

Chapter 1

The Nature of Projects (or “How to recognise a project when you see one!”)

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Chapter 1

The Nature of Projects

1.1 Introduction to the Module: The Nature & Organisation of Project Management

The aim of this module is explore a number of themes which will deepen your general understanding of projects and of project management:

Theme 1 - Projects are different.

Projects have some predominant features which differentiate them from other ways of working. In order to succeed at project management the manager must use the appropriate approach.

Theme 2 - Projects are Effective and Strategic

Project Management is important because organisations deliver many of their most important strategic changes through once-off projects.

Theme 3 - Projects are delivered by People

The successful completion of any project is due to a number of factors most of which relate to human activity.

Theme 4 - Projects are organised differently

The unique nature of the project environment leads to some unique ways of integrating projects into existing organizations.

Theme 5 - The Project Manager is at the Centre

Projects demand a central leadership and co-ordination role. Successful projects require competent project managers with unique skill sets.

Theme 6 - The Project Manager is a Proactive Detective!

Project management is not a passive job. It is the responsibility of the project manager to proactively detect problems and manage towards a successful outcome.

1.2 Learning Objectives for this Chapter

Having completed this chapter you will:

- Be able to define a project
- Understand the attributes of projects which distinguish them from operational work
- Identify types of projects in various industries along with their particular characteristics
- Understand the distinction between Projects, Programmes and Portfolios
- Identify some reasons for the increasing use of Project Management in organisations and the consequent rise in the project management profession

1.3 Introduction

In this chapter we start our examination of projects and of project management in general.

We explore the nature of projects, their unique attributes and what it is about them that has resulted in the project approach being adopted as :

- an effective way of doing business
- a standalone professional discipline in its own right

1.4 Definition of a project

There are various definitions of a project available in project management literature. For example , Lock characterises projects as:

..The projection of ideas & activities into new endeavours

We will use one published by the Project Management Institute (PMI) in its Project Management Standard – The Project Management Body of Knowledge (PMBOK):

A project is a temporary endeavour undertaken to create a unique product, service or result.

The key words to focus on are **temporary** and **unique**.

Temporary means that projects are designed to start and to *end*. There are planned and fixed time boundaries. In general the start of a project is marked by a clear definition of the job that must be completed and by the approval to proceed. The end is determined by delivery of the expected results.

The project organisation is also temporary. Projects are generally delivered by teams, composed of people brought together from different areas of an organisation for the sole purpose of achieving the objective of delivering “a unique product, service or result”.

The word *unique* implies that something new is happening. In some endeavours this “newness” is quite obvious e.g. getting a man to the moon for the first time, developing and launching a brand new Games Console etc. An element of repetition is apparent in others e.g. organizing the Annual Staff Barbeque, developing minor upgrade to a launched Games console. However no two projects are ever exactly the same. They may differ in many ways - the people involved, the exact specification of the product to be delivered, the commercial or legal environment at the time etc. etc.

This aspect of novelty always means that we cannot predict the outcome of a project with a high level of certainty. In other words *risk* is always present in Projects. (..more of this in later lessons)

In contrast normal *operational work* is characterised by:

- Predictability
- Repetition and
- Routine

NOTE: The Project Management Institute identifies another distinctive attribute of projects - *progressive elaboration*. Because of the novelty aspect of *projects*, at the project start, the scope and objectives can usually be described only in simple high-level, overview terms. As the project moves through its cycle towards completion the level of definition and clarity increases. Thus the work and deliverables are progressively elaborated (or developed) as the project proceeds.

An example to illustrate progressive elaboration–

A company has recently become subject to legislation which was passed to regulate company financial operations. The CEO determines that a project is required to ensure that the company complies with the legislation.

The starting scope and objectives as stated by the CEO are simple and easily understood – “to be compliant with the legislation by end of the financial year”. However as this is brand new legislation there is little precedent available to indicate the types of systems & processes required and the changes that need to be made. No similar project has ever been completed by this company.

The project manager must however start with what is known and available – in this case they could use the CEO’s requirements, the text of the Act, their own knowledge of the company etc. She builds on this base to develop a statement of project scope and to include more detail. With the team she may generate a list of system requirements to clarify the work required by the IT department. Following broader consultations and legal advice she may even remove some deliverables from the scope. As the planning of the project proceeds she creates process designs and revised organisational structures which show in more detail what the impact on the company is likely to be. This process continues as the team continue to refine the project details.

Note: Progressive elaboration must be achieved in a managed and planned manner. It must be based on an assumption that the starting definition (however imprecise at that stage) are accurate and represent the totality of what is required from the project. Progressive elaboration should clarify, refine and expand on these known high level objectives – not add to them. Referring to the example given above - If the project manager was to decide to include “compliance to other health & safety legislation” as a project deliverable then this would represent an increase in scope of the project rather than an elaboration of the baseline scope.

1.5 Projects as Complex Systems

***Complexity:** composed of many interconnected parts or complicated, intricate or hard to understand.*

Projects are also characterised by the presence of complexity and the challenge of project management is to achieve a successful outcome while dealing with this complexity. This requires approaches, activities and techniques which are more focused on :

- making sense in ambiguous situations
- generating meaning
- and learning from experience

In contrast the traditional view of project management was that the important activities for the project manager were :

- Generating requirements
- planning work and
- controlling work.



Exercise 1

Based on the project definition above, do you believe the following are good examples of projects? Give your reasons.

- A. Your payroll department generating pay cheques every month
- B. Construction of the Dublin Port Tunnel
- C. Brushing your teeth every morning
- D. The Minister for Finance preparing and delivering his annual Budget Speech to the Government
- E. Writing a novel

1.6 Types of Projects

The recommended text by Lock specifies 4 types of Projects. These are shown in the table below. Each of the initiatives in these groups will fit the criteria to be classified as a project. However the nature of the projects is likely to vary. Management of these projects must take into account their unique project environments.

The table compares some attributes of typical projects within each category.

Project Type	Examples	Capital Costs	Attributes	Risk
Engineering & construction	Port Tunnel New Oil Rig	High to Very High	Frequently Remote / Inhospitable/ Multiple subcontractors	High
Manufacturing	Development of the iPhone	High	Local/Remote Market Driven	Medium/High
Management	Open a new Call Centre Replace a Key IT System	Low to High	Usually local /controllable Frequently smaller in scale but with significant impacts	Low - High
Research	New Drug	High to very High	Local Hard to define boundaries	Very High

1.7 Projects, Programmes & Portfolios

Most organisations will run a number of projects simultaneously. Any individual project will seldom run in isolation to the other projects within an organisation. There may be links to these other projects because of sharing personnel, shared functional owners etc. The link may be even stronger than that - they may be sharing the same objectives or contribute to the same end result. Indeed, the successful start-up of one project may depend on successful completion of another. In order to manage such relationships, projects may be grouped as either Programmes or Portfolios.

Let us go to the Project Management Book of Knowledge (PMBOK) once again for some definitions which should help to clarify the distinctions between programmes and portfolios:

A Programme is a group of related projects managed in a co-ordinated way to achieve benefits and control not available by managing them individually.

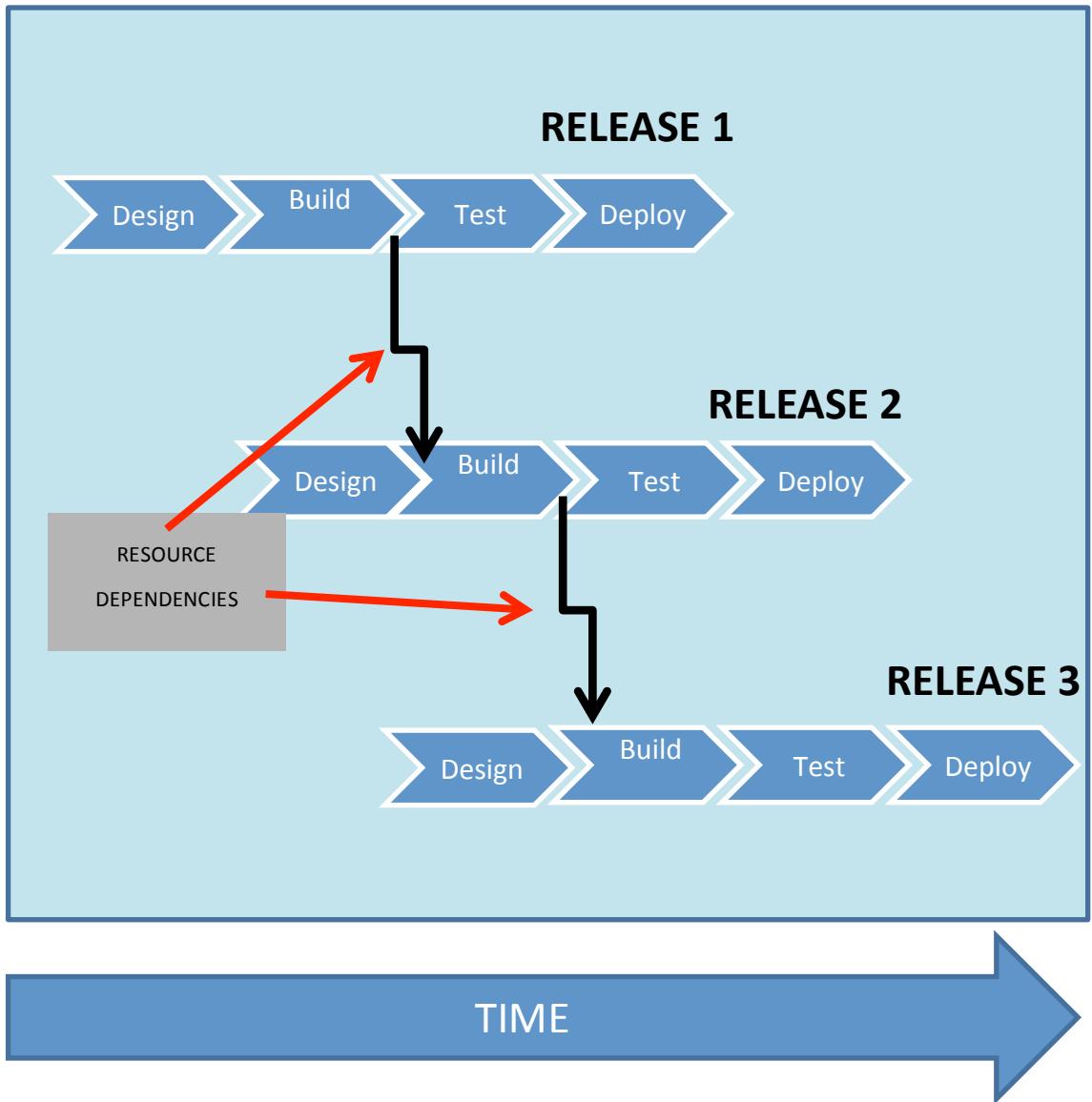
The key words are “related” and “co-ordinated” – each of the projects in a programme should contribute something to a common objective.

Example:

A software firm intends to release a new version of their software every 6 months to the market. The work to design, build and produce an individual release would constitute a project in itself and each project could be managed independently. However some constraints may exist between these releases – For example :

- Software version 2 cannot be released before software version 1
- design work for any version is allowed to start before delivery of the previous version – however all projects share the same software build team!

... The following figure illustrates the dependencies:



It is obvious that any delay in one project could have knock on impact on multiple subsequent projects. Managed individually the inter project dependencies may not be appreciated and communicated. It is the function of programme management to identify and resolve these issues.

In contrast to a Programme..

*...a **Portfolio** is a collection of projects or programmes and other work that are grouped together to facilitate effective management of that work to meet strategic business benefits.*

A Portfolio brings together a grouping of projects that are more loosely coupled than projects within a programme and which do not necessarily have strong links. A portfolio manager would typically be concerned with the mix of projects & programmes rather than their interdependencies. The Portfolio Manager is concerned with questions such as - “What are the types of projects that we are

running?" and "Is this the best set of projects to deliver on our overall strategic objectives?"

1.8 Project Management – What is it ? and Why is it Important ?

First – another definition from the PMBOK:

Project Management is the application of knowledge, skills, tools & techniques to project activities to meet project requirements.

So - project management is about applying a certain mix of skills & approaches which are effective in the project context.

An alternative definition is quoted in Burke and conveys perhaps a better sense of the work of the project manager:

Project Management is the process of integrating everything that needs to be donein order to meet the projects objectives.

We will see in other modules what this integration actually means and we will also explore the knowledge and techniques aspects mentioned by Lock. First let us look at some of the reasons why we should use this approach at all....

We have explored what is distinctive about the project context and seen that much of the work commonly done nowadays in commercial organisations (and elsewhere!) could be classified as project work. It could be argued that the same work could be performed without the imposition of "project management" structures. However certain factors are driving organisations to adopt the project management approach. Here are some significant ones:

- 1) Initiatives are getting bigger, more complex and can span multiple organisations, continents and cultures. This requires the coordination and cooperation of multi- functional team members.
- 2) Traditional functional organisations tend to fragment responsibility and to enforce localised views of problems at a time when centralised responsibility and co-ordination is becoming more important for clients.
- 3) The achievement of significant strategic objectives is not always possible using the normal resources and structure of an organisation. Temporary organisations (structured as projects) can fulfil this need.

The adoption of project management is not without pain! The separation of projects from the normal functional structure inevitably leads to some conflict. This may be due to prioritisation of work, allocation of resources etc. In addition the project management organisation must be integrated into the existing structure in some manner.

Despite this pain, project management continues to grow as a means of achieving goals and as a professional career path.

- In a recent survey by the PMI (Project Management Institute) of 250 senior executives:
 - 93% strongly agreed that project management is a valuable asset and
 - 90% agreed that project management was an effective way of ensuring success.
- The PMI which is US based claims over 300,00 members worldwide and the similar Europe based organisation, the IPMA, has over 80,00 certified members



Exercise 1-1 Optional Module assignment

Create a project "scrapbook" to record details of projects you have worked on (or are familiar with.) Start by giving brief overview of each project – its purpose, deliverables etc. After each lesson try to apply what you have learned to each of the projects by adding comment etc.

It would be more beneficial to use a few different types of projects –for example: –

- A well known project in the public arena
- A personal one which you have been involved with (building project etc)
- A past or present business project



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Student Notes

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PROJECT WORK

CHANGES - The purpose of Project activity is to change what or how things are done. Outputs are unique and deliver something new or improve/enhance something that already exists. The design and implementation of change is the key characteristic of Project activity.

UNCERTAINTY - Projects will vary in size and complexity, however all Project activity is characterised to a greater or lesser degree by uncertainty & risk. Because Project outputs are unique so there will be uncertainty on what needs to be done, what resources are required, how long it will take and how much it will cost – there is therefore inherent risk that the activity will not deliver to expectations.

NEW CROSS FUNCTIONAL SUPPORT Project activity will generally require cross functional support impacting on multiple areas/people which is not defined in processes & procedures. Consequently Projects will have multiple stakeholders whose support & commitment is new and needs to be defined and agreed within Project structures and plans.

TIME BOUND: Project activity will be time bound and will never be on-going. Activity will have an agreed start date and agreed target completion date. A Project is completed when its defined purpose and agreed outputs are produced or if the Project is formally cancelled.

TEMPORARY RESOURCES

Project activity will be assigned resources on a temporary basis, reflecting the time bound nature of activity. Resources are assigned, either part time or full time, to perform specified tasks, and once completed resources will revert to previous or new roles or a new Project.

ONCE OFF OWNER A Project will have a defined owner (sponsor) who is accountable for the Project and has the necessary authority (defined for the Project) to support & oversee successful delivery.

OPERATIONS

MAINTAINS The purpose of operational activity is to deliver predictable outputs which are undertaken through defined processes and procedures and supported by experience and knowledge. Change is small and incremental and does not involve significant alteration in what and how things are done.

ROUTINE & PREDICTABLE Operational activity may be large and complex. However it will be routine and supported by established processes, procedures and knowledge. Levels of uncertainty and risk will be low, while output predictability and quality will be high. If operational outputs become un-predictable or are of low quality there may be cause to institute an improvement Project.

EXISTING CROSS FUNCTIONAL OR WITHIN FUNCTION Operational activity will often require cross functional support, however such support will be defined and embedded in established and agreed processes, procedures or operating level agreements. Cross functional support will not be new and will be well understood.

ONGOING: Operational activity is on-going and repetitive. Activity will often have a target completion date but is routinely undertaken at an agreed frequency or in response to a defined event. A key characteristic of operational activity is that it is repeated, even if the frequency is low.

PERMANENT RESOURCES

Operational activity is assigned resources on a permanent or semi-permanent basis reflecting its repetitive nature. As operational tasks will be routinely undertaken so there will always be a requirement for resources to undertake them.

ON GOING OWNER Operational activity has a line manager/supervisor who is responsible for performance on an on-going basis and whose authority is defined in operational processes and policies.

Chapter

Objectives and Cycles –

Or “How to juggle and move forward at the same time!”

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Chapter Objectives and Cycles

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3.1 Learning Objectives for this Chapter

Having completed this chapter you will be able to:

- Identify the triple objectives applicable to every project
- Understand the interactions between these objectives
- Appreciate the implications for project success of any changes to the balance of the objectives
- Describe a project life cycle
- Understand various attributes associated with each cycle phase

3.2 Introduction

In the previous chapter we defined a project and explored some of the attributes which may determine “when” and “why” you would use the project approach.

In this chapter we continue to explore some When and Why topics. We further explore the nature of projects by looking at the general performance objectives of projects – how we actually measure project success.

We also examine how each project can be viewed as a cycle consisting of a number of phases and how this may influence our management of projects.

3.3 Triple Objectives

Projects are only of value when they deliver results to the customer. This is why the customer initially commissioned the project...in order to gain results that are of benefit to them. For a project manager there are three broad project objectives which determine successful completion - Cost, Time and Quality. These are the triple objectives or “magic triangle” of project management. Let us look at these individually first:

Cost (or more correctly the “budgeted cost” or “budget”)

Budget: *The approved estimate for the project.*

Note the word “approved” above. A primary objective for a project manager is to complete the project successfully within the prescribed budget. Any overspend can result in adverse consequences such as a lower than predicted profit from the project or a failure to achieve the financial benefits expected. For large strategic projects with high levels of investment the consequences can be even more serious.

Time (or more correctly the “time to completion” or “target date”)

The primary date of concern to the project manager is usually the final completion date. This is the agreed handover date for the final outputs of the project (a road, a bridge , a call centre, a moon landing) Intermediate target dates may also be significant – because meeting these dates can indicate progress towards the end target date and can also instil confidence that the final completion date can be achieved. Intermediate dates can also be important because of the external projects or initiatives that are dependent on deliverables produced from these intermediate stages.

Quality (or “performance”)

Quality: The degree to which a set of inherent characteristics fulfils requirement.

Lock defines the quality objective more plainly – *“...the end result of any project must be fit for the purpose for which it was intended”*

A project which delivers a substandard result which is on time and in budget is unlikely to be considered successful. The Project Manager must ensure that the quality requirements of the client are understood and that the appropriate quality management procedures are in place.

Important Point: These three objectives are interrelated. This relationship is central to how projects are planned and managed. The following diagram displays this relationship as a triangle. Each the 3 objectives are represented by a point of the triangle. The diagram shows them equally balanced. A change to any one of the 3 angles will always result in some change to the others. This balance is explored further in the next section.

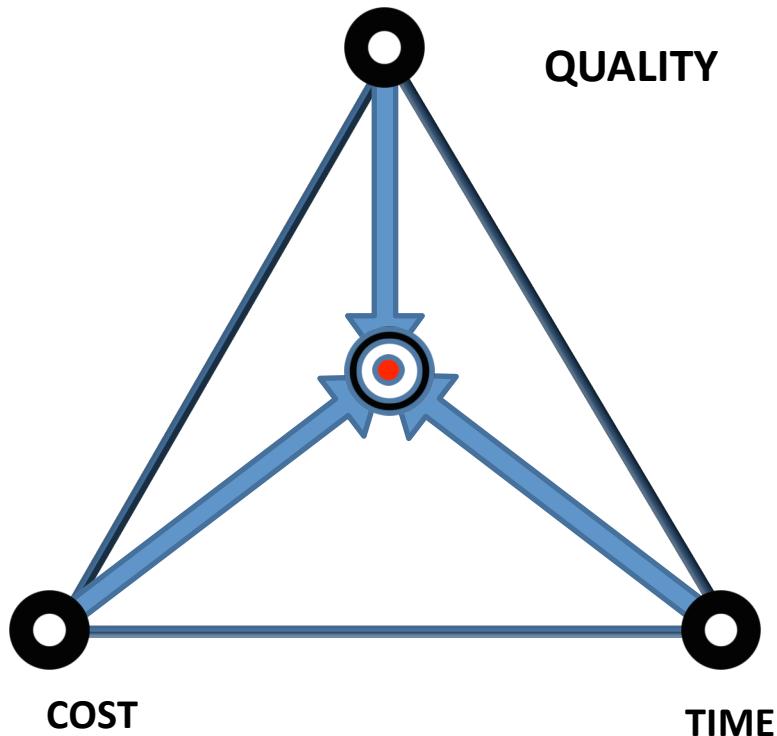


Figure 1 – Triple constraints

3.4 Balancing the Objectives

Before we explore these relationships in more detail let us describe a case study to which we can refer.

CASE STUDY: CALL CENTRE

Project specification:

Background: *The Head of Customer Sales of a large communications company has initiated a project to build and staff a call centre to be used for marketing and selling the full range of the company's products and services to its customers. They will achieve this using outbound telephone calling and email marketing. The company is also developing a number of new products and services which it hopes to sell through this centre.*

Scope: *The project is expected to deliver a working call centre building with all associated facilities. The call centre is to be equipped with the necessary computing and communications facilities. The project manager is also responsible for the recruitment and training of call centre staff*

Specification: *The centre should be able to support multiple simultaneous sales campaigns (inbound calls and outbound calls). It should have capacity to call up to 2,000 customers per day. The business case prepared by the Head of Sales is based on a forecast that 30% of all calls will result in a sale.*

Time: *There is a significant new product (Product X) currently in development which will be ready for launch in 6 months time. It is vital that your company are first to market with this product. The use of the outbound call centre is central to the marketing of Product X.*

Budget: *The Management Board have approved a spend of 2 Million Euro, of which 1 Million Euro is to come from the Marketing Budget for Product X.*

At the start of any project there is a (stated or implied) expectation of a particular balance between the 3 objectives. This expectation is defined by the 2 Million Euro budget which has been set by the sponsor (Cost), by the target date of 6 months given (Time) and by some definition of what is acceptable in terms of the delivered benefits.- Calls per day, % of Successful Sales calls (Quality)

One of the early tasks of the PM is to clarify this balance and the priority of objectives in the event of changes.

In the case study above, the time and cost objectives at the start are quite clear. There are clues as to the expected quality in terms of call handling volumes and sales conversions expected. There are possibly other quality criteria which will come into play as the project is further defined. This might include: reliability of the communications systems, customer service attitude of the call centre agents etc.

The project manager must ensure that the work is planned in order to deliver to these objectives. She will also need to ensure that any monitoring and controlling activities are constructed to track against these objectives.

Disaster strikes!:

Changes will occur during the lifetime of the project which may require a trade-off between the objectives as defined at the start. For example, the project manager may find out at some stage of the design work that the call centre software which is favoured by Sales Director will not work with the companies in-house telephone system. Sourcing and installing of a similar alternative will take 3 months and will extend the scheduled end date of the overall project by a minimum of 2 months. Immediately it appears that the schedule objective is at risk. This in turn will compromise budget as the additional months labour must then be factored in.

However, the project manager determines with the Call Centre IT Manager that one of his team is capable of designing and building some bespoke functionality within the budgeted cost and schedule. However the functionality will not be as efficient and call handling capacity will only be 80% of the planned specification.

The project manager has the opportunity to restore the schedule and cost objectives but the performance objective is now compromised. She is not happy with the option and would prefer to deliver a fully performing solution. However she is under pressure from the Product Development Manager of Product X to meet the original deadline, whatever the impact on the operations of the Call Centre.

A project manager may make many trade offs like these during the life of the project. The final decision on significant tradeoffs, however, must rest with the project sponsor.

Note: One must also remember that there are other ancillary objectives (apart from Time, Cost & Quality) which cannot be ignored. Included among these are the likes of: impact on the environment, legislation and the health and well being of the project participants.



Exercise 1

Here are some examples of projects. What do you believe was the priority objective in each case? What was the least important? Give your reasons why:

Getting the first man on the moon

Staging the Special Olympics in Dublin in 2003

Construction of the Dublin Port Tunnel

Development of a treatment for AIDS

3.5 Project Lifecycles

A Project Life Cycle is a collection of generally sequential project phase whose name and number are determined by the control needs of the organization involved in the project.

In other words – it is possible to organise and view any project as a number of phases each with their own objectives and attributes.

The number and types of phase will vary depending on project type or environment. However, most projects exhibit general phases such as the four shown below. (An alternate naming is shown in brackets).

1. **Initiate (Concept)** – Involves such tasks as feasibility, project selection, preliminary planning
2. **Plan (Design)** - includes budgeting, scheduling and more detailed planning
3. **Execute (Implement)** – contains the bulk of the “work” to deliver the results
4. **Close (Handover)** - is mostly concerned with final completion of work, handover to the customer, the paperwork etc.

Note that the transition points at the start and end of a phase are usually marked by a handover process – deliverables are checked and accepted and the next phase is approved to proceed. This helps in the monitoring and tracking of progress.

An organisation may choose to standardise the project phases to ensure more consistent and controlled management of projects. This is particularly useful when the nature of the project work or deliverables is unlikely to change from project to project.

3.6 Characteristics of a Project Lifecycle

Whichever type of cycle is used – the project manager should be aware of certain characteristics associated with each of the various phases of the lifecycle. Some of the more common ones are :

- a) Percentage Completion
- b) Resources Engaged
- c) Influence of Stakeholders
- d) Cost of Changes
- e) Conflict

a) Percentage Completion

Projects tend to start slowly. Output is low in the early stages as the actual activity is only being planned and required systems and process are set up and bedded in. Productivity peaks at the mid point of the project cycle. Towards the end, the pace of work can slacken and it may take a disproportionate amount of time to close out the project... (Sometimes to the point that it is not clear whether the project will ever finally end!)

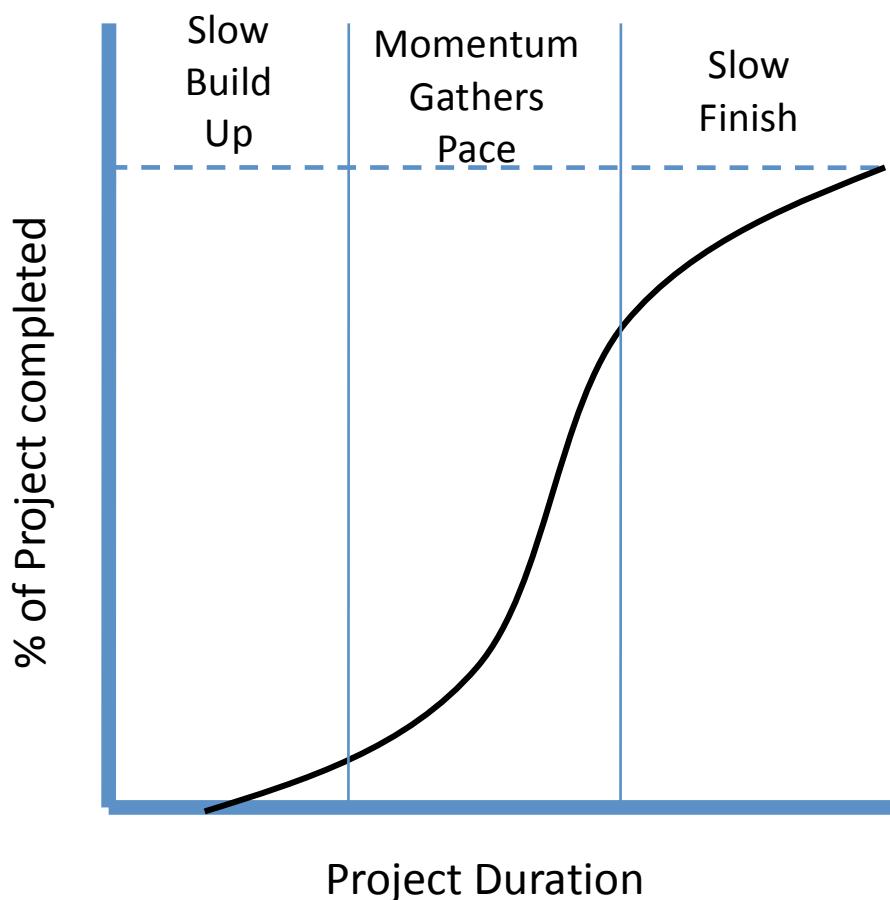


Figure 2 - Project Completion per Phase

Below is the same curve mapped to the 4 phases mentioned above:

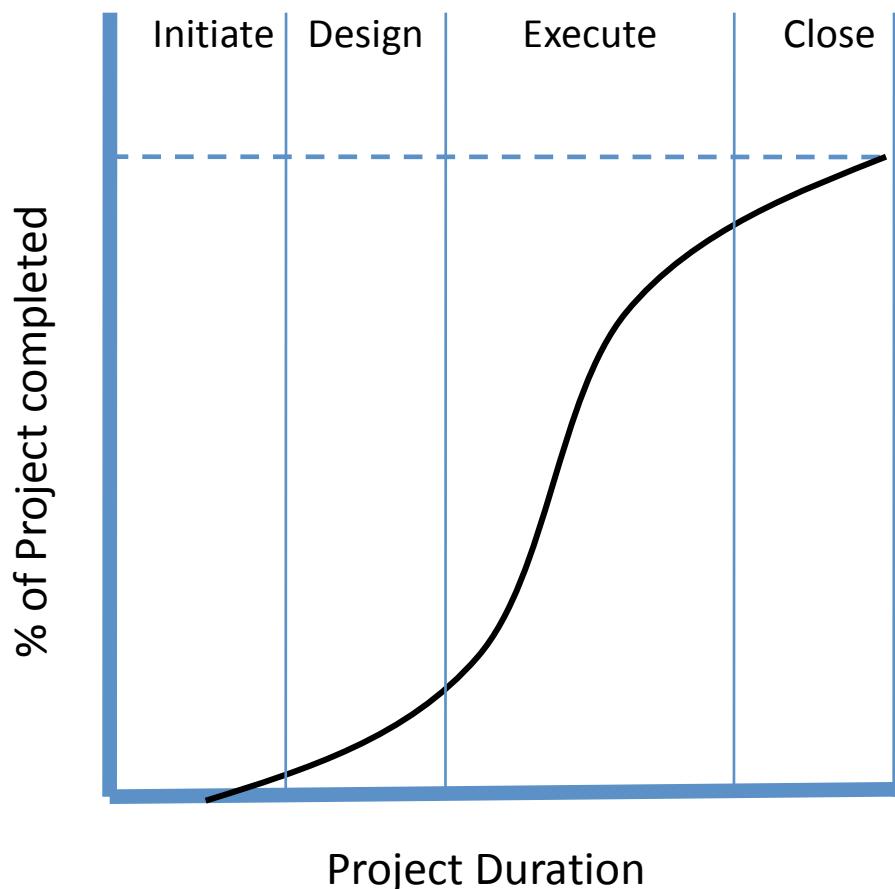


Figure 3- Project completion in a 4- phase cycle

b) Resources Engaged

The level of resources used (or the Rate of effort) follows a similar pattern of gradual build up to a peak followed by a slow down. All resources are rarely in place (or even required) in early stages. When the initial feasibility and planning is complete the implementation resources are then engaged and activity rises to a peak. As deliverables are completed the project manager may start to release resources from the project until finally the project manager is the last one standing!

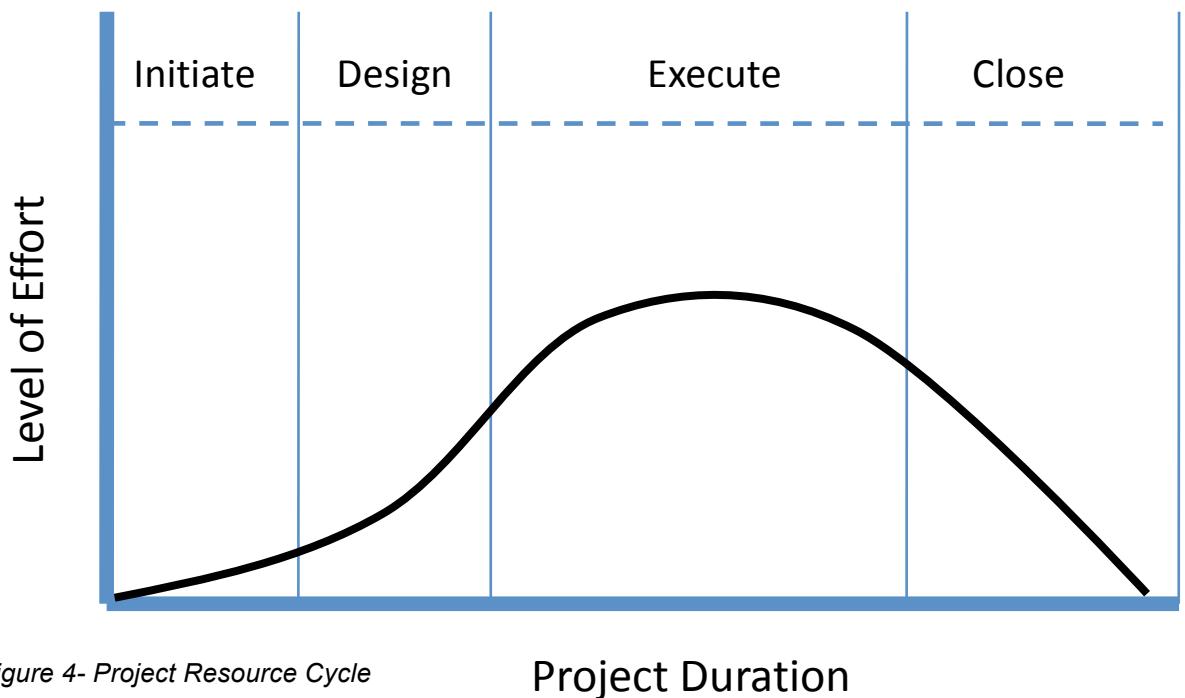


Figure 4- Project Resource Cycle

Project Duration

b) Influence of Stakeholders

This chart shows a different, downward, trend to the previous ones. At the start of the project there is higher possibility to change the objectives and requirements. This situation persists while feasibility and planning are in progress. As the project progresses this ability to influence falls rapidly. We will understand some the reasons when we look next at the cost of making changes.

Note 1: The ability to influence and change the course of the project may be even more constrained, depending on the nature of the project. The lower dotted line in the diagram shows a downward trend but will a steeper fall early in the project.

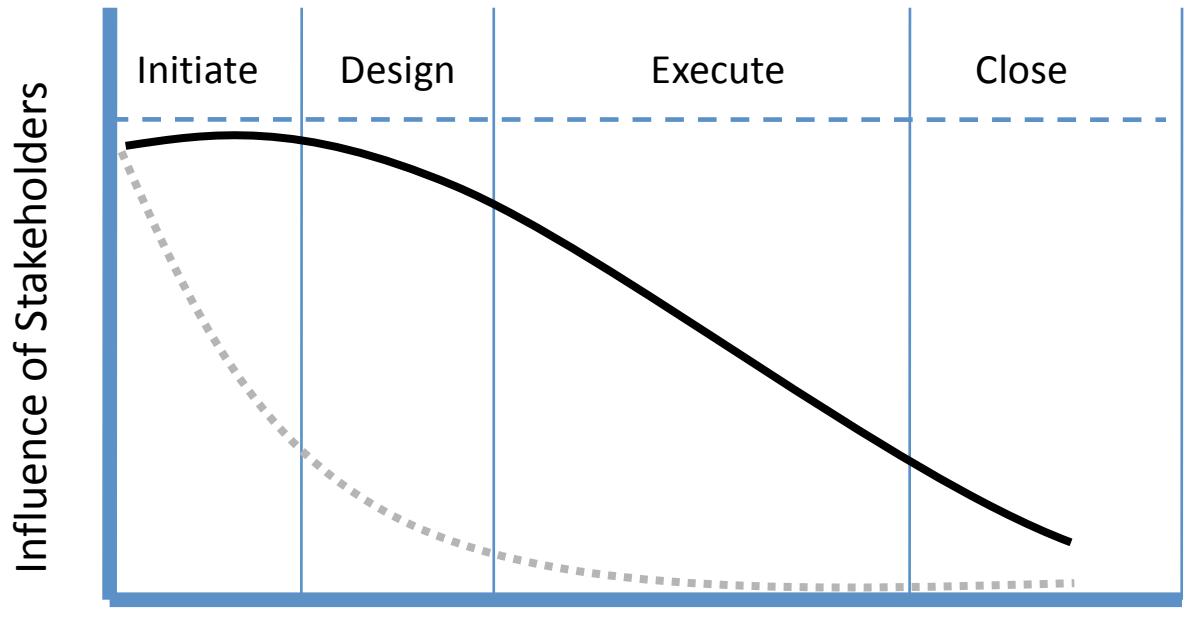
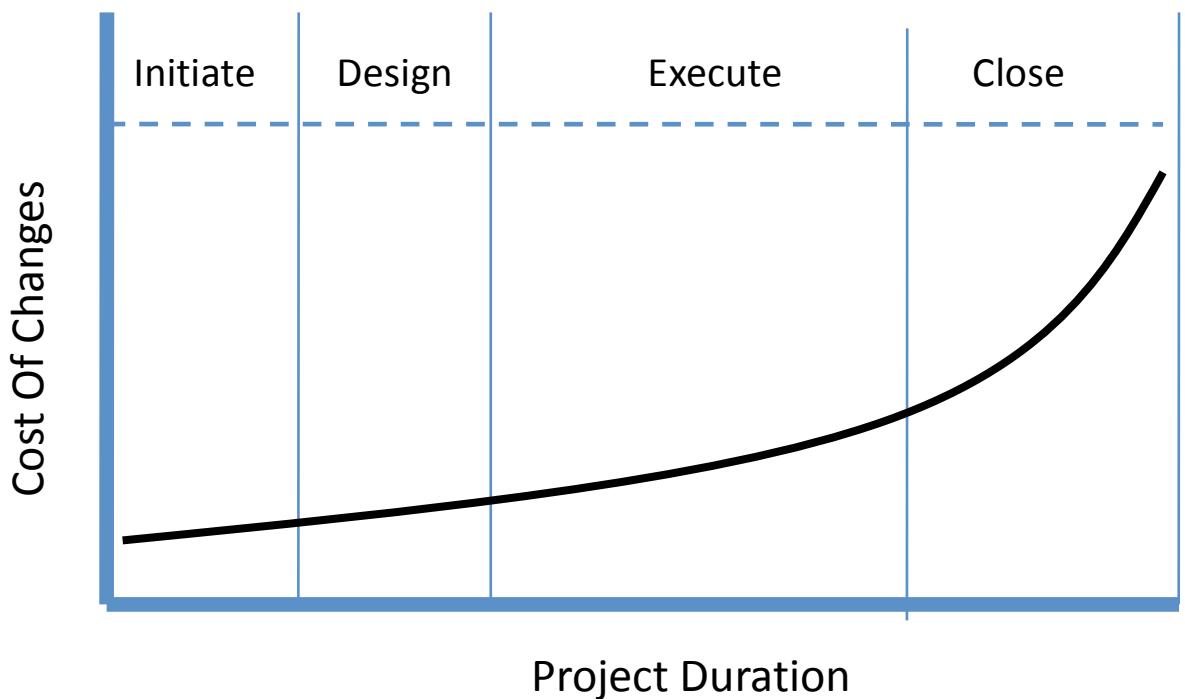


Figure 5 - Ability to Influence

Project Duration

d) Cost of Changes

The impact of making changes to the project objectives increases greatly as you progress along the cycle. This impact is normally expressed in terms of cost. As we have seen earlier in the chapter, time means money too! Therefore any changes that add to project duration also have a monetary cost. As a result, the ability of stakeholders to influence the outcome declines.



e) Conflict

Later, we will learn that conflict is always present at some level in all projects and it is the responsibility of the project manager to manage and, indeed, harness it. You will need to be aware that there is a general pattern to the appearance of this conflict throughout the cycle. In the early stages there is some conflict which is largely due to the lack of clarity about what's expected of the project and of individual project members. This rises during planning as other triggers for conflicts occur – e.g. allocation of resources, technical design disagreements etc. As the level of definition and understanding increases as we enter the execution phase the level of conflict tends to subside. However it is not unusual for a further breakout towards the end – particularly at the handover stage when the client actually gets to see the delivered article !

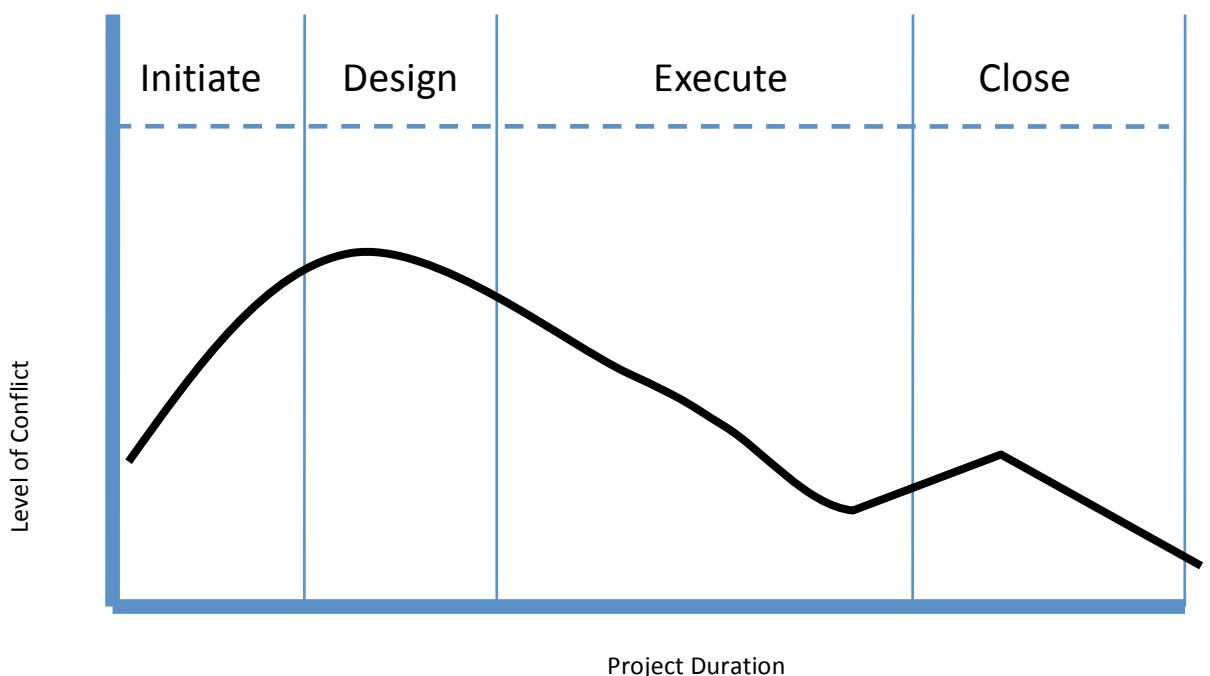


Figure 6 - Level of Conflict

3.7 Balance of Objectives during the Lifecycle

At the start of the chapter we looked at the triple objectives and the need for the project manager to be aware of the tradeoffs which may need to be made between the objectives. We can see from the chart below that the relative priority of the objectives is likely to change throughout the project cycle.

At initiation there is usually no significant difference in the priority a project manager will give to the objectives. During the design stage the schedule will tend to become paramount with cost becoming minor. During execution the schedule and performance will both vie for attention. As the project moves to the end of the schedule and the deliverables become clearer the focus will shift towards the performance of those deliverables.

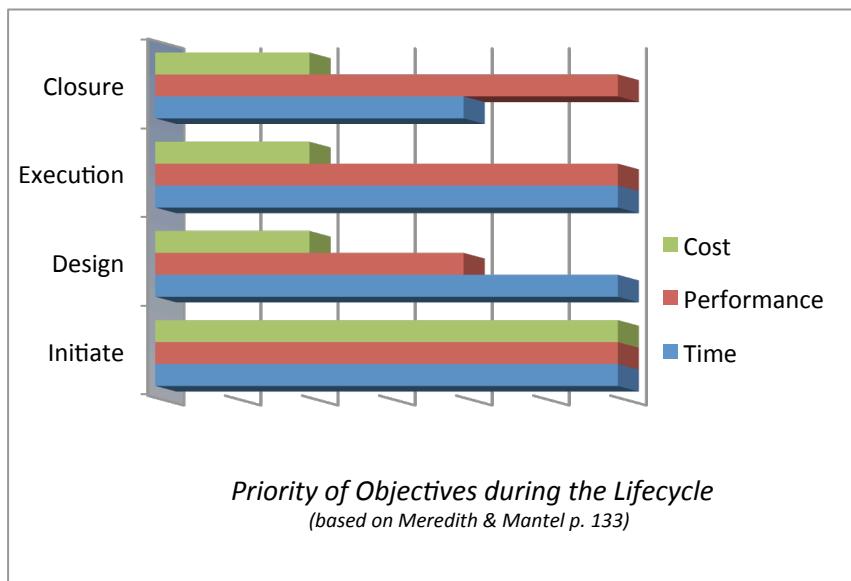


Figure 7- Priority of the Triple Objectives through the lifecycle



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Chapter

3

Stakeholder Management or "How to keep everyone happy!"

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Chapter

3

Stakeholder Management or "How to keep everyone happy!"

3.1 Learning Objectives for this Chapter

Having completed this chapter you will be able to:

- Construct an alternative triangle of triple project objectives
- Understand the distinction between “quality” and “level of specification”
- Understand the need to relate your project objectives to the needs of the project stakeholders
- Identify the types of stakeholders associated with any project
- Learn how to complete a stakeholder identification and needs analysis
- Understand the need for a project communications plan

3.2 Introduction

In the previous chapter we looked at the results of projects in terms of the triple objectives of Time, Cost and Performance. We expand on this work and begin to look at the needs of the various stakeholders involved in the Project.

To introduce this idea we first take a look at an alternative view of the classic Triple Objectives of Project Management.....

3.3 A Different View of Project Objectives

Lock proposes a slightly different view of the triple constraints to the one outlined in the last chapter. This is illustrated in the diagram below.

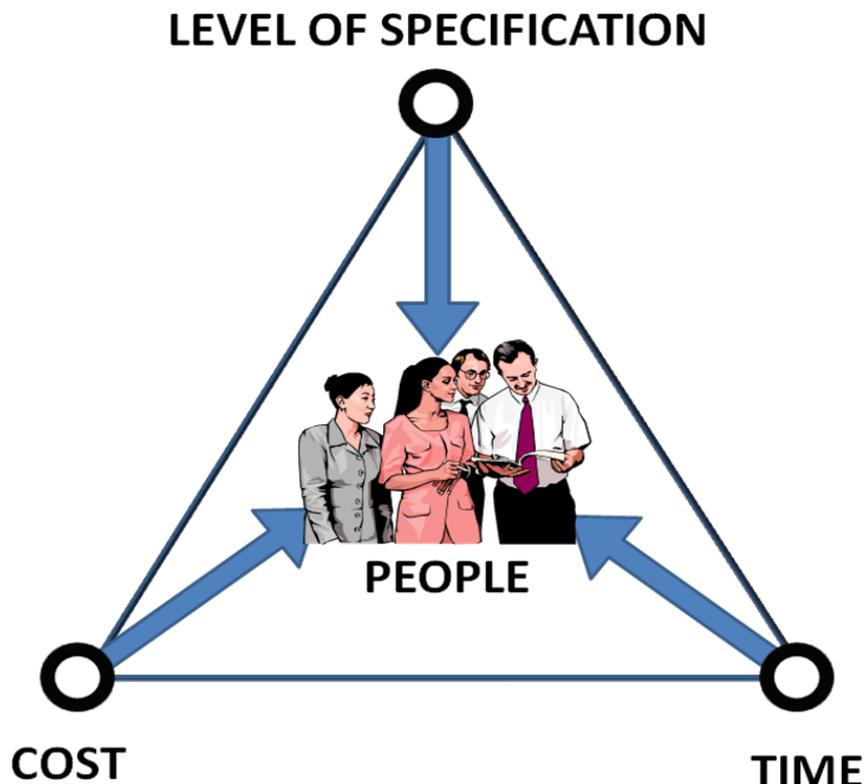


Figure 1 - Alternate View of Objectives

Quality vs. Level of Specification.

In Lock's view of the project management world there are also three constraints. However Lock proposes that it is not the *quality* of the deliverable that should be balanced against cost and time but the *level of specification*.

You will remember the definition of quality from Chapter 2 - *"....the end result of any project must be fit for the purpose for which it was intended"*

In contrast, “level of specification” relates to the defined and agreed *grade* for a particular project deliverable. Here is a definition for “grade”:

... A category or rank given to entities having the same functional use but different technical characteristics.

An example might help to clarify: My local Ford garage used to offer me three model options when I looked to upgrade my car. They were called Zetec , Titanium and Titanium S (in ascending order of price). I believe that each of the models is capable of the same functional use (to take me to and from work!) however they have different “technical characteristics“. Does any one model have more “quality” than another?.... from a quality management point of view the answer is a definite “No”. It would not be considered reasonable to say that the “basic” Zetec model is of a low quality- after all – it is still fit for the purpose for which its owner buys it .

Consider then a fully kitted out “Titanium S” model of the same car which is equipped with In Car DVD player & screens, mahogany trimmed dashboard, white leather seats, Satellite navigation etc etc etc . However if you are the lucky owner of such a fine car and it repeatedly breaks down due to faulty workmanship you would most certainly not consider it to be a quality product!

In summary, a project manager should never consider trading quality against time or cost. She may however be willing to negotiate a change of specification.

People.

The second difference in the triple objectives model that Lock proposes is that people cannot be ignored on the project. It is through people that the triple objectives (and ultimate project success) will be achieved. As a consequence of this, a project manager must ensure that the needs of the people involved in the project are understood from the start and are ultimately satisfied.

The rest of this chapter will focus on identifying the types of people (i.e. the stakeholders) involved in projects and also on introducing you to some approaches which will help to understand their needs.

3.4 Stakeholders

A definition from the PMBOK to start with:

A Stakeholder:

.... is a person or organisation that is actively involved in the project or ... whose interests may be positively or negatively affected by the execution or completion of the project.

A stakeholder may also be able to exert influence over the project and its deliverables.

Note that the scope of this stakeholder community extends beyond the project team and sometimes beyond the project or client organisation. Indeed, a stakeholder may be completely unaware of the existence of the project until completion of a deliverable !

Note also that the relationship between the stakeholder and the project can be either one or two way. In addition there can either be a positive or negative nature to the relationship, as illustrated on the diagram below. So the number and type of stakeholder interactions can be many and varied.

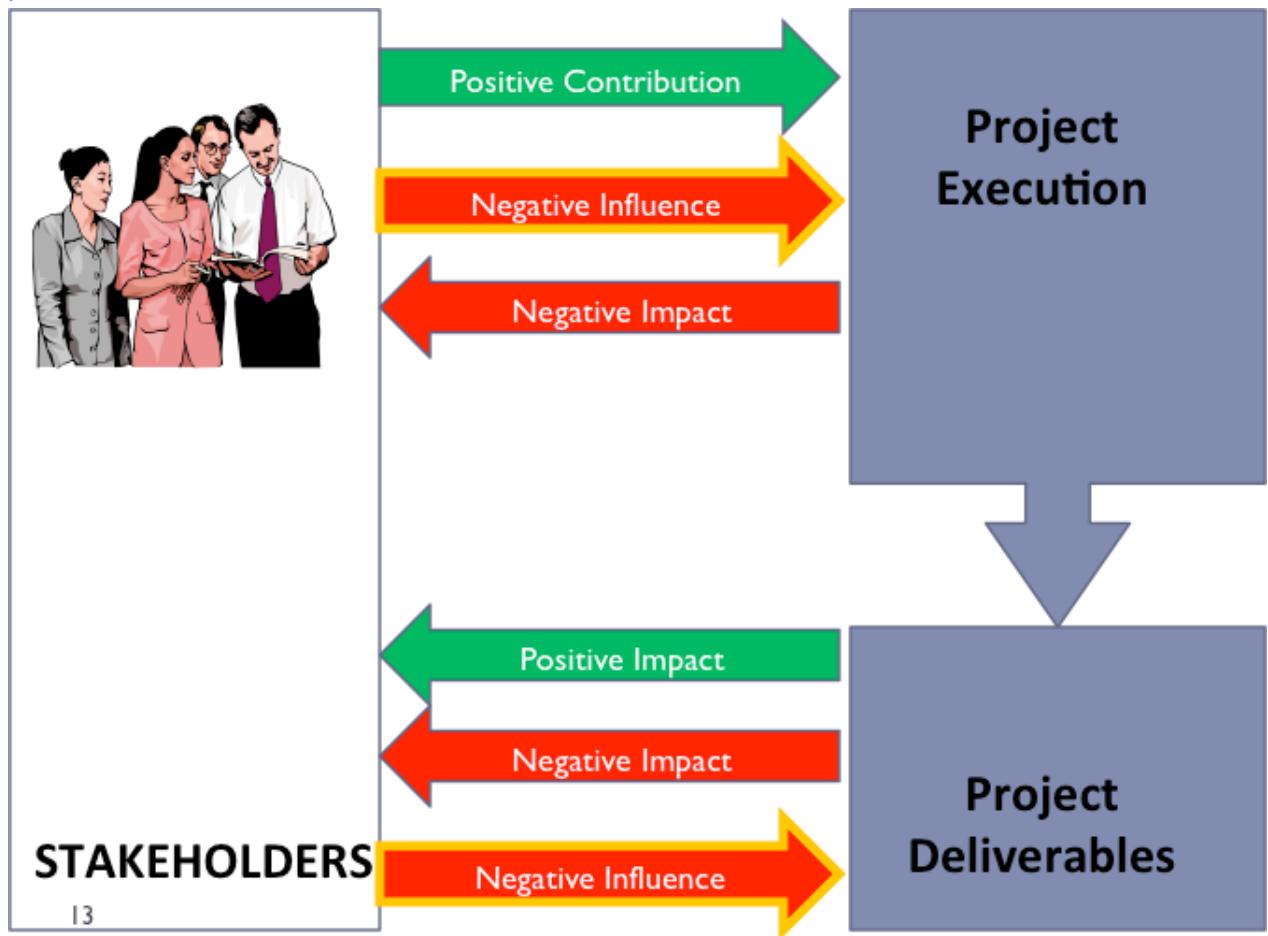


Figure 2 - Stakeholder Interaction with the Project

Any stakeholder's view of project success will be influenced by the nature of their relationship with the project. However all stakeholders may not measure success in terms of the Scope Delivered, the Cost budgets met, the Time deadlines met or the Level of specification achieved!.

For example - consider a project to construct a major new motorway. For the citizens who live along the proposed route of the motorway it is reasonable to assume that the project is likely to affect their interests; in other words they have become stakeholders, whether they know it or not! They may view the project in a positive light and expect to derive benefit from the motorway by way of reduced commuting times. On the negative side, when the project is complete, there may be increased traffic noise levels, loss of countryside amenity and local traffic congestion.

The execution of the project itself may impact them negatively: - during construction phase they are likely to suffer the effects of construction dust and travel restrictions.

Can these stakeholders make a positive contribution to the project? Of course they can. For example, it may be possible to seek their views on the design of the

motorway in order to allay some of their fears and perhaps incorporate suggested changes. If no positive contribution is allowed in this way, they may then decide to influence the project negatively by means of peaceful protest, either during construction or perhaps when it is in operation! Because of these risks it is the responsibility of the project manager to actively manage stakeholders.

Here is a definition of stakeholder management from projectsmart.co.uk :

Stakeholder management is the process of managing the expectation of anyone that has an interest in a project or will be effected by its deliverables or outputs.

Therefore stakeholder management is all about managing expectations. (If you want to read more then Chapter 18 in Horine's book is dedicated to Expectation Management)

3.5 The Project Managers Relationship with Stakeholders

The Project Management Institute proposes a view, illustrated below, of the relationship between the stakeholders and the project. The project manager has a relationship with all stakeholders but has a primary relationship with the project sponsor.

The diagram also introduces the idea of the project management team – those members of the project team who are directly involved in project management activities (Contractor project managers, Sub project leads etc).

The PM and the project manager team are a subset of the total project team which is itself a subset of the total stakeholder pool.

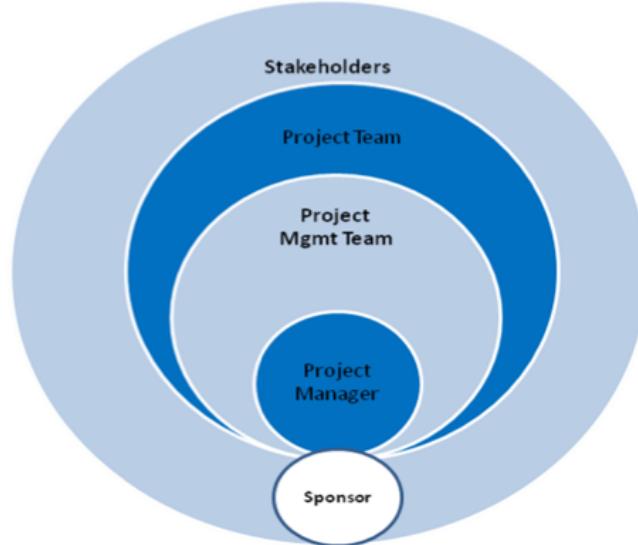


Figure 3 - Relationship between the Stakeholders and the Project (PMI)

3.6 Stakeholder Analysis - The needs of stakeholders

As we see from the motorway example, every stakeholder is likely to have a different level of responsibility and engagement with the project. Their responsibilities and level of engagement may also change over the course of the project. We have also seen that in some cases that stakeholder engagement may cause damage to the successful delivery of the project. It is the project manager's responsibility to ensure that:

- Stakeholders do not ignore their responsibilities to the project
- Stakeholder's interests are considered and planned for. (This does not mean that all stakeholders can be equally satisfied!)

In order to do this the PM must proactively seek out stakeholders and manage their relationship with the project. This task starts with stakeholder analysis.

The purpose of stakeholder analysis is to understand the project needs of stakeholders. The analysis is done during the planning phase of the project but should be reviewed regularly throughout the project until completion.

Analysis consists of the following steps:

- Identify (and categorise) Stakeholders
- For each Stakeholder :
 - Identify level of influence (negative/positive)
 - Identify interest in the project

- Document their:
 - Needs
 - Wants
 - Expectations
- Decide the stakeholder management and communications approach
- Review periodically

3.7 Stakeholder Groups

It can be convenient during stakeholder analysis to group or classify stakeholders (particularly in projects with multiple stakeholders with varied interests in the project). Three options for classification are given below: Level of Influence, Relationship to the Project and Priority

A) Level of influence

A simple classification is to separate them into Primary & Secondary groups. This classification is normally based on the influence of the stakeholder.

Primary stakeholders usually consist of:

- Project Owner/Sponsor
- Project Manager
- Main Project Contractor
- Project Financer

Secondary Stakeholders are likely to include:

- Statutory Bodies
- Lobby Groups
- Minor contractors
- General Public

Third and fourth level classifications of influence may also be used.

B) Relationship of the stakeholder to Project or the Organisation

- Internal
- External

C) Priority

- Based on a ratings scale which can be defined by one or more classifications e.g. a combination of A and B above.

The diagram below shows another possible way of grouping stakeholders.

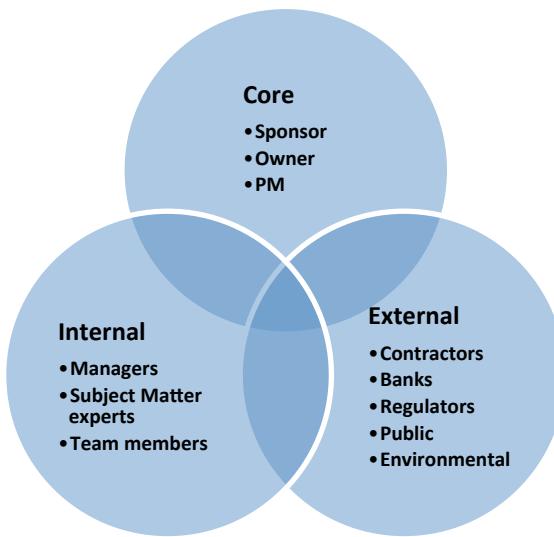


Figure 4 - Sample Stakeholder Grouping

Once all stakeholders have been identified, the project manager can investigate and tabulate their interests. The table in Appendix 1 can be used to summarise your findings.

3.8 Some Stakeholder Definitions

When defining and analysing stakeholders it is important that you are clear on how you define them. You will find various definitions (some of them contradictory). Here are some of the more common definitions of the various people involved in projects:

Sponsor....*the person or group that provides financial resources, in cash or in kind, to the project*

Customer/User....the person or organisation that will use the projects product, service or result.

Owner....the person whose strategic plan created the need for the project

Contractor... the external companies or people offering specialist expertise to supplement the company's resources.

Note: Lock defines the contractor more generally to mean any organisation which is principally responsible for executing the project work to the customers' requirements



Self Exercise 1

Attempt a stakeholder analysis for the Construction of the Dublin Port Tunnel.

- Attempt to identify all potential stakeholders, Be sure to include Project Sponsor, Client, Owner, Customer etc
- Identify, for each, whether they have positive or negative influence
- Identify which you would classify as Primary stakeholders
- Identify the primary objective of interest to each of them (Cost, Quality, Specification , Other)

3.9 Stakeholder Management & Communications

The purpose of stakeholder analysis is to understand the project needs of stakeholders. The purpose of stakeholder *management* is to satisfy those needs as far as possible within the project constraints. This requires:

- Management of stakeholder issues
- Management of communications with stakeholders

Stakeholder Issues

Throughout the project stakeholders will raise issues of concern to them. All issues raised should be addressed and proactively managed to closure. For minor issues the Project manager will be able to resolve immediately with the stakeholder.

However substantive and long standing issues should always be recorded on the project issues log. This log should be reviewed weekly, ideally at the project Team meeting. The issue log should clearly identify the person responsible for resolution of the issue. A sample issue log is shown in Appendix 2.

Stakeholder Communication

Having completed the analysis the project manager will construct a Communications plan which describes for all stakeholders how the project will communicate with them. This should include:

- Detailed communications requirements (per stakeholder)
- The Information to be transmitted -
 - Type, format etc
- The Method of transmission -
 - eMail, Conversation, Briefing
 - Who is Responsibility for sending
 - Who are the Intended recipients
 - Frequency (how often will the communication take place)

Notes on Project Success



(..and failure!)



Learning Objectives for this Chapter

Having completed this note you will be able to:

- Discuss some additional views on the criteria and factors for project success

Introduction

In a previous lesson we discussed three factors that constrain projects: Cost, Time and Quality. For a project manager these also represent broad project objectives that determine successful completion. This is the classic “Magic Triangle” or “Iron Triangle” of project management and it is the project manager’s role to maintain the balance of these (often competing) objectives.

We also learned however that there are other criteria, which could be taken into account when considering whether a project has been successful. For example - the project may have stated (or implicit) objectives to:

- ▶ Minimise impact on the environment
- ▶ Comply with relevant legislation
- ▶ Maintain the health and well being of the project participants
- ▶ Ensure that personal development needs of the project team are met

In these notes we will expand our examination of project success and also look at some of the factors necessary for this success.

First lets get some terminology straight:

- ▶ **Success Criteria** refers to a group of principles or standards used to determine or judge project success
- ▶ **Critical Success Factors** refer more specifically to conditions, events, and circumstances that contribute to project results.
- ▶ **Key Performance Indicator (KPI)**: a quantifiable measure of performance that can be used to gauge improvements. In the project world there are 2 types of KPIs which could be considered:
 - ▶ **Project Management KPI's** – Measures of the performance of the project itself
 - ▶ **Project Benefit KPI's** – Measures of the success in delivering the required benefit or beneficial change

The table below (by Lavagnon Ika) represents how views of project success have progressed as project management has matured as a discipline:

Research Focus	Period 1 1960s–1980s	Period 2 1980s–2000s	Period 3 21st Century
Success criteria	"Iron triangle" (time, cost, quality)	Iron triangle Client satisfaction Benefits to organization (org) End-user's satisfaction Benefits to stakeholders Benefits to project personnel	Iron triangle Strategic objective of client organizations and business success End-user's satisfaction Benefits to stakeholders Benefits to project personnel and symbolic and rhetoric evaluations of success and failure
Success factors	Anecdotic lists	CSF lists and frameworks	More inclusive CSF frameworks and symbolic and rhetoric success factors
Emphasis	Project management success	Project/product success	Project/product, portfolio, and program success and narratives of success and failure

Lets use an example to illustrate:

You have been tasked with managing a project to identify a new headquarters building in the suburbs of Dublin for your company and to move all staff in your company from its current headquarters building in the city to the new location. The new building is expected to reduce fixed costs for your company and increase staff efficiency and morale. The move is to take place over a single weekend in January 2015 in order not to disrupt business.

You are to receive a substantial bonus at the end of the year if the project is successful but you realise that different stakeholders may have different perception of that success. You talk with a number of the key stakeholders in the project. As a result you now understand that the project will be considered successful if the criteria listed below are met. In order to be able to demonstrate quantifiable proof of success you also list some measures (KPI's) that could be used to verify that success.

PROJECT MANAGEMENT SUCCESS (Project Manager is responsible)				
SUCCESS AREA	SUCCESS CRITERIA	KEY PERFORMANCE INDICATOR	KPI TARGET	HOW VERIFIED (& PERSON RESPONSIBLE)
Scope	All people and facilities are moved successfully	KPI 1: Critical item checklist	100% of checklist items done by handover time	Signed off by Facilities Manager, HR Manager and Project Sponsor (Project Manager)
Time	The move is completed on time	KPI 2: Completion handover milestone	23:00 Sunday 18/1/2015 or 23:00 Sunday 25/1/2015 (if contingency weekend has to be used)	Move Completion Report signed off by agreed time.
Budget	Relocation Budget not exceeded	KPI 3: Project External Cost KPI 4: Project Internal Resources	External project spend not to exceed baseline by >5% Internal Man-days effort not to exceed baseline by > 10%	Closure Report (Budget Section) signed off by Steering Group
Quality	Everything is working satisfactorily on Monday morning	KPI 5: Facilities test case pass rate KPI 6 : Number of outstanding Critical issues	99% of test cases passed by signoff time Zero Critical Issues remaining at signoff time.	Test report signed off by Facilities Manager, IT Manager and Staff Representative Manager
People	Customers are not inconvenienced by the move itself	KPI 7: No. of customer complaints related to the move	Zero	Customer service complaints log for two weeks after move
People	Staff are not inconvenienced by the move itself	KPI 8: Staff Satisfaction Rating with the move	>80%	Online staff survey taken 24 hours after move

PROJECT BENEFIT SUCCESS (Project Sponsor is responsible)				
SUCCESS AREA	SUCCESS CRITERIA	KEY PERFORMANCE INDICATOR	KPI TARGET	HOW VERIFIED
People	Staff Morale	KPI 9: Staff Morale & Engagement Rating	Staff satisfaction rating increased by >20%	Independent Staff Survey taken 3 months before move and again 9 months after
Efficiency & effectiveness	Reduced Energy costs	KPI 10: Total annual energy Costs	Reduce by 25%	Benefit Realisation Report signed off by Facilities Manager
Efficiency & effectiveness	Reduced Facilities Costs	KPI 11: Fixed facilities cost per employee	Reduce by 15%	Benefit Realisation Report signed off by Facilities Manager

You also get an opportunity to meet with the CEO to review this list. She points out that for this project to be successful in the eyes of the Board and the Shareholders there are other criteria to take into account:

1. It should clearly demonstrate that it is aligned with the overall strategy of the company and will help that strategy

AND

2. The project should not do anything that would jeopardise the reputation of the company and the respect it has within the industry and the community.

Success Factors

The reality is that projects are not universally successful. So- what does the project manager and the organization need to do to achieve success and ensure that all the targeted KPI's are actually achieved? Some studies indicate that up to 60% of projects do not meet all of their success criteria. Are there particular conditions, events, and circumstances that contribute to good project results?

There is no single reason why Projects fail - however success factors can be grouped in 3 broad areas - a number of the key success factors are listed below—but opinions vary on the relative importance of each of these factors.

The People	The Process	The Organisation
<ul style="list-style-type: none"> • Strong Leadership from the Project Manager/Single point of ownership • Experience of the Project manager, Team & Stakeholders • Support & Engagement from the Sponsor/Single point of Sponsorship • Fit for purpose communications paths and methods • Project Team motivation and understanding of their role and the objectives of the project • Project team skills match the project objective • Recognition of the central role of people in the success of project delivery 	<ul style="list-style-type: none"> • A consistent approach to project management across the organisation • Level of analysis & planning matches the complexity of the project. • Agreement of the Success criteria in advance • Sound Planning & estimating techniques and skills used • Proactive Risk Planning & monitoring • Strong control of Changes (and of consequent replanning) 	<ul style="list-style-type: none"> • Timelines determined by needs of the Project (rather than needs of Management) • Project is aligned with the strategy of the organization • Delegation of strong authority to Project Manager • Project approach is supported in the organization • Presence of a Project support organization e.g. PMO/Project office • Familiarity with the project objective, solution and approach by all involved • Buy-in /agreement from stakeholders at each stage of the project



References & Resources

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Student Notes

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Chapter

Organising for Project Management

4

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Chapter Organising for Project Management

4

4.1 Learning Objectives for this Chapter

Having completed this chapter you will be able to:

- Understand the need for effective project organisation
- Name the various types of project organisation structures and understand their attributes
- Compare and contrast the various structures
- Understand the various roles of the Project Management Office

4.2 Introduction

In this chapter we look for the first time at the “Where” question. In particular, we answer the question “Where does (or should?) projects sit in relation to the other people in your organisation?” and we explore some possible configurations of this relationship between projects and organisations.

4.3 The Need for Organisational Structure

In Chapter 1 we learned how organisations are increasingly adopting a project management approach to achieving their objectives. We have also seen that the use of project management in an organisation can represent a significant departure from more “traditional” methods of management. The differences in approach can relate either to the *style* of management or to the *organisation* of management (or to both).

But why is a good organisation structure important to any business? Kaplan and Norton in their book “Strategy Maps” propose that any successful business strategy must be delivered through an organisation’s internal business processes i.e. the tasks it executes to do its business. Project management activities are a subset of those processes. Moreover, these processes are supported by (and dependent on) a proper strategic alignment of what Kaplan & Norton call “organisational capital”. Good organisational design contributes to this alignment. In other words, it is difficult to deliver your strategic results if you are not organised to reflect that strategy.

As Drucker says: ”*Good organisation structure does not itself produce good performance. But a poor organisation structure makes good performance impossible....*”

Projects sit within an organisation which is usually of bigger scale than the project itself. However the influence and interaction of projects with the greater organisational structure can be broad and frequently significant. Projects tend to encompass a cross-company view of what needs to be achieved (rather than focusing on a single department.) In addition projects are frequently used to implement significant changes to the structure and operation of the organisation itself.

So what are the organisational issues which need to be considered when deploying a project? Meredith and Mantell identify three:

- How to tie the project into the parent organisation
- How to organise the project itself
- How to organise activities that are common to all projects

In this chapter we will look at the integration of the project to the parent and at the Project Management Office and its role in supporting activities that are common to other projects. We will look in a later module at how to organise the project itself.

Success Factors for Organising projects

Whatever the organisation structure, there are certain key success factors which must be present for the organisation to be successful:

- Clear lines of authority
- Good understanding of individual roles & responsibilities
- Clear communication of objectives
- Good feedback routes across the organisation

You should bear these success factors in mind when we contrast some project structures in the next section.

4.4 Organisation Structures

When considering how to tie projects into the parent organisation we will consider a range of possible organisation structures. At one end of the spectrum lies the “traditional” functional organisation. At the other extreme lies the fully projectized organisation. In between lie a number of variants (or matrix structures) which involve elements of project structure overlaid onto the functional structure.

We will explore this complete spectrum below.

4.4.1 Functional Organisation

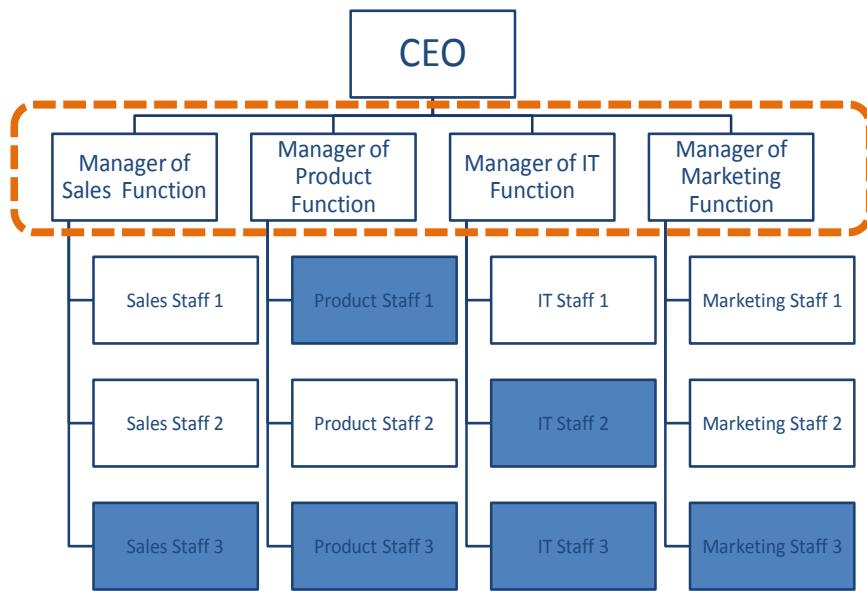


Figure 1 - Functional Organisation

The traditional functional organisation is normally represented as a hierarchy where the work of the company is split into functional units each of which focus on a specialist activity. These functional areas are headed by managers who would be considered specialist leaders e.g. The Production Division may be headed by a Chief Engineer, the Sales Function by a senior Sales Manager etc.

The reporting and authority lines are typically vertical in functional organisations.

The focus of peoples work is usually on their internal functional speciality. The attention to cross-functional working is low. This focus applies equally when they are engaged in “project” work. (People working on projects could be represented by the shaded boxes on the diagrams). Projects tend to be executed internally within functions, however whenever cross functional interaction is needed it tends to be routed upward through the chain of command in order to have it “handed over” to another functional area. It is then routed downwards within the receiving functional area. The returned work will usually follow the same path in reverse. Thus the project is co-ordinated through the management layer (as indicated by the dashed line)

Advantages of the Functional Organisation

- ✓ Internal Flexibility
- ✓ Simplicity
- ✓ Good use of scarce expert skills
- ✓ Good perceived stability and promotion for participants

Disadvantages of the Functional Organisation

- ✗ No single point of responsibility
- ✗ No defined lines of communication
- ✗ Lack of focus on the client/Lack of external client facing flexibility
 - Clients prefer to deal with one person on a project.
- ✗ Fragmented approach to the project
- ✗ Priority of departmental work over team work
- ✗ Low team motivation

The functional organisation would not be considered effective for “cross discipline” projects particularly where there are a number of such projects in progress.

“Matrix based” structures are designed to minimise the disadvantages of the functional approach. Let us look next at the simplest implementation of a matrix organisation- the weak matrix.

4.4.2 Weak Matrix

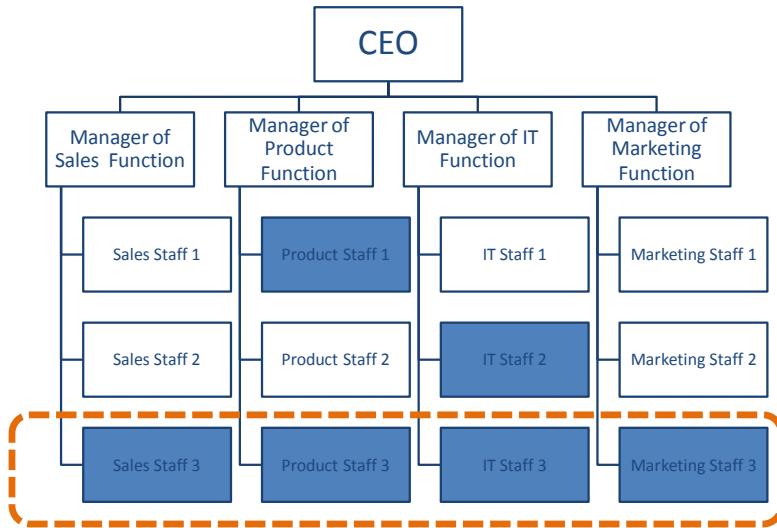


Figure 2 - Weak Matrix

In its structure, the weak matrix is identical to the functional organisation. However - project coordination happens at a lower level, usually performed by a project expeditor, progress chaser or project co-ordinator. This person is generally appointed by the functional area which initiated the project but the role is generally administrative and with little authority over the cross functional resources engaged. His commitment will usually be on a part time basis.

In this scenario, conflicts can arise due to the prioritisation of departmental work over project work. These must be resolved using the co-ordinators influencing and negotiation skills, rather than by exercise of any real power.

4.4.3 The Balanced Matrix

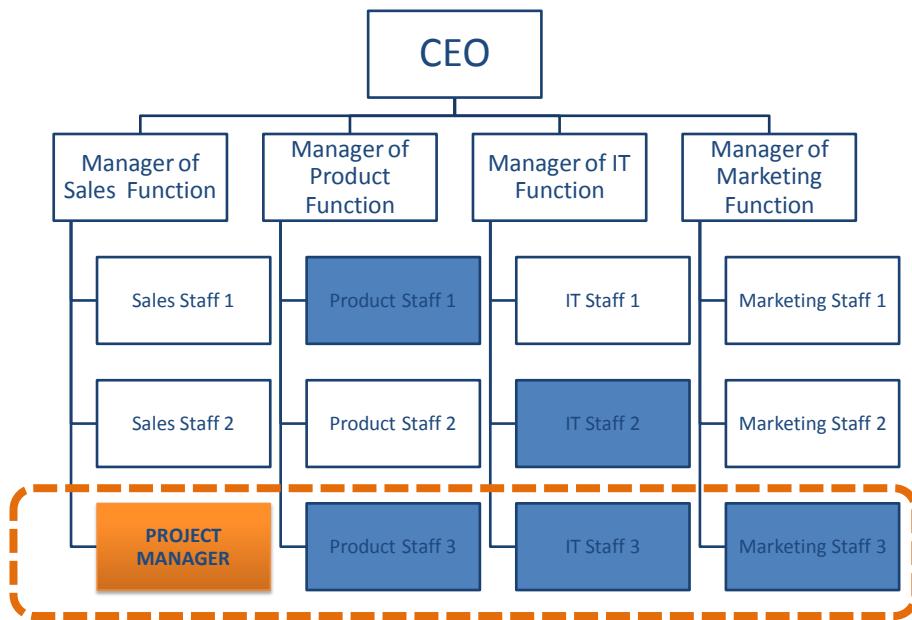


Figure 3 - The Balanced Matrix

The balanced matrix can be viewed as a progression from the weak matrix. The functional organisation structure remains, however there is now a dedicated project manager role driving from within the functional area which sponsors the project. There is an implicit balance of power between the PM and the functional manager who controls the functional staff working on the project. They would be expected to work together and reach consensus on prioritisation issues.

The project manager however does not retain full authority over the project resources.

4.4.4 The Strong Matrix

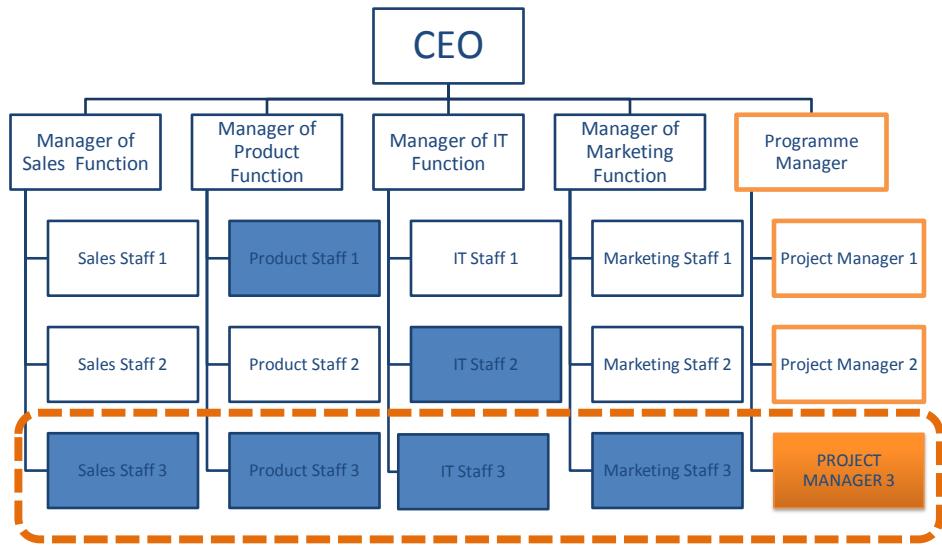


Figure 4 - The Strong Matrix

This is the closest matrix structure to a fully projectised structure. Once again the functional structure remains in place however the project manager position is external to any functional units and does not always have a reporting relationship directly to any functional area. She can be one of a number of project managers reporting to a Head of PMO (Project Management Office) or a programme manager.

Functional managers *assign* resources to the project on a part time or full time basis. During the periods which they are working on the project, their work is controlled entirely by the project manager and the authority of the project manager takes precedence.

Where resources are assigned full time, the structure is usually referred to as a *secondment matrix*.

4.4.5 Advantages & Disadvantages of Matrix structures

Advantages of Matrix Structures

- ✓ Flexibility Deployment of Resources
- ✓ Good use of scarce expert skills
- ✓ Good perceived stability for participants
- ✓ Good perceived promotional opportunities
- ✓ Project is point of emphasis (especially on stronger matrices)
- ✓ Flexible range of matrix options to suit the organisation

Disadvantages of Matrix Structures

- ✗ The Two Boss problem – Project workers have reporting lines to their project manager and to their functional manager leading to split loyalties
- ✗ Delicate balance of power between project and function possibly leading to conflict (depending on the balance)
- ✗ Projectitis (in strong matrix) – addiction to the project leading to an inability to close it down.
- ✗ Strong negotiating skills are required by the project manager

4.4.6 The Projectised Organisation

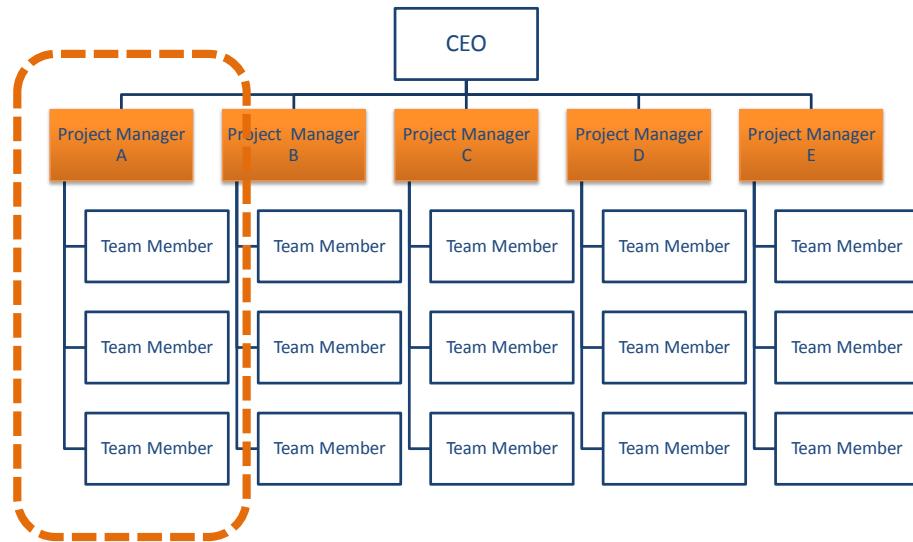


Figure 5 - The Projectised Organisation

In this structure most of the organisations resources are engaged in project work and the members of project teams will tend to be located in the same physical area. Projects will be separated from the rest of the organisation and resources will be fulltime on the project. Departments may exist within the project structure but their heads will report directly to a project manager. Each project team will tend to encompass multiple skill sets and functional knowledge areas. For example, it may contain its own experts in sales, marketing, engineering etc.

The project manager has full authority over the resources and work of the project.

Advantages of Projectised structure:

- ✓ The project manager has full line authority over the project
- ✓ The Two Boss problem is solved
- ✓ Greater focus on the objective and on the client
- ✓ The Lines of communication are shorter (and mostly within the team)

- ✓ Valuable Skills Pool - Completion of a sequence of similar projects by one team, can lead to creation of a valuable high skills pool to be used to attract more valuable contracts
- ✓ Simple command and control structure
- ✓ Greater security and confidentiality

Disadvantages of Projectised structure

- ✗ Duplication of effort when the company takes on a number of similar projects
- ✗ Stockpiling of skills and resources – Project manager tries to ring fence resources to ensure immediate availability. Such resources can be under-utilised
- ✗ Danger of maverick approaches to project solutions
- ✗ Projectitis – Members form strong attachment to the project which can result undesired alienation from the main organisation and artificial prolonging of project lifespan.
- ✗ Isolation of specialists – Specialist skilled resources are deprived of exposure to the learning and promotional opportunities provided by a larger specialist area.

4.5 The Programme Office /Project Management Office (PMO)

A Project Management Office is an organizational unit which is used to centralise and coordinate the management of projects under its domain.

A Project Management Office (PMO) can be used within any of the organisational styles described. They tend to be of greater value when the parent organisation is attempting to manage multiple parallel or sequential projects. They are more likely to be used in organisations tending towards strong matrix or projectised structures.

Typical goals of a PMO might be to :

- Improve the rate of success of projects
- Establish consistent project management standards and methods
- Retain a repository of good project management practice
- Provide project management consultancy
- Provide project management training
- Provide coordinated project tracking
- Manage the project portfolio
- Control the project management resource pool

You will note from the above that the PMO is not involved directly in the management or execution of projects. (In some instances, particularly in the “weak matrix” scenario, a PMO may be used to provide project coordination services to a number of small projects.)

The size and configuration of PMO’s vary widely. At its most basic, the PO may only be concerned with tracking progress across multiple projects – typically for the purpose of providing consolidated reporting to senior management. In a larger context it may provide all the services listed above.

The implementation of a Project Management Office (PO) should be approached with a long term view to its benefits. The primary purpose of most PMO’s is to make improvements in the general standard of projects (and not just to assist current ailing projects.) The objectives and role need to be made clear and the PMO should be sponsored by senior management.

Note: The Project Management office may also be referred to as; the “project office”, “programme office” or “project services department”



Exercise 1

You are a project manager on a successful software development project. You have just delivered your third upgrade of the same software to the client within a 2 year period. Your team have just started the project to deliver a fourth upgrade.

Your head software programmer, who has been on your team since day 1, has indicated to you that he is unhappy. He believes that all his graduate friends have gained more varied experience and that he is being left behind. He wants to leave!

Q: What is the most likely current organisation of projects in your company? Can you suggest some ways of dealing with the situation?



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Student Notes

Chapter

5

Teams

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Chapter Teams

5

5.1 Learning Objectives for this Chapter

Having completed this chapter you will be able to:

- Define a team and understand the role of teams
- Identify some responsibilities of the Project Manager as leader of the team
- Understand the steps and issues in resource planning
- Understand the steps and issues involved in acquiring and developing your team
- Appreciate the common phases in team development

5.2 Introduction

In this chapter we look at how individuals are organised as teams and the implications of this for the project manager.

5.3 Teams in Organisations

In the previous chapter we learned that there are various ways that a project can be implemented within organisations. These range from a simple arrangement of people within an existing functional structure to a complete rearrangement of the organisation in order to accommodate projects.

However at the heart of any project is the group of people who are to execute the project – *the project team*. Let us start our discussion, as usual, with a definition. Davidson has one which seems to fit the bill:

A Team is a gathering of individuals who assemble to accomplish a purpose.

Although Davidson's definition applies to any type of team you can see that it initially appears to fit quite well with our definition of a project. It fits particularly well if we are talking about project members in a strong matrix structure or in a projectised organisation.

However, it could be argued that the typical “project teams” which you would see within a weak matrix type organization structure or within a completely functional structure do not appear to be fit this definition as closely. For example, in many such cases, these people never actually “assemble” physically. It is true to say that they jointly accomplish a common purpose but their awareness and motivation towards that purpose is likely to be low (or non-existent). They are merely a group of individuals who happen to be working on common piece of work.

In order to explore what happens on a *real team*, a more precise definition would be useful. Here is one given by Katzenbach and Smith in their book *The Wisdom of Teams*:

A Real Team is a small number of people with complementary skills who are equally committed to a common purpose, goal, and working approach for which they hold themselves mutually accountable.

It is the project managers' responsibility to build and lead such a team. The rest of chapter concerns this responsibility.

Note:

*During this chapter we talk about teams being composed of “resources”. In the context of our discussion about teams, you should take this to mean “living, breathing, skilled human beings”. The use of the generic word **resource** is perhaps a little dehumanising but it is unfortunately a common term in project management and you will find it used as an alternative to “person” or “team member”*

5.4 The Project Manager as Team Leader

What does a Project Manager need to do in order to fulfil their role as team leader?

The Project manager must....

- **Understand...**
 - The purpose of teams and factors that influence team success
 - Leadership – the requirements for effective leadership
 - How to use appropriate leadership styles
- **Plan** for Building and Managing the team
- **Acquire** the necessary resources
- **Build** the Team
- **Lead** the Team
- **Manage** the Team

We will explore the process of planning, acquiring and building teams in this chapter.

5.5 Planning your Resources

As with all project management activities, time invested in advance planning is never wasted and will reap rewards later in the project. Planning your resources is primarily concerned with the following activities:

- Determining the project roles that will be required
- Associating responsibilities to those roles
- Determining reporting structures within the project
- Drawing up a plan of how the project staff will be managed during the project - acquiring, training, safety, release etc (The Project Staff Management Plan)

The outputs from the first 3 activities are brought together in documents such as Organisation Charts and Responsibility Matrixes.

The Staff management plan should include sections on:

- How staff will be acquired
- A Resource Histogram – a timetable showing the resources required and when they will be engaged on the project
- Procedures for managing staff coming onto the project and staff to be released from the project
- Training and Education needs
- How performance will be recognised and rewarded
- Standards of Compliance & Safety

5.6 Acquiring your team

Having developed a resource plan the PM must now find the required people. Likely sources could include:

- In-situ or pre-assigned resources
- Negotiated resources
- External resources to be contracted

In situ/preassigned:

Sometimes the Project Manager may “inherit” or “retain” resources. Perhaps she has a core team which is maintained from project to project. Alternatively, resources may be pre-assigned by the sponsor or by a department head because of their particular expertise or perceived value to the project.

Having resources readily available in this manner can make project mobilisation easier. However the project manager may have to satisfy herself that such resources will actually add value to the project. Having a resourcing plan which includes a list of clearly defined roles & responsibilities will help.

Negotiated resources:

In most matrix organisations, this task may not be an easy one. Internal staff will have to be requested from their functional managers or departmental heads. Ideally the project manager will have assessed the available pool of resources and identified the people who are best suited to the role as outlined in the resource plan. However it is likely that the requested person will be equally valuable to the functional manager. As a result this task is likely to test the negotiating and influencing skills of the project manager. She is likely to have to negotiate on one or more of the following points:

- Securing the release of the **right** resources
- Securing the release of **any** resources!
- Securing the **time commitment** required from the released resource

External resources:

External resources are engaged for a number of reasons. In many cases the required skills and tools may not be available within the organisation. In some cases the skills may be available; however using all of your skilled resources on the project may compromise ongoing business, particularly for major change projects. It may be more economical and just as efficient to use external resources. As a result, other parties may be contracted to take care of specific activities. Securing these resources will be subject to your normal procedures for recruitment or procurement and will usually be agreed by means of a formal contract.

Here's a typical resourcing scenario:

Your company installs and maintains emergency power supplies in commercial premises. This work normally involves installing battery packs and changeover switches in small office blocks and factories. You have just secured a contract to install a complete backup system in a large office block, including installation of an emergency generator in the basement area. Your site survey has indicated that this will involve drilling substantial holes through the existing concrete walls (which are up to a half a meter thick). You don't currently have the expertise and equipment to do this and choose to subcontract this work to a specialist concrete boring company. You then insist that they nominate a project manager who will sit on your project team as required.

Securing commitment of resources:

Whatever the source of your resources it is important that you secure a formal agreement. Following agreement of the assignment from the donating manager, a letter of assignment should be sent to each assigned persons clarifying their role, commitment dates etc. (and thanking them for their willingness to assist in this important project!)

5.7 Developing your team

Now that you have your team assembled it would be foolhardy to believe that this grouping of people will immediately begin acting like the “Real Team” which we defined above. The project manager must actively work to ensure that this happens.

To help understand what needs to be done to develop your team into a real team let’s look at the recipe for a real team - as suggested by the definition:

- a) Small number of people*
- b) ..with complementary skills*
- c) ..equally committed to a common purpose, goal,*
- d) ..equally committed to a working approach*
- e) ..hold themselves mutually accountable.*

Let’s look at what can be done for each item:

a. Small number of people

How small is small? In resources planning you should already have addressed this issue. While deciding your team structure and sketching your organisation chart you will have had to determine how big the project team needs to be. This depends on the complexity of the project, the amount of activities, geographical spread, functional areas involved etc. However team size can impact proper team performance and development as follows:

- Large teams can be cumbersome and restrict, rather than encourage, cross-functional communication.
- Over time, large teams tend to fragment into cliques (frequently based on function or specialisation)
- On the plus side, the larger the team the higher the likelihood of getting a mix of skills and personalities
- Small teams restrict innovation

It is generally considered that a team size of between 5 -10 people is the optimum.

Having secured the people the project manager should review the team mix and size and decide whether it still meets the needs of the project.

b. With complementary skills

The project manager will try to identify the best mix of skills and the required levels of skill competency which will ensure successful delivery of the project.

Once the team is assembled it is expected that the resources secured will match those outlined in the resourcing plan. If not, then any training and development plan should be revised accordingly to take account any shortfall in skills.

The PM should then make sure that the training plan is implemented using a mix of formal training and informal methods such as coaching sessions, informal feedback etc.

c. Equally committed to a common purpose, goal,

d. Equally committed to a working approach

e. Hold themselves mutually accountable.

For the three above items - it is unlikely that all members of the team will have equal levels of commitment and equal appreciation of their accountability. There is no one tool or approach which will develop the team in this way. Consider any or all of the following:

- Encouraging a sense of ownership by involving the team in planning activities, as appropriate
- Using your general management skills, particularly the softer interpersonal skills, to anticipate and reduce problems.
- Team building activities – Formal or informal events to increase communications between members.
- Co-location – making sure that most or all of the team are based at the one location
- Communicating and enforcing ground rules – this ensures that everyone understands what is considered acceptable and unacceptable behaviour. This is particularly important when people are coming from different organizations and cultures (economic and social)
- Rewarding desirable behaviour – this reinforces the objectives and encourages better performance.

5.8 Stages of Team Development

Teams rarely become fully functioning immediately; they develop over a period of time.

Team development is a continuous task and should happen throughout the complete lifecycle of the project. It is useful for the project manager to be aware of the various stages of team development and of the issues that arise at each stage. Dr Bruce Tuckman's model of Team Development is frequently used to illustrate this. According to Tuckman, teams usually go through four distinct stages as the team integrates:

a) Forming

The team begins to become acquainted and get to know each other. Issues of trust and inclusion are foremost. There is high dependence on the project manager for direction and guidance.

b) Storming

This stage is characterised by a level of power play as people begin to find their niche on the project and personal objectives can come to the fore. There may be leadership challenges. Consensus is difficult. The PM needs to coach rather than guide.

c) Norming

Having settled into personal roles people start to form alliances and team groupings become apparent. Consensus is easier and objectives and roles are clearer. PM is largely facilitating at this stage.

d) Performing

This stage represents a fully performing team and no major conflict issues are usually evident. A shared vision is apparent and the PM should only need to delegate and oversee.

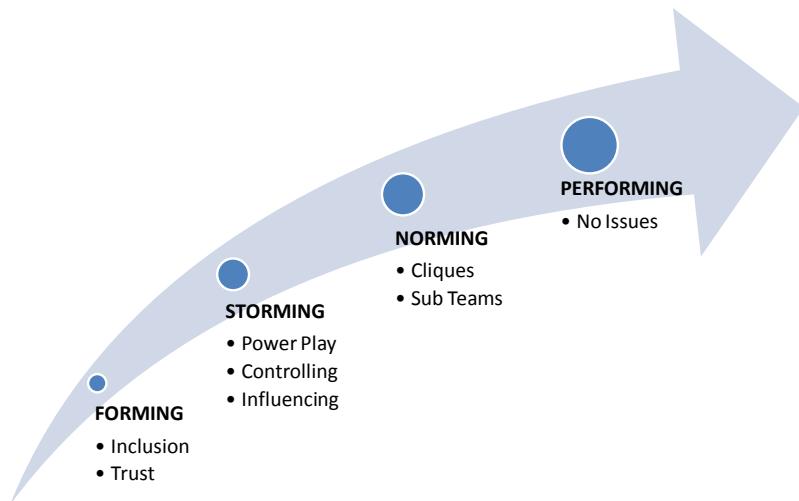


Figure 1- Stages of Team Development

Note that the general level of interpersonal conflict arising on the project is high at the early stages but declines as the performing stage is reached.

Note also that a major change to the structure of the team can result in the team reverting temporarily to a previous stage. This commonly occurs when additional resources are added to the team or when key people depart.

Note: An alternate version of this model adds an additional stage at the end known as the Adjourning (or Mourning) phase. As the project breaks up the team members may begin to experience issues of loss and separation.

5.9 The Responsibilities of Team Members

It is important for the project manager to be clear with all team members what is expected of them during the project. It can be useful to include some general responsibilities such as these in project role profiles, assignment letters and personal performance review material. The Guide to the Project Management Body of Knowledge (PMBOK) defines five general responsibilities of team members:

- a) To ensure that their part of the project work satisfies the need of the project and is completed as specified (on time./ within budget and to the required specification)
- b) To communicate back to the team and the PM on issues
- c) To complete and update all documentation in a timely manner
- d) To highlight any possible issues or risks
- e) To actively contribute to the team



Exercise 1

“Project managers do not need to have much technical knowledge about the activities of the project. They could do their job better if they were allowed to focus on the important tasks of negotiating for resources, developing and managing the team and actually monitoring and controlling the project. The technical issues would only distract them. Anyway there are usually enough experts on the team already”

Q: Do you agree with the above statement? Give reasons for your answer.



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Wikipedia has a good explanation of Tuckman's model:

<http://en.wikipedia.org/wiki/Forming-storming-norming-performing>

Student Notes

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Chapter.. 6

Leadership

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Chapter Leadership

6

6.1 Learning Objectives for this Chapter

Having completed this chapter you will be able to:

- Appreciate the need for effective leadership of projects
- Understand the components of leadership
- Understand the role of motivation and describe some theories about human motivation.
- Describe some approaches to managing conflict
- Understand the importance of appropriate management style
- Be able to describe the team roles defined by Belbin

6.2 Introduction

This chapter continues our examination of the “people” aspects of project management. It looks in particular at some of the leadership issues facing a project manager. While this chapter cannot attempt to cover all topics relevant to leadership, it will introduce some of the principal issues arising when leading project teams.

6.3 The Need for a Leader

In a previous chapter we learned that a project manager should aspire to secure the best possible group of people to deliver the project objectives. We further concluded that the ideal arrangement was to have a “real team” i.e. “*...a small number of people with complementary skills who are equally committed to a common purpose...*”

You may ask why one would need a leader at all if you had such a perfect team! Well, studies of successful teams have shown two main success factors for any type of team:

1. The presence of a mix of personalities and abilities of the team members.
- 2. The presence of an accepted and respected team leader who managed the team appropriately**

Therefore the project manager needs also to be a strong leader. The next section explores some of the knowledge and skills required to be a leader.

6.4 What is Leadership?

There are many definitions of leadership (There are also numerous books written on the subject - at least 10,000 of them available from [www.amazon.com!](http://www.amazon.com/))

In the context of project management, I think the most concise definition comes from John Garnett, Director of the Industrial society:

Leadership is achieving results through people

This fits nicely with two of our main project management themes – a *constant focus on the end results* and an awareness *that projects are delivered through people*.

6.5 What does a Leader do?

To help us in breaking down the job of a leader let's take a look at a slightly more detailed definition of leadership:

Leadership: The process of influencing others to accomplish a task or mission by providing purpose, direction and motivation.

How do leaders do this?

1. Having a vision of the goal
2. Having a good plan to achieve it
3. Building a team inspired and committed to achieving the goal
4. Actively motivating and helping your team members to give their best efforts

6.6 Motivation

We have seen that the job of the leader is to inspire her team and influence them to accomplish the objectives. Part of this influence involves helping to ensure that individual team members are motivated.

Motivation is the extent to which an individual is engaged with their roles and responsibilities on the team.

For each individual there may be many such motivational factors: financial, social, personal etc. This is a complex area of psychology, but there are two classic theories about what motivates workers:

- The Hierarchy of Needs (Maslow)
- The Motivator- Hygiene Approach (Herzberg)

6.6.1 Maslow's Hierarchy of Needs

Abraham Maslow did a number of studies of workers in a Californian electronics factory and concluded that there is hierarchy of human needs which drives motivation. This hierarchy is often shown as a pyramid with the more important needs at the top... See the diagram.

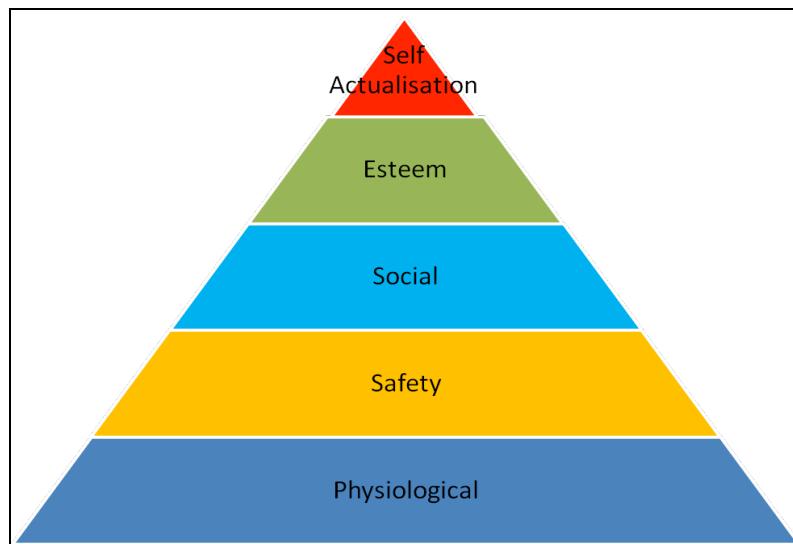


Figure 1 – Maslow’s Hierarchy of Needs

Maslow proposed firstly that a person’s needs at any one time influences their behaviour. He also proposed that people always aspire to higher needs, but that they must first satisfy their current level of need. The most basic “starting” needs are shown towards the base of the pyramid. They will not move on to want more at the next higher level until they satisfy some of their current needs. This applies at each level of the pyramid.

Examples of particular needs at each level are:

- Physiological Needs
 - E.g. Eating, Shelter, Warmth
- Safety & Security
 - E.g. Personal Security, Health
- Social
 - E.g. Friendship, Love, Family
- Esteem
 - E.g. Self Esteem, respect of others
- Self Actualisation/Growth
 - E.g. Learning, Creativity,

6.6.2 Herzberg's Motivation-Hygiene Theory

Psychologist, Frederick Herzberg, proposed another view of motivation. He suggested that there are two sets of factors which influence motivation. There is a set that causes job satisfaction and another distinct set that causes dissatisfaction.

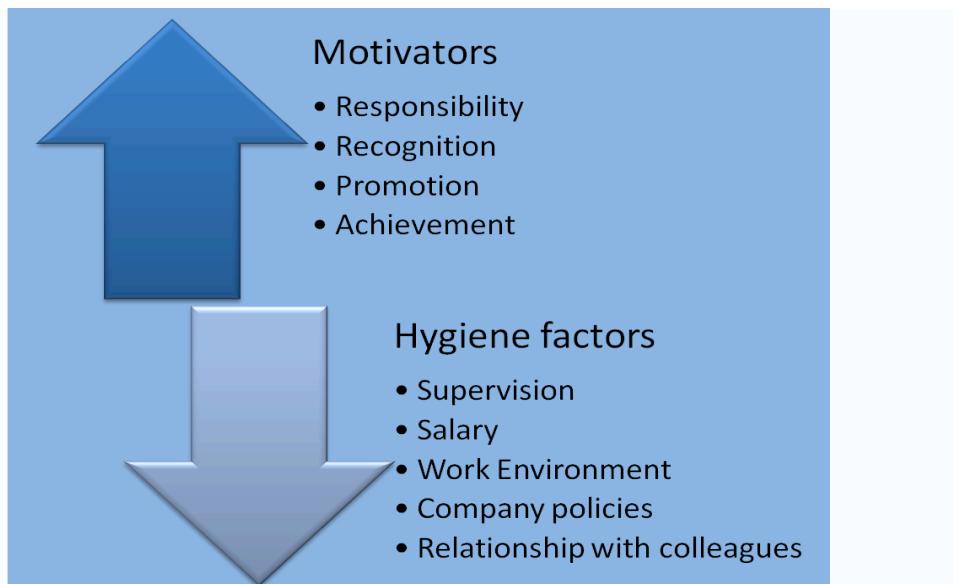


Figure 2 - Herzbergs 2 Factors

His “Two Factor Theory” distinguishes between:

Motivators; which give positive satisfaction

and

Hygiene factors, which, if they exist, do not cause motivation.

However dissatisfaction may result if these factors are absent.

It is important to understand how hygiene factors operate. For example - the availability of clean running water in your workplace is not necessarily “motivational” however if the supply were to fail for a length of time, this would be likely to lead to dissatisfaction. Interestingly, Herzberg identified that salary increases can be a motivational factor in the short term. However the increased salary soon becomes the accepted norm. It becomes a hygiene factor in that you are likely to become dissatisfied only if it falls below that of your colleagues.

6.7 Dealing with Conflict

The team's perception of their leader can be influenced greatly by how she acts in times of conflict, particularly when this conflict concerns team members.

In this context we would define conflict as *a situation where one party perceives its interests are being opposed or set back by another party*.

Most people will default to a preferred style of handling conflict. Studies have found that there are 5 main styles as per the diagram

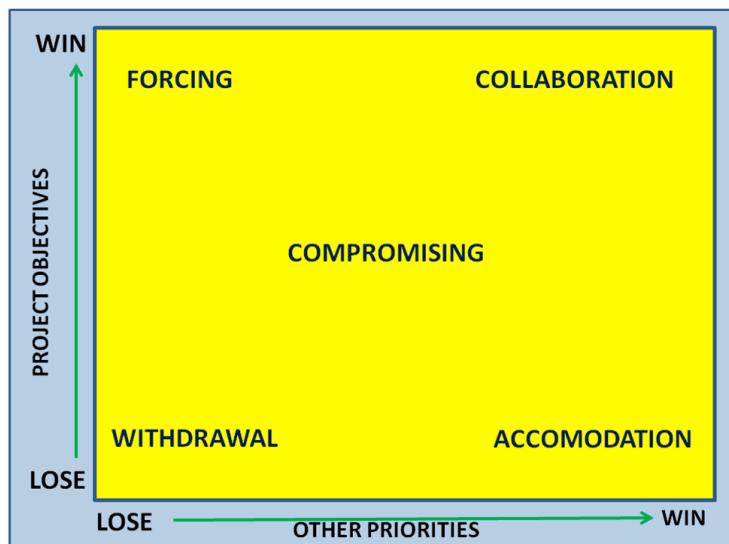


Figure 3 - Approaches to Conflict

1. **The Forcing /Competitive Leader:** Leaders who use a competitive style tend to push their point of view and use their power to achieve their “win”, sometimes at the expense of the views of others. This style may be used legitimately where a quick decision is necessary.
2. **The Collaborative Leader:** This is sometimes called the Confronting approach. The leader tries to encourage co-operation and openness. Useful when the situation is easy to define and understand or when trying to resolve recurring conflicts.
3. **The Compromising Leader:** These leaders will try to find some resolution for all parties involved. Use it when you are getting close to a deadline.
4. **The Accommodating Leader:** This approach involves accommodating the needs of others above the needs of the project. This may be appropriate in certain circumstances but is generally not a favoured approach

5. The Withdrawing/Avoiding Leader: This leader will retreat from the conflict and perhaps delegate it. By doing this the issue can be temporarily parked and may dissipate. This may be appropriate if the issue is of little consequence but otherwise it is a weak approach.

Note that there is no one recommended style of conflict management. Each style has its application in particular scenarios. You should think about your own default approach and be prepared to consider other approaches when necessary.

6.8 Leadership Styles

You should appreciate at this stage of the course that projects are dynamic things and that each phase brings a different focus and a new set of issues. You have also seen that teams evolve in stages as they develop and mature. The project manager needs to be aware of the situation and apply an appropriate leadership style.

When each of us is put into a position of leadership we tend to assume a preferred style. There are a number of methods of classifying leadership style – the method I describe here is one developed by Robert Blake & Jane Mouton and is called the Blake-Mouton Grid.

The grid is based on the results of questionnaire completed by leaders and is designed to test two things;

- A) The leaders concern for People
- B) The leaders concern for Production

Scores for both A and B are calculated on scale of 1 to 9 and the combined result places an individual within a grid similar to the one below.

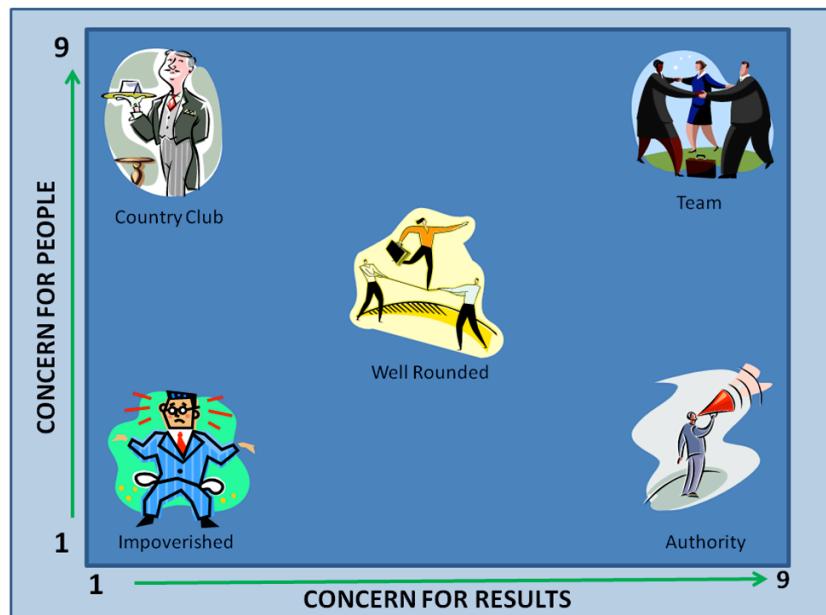


Figure 4 - Blake & Mouton's Leadership Grid

The five extremes of styles shown on the grid are:

- 1) **Country Club Management** – Concern for people is high and concern for production is low. Avoidance of conflict and attention to peoples needs take priority over production. Atmosphere is relaxed but not necessarily the most productive.
- 2) **Impoverished Management** – Concern for both people and production is low. Managers in this mode are concerned with maintaining the status quo. Apathy and indifference are apparent so production is low.
- 3) **Well rounded (Middle of the road) Management** – Positive push for results but not at the risk of complete disregard for morale. Results can be acceptable.
- 4) **Authority or Task management** – There is high concern for production and low concern for people. The manager's job is to ensure work is completed with minimal interference from human factors.
- 5) **Team management** – There is high concern for both people and production. Maximum production is obtained from a set of people committed to the required tasks.

It is important for a project manager to be aware of their own default style. It would not be uncommon for a manager to believe themselves to be entirely within the “Well rounded” or “Team manager” positions in the grid. However they may be likely to demonstrate inappropriate use of other styles.

6.9 Team Makeup - Belbin Roles

In section one of this chapter we learned that a significant factor in team success was:

“..the presence of a mix of personalities and abilities of the team members”

As leader of the team the project manager must be aware of this mix. Obviously this should be considered first when planning and building a new team. However awareness of this mix is also useful when leading and motivating an existing team.

Meredith Belbin identified 9 team roles as follows:

Role	Behaviours
<i>Coordinator</i>	<i>Tries to establish the goals and agenda of the group. Sums up the feelings and accomplishments of the group. Acts as a chairperson.</i>
<i>Team Worker</i>	<i>Diplomatic, mild, encourages cooperation.</i>
<i>Resource Investigator</i>	<i>Explores outside opportunities, extrovert, makes contacts</i>
<i>Plant</i>	<i>Presents new ideas and approaches. Tends to be intelligent and introverted</i>
<i>Monitor-Evaluator</i>	<i>Analyses the options. Sober and strategic</i>
<i>Shaper</i>	<i>Challenges the team to improve. Loves pressure</i>
<i>Implementer</i>	<i>Puts ideas into action. Reliable & efficient</i>
<i>Completer Finisher</i>	<i>Ensures thorough, timely completion., Searches out errors, Conscientious and anxious</i>
<i>Specialist</i>	<i>Provides specialized skills. Single minded, dedicated</i>

This model can help to understand team dynamics but it should not be used as the sole basis for making decisions about the team.

6.10 Final thoughts on leadership...

"It is amazing what you can accomplish if you do not care who gets the credit." (President Harry S Truman)

"A dream is just a dream. A goal is a dream with a plan and a deadline." (Harvey Mackay)

"The most important thing in life is not to capitalise on your successes - any fool can do that. The really important thing is to profit from your mistakes." (William Bolitho, from 'Twelve against the Gods')

"I praise loudly. I blame softly." (Catherine the Great, 1729-1796.)



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www.mindtools.com - The free section on this site contains some useful information, techniques and templates on leadership and other management issues

Student Notes

Notes on Virtual Teams

..the communications challenge for the Project Manager

Learning Objectives for these Notes

Having completed these notes you will be able to:

- Appreciate some of the issues associated with the management of teams in a virtual team environment.

Introduction

In a previous lesson we discussed how projects are invariably delivered through the combined efforts of a group of people assembled specifically to deliver the project – a project team in other words! We used the following definition of a team:

A Team is a gathering of individuals who assemble to accomplish a purpose.

However we also identified that in many cases, these people may never actually “assemble” or “co-locate” physically. There are a number of reasons why virtual teams are more prevalent nowadays – the key driver for this is the fact that projects are becoming more complex with need for more extensive teams with a broader spread of involvement.

Virtual Teams display the following characteristics:

- Project members are drawn from different nations, regions, functions, cultures and/or organisations
- Project Team members don't physically meet and use little face to face communication
- Units operating in separate physical locations may be using separate project methodologies and work within separate and distinct organisations structure type

The Opportunity:

The use of virtual project teams provides compelling benefits for some projects, including:

- Lower costs - e.g. Less office rental costs, travelling expenses etc
- More efficiency – easier and more productive collaboration through electronic means,
- More effectiveness – easy access to remote experts, a broader pool of skills

The Challenges:

This may also present challenges for the effective management of the project:

- The lack of the rich communications associated with face to face communications due to the prevalence of electronic alternatives
- Few opportunities to build up team integration and mutual accountability
- The difficulty in giving immediate feedback in order to correct or reinforce behaviours
- The difficulty in wielding perceptiveness /sixth sense in detecting problems. Less opportunities to MBWA –(Manage By Walking Around)

What are the implications for the project manager? In the absence of direct supervision a higher level of trust becomes important and in order to control the team the project manager may require stronger influencing and persuading skills.

The key challenge however in all of these cases is to ensure effective communication

Horine provides some good advice:

1. Build in as much Face-to-Face time as possible.
 - a. Key times to get team members to gather in a face-to-face setting are:
 - i. At project kick-off time when you outline the purpose, roles & responsibilities and methods of working
 - ii. In the early feasibility & design stages when team-forming issues are more likely to develop and when project uncertainty is greatest
 - iii. Whenever there are problems
 - b. Seek partial attendance on site if you can't get full time attendance (e.g. 1 day a week)

- c. Use pseudo Face-to-Face communications e.g. Video conferencing, Skype
2. Have sufficient set Rules & Procedures in place to ensure that each team member is aware of the communication norms for the project:
 - a. Protocols for virtual meetings – reliable, available and well-understood technologies; Agenda in advance, strong meeting scope control, etc
 - b. Written Team procedures
3. Focus on (and encourage) clear and precise messages, whatever the communications medium.
4. Pay attention to early work performance and verify good performance as early as possible. Be clear and precise about individual responsibilities for each piece of work and set clear expectations for the timeliness and expected quality of the work. Consider using smaller work allocations while assessing this initial performance.
5. Choose Communications methods carefully
 - a. It is usually best to use the methods preferred by the customer
 - b. Use the richest medium feasible for the message or meeting
6. If your virtual team spans time zones – then take into account time differences and calendar/public holidays



References & Resources

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Chapter 7

The Project Manager

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Chapter

The Project Manager

7

7.1 Learning Objectives for this Chapter

Having completed this chapter you will be able to:

- Understand the need for the role of Project Manager
- Explain the responsibilities of the Project Manager
- Understand the need for the Project Manager role to have sufficient seniority
- Describe the desirable traits of a Project Manager
- Understand the need for a good support environment for the Project Manager

7.2 Introduction

This chapter continues our look at the people aspects of project management. Following our look at leadership in the last chapter we now look in more depth at the leader of the team – the Project Manager - why we need one, their required skills and attributes, their role and responsibilities.

7.3 The Need for a Project Manager

In the section titled “The emergence of project management in a developing company” (Chapter 9) Lock introduces a case study of a small engineering company – “Street Components Ltd”. He uses the growth and development of this company to illustrate a growing requirement for a role which would come to be called “the project manager”.

In the early days, the work of a company was organised in such a way as to ensure the steady delivery of a high volume stream of goods. The allocation and monitoring of tasks would be managed by a production manager who ensures the efficient operation of this work. The tasks would have been largely repetitive and it is likely that much of the skills and operations would be centralised in one location. The products were produced in batches or from a production line.

However, at some stage in its development, the company decides to extend its range of products and to diversify into other markets. Customers are demanding increasingly more complex and customised solutions. As more non-routine work is handled, there is a corresponding increase in complexity of design work and in the difficulty in accurately estimating costs. Increasingly the company seeks to bid for these high-value custom jobs. Later, the company will extend the range further and may also provide added-value services such as full design service and installation and commissioning services which might possibly result in the need to sub contract some work in order to be able to supply services not normally supported by the company itself. The level of planning, control and co-ordination required begins to stretch the capabilities of their normal management structures. They need a manager of projects!

In addition to the need for this new co-ordinator role, Lock demonstrates the need for a central “communicator” to channel the various flows of information that will occur as the work progresses. These flows are becoming multidirectional and constantly changing. They are also likely to flow across boundaries between functional areas of an organisation. A central role is required which will channel the communications between these temporary resources until the objectives are delivered...they need a manager of projects!

7.4 The Role and Title of the Project Manager in the Organisation

When we refer, in these notes, to a *project manager* we normally have in mind an individual whose primary job responsibility is “the managing of projects”. The job title may include the words “project” or “programme”. However someone with this responsibility is also just as likely to be called a Contract Manager, Product Manager, or Chief Engineer etc.

There are many “functional” jobs which involve major elements of project management but this may not be apparent from the job title or role description. It is often recommended that the words “project manager” be explicitly used in job titles or descriptions as this reinforces the need for a separate and distinct skill set and approach to work.

Individuals frequently become project managers “accidentally” due to their involvement in projects as part of their “normal” job. As Pinto says in his article “Lessons for an Accidental Profession”:

“Most project managers fall into their responsibilities by happenstance rather than by calculation.”

Increasingly however, organizations are identifying project management as a core business competency and indeed as a profession in its own right. The more enlightened of these companies have implemented defined career paths for the development of their project managers. Internationally the number of certified professional project managers continues to rise.

7.5 Seniority of the Project Manager

It is important that the position of the project manager within the organisation is at a high enough level to allow them to exert the appropriate influence in order to achieve the project objectives.

An appointed project manager working in most matrix type organisations will be continually required to exert influence on managers at various levels of that organization. The level of influence required will depend on the strength of the project organisation. We have seen in a previous chapter that the power of the Project Manager is low in a functional organisation and is at its highest in a fully projectised organisation. To be effective, the PM should ideally be appointed at a level equal to (or above) that of the managers he is interacting with.

Another important point made by Lock is that the responsibilities of the Project Manager may include the management of resources from external companies and the management of communications to a client. It is important therefore that the project manager is of sufficient calibre and stature to represent the company in this way.

Whatever his level in the organisation, the PM is still likely to face situations where there is a gap between his level of authority (power) and his responsibility to get the job done. The types of power which may be available to him to resolve this issue include:

- **Formal Powers:** Power due being appointed to your position. Generally has little influence within the organisation
- **Budget Power:** A powerful power! Very influential on contractors
- **Coercive Power:** Instil fear using threats of any sort – Can be seen as bullying
- **Knowledge Power:** Use of expert knowledge and access to information.
- **Reward Power:** Using positive reward for positive behaviours
- **Personal Power:** The power of a Charismatic leader

7.6 The Attributes of a Successful Project Manager

Lock lists the following particular attributes of a successful project manager:

Personality traits include:

- Ability to motivate people
- Ability to vary management style
- Displays competence
- Makes clear decisions
- Gives precise achievable instructions
- Delegates well
- Listens to and accepts sound advice
- Enthusiastic and confident

Lock pays particular attention to the role of **Perceptiveness**. By this he means the ability to review a situation or set of information, identify the relevant information and make decisions based on this.

In some cases this will involve being able to spot the information *which is missing* from what is presented to her.

This trait is developed largely through experience and is helped greatly by having a good sense of the organisation and an understanding of the individuals who are responsible for delivering the information.

This project management “sixth sense” also needs to be backed up with **General Knowledge and Awareness**. A project manager usually comes from a specialist background or discipline. If the project is solely concerned with deliverables and work relating to this specialisation then the specialist knowledge may be useful. However in his role of project manager it can be argued that he will require only enough subject-matter knowledge to allow him to plan, direct and complete the project. He should resist the temptation to dive into the detail if the “project” does not require him to. The project manager will ideally be a leader, planner and tracker of work rather than an executor of the work itself.

The other knowledge required is the general knowledge of how the organisation and its projects are administered and of relevant project management approaches and tools.

7.7 Alternative View of a Successful Project Manager

Mantel identifies a different set of attributes to bear in mind when recruiting your project manager. He also makes the following important point: not only does the PM need to possess these skills; he needs to be **perceived** to have them as well:

- Drive to complete the task: The ability to get the job done
- Technical credibility: Sufficient technical knowledge to direct the project
- Administrative credibility: That is the ability to keep the project work moving and the project processes working while balancing the conflicting objectives
- Sensitivity: this refers to an awareness of both political and personal issues and a “nose” for detecting conflict (this equates somewhat to Locks “perceptiveness”) There is also an aspect of “technical” sensitivity which allows the PM to detect issues with the work or with the product
- Leadership and Management Style (discussed in a previous chapter)
- Ability to handle stress

7.8 The Support Environment for the Project Manager

The job of the project manager will be made easier if the work environment provides support for projects. Lock outlines some desirable features of a supportive environment:

- a) Commitment of senior management.

This may not be significant factor in organisations which are highly projectised. However its presence is critical in all types of organisations as it influences all the other support factors below.

- b) Project Management Training

Having accepted that the skill set and methods required for project management are somewhat different to those required for normal management roles, senior management must support the ongoing development needs of their project managers. This involves formal ongoing education and training along with opportunities to network with other project managers and gain from their experience.

- c) General support and awareness of the project management approach across the organisation. This is likely to follow from a) and b) above

- d) The support of the project team

The team may be influenced positively by signs that projects in general are supported in the organisation and by signs that this particular project is important and supported by senior management. However, the level of support ultimately displayed by the project team is largely determined by the project manager himself and by how he uses his interpersonal and motivational skills to inspire his team and gain their respect.

- e) The presence of a Project Services Group.

This group (if it exists) takes on the many of the day-to-day management and co-ordination chores for the project manager. It may also substitute in some cases for a project manager. Referring back to our previous discussion on programme offices, this group would represent a very basic use of a programme office. However, the existence of any resources dedicated to supporting projects is beneficial to the project manager.

7.9 The Role and Responsibilities of the Project Manager

The **role** of the project manager can be described in summary as:

- A facilitator of information flow
- A central point of contact
- A co-ordinator of work

Most importantly the project manager is the *single point of responsibility* for the project.

The **responsibilities** of the project manager are varied. Mantel organises them into three areas:

- Responsibility to the parent organisation
- Responsibility to the project and the client
- Responsibility to the members of the project team

(I would add an additional area - “*self* responsibility”. The project manager must ensure that the delivery of the project does not compromise his own well-being, professional development or professional ethics.)

In summary, the following list of specific responsibilities acts as a quick reference role profile for the job of project manager:

- 1) Develop and agree the definition of the project with the sponsor, client and other stakeholders
- 2) Develop the project plan
- 3) Organise, build and lead the Project team to achieve the objectives
- 4) Act as central point of contact for sponsor, team and client
- 5) Manage and report on project progress
- 6) Ensure that the project documentation exists and is keep up to date
- 7) Make sure that the project is closed and reviewed
- 8) Provide motivation, support and direction in times of confusion, misdirection or conflict
- 9) Provide development opportunities for individual team members while maximising their contribution to the project
- 10) Assign accountabilities and responsibilities to project members and stakeholders

7.10 The Vital Dozen for the Project Manager

In conclusion - Jeffery Pinto provides these 12 pieces of advice to the project manager when facing the challenges of the role. A link to the entire article is included in the references at the end of the chapter. I recommend you take time to read it – it provides a good insight into the work of the PM.

1. Understand the context of project management.
2. Recognize project team conflict as progress.
3. Understand who the stakeholders are and what they want.
4. Accept the political nature of organizations and use it to your advantage.
5. Lead from the front; the view is better.
6. Understand what "success" means.
7. Build and maintain a cohesive team.
8. Enthusiasm and despair are both infectious.
9. One look forward is worth two looks back.
10. Remember what you are trying to do.
11. Use time carefully or it will use you.
12. Above all, plan, plan, plan.



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https://d3lowemgwclw9w.cloudfront.net/content/CEPL/CEPL551/cepl551_332_1eaderprntbl_en-us.pdf

(If this link doesn't work for you then just Google "Pinto article accidental profession")

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Chapter 8

Methodologies and Standards

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Chapter

Methodologies and Standards

8

8.1 Learning Objectives for this Chapter

Having completed this chapter you will be able to:

- Appreciate the need for a project management methodology
- Understand the advantages of using a methodology
- Name and describe some common project management methodologies & standards
- Understand the purpose and structure of the Project Management Body of Knowledge (PMBOK)
- Understand the additions included in the PMBOK Construction Industry Extension
- Be able to relate some of the topics covered in this course to the PMBOK

8.2 Introduction

Every project manager is required to have many different types of knowledge and to display a number of types of competencies e.g. management, interpersonal, financial etc. She will also need to be aware of (and proficient in) a range of tools & techniques. Some specialist knowledge and techniques will also be required for projects in particular industries.

At this point you should appreciate the wide range of skills and knowledge areas that make up project management...there is a lot to take in! It can be very useful to have some framework to organise all this knowledge and to co-ordinate and structure all your project management tasks and associated tools & techniques. It would also be very useful if everyone else you work with were to organise and structure their management of projects in the same way as you do!

In this chapter we will review some common frameworks, standards and methodologies and examine one in particular – the Project Management Body of Knowledge from the Project Management Institute.

This chapter will attempt to answer the question: “There seems to be so much to think about - How can we make it all fit together?”

8.3 Methodologies and Standards

A Methodology is set of methods, rules and guidelines than can be used repeatedly to gain consistent results.

A methodology provides a roadmap to help achieve a certain objective (such as the delivery of a successful project)

The benefits from adopting a methodology include:

- Easier communication (because of common and familiar documents and terminology)
- Increased productivity due to standardised processes (sometimes supported by systems & software)
- Higher predictability of success because the approach is tested and proven in the organisation

8.3.1 Components of a methodology

This is what you should expect to see in a methodology for your organisation:

- Defined roles and organisation structures
- Standardised definition of a lifecycle
- Standardised Processes with:
 - Defined process templates
 - Defined start and end points for processes
- Guidelines
- Selected Techniques
- Appropriate Tools
- Templates

8.3.2 Selecting a methodology

The Project Management Office is frequently tasked with selecting an appropriate methodology for managing projects across an organisation. An organisation wishing to implement a methodology has three choices:

- a. *Design a bespoke one*
- b. *Adopt a published methodology in total*
- c. *Adopt and Adapt a published methodology*

There are likely to be several published methodologies which could be applied within your industry, therefore designing a bespoke methodology from scratch (option a) is usually unnecessary (and possibly foolhardy). On the other hand, many methodologies are designed to be generic and to cover as broad a range of disciplines as possible – therefore it is unlikely that any one approach will fit the needs of the organisation exactly. So you must research carefully before you decide on option b).

In most cases it is perfectly acceptable to select a proven methodology that is applicable to your industry and adapt it to suit your needs, concentrating on those parts that will add most value for your organisation.

Note 1: Adoption of a methodology can never guarantee the success of a project - however a sound methodology can increase your chance of success.

Note 2: All projects require some level of structured project management - however the need for a robust methodology will increase as project size and complexity increases and as multiple projects are undertaken simultaneously within an organisation.

8.4 Examples of Methodologies (and non-methodologies)

The following are the most frequently quoted “methodologies” related to projects :

- 1) PRINCE2
- 2) Project Management Body of Knowledge (PMBOK)
- 3) Association for Project Management (APM) Body of Knowledge
- 4) International Association of Project Managers (IPMA) Body of Knowledge
- 5) System Development Life Cycle (SDLC)
- 6) Rational Unified Process (RUP)
- 7) Agile

There are also a large number of proprietary frameworks and methodologies on offer from commercial organisations, many of them based on the methodologies or standards listed above.

We will briefly describe each of these seven and see that not all are designed to be used as generic project management methodologies.

8.4.1 Projects in Controlled Environments (PRINCE2)

“PRojects In Controlled Environments” (PRINCE2) is a generic project management methodology developed and owned by the U.K.'s Office of Government Commerce (OGC).

It provides a method for managing projects within a clearly defined framework and describes detailed procedures for many project activities. Each process has clearly defined inputs and outputs. Project roles and responsibilities are also defined and project logs and documentation are standardised

PRINCE espouses 7 principles of Project Management which must be applied in all “PRINCE2” projects

1. Continued business justification
2. Learn from Experience
3. Defined Roles and Responsibilities
4. Manage by Stages
5. Management by Exception
6. Focus on products
7. Tailor to suit the project environment.

In terms of practical application it defines 7 Processes:

1. Starting up a project
2. Initiating a project
3. Controlling a stage
4. Managing Product delivery
5. Managing Stage boundaries
6. Closing a project
7. Directing a project

PRINCE2 also identifies 7 project management themes which cut across all of these processes:

1. Business Case
2. Organization
3. Quality
4. Plans
5. Risk
6. Change
7. Progress

Product Based Planning is a key feature of PRINCE. In PRINCE the “product” of the project can be sometime tangible like a building at something less so – like delivery of a training programme. The Product concept is embedded in the planning process – and uses documents such as Product Breakdown structure, Product Descriptions and Product Flow Diagrams.

PRINCE2 also recognises four levels of Project “Management”:

- Managing the Corporate programme
- Directing the project
- Managing the Project
- Managing Product Delivery

8.4.2 Project Management Body of Knowledge (PMBOK)

The PMBOK is published by the Project Management Institute (based in the USA) and identifies what is generally recognised to be “good practice” in project management. It identifies a very broad range of process areas, skills and techniques.

Unlike PRINCE2 it does not specify detailed procedures or documentation. In that regard it is perhaps more accurate to describe the PMBOK as a “standard” rather than a methodology. It is widely used and supported, particularly in the U.S, from

where it originates. We will explore the construction of this standard in a later section.

8.4.3 Association for Project Management (APM) Body of Knowledge

The APM is a UK based professional organisation and has published the 6th edition of its Body of Knowledge in 2012. Its standard is similar to the PMI's PMBOK.

8.4.4 International Association of Project Managers (IPMA) Body of Knowledge

The IPMA is focused primarily on European project managers and published Competence standards for project managers (and at organisational level)

IPMA's approach to project management is broken down into 46 competence elements, covering the technical competence for project management (20 elements), the professional behaviour of project management personnel (15 elements) and the relations with the context of the projects, programmes and portfolios (11 elements).

The IMPA and APM standards/competency baselines are popular in Europe but are not as widespread globally as the PMBOK.

8.4.5 Systems Development Life Cycle (SDLC)

Systems Development Life Cycle (SDLC) is primarily a software development process although it is maintained by some that it can be used as distinct process independent of the IT industry.

The objective of SDLC is to ensure development of a high quality system. It is a systematic approach composed of several phases.

8.4.6 Rational Unified Process (RUP)

The Rational Unified Process (RUP) was developed by IBM as a process framework to support software development projects. It is designed to be tailored to the needs of the organisation adopting it, selecting only those elements that match their needs.

8.4.7 Agile Software development

One of the advantages of a defined methodology is that it brings structure and discipline to the management of a project. It is argued that such discipline breeds consistent success. However the counterpart of discipline is agility, flexibility and responsiveness. The Agile movement aims to use less "structured" approaches to the development of software.

Although some Agile implementations are represented as being “Project Management Approaches” they do not necessarily cover the entire Project Lifecycle and do not constitute a general project management methodology.

For more information start here: <http://www.agilealliance.org>

8.4.8 In Summary

PRINCE2 and the various BOK’s are arguably the only publications which can be applied to all projects, regardless of size, complexity or industry. PRINCE2 is an important and widely recognised methodology which includes many of the practical components of a working methodology. However we will concentrate now on a further examination of the PMBOK as a means to organise and standardise our management of projects.

8.5 The Project Management Body of Knowledge

The PMBOK Guide – Fifth Edition is an internationally recognized standard. It describes itself as “the sum of knowledge within the profession of project management” It provides a broad framework of knowledge and practices from which the project manager must determine what is appropriate for his own application.

There are two main sections to the guide:

- 1)The Standard and
- 2)The Project Management Knowledge Areas

The Standard

This section specifies all the processes that are used to manage a project and groups them into 5 process groups as below:

- **Initiating** : Those processes performed to define a new project or a new phase of an existing project by obtaining authorization to start the project or phase.
- **Planning** : Those processes required to establish the scope of the project, refine the objectives, and define the course of action required to attain the objectives that the project was undertaken to achieve.
- **Executing** : Those processes performed to complete the work defined in the project management plan to satisfy the project specifications
- **Monitoring and Controlling** : Those processes required to track, review, and regulate the progress and performance of the project; identify any areas in which changes to the plan are required; and initiate the corresponding changes.
- **Closing** : Those processes performed to finalize all activities across all Process Groups to formally close the project or phase.

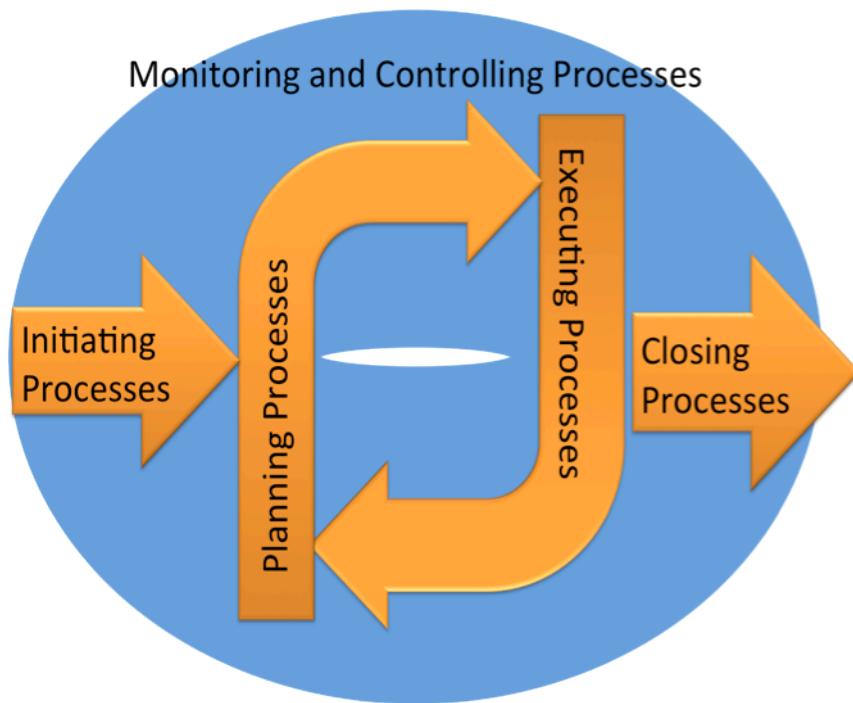


Figure 1 - PMBOK Process Groups

It should be noted that these processes can overlap and interact throughout a project or its various phases. Processes are further described in the PMBOK in terms of their:

- Inputs (primarily documents.)
- Tools and Techniques
- Outputs (primarily documents.)

The Project Management Knowledge Areas

This section organises project knowledge into ten knowledge areas that are typical of almost all projects:

- Project Scope Management - The processes to ensure that the project includes all the work required and only the work required to complete the project successfully.
- Project Time Management - The processes required to ensure timely completion of the project.
- Project Cost Management - The processes involved in planning, estimating, budgeting and controlling costs so that the project can be completed within the approved budget.

- Project Quality Management - The processes and activities that determine quality policies, objectives, and responsibilities so that the project will satisfy the needs for which it was undertaken.
- Project Human Resource Management - The processes that organise and manage the project team
- Project Communications Management - The processes required to ensure timely and appropriate generation, collection, distribution, storage, retrieval and ultimate disposition of project information.
- Project Risk Management -The processes concerned with conducting risk management planning, identification, analysis, responses and monitoring and control on a project.
- Project Procurement Management - The processes to purchase or acquire the products services or results needed from outside the project team to perform the work.
- Project Stakeholder Management - the processes required to identify all people or organizations impacted by the project, analyzing stakeholder expectations and impact on the project, and developing appropriate management strategies for effectively engaging stakeholders in project decisions and execution.
- Project Integration Management - The processes and activities needed to identify, define, combine, unify and co-ordinate the various other processes and project management activities within the other Process groups.

Each of the ten knowledge areas contains the processes that need to be accomplished within its discipline in order to achieve an effective project management program. Each of these processes also falls into one of the five basic process groups, creating a matrix structure such that every process can be related to one knowledge area and one process group.

8.6 Mapping to the PMBOK

The following diagram shows the PMBOK Process areas (across the top) mapped to the Knowledge areas (the left most column). Any project Management activity can be categorized both within a PMBOK Process area and within a PMBOK Knowledge area. I have demonstrated this by including some of the activities dealt with on this course.

	Initiating	Planning	Executing	Monitor & Control	Closing
Integration					
Scope					
Time		Create Baseline schedule			
Cost					
Quality					
HR			Manage the Project Team		
Communications					
Risk					
Procurement					Close contracts
Stakeholder	Identify Stakeholders				

Figure 2 - Matrix of Project management Processes and Knowledge Areas



Exercise 1

Q: Using the matrix above, place the following activities in the appropriate boxes:

- 1) Completing a Progress Report
- 2) Creating a cost Baseline
- 3) Resolving stakeholders issues
- 4) Updating the contract
- 5) Developing the project charter
- 6) Earned Value technique
- 7) Bringing your team to the pub for lunch

8.7 The PMBOK Construction Extension

The PMBOK in its basic form will cater for application of projects in many areas such as Business programmes, Manufacturing, Services, and Information Technology etc. In order to cater for some specific additional factors that are present in particular industries occasional extensions are published. For example for Construction projects (particularly major projects) an extension to the PMBOK has been published.

Four specific Knowledge areas are included in this extension:

- 1) Safety Management – the Processes required to ensure that the construction project is executed with appropriate care in order to prevent accidents that cause or have the potential to cause personal injury or property damage
- 2) Environmental Management - the processes required to ensure that the impact of the project execution to the surrounding environment will remain within the limits stated in legal permits
- 3) Financial Management - the processes required to acquire and manage the financial resources needed for the project. It is focused on revenue source and net cash flows rather than on cost control.
- 4) Claims Management – the processes required to eliminate or prevent construction claims from arising and for the handling of such claims if they do.



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NOPM Review/The PM Profession

9.1 Learning Objectives for this Chapter

Having completed this chapter you will be able to:

- Understand the main themes of this module
- Understand some professional development and learning supports available to the project management profession.

9.2 Introduction

This chapter concludes our look at the Nature & Organisation of Project Management

As we near the conclusion of this module we take a look back at the main themes of the course. We conclude by taking an overview of the project management profession itself.

9.3 Recap on the Nature and Organisation of Project Management

This module has concerned itself mostly with the following main themes:

Theme 1 - Projects are Different

Projects share many similarities with “normal” operational work. However they possess a particular mix of predominant features which differentiate them from other ways of working.

We have explored some of these features or characteristics during the course. The main features which distinguish projects from operational work are:

- **A Project is a temporary once off activity which terminates – its not repetitive/ongoing**
- **The project organisation is temporary – while operational teams tend to persist**
- **Project outcomes are risky/difficult to predict – operations outcomes are easily understood/dependable**
- **Project work tends to be cross functional – Operational work is usually confined and managed within a functional area**

Other attributes of projects which we examined were:

- **Uniqueness of the product of the project and of the environment in which the project operates**
- **The need to progressively elaborate from a simple idea to a complex detailed plan to deliver something real and tangible**
- **Constraints on resources**
- **The need to balance multiple objectives**
- **The presence of a central point of responsibility**
- **The organisation of project resources into teams (real or virtual)**
- **The organization of projects into lifecycle phases**
- **The inevitability of conflict**
- **Etc.**

Theme 2 - Projects are Effective and Strategic

Organisations use the project approach because it helps them to achieve their strategic objectives with an increased chance of success. It can be argued that organisations which succeed do so because of their ability to take risk and deliver significant changes. It could be similarly argued that project management is ideally suited to the delivery of such “risky changes”.

The factors which have promoted the increased use of projects have included:

- Increased complexity of products and solutions required by the customer
- Increased scale of required work
- Globalisation of companies
- Increased use of virtual teams
- etc

Theme 3 - Projects are delivered by People

The successful completion of any project is due to a number of factors most of which relate to human activity. These human factors include such things as:

- A team which consists of people with the required skills and experience to complete the job
- Individuals with the required levels of motivation and commitment
- Stakeholders who may interact, negatively or positively, with the project or its outputs
- Availability of a person with central point of responsibility and capability to lead the project to conclusion (The project manager)
- The experience, skills and knowledge of the project manager.
- Support of people (particularly senior management) or of the organisation to the aims of the project
- Good communications between all of these people.

Theme 4 - Projects are organised differently

The unique nature of the project environment leads to some unique ways of organising the people working on projects. The main organisational issue to be resolved is how to structure the grouping of project members in relation to the other units in the company. The manner in which the project is organised will influence how the various people relate to each other and to the company. It will also determine the level of influence that each can exert on each other. This in turn affects their ability to work together towards a common objective.

We have seen that the types of organisations include, at one extreme, the traditional functional organisation in which project activity is carried out with little or no impact on the organisation, on personal interactions or on reporting lines.

At the other extreme are organisations which have chosen to carry out their business entirely using project team structures.

It is important for project success that the appropriate organization of people is chosen.

Theme 5 - The Project Manager is at the Centre

Projects demand a central leadership and co-ordination role.

More importantly the project requires a single point of responsibility.

This point is called the Project Manager

Theme 6 - The Project Manager is a Proactive Detective!

It is the responsibility of the project manager to proactively manage towards a successful outcome.

The main weapon in the project manager's arsenal is the Process of Planning, Monitoring and Controlling – a theme which is explored in more depth in the modules “Planning & Scheduling” and “Managing Work and Costs”

However, some of the biggest enemies of the project manager are Silence and Neglect! – Projects are difficult to monitor and control in a vacuum. He must seek out exactly those issues that people are ignoring and would prefer not to talk about!

To illustrate this – here is an extract from some research carried out by the US consultancy company Vital Smarts. The study examines how failure to “speak up” or engage with crucial issues can impact success. They refer to these instances as “crucial conversations” and applied them to the world of project management. They found five main areas where project managers and their sponsors need to have “crucial conversations”:

- FACT FREE PLANNING – A project is doomed to failure when deadlines or resource limits are set with no consideration for the actual reality on the ground (someone neglects to cry “Stop”)
- AWOL Sponsors – A sponsor doesn’t provide leadership , political clout, time or energy to see a project through to completion (a neglect of responsibilities)
- SKIRTING – Powerful stakeholders work around the initiation, feasibility and prioritisation steps and attempt to go straight to “execute”(neglect of the process)
- PROJECT CHICKEN – Team leaders and member don’t admit when there are problems with a project but instead wait for someone else to speak up.
- TEAM FAILURES – team members are unwilling or unable to support the project

9.4 The Project Management Profession

We have seen in previous chapter that there is strong evidence that project management is increasingly being regarded as a profession in its own right. We have mentioned surveys of senior executives which indicate a positive endorsement of project management (93% strongly agreed that project management is a valuable asset)

We have also mentioned the existence of a number of professional institutions which promote, support or represent the project management profession.

Here we review a sample of some of the various supports for professional development:

9.4.1 The Project Management Institute (PMI)

A US based organisation active since the early 1970’s and now claims more than 450,000 members in over 160 countries.

It defines itself as a membership association for the project management profession.

Its primary activities include:

- Promoting the Project Management profession
- Setting professional standards,

- Conducting research
- Providing knowledge resources for its members.
- Promoting career and professional development
- Offering certification, networking and community involvement opportunities.

There are local chapters of PMI in many countries (including Ireland).

The PMI is probably best known for producing the Project Management Body of Knowledge (the PMBOK) which defines a global standard for project management.

The PMI also offer a professional certification path which includes:

- The Certified Associate in Project Management (CAPM®) Credential
- The Project Management Professional (PMP®) Credential

The PMP credential is widely recognised and often specified as a qualification by some companies when recruiting for project managers. The PMI claim 500,000 project managers with PMP accreditation. The PMI have recently added a Program Management Professional accreditation (PgMP) and a Portfolio Management Accreditation – (PfMP)

9.4.2 The International Project Management Association (IPMA)

The IPMA (International Project Management Association) is a non-profit Swiss registered organisation whose membership is comprised primarily of national project management associations throughout the world.

They have similar aims to the PMI and also publish standards – in this case “The IPMA Competence Baseline (ICB). They also provide a 4 level certification structure – IPMA Levels A to D. This credential is a well-recognised project management accreditation, particularly in Europe (along with PRINCE2)

Each member association is responsible for developing and managing its own project management qualification and competence programme and for establishing its bodies for certification.

The Irish “**Institute of Project Management of Ireland**” is aligned to this body.

9.4.3 The Association for Project Management (APM)

The Association for Project Management (APM) is a UK organisation which is also affiliated to the IPMA. It claims to be the largest independent professional body of its kind in Europe with over 20,000 individual and 500 corporate members. It aligns its certification with the IPMA 4 level model but has also published its own Body of Knowledge.

9.4.4 Project Management Education and Development in Ireland

The Centre for Project Management is located within the Campus of UL (University OF Limerick) and offers Masters Degrees in Project Management. Many of the other Universities also offer specialist qualifications in project management. For example, **University College Dublin** offers an MSc in Project Management by Block Release or by Distance Learning. Other third level institutions such as **National University of Ireland Galway and Sligo Institute of Technology** offer a BSc Degree in Project Managmnet in Construction

The Institute of Project Management of Ireland was founded in 1989 to advance the theory and practice of Project Management in Ireland. It is a membership organisation whose aims are similar to that of the PMI and IPMA. It provides project management training is association with University College Cork and supports certification for both PMI and IPMA.

Note: The above are only a selection of the Project Management development opportunities available. There are many other organisations providing excellent quality training and professional development.

As you can see – the profession of Project Management is thriving and there are plenty of opportunities to expand your knowledge further.

There are also numerous web sites devoted to project management. A sample is given in the references section.



References & Resources

www.ipma.ch

www.pmi.org

www.apm.org.uk

www.vitalsmarts.com

www.ganthead.com

www.projectsatwork.com

Student Notes

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APPROVED PAPER

Project Management Advanced Diploma

Nature of Project Management

Saturday 19 January 2013 10:00-13:00

Instructions to candidates:

- a) Time allowed: Three hours (plus an extra ten minutes' reading time at the start – do not write anything during this time)
- b) Read questions carefully. Attempt ANY FIVE questions.
- c) All questions carry equal marks. Marks for each question are shown in []
- d) Complete your full name, address, exam title in front cover of answer sheet.
- e) State number of question(s) being attempted on margin of answer sheet.

1 Chapter 1

1.1 Operations vs Project

Q5 Discuss, using examples, the distinction between the following : Operations, Projects , Programme & Portfolio? [20]

Q3 Using appropriate examples , explain how project work differs from operational work [20]

2 Tuckman

1.1 Describe Tuckman's 4 Stages of Team Development. [20]

3 Conflict

1.1 Discuss the 5 possible approaches that a project manager might adopt when dealing with conflict? Draw a diagram to demonstrate how the level of conflict on a project might vary during the project lifecycle.

2.1 Q2 With the aid of a diagram, discuss the 5 possible approaches that a project manager might adopt when dealing with conflict on a project. [20]

4 Support Structures

1.1 The job of the project manager will be made easier if the work environment and organisation culture provides support for projects. Outline the support structures which could exist in an organisation [20]

5 Functional Organisation structure

1. Describe with the aid of a diagram a typical Functional Organisation structure. What challenges for this type of structure pose for the cross functional management of projects? [20]

6 Stakeholder management

2. Describe the steps involved in Stakeholder management and identify the main outputs of the process
3. Q7 Discuss the importance of Stakeholder Management for the success of the project. Outline the objectives of the key tasks required for effective stakeholder management. [20]

[20]

7 triple objectives

4. Discuss the trade off involved in balancing the triple objectives of project management.

8 PMBOK

1.1 Q4 *Describe the structure and scope of the Project Management Body of Knowledge (PMBOK 5th edition) . Discuss the issues which should be considered when adopting the PMBOK as the basis for an organisations project methodology. [20]*

2.1 Q8 *The Project Management Body of Knowledge (PMBOK) is not a project management meth-odology – Discuss*

9 Misc

1.1 *Describe the roles which a Project manager fulfils on a project and the specific responsibilities the PM is likely to be tasked with. [20]*

2.1 *Describe a typical project lifecycle and give 3 advantages to be gained from using a standard lifecycle.*

3.1 Q1 *Describe the criteria which might be used to measure the success of a project [20]*

4.1 *Describe, with the aid of a diagram, the Leadership Grid proposed by Blake & Mouton [20]*

5.1 Q3 *Describe the various types of power available to the Project Manager in the execution of their role. [20]*

6.1 Q6 *Describe the particular communications challenges associated with virtual teams. What steps can a project manager take to maintain effective communications within such teams? [20]*

7.1 Q8 *With the aid of a diagram – discuss the advantages and disadvantages of a fully projectised organisation. [20]*

Q1. Discuss the purpose and benefits of the Project Management Office Describe the activities typically carried out by this office. [20]

Q4 Describe the primary role of the project manager. What are the typical activities for which project manager is responsible? [20]

Q5 Why is motivation relevant for the Project Manager? Describe Herzberg's theory of Motivation. [20]

Q6. Describe four attributes of an effective organisation structure. What are the advantages & disadvantages of running projects within a traditional Functional organisation structure? [20]

Q7 With the aid of a diagram describe the typical composition of a four-stage project lifecycle and outline the advantages for the project manager in using Lifecycle approach. [20]