summarised in the strategic Stage 2 sector in Figure 2.

Also following Archibald et al 2012, I have added *Project close-out*, but in a slightly changed format from previous representations.

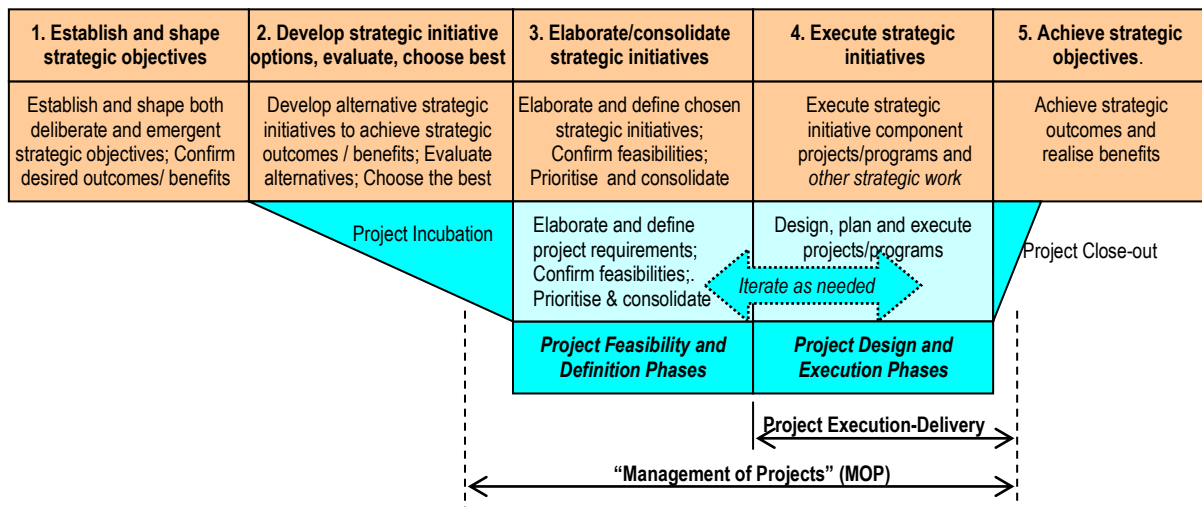


Figure 2: Components of the project life-cycle (PLC) and the organisational strategic framework

It can be seen that I have a provision for iteration in the project phases in the form of a double-headed arrow, reflecting the following note from Dalcher 2019.

Project sequences [project life-cycles] offer a way of organising and structuring work; however, many projects entail some iterative elements that require making sense of the context, discovering new knowledge, sharing insights with stakeholders, prototyping, and exploring new opportunities and proposals for addressing them.

Additionally, I have illustrated the scope of the two different forms in which specialist project management contributions are made in practice. I have described these as project *Execution-Delivery*, and *Management of Projects (MOP)*, as now discussed.

THE PROJECT EXECUTION-DELIVERY SPECIALISATION

The nature of project execution-delivery

Project execution-delivery is also known as *execution-only*, which is described by Morris 2013:235 as follows.

In practice, in many organisations, the term [project management] is used to refer only to the management of project execution (after the requirements have been identified).

As Morris implies, many people, both within and outside the project management community, and particularly the latter, regard the project execution-only specialisation as being what project management is all about. Elsewhere, Morris 2013:118 describes this concept of the nature of project management as follows.

This is the Delivery-Execution conception. It is the classic core of project management.

The key point about the project execution-delivery specialisation is that the requirements have already been identified, and that this mode does not include any significant project management involvement in pre-execution or ‘front-end’ phases of the project life-cycle. This particular perception of the scope of project management, and its relationship to organisational strategic management, are reflected in the above figure, which shows this specialisation as being restricted to strategic Stage 4.

The focus of execution-delivery project management is on doing the project “right” (borrowing this short-hand descriptor from Cooke-Davies 2004) – i.e. the familiar objective of delivering the product of the project ‘on time, in schedule, to scope’.

There are many different forms of project execution-delivery

Project execution-delivery can be undertaken in various forms. For example, Nair 2019 identifies and discusses the following eight different project delivery methods:

- Design-Bid-Build method
- Design-Build method
- Construction management at risk method
- Bridging Design Build method
- Bridging Construction Management at risk method
- Multi-Prime method
- Integrated project delivery method
- Construction management Agency method

Project execution-delivery in practice

The first bullet-pointed method, Design-Bid-Build (DBB), in which the design is separated from the construction (“Build”) work, appears to be the method which is still most widely associated with project execution-delivery (e.g. the traditional tendering process in the construction industry). The Design-Build, and Construction Management, methods have also been widely used for a long time in construction.

However, I have not seen reliable data on the extent to which any of the various forms of project execution-delivery are actually used in practice.

The literature on project execution-delivery

Historically, most of the earlier writings on project management have been concerned with managing project execution-delivery. Indeed the PMBOK Guide has largely maintained this perspective. The latter is commonly associated with the context of relatively stable environments, and substantial degrees of initial certainty about project goals and means of achieving them. However, the emerging VUCA (Volatile, Uncertain, Complex, Ambiguous) world of more recent times has brought a substantially increased focus on other modes of project delivery.

Project execution-delivery-related causes of project failure

We do not have reliable data on success/ failure rates for execution/ delivery projects, either historically, or currently. In Stretton 2015a I analysed the very meagre data on causes of so-called project failures I could find at the time. Although they are probably little better than ball-park figures, I believe they do give us some notion of orders-of-magnitude of such causes of failure, and on this basis will use some of these materials in the following section. We start with a table of causes of project failure in the execution-delivery phase, drawn from Stretton 2018a. The two percentage figures represent the (numerical) percentage of the total causes of failure which were attributed to the project management (PM) operational and leadership domains. The figures in parentheses against individual causes indicate the number of times those causes were cited in my original analyses.

PM operational-related project failure causes (30%)		PM leadership-related causes (9%)
Poor scope management	Poor project planning (2)	Relationships management
Poor cost control (3)	No agreed project life-cycle	No clear team objectives
Poor quality assurance	Poor change control (2)	Lack of commitment
Poor communications (2)	Manpower issues (2)	Lack of trust
Poor risk management	Concurrency problems	Poor delegation
Poor contract management (4)		Lack of focus

Figure 3: PM operational-related and PM leadership-related causes of project failure

So, adding and rounding out these two groups of causes, these percentages indicate that something of the order of 40% of causes of project failure are attributable to the project execution-delivery phase.

This figure appears to be broadly in line with a widely held view in the project management community that success rates in project execution-delivery are a good deal lower than they should be, and that there has been little improvement over time.

On the face of it, it would appear that many of these causes of failure could be due simply through project managers not following the well-established guidelines that exist in most published bodies of knowledge of project management. This could certainly happen with inexperienced, or plain ignorant, project managers.

However, I expect that there may be a more fundamental type of reason, which relates to the increasingly VUCA environment in which projects are being undertaken, particularly in the last couple of decades or so. As Shenhar & Dvir 2007:7 put it,

The common theme to all of these failures was that executives as well as project teams failed to appreciate up front the extent of uncertainty and complexity involved.

Shenhar & Dvir 2007 addressed this issue at length in their book. It was also the primary topic in the fourth article of my recent series (Stretton 2019h).

However, and somewhat more importantly for the purposes of this article, some 60% of the total causes of so-called project failures are attributable to pre-execution phases and stages of the project and strategic domains. We will be looking further into these causes shortly.

Summarising notes on the project execution-delivery specialisation

- The project execution-delivery specialisation involves the execution of projects whose requirements have already been specified by others. In other words, there has been no involvement in pre-execution or 'front-end' project phases.
- This is seen by many as being all that project management is about – not only by external people, but also by some practitioners.
- The focus of the execution-delivery specialisation is on the project itself – i.e. on doing the project "right", within time, cost, and quality/scope parameters which have been established by others.
- The mainstream project management literature is quite heavily focused on the project execution-delivery specialisation. (This may be a contributor to the widespread perception that this is what project management is all about).
- In spite of this focus, failure rates in this phase appear to be of the order of 40% of total causes. This figure appears to reflect a widely held view that success rates in project execution-delivery remain a good deal lower than they should be. It was conjectured that one reason for this could be the increasingly VUCA environments of projects, and paucity of relevant guidelines.
- Finally, the above 40% figure means that some 60% of the total causes of so-called project failures are largely attributable to pre-execution phases and stages of the project and strategic domains, as will be further discussed shortly.

THE “MANAGEMENT OF PROJECTS” (MOP) SPECIALISATION

The origins of the MOP descriptor

I have borrowed the MOP descriptor from Peter Morris, who has been using it for over a quarter of a century. In Morris 2013:235 he describes it as follows.

The Management of Projects is as concerned with managing the front-end as with downstream execution. (‘Front-end’ is defined as either the period prior to definition of the project’s, or program’s, requirements – or the period prior to ‘sanction execution’ being given.)

In practice, it appears that the extent to which MOP approaches actually cover the ‘front-end’ (or ‘pre-execution’) project phases varies greatly, as now discussed.

The range(s) of MOP involvement in ‘front-end’ project phases

As far as I am aware, we have no reliable data on the extent to which MOP is actually used in project ‘front-end’ phases in practice. However, we can discuss two types of situation where MOP involvement does occur, as follows.

Degrees of MOP involvement in relatively linear project front-end processes

In Stretton 2019d I discussed varying degrees in which project management can, and often does, become involved in the front-end processes of more traditional linear types of project developments – i.e. those which have a relatively high degree of initial certainty about project goals and methods of achieving them.

In that article I borrowed from a figure by Morris 2013 to illustrate three possible degrees of ‘front-end’ involvement by MOP specialists. These are shown in Figure 4 below in bolder typeface and arrows.

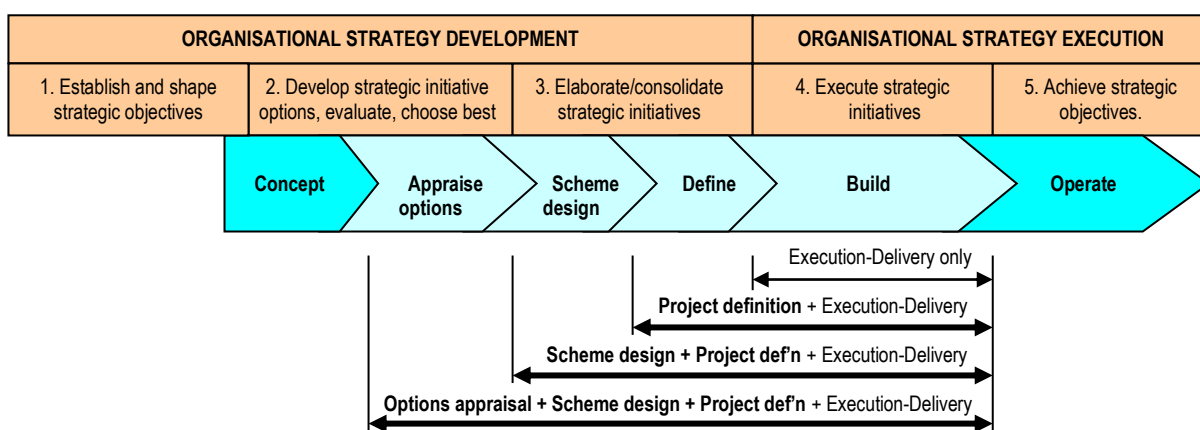


Figure 4: Representations of three possible degrees of MOP front-end involvement in linear front end phases of projects (derived from Stretton 2019f, Figure 5)

Morris has used different project phases from mine, but these help to illustrate three possible alternatives. Other variations are possible and do happen.

It is natural to then ask the question as to who does the ‘front-end’ work which is not being covered by project management. Presumably this work would be done by people from the organisational strategy planning/development domain. However, as I discussed in Stretton 2019d and many earlier articles, project managers are better equipped than any other avocation to contribute to these front-end phases.

MOP involvement in iterative project front end processes

MOP involvement in iterative project front-end processes is illustrated in Figure 2 above by the double-headed arrow “Iterate as required”. This arrow is intended to represent the many, and evidently increasing number of project developments, such as Agile, in which iterative processes of various types are needed – typically where there are initial uncertainties about project goals, and/or the methods/tasks needed to achieve them, or in increasingly VUCA environments.

The MOP specialisation in practice

As already noted, we have no reliable data on the extent to which MOP is actually used in practice in project front ends. The most intensive involvement is when all pre-execution project phases are managed by project managers. Along with many others, I have long argued that this approach makes the best use of project management expertise, and helps provide maximum value for the client or sponsor. But, again, I have no data on the extent of such involvement, or trends towards it.

The literature on MOP

Peter Morris has been talking about the *Management of projects* for at least a quarter of a century, and this is indeed the title of one of his well-known earlier books (Morris 1994). Amongst many others (including myself), Darren Dalcher has also been pressing for more project management involvement in pre-execution project phases for many years. Dalcher 2016a put his viewpoint this way.

Viewing projects through a delivery lens decreases the wider impacts and potential influence of projects, Delivery reduces project management to a lower common denominator focused on implementation of pre-defined results. Crucially, it ignores the potential influence of project managers and leaders in shaping, advocating, negotiating, motivating and enhancing potential solutions. It is also worth pointing out that an execution perspective excludes an interest in the longer term, thereby discounting the need to consider benefits, and longer term impacts.

Whilst there have been some relatively isolated contributions in the mainstream project management literature on more specific issues in managing project front-end phases, I am not aware of any consolidated amalgamation of such materials. The PMBOK Guide has very little relevant material. Some other bodies of knowledge and the like have more relevant materials, but generally speaking these are quite limited.

On the other hand, some of the literature on mega-projects has substantial materials on Front End Loading (FEL), which is widely used in that domain. Whilst FEL covers a broader field than just the front-end project phases, the latter are key components, and are covered in some detail. We will return to discuss FEL in more detail shortly.

MOP-related causes of project failure

With the same qualifying notes as applied to the execution-delivery specialisation, I reproduce a table on *project initiation-related causes of failure* from Stretton 2018a,

Inadequate estimating (2)	Problems re technology (3)	Incomplete requirements (4)
Unrealistic project baselines	Poor systems engineering	Poor project definition (3)
	No value engineering	

Figure 5: Causes of project failure relating to the initial sector of the MOP mode

The *Inadequate estimating* and *Unrealistic project baselines* causes of failure related mainly to strategic Stage 2. The three causes in the centre of Figure 5 are probably best seen as representative of quite a range of things that can go wrong in this stage. In any event, the end result of all previous inadequacies are summarised in *Incomplete requirements (4)* and *Poor project definition (3)*.

There can be little doubt that the high incidence of the latter two causes of failure reflects a situation where there has been little, if any, input into these processes by project managers who know what is required to ensure that the project requirements are adequately completed, and that the project is defined “right”. If we leave these processes to people who do not know how to undertake these processes properly, we will continue to get sub-standard results. In short – and once again – there appears to be the strongest possible case for full adoption of MOP to ensure that all project front-end phases are properly managed and executed.

Now, the causes of project failure in Figure 5 account for a little more than 20% of all causes of failure – so the potential for getting better results from fully adopting the MOP approach is substantial. We also note here that, taking account of this, plus the 40% attributable to project execution-delivery, we are still left with a remaining 40% of causes of failure which are evidently pre-project or other non-project-related causes – as will be further discussed shortly.

Summarising notes on the MOP specialisation

- The Management of Projects specialisation includes involvement in the ‘front-end’ or pre-execution phases of projects, as well as execution-delivery.
- In practice the extent of such involvement varies a great deal. However, it can be argued that suitably qualified project managers are better equipped than any other avocation to undertake the many activities involved in the front-end phases
- This tends to be supported by available success/failure data, which show inadequacies in determining and defining project requirements as major causes of project failure – i.e. failure to define the project “right”.

- MOP therefore helps ensure that the project definition is done “right”, as well as doing the execution-delivery “right”
- These, and other causes of failure, strengthen arguments that MOP should cover all the pre-execution phases.
- MOP is seldom involved in activities which are concerned with the choice of the “right” project(s) in the first place – although it can be reasonably argued that it has the potential to add value here also.

A NOTE ON TENSIONS BETWEEN THE TWO TYPES OF PM SPECIALISATION

In previous articles in this journal I have described the above two types of PM specialisation as co-existing paradigms of project management. I discussed some consequences of this co-existence in Stretton 2016g, along the following lines.

The main theme of this article is that there are two different co-existing paradigms of project management, and that this creates some significant consequences. These primarily revolve around the fact that the traditional paradigm [execution-delivery] is widely followed, but that, in various ways, this inhibits wider adoption of the emergent paradigm [MOP], to the detriment of project management at large, and its customers, as now summarised.

1. One consequence is that the traditional paradigm gives potential customers the impression that project management is only concerned with the narrow task of project delivery (and making a profit whilst doing so), and not with the broader issue of helping satisfy the broader needs of its customers.

2. In these circumstances, customers are also unaware of the potential for project management to add value by being involved in project initiation activities. This lack of awareness disadvantages both those who provide emergent project management services [MOP], and customers of project management at large.

3. Another factor is that with the traditional paradigm, failures which are due to project-initiation causes are still commonly blamed on project management, even if project managers have not been involved in the project initiation activities.

4. The most expeditious way of ensuring that this is done effectively is for project management to be directly involved in all initiation activities – i.e. that it moves from the traditional paradigm [execution-delivery] to the emergent one [MOP].

5. At the present time there are many different avocations which get involved in project initiation processes and decision-making. If project management does not actively take over these responsibilities, the chances are that some other avocation is likely to do so.
.....

The attention given to MOP appears to have increased substantially since that was written. However, the broad consequences of having the two forms of specialist project management remain pretty much as quoted. We need both forms, but less tension in their co-existence.

We now move on from specialist PM to more generalist project-related contributors.

MORE GENERALIST PROJECT-RELATED CONTRIBUTORS

I have used the descriptor “More generalist project-related contributors” to cover organisations or groups which not only deliver project management services, but also offer a wider range of services – in this case specifically in the domain of earlier organisational strategic planning support.

EPC-type contributions as exemplars of more generalist involvement

As noted in the introduction, I will be representing more generalist types of project-related involvement in organisational strategic management by those EPC (Engineering, Procurement, Construction) firms whose involvement specifically includes FEL (Front End Loading) activities (which Morris - in Archibald et al 2012 - has called “front-end definition”). EPC involvement is often associated with large complex projects and mega-projects producing major capital assets, and is widely used in such industries as oil, gas and minerals. However, as will be seen later, more generalist types of project-related involvement are not confined to these particular domains.

EPC organisations and Front End Loading (FEL)

For some decades, many EPC organisations have been helping customers achieve their strategic objectives via particular focus on relevant Front End Loading activities. Morris 2013:60 describes FEL as follows:

IPA [Independent Project Analysis], the oil, gas and minerals project benchmarking company, coined the useful term ‘Front-End Loading’: ... (FEL) is a tool for determining which is the “right” project to meet the needs of business. The FEL tool assesses the level of definition of a number of critical items that are used to determine what, if any, asset should be built to meet a particular business need.

Gasik (in Archibald et al 2012) describes FEL as follows:

As stated by the Independent Project Analysis (IPA) group (2012): “Front-End Loading (FEL) of a [facilities design and construction] project can be described as the process by which a company (and project team) translates its marketing and technological opportunities into capital projects.

The goal of the total FEL phase is to secure a detailed definition of a project’s scope needed to satisfy the business objectives for the capital investment. The FEL phase is defined as the period from when a business opportunity is identified ... to the point at which a project capitalizing on the business opportunity is authorized”.

Prieto (in Archibald et al 2012) notes that FEL terminology varies by owner and even by EPC firm. In a moment we will borrow from his discussion on this to look more closely at how FEL relates to the basic organisational strategic management framework. But Prieto also discusses pre-FEL activities, as now summarised.

Pre-FEL contributions: “Studies” or “shaping”

In Archibald et al 2012, Prieto notes that,

In today’s large capital projects, the FEL phases ... are preceded by an extensive “Conception” period during which extensive and often time-consuming activities are undertaken. In some instances these may be synonymous with FEL 1 but in other instances they will include pre-FEL efforts often referred to as “studies”. These activities typically include: a) Computer models, b) Conceptual level estimates, c) Environmental studies, d) Feasibility studies, e) Labor and wage studies, f) Master plans, g) Permitting, h) Project financing, i) Scope definition, j) Siting, k) Technology/ licensor selection, l) O&M readiness reviews.

I have heard this type of early work on mega-projects discussed by Ed Merrow, CEO of IPA (Independent Project Analysis, Inc), who described it as *Basic data collection*.

Dalcher 2016b introduces the useful descriptor *shaping* broadly in the above context, and highlights its importance as follows.

[Mullaly 2016]...highlights the importance of *shaping*, or sponsoring organisational undertakings and [finding] the balance between process, politics and agency in the initial shaping of new undertakings.

....organisations could shape themselves through decisions that in turn shape our change projects, and inevitably alter the way we organise for them.

Indeed, it was these comments that prompted me to augment my original summary descriptor of Stage 1 of the organisational strategic framework to the more expansive “Establish and shape strategic objectives”.

Overlaps with Establishing Strategic Objectives (SBOs)

Shaping activities inevitably overlap the actual establishment of strategic objectives. Prieto 2009 describes the involvement of an EPC organisation in helping the owner organisation in these processes as follows.

Most importantly, the owner requires a partner that can help it translate its programmatic vision and broad objectives into a well defined set of specific business objectives that underpin an actionable and implementable strategic plan for the “giga” program [super-large mega-programs/project].

I have not seen any data about the incidence of this type of involvement of EPC organisations, but the many articles in this journal by Prieto in the context of large complex projects and mega-projects indicate that EPC involvement in helping clients shape their organisational strategies may not be an uncommon occurrence in that context.

Representing EPC involvement in the strategic management framework

In the upper section of Figure 6 below I have drawn on a table which Prieto used to illustrate various terminologies used by owners and EPC firms (in Archibald et al 2012 pp.22-23). I have shown his “Project Phases” in bold type in the top row, and his corresponding “Owner ‘A’ Definition” in the next. The latter was one of two different owner definitions, but I chose this one because it corresponds so closely with Stages 2 to 5 of my organisational strategic management framework. It also helped give me some confidence that this alignment of these EPC-related phases with my framework stages is reasonably sound.

Additionally, in the top “Project Phases” row I have added a “Studies” phase to cover Prieto’s pre-FEL efforts discussed in the above quotation. I have also added an “Establish SBO” (Strategic Business Objectives) provision, the importance of which Prieto strongly emphasises in the above reference (on p.23), and also in many of his other publications.

[Prieto] Establish SBOs	[Prieto] Studies Phase	FEL Phase 1	FEL Phase 2	FEL Phase 3	Phase 4	Phase 5
Owner A Definition		Appraise	Select	Define	Execute	Operate
1. Establish and shape strategic objectives		2. Develop strategic initiative options, evaluate, choose best		3. Elaborate/consolidate strategic initiatives	4. Execute strategic initiatives	5. Achieve strategic objectives.
Establish and shape both deliberate and emergent strategic objectives; Confirm desired outcomes/ benefits		Develop alternative strategic initiatives to achieve strategic outcomes / benefits; Evaluate alternatives; Choose the best		Elaborate and define chosen strategic initiatives; Confirm feasibilities; Prioritise and consolidate	Execute strategic initiative component projects/programs and other strategic work	Achieve strategic outcomes and realise benefits

Figure 6: Relating some EPC component phases to the strategic management framework

It can be seen that Prieto’s three FEL phases relate quite directly to Stages 2 and 3 of the organisational strategic management framework. His Studies (shaping) phase evidently relate more directly to strategic Stage 1, as of course does any involvement in helping establish or confirm Strategic Business Objectives (SBOs).

In relation to Stage 2 (but also often applicable in Stage 1), Prieto makes the following note about developing strategic options, for which he has coined the descriptor “optioneering” (in Archibald et al 2012).

Optioneering is a technique of growing importance as complexity grows and trade-offs become multi-dimensional through the consideration of non-financial bottom lines in addition to more conventional optimization points such as NPV or ROI.

This seems to be at the core of the earlier FEL, and pre-FEL processes, which are concerned with helping ensure that the “right” project/s is/are chosen. The adoption of such approaches would almost certainly help overcome findings by Young et al 2012 that “...there is a systemic weakness in the way projects are selected”. Also, I recommend two particular books on mega-projects & FEL not referenced above, but which cover these topics in substantial detail; namely Merrow 2011 and Prieto 2015.

We have been discussing these more generalist types of project-related contributions to earlier strategic management stages in the context of EPC-type involvement. However, such generalist contributions are not confined to EPC firms, as now discussed, initially in the context of my experience with Civil & Civic.

Some parallels between EPC and Civil & Civic generalist services

In previous articles in this journal I have given examples of how Civil & Civic expanded the range of its project-related services from execution-delivery, through management by projects, into providing organisational strategic planning support services which were not dissimilar to those provided by EPC organisations as described above. I have attempted to summarise these in the following, by bullet-pointing the above EPC involvements in summary form, and then summarising, in italics, the equivalent services which we provided in Civil & Civic.

- EPC-type involvement typically focuses heavily on Front End Loading (FEL), which is specifically concerned with determining the “right” project(s) to help achieve the organisational strategic objectives.

In Civil & Civic we found that the customer’s choice of project was often sub-optimal, and over a few years developed a formal process which we called Client Needs Determination (CND), which is a slight misnomer for the actual process we developed for helping the customer organisation clarify and consolidate its business (or equivalent) needs, before going on to help define the project(s) to best satisfy these needs (sometimes labelled Product Requirement Determination). Guidelines for these processes occupied some twenty pages in a 1987 update of its project management procedures (Civil & Civic 1980).

- EPC contractors can also be involved in pre-FEL activities, which are broadly concerned with what could be described as ‘shaping’ the organisational strategic objectives, and which often overlap with FEL activities.

Sometimes the Civil & Civic CND processes went further back into helping review the customer organisation’s strategic objectives. An early example of this was in relation to a Sydney Catholic school, where we helped them develop an integrated business plan for the school’s complete rebuilding and expansion, with supporting finance plans (Clark 2002:93).

- Associated with these shaping activities, EPC contractors can also be involved in helping organisations in confirming or re-establishing their Strategic Business Objectives (SBOs).

The above example of Civil & Civic’s extension of services into this domain was one of many such extensions undertaken in my quarter of a century working with that organisation.

Commenting further on the above, these expanded Civil & Civic services came about because some of our customers had need for such services, and we were in a position to expand our services to provide them. Many other organisations have gone down similar routes, evidently through also recognising that customers had broader types of needs, and responding by providing appropriate extended services.

Pre-project and other non-project causes of so-called project failure

We now turn to the remaining causes of so-called project failure which were not attributable to either of the domains covered by the execution-delivery specialisation or by MOP. These remaining causes amount to nearly 40% of all causes of so-called project failures. I have used the descriptor “so-called” for the rather obvious reason that, whilst many, if not most, failures in the two specialist project management domains could reasonably be ascribed to defective project management, pre- and other non-project causes cannot. It is therefore misleading, to put it mildly, to describe these causes of failure as project failures.

The tables in Figure 7 below come from Stretton 2018a, and represent the remaining causes of failure, as shown in three groups, taken from Figures 2, 3 and 4 therein.

Other external-related causes	Org. strategy-related causes	Org. leadership-related causes
Poor political environment Inflation Adverse geophysical conditions	Changing sponsor strategy Funding difficulties Unrealistic expectations (3) Unclear success criteria Overzealous advocacy No owner/user involvement (3) Poor sales/marketing links	Lack of top management support (3) Lack of project management culture Lack of project management focus Inadequate governance Resource management problems (2) No leadership stability Lack of training Commitment escalation

Figure 7: Pre-project and other non-project causes of failure (from Stretton 2018a, Figures 2,3,4)

For discussion purposes I will discuss these under the headings of *pre-project* and *other non-project* causes of failure.

Pre-project causes of failure: Both the *Other external-related* and *Organisational strategy-related* causes belong to this group, both of which are indeed strategy-related, and which together comprise something of the order of 22% of total causes of failure (15 citations out of a total of 67 in Stretton 2018a) There can be little doubt that such causes would be greatly reduced by the involvement of more generalist project-related providers, with their focus on FEL and pre-FEL support services in the organisational strategic planning domain.

Other non-project causes of failure: I have put *Organisational leadership-related* causes into this category, because they can apply to both the pre-project and on-going project domains. They are essentially failures attributable to general management deficiencies, and amount to the order of 18% of all causes of failure (11 citations of 67). (Project leadership-related causes were covered earlier in the project execution-delivery domain). Here, again, these causes would be greatly reduced by the involvement of more generalist project-related providers, particularly if the relationship between the service provider and customer were on the partnership-like basis suggested in an earlier quotation from Prieto 2009.

Summarising notes on generalist project-related contributors

We demonstrated above that EPC firms are not the only ones to provide these types of more generalist project-related services. However, they appear to be by far the most prominent. Indeed, the magnitude of work by EPC firms is very substantial indeed, by virtually any measure. Further, many of the top EPC organisations (e.g. Bechtel, Fluor, Jacobs) are very large in their own right, and enjoy high reputations for effective performance. Further still, they often have very large and demanding customers (e.g. BHP, Rio Tinto). Overall, the magnitude and importance of this type of generalist project-related contribution to the world at large is very substantial.

The bottom line in all this is that generalist project-related service providers are very significant contributors to organisational strategic management, but receive little attention in the mainstream project management literature. It is particularly relevant that they are in a position to help drastically reduce pre-project and other non-project causes of so-called “project” failure, which could account for 40% of all causes (i.e. the above 22% + 18%) – an area which specialist PM cannot normally influence.

Finally, it is evident that these extended services have developed in response to the needs of customers. The providers have been primarily concerned with helping customers satisfy their business (or equivalent) needs, and have not seen themselves as being restricted only to the business of delivery of projects.

REPRESENTING BOTH SPECIALIST AND GENERALIST CONTRIBUTORS

Summary representation of both major contributors to the strategic framework

We now represent both the above major types of project-related contributions to the organisational strategic management stages, in abbreviated format, in Figure 8. The upper section on the more generalised types of contribution derives directly from Figure 6. The lower section on the two specialist types come from Figure 2.

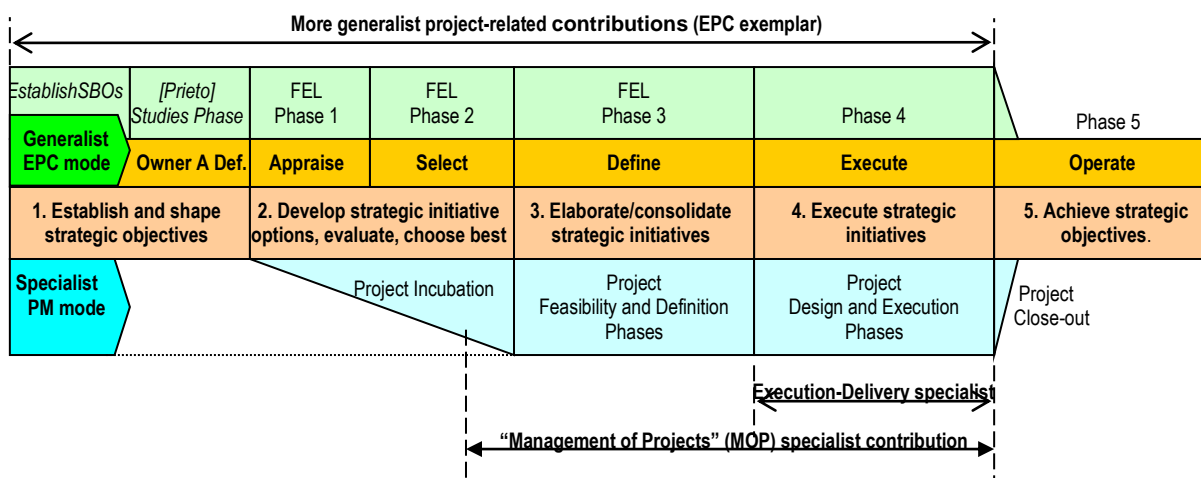


Figure 8: Summarised representation of both specialist and generalist PM-related involvement in organisational strategic management stages

Recasting Figure 8 into a more detailed contribution format

In Figure 8 we can see in a rather basic way the difference in extents of contribution to organisational strategic management by the specialist and generalist types. However, we can represent these in a somewhat different format to better illustrate the extents of contribution of both types, and to include representations of the *FEL*, *pre-FEL* and *establishing SBOs* components of the generalised contributions discussed earlier – as shown in Figure 9 below.

GENERALIST PROJECT-RELATED SERVICES		SPECIALIST PROJECT MANAGEMENT SERVICES		
1. Establish and shape . strategic objectives	2. Develop strategic initiative options, evaluate, choose best	3. Elaborate/consolidate strategic initiatives	4. Execute strategic initiatives	5. Achieve strategic objectives.
+ Helping to establish organisation's Strategic Business Objectives (SBOs)	+ Studies to help shape organisation's strategic undertakings	+ Helping with FEL to determine the "right" project(s) to facilitate achieving strategic objectives	+ Management of pre-execution 'front-end' project phases MANAGEMENT OF PROJECTS (MOP)	EXECUTION-DELIVERY
		FRONT-END LOADING (FEL) SERVICES		
		PRE-FRONT-END LOADING (FEL) SERVICES		
		HELPING ESTABLISH STRATEGIC BUSINESS OBJECTIVE (SBOs) SERVICES		

Figure 9: Illustrating the ranges of generalist and specialist services to organisational strategic management in a progressive involvement format

The + markings in the above figure indicate the additional range of service provided in each case. As it happens, this also reflects the type of progression from execution-delivery specialisation, through MOP and FEL to direct strategic planning support services that Civil & Civic undertook many years ago, and which many other organisations have also undertaken. I propose to discuss Civil & Civic's progression in more detail, plus some other attendant factors which are beyond the scope of this article, in a future issue of this journal.

Summarising key differences between specialist and generalist contributors

- **Specialist project management contributors**
 - Execution-delivery specialists:
 - No involvement in project 'front-end' phases.
 - Project requirements have been established by others.
 - Focus is on doing the project "right" to meet these requirements.
 - Roughly 40% of all project causes of failure are attributable to this domain.
 - Management by Projects (MOP) specialists:
 - Includes execution-delivery activities.
 - Adds involvement (to varying extents) in project 'front-end' phases.
 - Therefore also involved in defining project requirements "right".
 - Focus is on doing both the project definition and execution-delivery "right".
 - An additional 20% of causes of failure are attributable to project 'front-end' phases.

- **More generalist project-related contributors** (typified by some EPC providers)
 - Include execution-delivery activities.
 - Also includes involvement in project ‘front-end’ phases via FEL.
 - Add FEL focus on choosing “right” projects to achieve strategic objectives.
 - Can include pre-FEL studies to help shape organisational strategies.
 - May also include help in establishing Strategic Business Objectives.
 - The final 40% of causes of failure are attributable to the strategic domain plus other non-project general management domains (roughly 50-50).

A note on customer focus vs. project focus

By far the most striking difference between the specialist and generalist contributions is that the latter includes Front End Loading (FEL), which is a tool for determining the “right” project(s) to best contribute to achieving the strategic objectives. Specialist project management rarely, if ever, gets involved in choosing the “right” project(s) – its focus is confined to doing the project “right”. Further, the generalist contributor is also frequently involved in pre-FEL work, and sometimes in helping establish or re-establish strategic business objectives in the first place.

It has been noted earlier that the extended generalist services developed by EPC organisations, and by Civil & Civic and others, were developed to respond to the extended needs of customers. These providers have been primarily concerned with helping customers satisfy their business (or equivalent) needs – a customer focus.

On the other hand, specialist project management is virtually exclusively focused on the project. The execution-delivery specialisation focuses on doing the project “right”. The MOP specialisation adds a concern with ensuring that the project is defined “right”. I have illustrated the above differences in Figure 10.

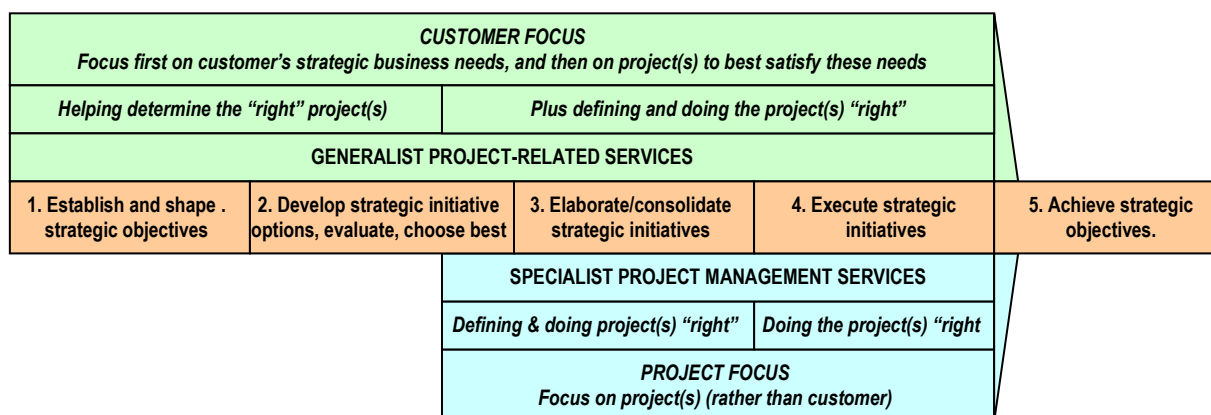


Figure 10: Illustrating some key differences in focus and concerns between generalist and specialist project-related services in an organisational strategic management context

I am emphasising these particular points of difference because, in talking with project managers, whilst many pay lip service to the importance of customers, few really have the strong customer orientation that you really need to be successful in the more generalist contexts described above.

CONCLUDING NOTES

There are two principal interconnected themes in this article.

Projects are a means of helping achieve organisational strategic objectives

All projects should therefore arise from a need to fulfil specific strategic objectives and achieve competitive advantage.
(Turner 1993:37)

As I noted in Stretton 2019e, as far as I have been able to ascertain, virtually all projects, no matter how originated, are, or soon become, direct components of organisational strategic plans and their execution. In other words, a project is not an end in itself, but is a means to help achieve broader organisational strategic objectives. This is the essence of the first theme of this article.

Although this has long been recognised by some (see the lead quotation above), the focus in the mainstream project management literature has remained on specialist PM contributions to doing the project “right” – whilst earlier strategic planning work, including choosing the “right” projects to achieve the strategic objectives, has been left to others.

These days I am somewhat remote from the world of action in project management. However, if what I am reading is any indication, there appears to be a strongly increasing recognition in the mainstream PM literature that project managers should become involved in organisational strategic planning. For example, in an interview by Yu Yanjuan 2018, Darren Dalcher is reported to have put it this way.

I believe the role of project managers will continue to grow. We will also see a need for more project managers, but I also hope we will become more involved in some of the strategic conversations.

With regard to actual involvement, Schlichter 2019 discussed different perceptions about the future of PMI (Project Management Institute), in part as follows.

Consequently, a schism appears to have emerged between those who envision PMI as a market specialist [advocating the profession of most of its members (project managers)] and those who envisage PMI as a full-line generalist [combining project management advocacy with strategy management advocacy ...].

In the context of this article, it was particularly interesting to me that some PMI people are making such a strong and direct link between projects and strategy, and are pressing for this kind of direct action. This indicates that the importance of much closer integration between the two is now very widely acknowledged.

It is one thing for a representative body like PMI to be considering involvement in organisational strategic management. However, it is quite another matter for commercial business (or equivalent) organisations involved in project management to be considering PM involvement in strategic management.

Conventional project management supplier organisations (SOs) have a choice of continuing to focus on either execution-delivery, or MOP – and we certainly need to have plenty of such specialist PM organisations – or they can elect to broaden the range of their services into strategic management support services by responding to such emergent customer needs – as Civil & Civic did, for example. This choice is largely a matter of self-perception and self-determination.

However, as we have seen, there are some EPC organisations that have been providing strategic management support services for a very long time, and discussion of these has been the second main theme of this article.

Some more generalised project-related providers such as EPC firms have been participating in organisational strategic planning for a very long time

Generalised project-related services such as those provided by some EPC firms have been around for a very long time, but evidently have been largely ignored by mainstream project management. This is in spite of the fact the Front End Loading (FEL) has been a widely used descriptor in some very prominent domains for quite some time. It is far from clear why this ignorance persists, but it does seem to indicate a substantially introspective perspective in mainstream project management – a pre-occupation with the project as an end in itself, rather than viewing the project as a means of helping achieve broader strategic objectives

If we look at things from the point of view of customers, generalist services are likely to be much more relevant than specialist PM services in many instances. In particular, FEL services by more generalist providers help the process of choosing the “right” project in the first place, which specialist PM providers can rarely do (although they often get the blame for failure by others in this context). In this context, it is also very significant that something of the order of 40% of causes of so-called project failure are attributable to the non-project strategic and general management domains – a situation which only generalist providers are in a position to influence.

Overall, it seems to me that project management may well be at a crossroad in the above contexts. As Dalcher 2019 put it,

To become influential, project management needs to consider the ability to integrate, extend and develop strategically in order to address wider organisational and societal concerns.

The profession is ready for a step change in how projects are described and positioned.

I hope to address some of these wider issues further in later articles. An allied issue is that this article has been mainly focused on project-related services by what I have previously described as Supply Organisations (SOs). I plan to offer a separate article later on expanding internal project-related contributions in Owner Organisations.

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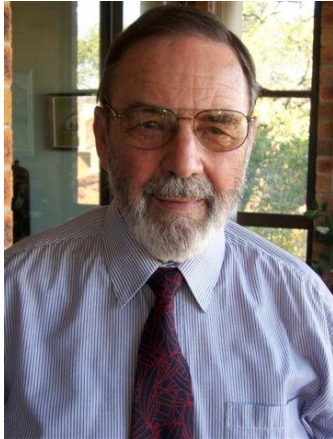
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About the Author



Alan Stretton, PhD

Faculty Corps, University of Management
and Technology, Arlington, VA (USA)

Life Fellow, AIPM (Australia)



Alan Stretton is one of the pioneers of modern project management. He is currently a member of the Faculty Corps for the University of Management & Technology (UMT), USA. In 2006 he retired from a position as Adjunct Professor of Project Management in the Faculty of Design, Architecture and Building at the University of Technology, Sydney (UTS), Australia, which he joined in 1988 to develop and deliver a Master of Project Management program. Prior to joining UTS, Mr. Stretton worked in the building and construction industries in Australia, New Zealand and the USA for some 38 years, which included the project management of construction, R&D, introduction of information and control systems, internal management education programs and organizational change projects. He has degrees in Civil Engineering (BE, Tasmania) and Mathematics (MA, Oxford), and an honorary PhD in strategy, programme and project management (ESC, Lille, France). Alan was Chairman of the Standards (PMBOK) Committee of the Project Management Institute (PMI®) from late 1989 to early 1992. He held a similar position with the Australian Institute of Project Management (AIPM) and was elected a Life Fellow of AIPM in 1996. He was a member of the Core Working Group in the development of the Australian National Competency Standards for Project Management. He has published over 200 professional articles and papers. Alan can be contacted at alanilene@bigpond.com.au.

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