

Building enterprise project management capability 10

Operational control and governance of projects

by Professor J. Rodney Turner

Over the past few articles I have discussed the governance of projects. In February I discussed obtaining top management support and its contribution to governance at the top level. This month I want to discuss the operational control and governance of individual projects (Figure 1). These topics include the whole of conventional project management, so I wish to focus on just two things:

- operational control in four different project scenarios
- governance roles on individual projects

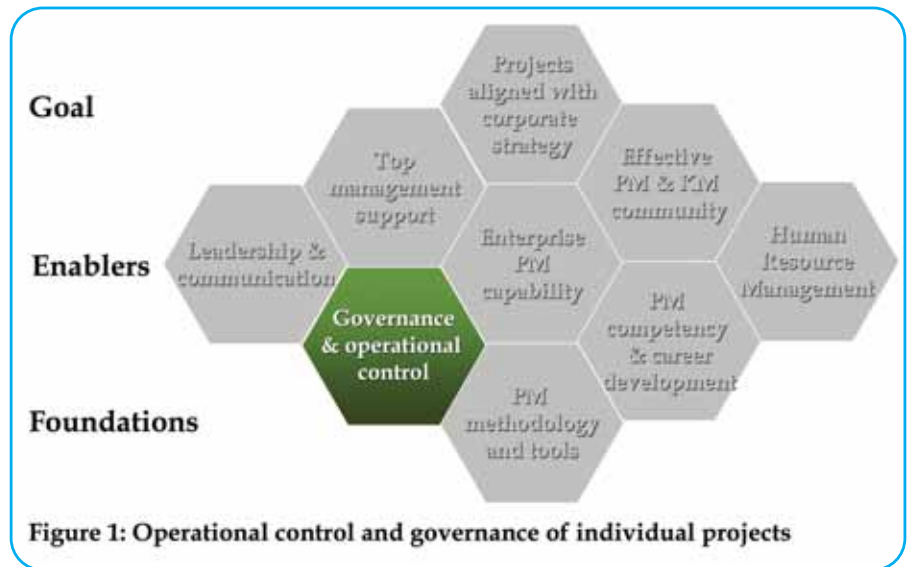
Operational control in four different project scenarios

In researching the management of the project-based organization, (Turner and Keegan, 2000, 2001), Anne Keegan and I found that organizations adopt four quite different operational and control structures depending on whether:

- a) the projects they are undertaking are:
- large and few
 - small and many
- b) the customers that are doing those projects for are:
- few and dominant
 - many and less dominant

Whether a project is large or small we defined as relative. We said a large project has a cost roughly equal to 10% of the company's annual turnover, and a major one is roughly equal to the company's annual turnover. So if a company is doing large (or major) projects, it is necessarily doing few of them. Small projects we said had a cost roughly equal to 1% (or less) of the company's annual turnover, so if a company is doing small projects it is necessarily doing many of them to make up its turnover.

If a company has only a few customers they will be dominant. Losing one could have a big impact on the company's turnover. In the oil industry there are only five major players, and so main contractors to the oil industry find their customers very dominant. If, on the other hand, a



contractor is doing projects for many customers, it is less exposed to losing one or the other and so can have a much more equal relationship with them. This led to four operational control and governance scenarios, Table 1.

Case 1 – A few-small projects for a few-dominant customers

This is traditional project management and is what many books have been written about. A typical example is a company like Fluor Daniel. They are engineering design and construction contractors, designing and building heavy process plant for the oil, gas and petrochemical industry. In this case the parent organization tends to establish the project as almost a separate organization within itself, a company within a company. Fluor Daniel, or a similar company like Foster Wheeler, may make over an entire floor of their office block for the design project team if doing a large project for Shell or BP. The construction project team on site may well be housed in a little 'village'.

In this case, the structure of the project team, and the management style, tend to change as the project progresses:

- (a) The feasibility study, or research phase, will be undertaken by a task force working with a team leader. The management style usually has to be by leadership and not instruction. The manager of the feasibility stage is often not the most senior person on the project team. For example in Fluor Daniel, or Foster Wheeler, the bid will be managed by a bid manager, but the bid team will contain the project director and senior engineering managers, all more senior. The bid manager is the expert in bidding; the others respect his or her guidance. But the bid manager cannot instruct, just lead and guide. In a research project, the team is often a team of equals, and again the team leader must lead and guide as a first-amongst-equals.
- (b) During the design stage the team adopt a matrix structure. This is not necessarily matrix management. There may only be one design manager. But there will be several design professionals, each contributing to the design of different parts of the (project deliverable (plant)). The management style now becomes democratic. The professional designers are the experts, and know more

Table 1: Four operational control and governance scenarios

Few-dominant customers	Case 1 Traditional projects Company-in-a-company	Case 2 Programme management
Many-small customers	Case 4 Product development	Case 3 Portfolio management
	Few-large Projects	Many-small projects

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about the design of their part than the manager. But the manager has to give firm instructions, to coordinate the input of the several designers across the several parts of the plant. So the designers advise, but the manager takes the decisions and instructs the designers what to do.

- (c) During the construction phase the team will organize itself into several task forces, each constructing a different part of the plant or project deliverable. This is called a task hierarchy. The management style now becomes very authoritarian. The time for discussion and decision taking is over. The plant has to be built as designed. Any changes now cost a lot of money, and so the manager just tells the team what to do.
- (d) During close-out, the team organizes itself back into a single task force responsible for pulling the final bits and pieces together and doing all the tests and checks. The management style now needs to become more bureaucratic, making sure all the tests and checks are done, and ticks put in the right boxes.

Case 2 – Many small projects for a few-dominant customers

This is programme management. The organization is doing work for a single customer in a single coordinated effort, but it is better to break the work into several smaller projects and manage it as a programme. A typical example is the telecommunications company, Ericsson, building a telephone network for a telephone operating company. The construction of the network is the single coordinated endeavour, but it is done as a programme consisting of several projects to deliver individual components of the network. The programme is delivered as a fish-bone, Figure 2. The feasibility study and overall system design are undertaken at the programme level. Small, homogeneous project task forces are created to undertake individual projects, to deliver individual components of the system. These teams, or task forces, are responsible for design delivery and link-up of their component. I said in a previous article that the programme may be undertaken in cycles, each cycle consisting of several projects. At the end of each cycle, the programme steering board will decide whether they have done enough, or more is required, and stop the programme or continue as necessary. That can be done here. But the essential feature here is that each project is managed as a small homogeneous task force, with the same structure and management style for its whole life.

Case 3 – Many small projects for many customers

The organization is now doing a portfolio of lots of unrelated projects for lots of customers. (The customers may all be part of the same parent

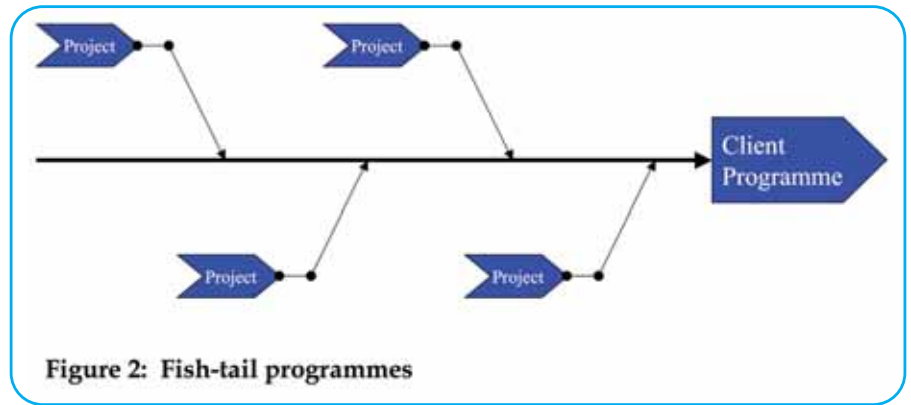


Figure 2: Fish-tail programmes

organization, and even part of the same organization as the project-based organization supplying them, but they are essentially unrelated and the work for them is unrelated.) A typical example is the telecommunications company, Ericsson, building telephone systems for large buildings such as hospitals, schools or office blocks. Indeed, this is where the vast majority of projects lie. This also shows that one organization can have projects lying in two, three or even four of the boxes in Table 1. The projects are again undertaken by small, homogeneous task forces responsible for design, delivery and commissioning of the project deliverable. Again, the essential feature here is that each project is managed as a small homogeneous task force, with the same structure and management style for its whole life.

Case 4 – A few-large projects for many small customers

At first Anne Keegan and I didn't think that Case 4 existed: it was only there because there was a fourth segment in the two-by-two matrix. But one of our sample companies quite clearly fitted this scenario. They were a start-up company developing a new product (one large project) with several applications (many customers). Indeed, many research and product development projects are like that. So I now label this as product development. In this case, the management structure for the project was a start-up company, with many project task forces working on the different applications of the single product. The research, or product development, department also often tends to be a company-within-a-company, separated from the main operations, with several project task forces.

What is a project manager?

So there are different operational models of projects in different scenarios. But it does raise an important question: 'What is a project manager?'. The way some people talk one might be forgiven for thinking that a 'project manager' is a single type of person fulfilling a single type of role. But you can have project managers delivering a project worth just £5,000, part of a larger programme or portfolio, and you can have a project manager delivering a project worth £5,000,000,000. They are clearly completely different roles.

Once, at a presentation at the annual conference of the Project Management Institute, during question time, a delegate said she preferred PMI's PMP process to IPMA certification because there was no age constraint with the PMP. The PMP does require three years project experience, but I guess if a baby started getting the experience at birth they could become a PMP at the age of three. IPMA just says you are likely to start getting the experience at 21 or 22 at the earliest, so you are likely to be 25 when you first come for level D certification.

But IPMA also identifies four levels of project management:

Level D: managing projects where the resources are all of a single discipline

Level C: managing project where the resources come from several disciplines, but all from one company

Level B: managing projects where the resources come from several companies, but all from one industry

Level A: managing complex projects where the resources come from several industries and even from several countries

Governance of the individual project

Anne Keegan and I identified four essential roles on a project:

- the management of the relationship with the customer
- the management of the input of resources
- the management of the project process
- the management of the delivery of the project's product and benefits

I used to think that all of these roles were the responsibility of the project manager. However, as a result of the work I did with Anne Keegan (2000, 2001), I came to the conclusion that the project manager's primary responsibility is to manage the project process.

Projects are complex, and it is the project manager's responsibility to concentrate on the management of the project process to deliver the project deliverable in accordance with the agreed specification. (The specification may change during the project process, through agreed changes, but that is another story.)

Three months ago I adapted the OECD definition of corporate governance to give a suggested definition of the governance of the

individual project:

Project governance involves a set of relationships between a project's management, its steering committee (or management team), its parent organization or client and other stakeholders. Project governance provides the structure through which the objectives of the project are set, and the means of attaining those objectives and monitoring performance are determined.

From this I suggested we can identify three roles for the governance of the individual project:

1. Setting the project's objectives, which involves:
 - Setting the business objectives to be delivered by the project and ensuring those are linked to corporate strategy.
 - Defining what outputs (or deliverables) the project should produce which when operated post-project will deliver those business objectives

I have labelled the person fulfilling this role as the **Broker**.

2. Defining how the project's outputs will be produced, which involves:
 - identifying the process required to deliver the project
 - identifying the competencies required
 - assembling a team with those competencies, (which may include the project manager)

I have labelled the person fulfilling this role as the **Steward**.

3. Managing and monitoring the process to deliver the project's outcomes to time, cost and quality. This is the role of the **Project Manager**.

The broker is responsible for maintaining the relationship with the customer, the steward is responsible for managing the input of resources, and the project manager is responsible for managing the project process. The manager and the broker are together responsible for the delivery of the project's outputs, and the broker is responsible for ensuring that those are used to deliver the desired benefit. (This is benefits management which will be discussed in a later article.)

Governance roles and the four project scenarios

The project governance roles are fulfilled in different ways in the four project scenarios described above.

Case 1 – Large projects, large customers

On very large projects, the project director fulfils the broker role. A proposal manager will be responsible for managing the project process during the proposal phase, a design manager during design, construction manager during construction, and commissioning

manager during commissioning. They will also be responsible for defining the project process and so will fulfil some of the steward's roles. However, resource managers will also be responsible for helping manage the input of resources.

Case 2 – Programmes for large customers

The programme manager fulfils the steward role, defining the overall programme and project process, and assigning resources to the individual projects. The project manager, working for the programme manager, manages the project process on the individual projects. An account manager from the sales and marketing department often fulfils the broker role.

Case 3 - Portfolios of projects for small customers

The portfolio manager fulfils some of the steward's roles, particularly assigning resources to projects, but the project manager helps define the project process. He, or she, is also responsible for managing the project process. Somebody in an account manager type role will act as broker again.

Case 4 – Large projects for many customers

In the start-up company that Anne Keegan and I studied, the managing director fulfilled the steward role and the marketing director fulfilled the broker role. This company also illustrated why two people were necessary to fulfil the roles (see my article 7). The managing director was an introvert, interested in the science of the product development. The marketing director was an extrovert, interested in the possible applications. They made a well-balanced team.

The role of the sponsor

The role of the broker goes by many names, but one very common one is the project sponsor. I described the role of the sponsor in the last article. The role is also sometimes called the project champion. The UK Government, in their Prince2 process (OGC 2002), calls the role the project executive. They also have a role of the 'senior user' that fulfils some of the brokers responsibility. Prince2 is one of the few project management methodologies to also recognise the role of the steward. It is called the senior supplier.

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