Project Services Pty Ltd

RETROSPECTIVE OF BM602 PROJECT LEADERSHIP. CASE STUDIES OF GROUP 2

WHAT DOES A PROJECT MANAGER NEED TO DELIVER SUCCESSFUL PROJECTS?

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Doctor of Project Management

BM602 Project Management Leadership

Paper 4

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Preface

Years of managing projects have led me to develop the following views of IT projects:

- Each IT project is unique – it is not easy to estimate time and cost even with the most sophisticated tools. The library of reusable components is neither sufficient nor universal enough to be able to estimate the 'construction' that will be delivered
- Many fail because the deliverables are intangible – it is hard to visualize the deliverable of a Business Application. Managers and users have agreed to deliverables without really knowing what they have agreed to.
- In a large organisation, Senior Managers change many times throughout a project longer than nine months. Each new Senior Manager has different priorities and different interests. Often it is necessary to 'start over' to brief and therefore engage the new Senior Manager.
- And yes, there will be constant pressure form stakeholders to change (usually add to) scope. This is common phenomenon in major projects. [Yeo, 1993 #57]

In short, there are many aspects of a project that cannot be controlled no matter how qualified and experienced a Project Manager becomes.

For a long time, I believed that in a large organisation, delivering a complex IT project required:

- An experienced PM (me)
- A good estimating tool
- Hand-picked team members
- A stable, heterogenous user-base
- A stable and identifiable set of 'right thinking' stakeholders
- Lots of luck

Through the work of the *DPM Leadership* my views have been tempered through exposure to the theory, the views and experiences of my colleagues and the three Case Studies that my Group used as a basis for enquiry into aspects of Management and Leadership in Project Management.

Introduction

There are many similarities between the three Case Studies developed by Group 2 for DPM Leadership papers: two were Information Technology (IT) projects in large complex organisations and the third was a Construction Project within a complex Joint Venture (JV) management structure. In all cases, the Project Manager was able to manage the time/cost constraints but not the scope/stakeholder components. The reasons vary, but in my view, the outcome is the same:

- Project Managers can learn/use Project Management tools and techniques of project control and project planning and scheduling (*forwards* and *backwards*)(Briner *et al.* 1996)
- With experience and the acquisition of leadership skills, they can work with team members and other Stakeholders to define project success criteria, establish a shared Project Vision, manage

conflict, and adapt to changing project conditions. (Briner et al - *inwards, downwards* and to some extent *outwards)*

- There is a third dimension of Project Management that is vital to success in large complex Organisations. Briner et al's term "Wiring into Stakeholders" –"looking *upwards* and *outwards*" - partially defines this dimension. The missing component is the specialist skills that combine the interpersonal skills of leadership with the ability to read the power structures of the organisation to ensure success of the project. There is another aspect of this Third dimension – '*looking sidewards'*. It is not included in Briner et al's six 'lookings', but in my opinion it is intrinsic to a Project Manager's successful delivery of projects in large complex organisations.
- The seventh 'looking' is: managing the needs and wants of the Project Manager's peers, usually other Project Managers. I will discuss this in more detail in the Stakeholder Management section of this paper.

This paper will focus on those aspects of a Project Manager's skills and knowledge that must be invoked for project success in large, complex organisations. The first task will be to define Project Management as a mixture of *art* and *craft* and how this connects to concepts of *management* and *leadership.* One of the themes of the paper will be that a successful Project Manager must be able to balance the requirements of *art* and *craft,* of *management* and *leadership.* Building on these definitions, I will use the Case Studies as a basis for assessing success in terms of project 'hard' and 'soft' criteria. However, even the 'what' (or hard criteria) of Project Management can be affected by Stakeholders' 'hidden agendas'; these 'hidden agendas' must be recognised early and resolved. It is these aspects of managing a project that don't fall neatly into methodologies of Project Management, that I have termed the Third Dimension. In large complex organisations this is given the nebulous term of 'politics'. To be successful in these projects, a Project Manager must be able to work within the power structures of the organisation, tapping into the 'power lines'. A Project Manager can survive in the Third Dimension, and can deliver successful projects, but must know the 'who' and the 'how' to master the 'game'.

Not every Project Manager will see the need to do this, nor will he/she believe that it is possible to learn how. The last part of this paper will explore how Project Managers have acquired the skills in the past, and through looking at how many corporations are now working to teach their people the necessary leadership and awareness skills, speculate on how large complex organisations can encourage and support their Project Managers to become adept at operating in the Third Dimension.

The *art* and *craft* of Project Management

The idea of Project Management is relatively recent and arose through the construction and defence industry's need to plan, control and manage large, complex series of activities that would result in something like a skyscraper or a battleship. From these "endeavours" (PMI 2000) arose the "hard" project success criteria of schedule, cost and scope management. The evolution from operational tools and techniques to a discipline of management (Cleland 1994) has taken Project Management through all flavours of management. It has been described as "the way to implement corporate strategy" and to manage a company (Turner 1999) and across all organisations (Dinsmore 1999). The disciplines of the Project Management *craft* probably did add value to wider Management endeavours.(Webster 1994) The emphasis on the 'traditional' (Lock 1988), (Kerzner 1995), (Turner 1999) use of the tools and techniques has not necessarily advanced the cause of Project Management, because it has placed primary focus on the 'hard' criteria to the detriment of the 'soft' criteria of managing the multiple relationships that arise in delivering the scope of the project.

Kotter, (1990 p 3) writes that *leadership* is an age-old *art* and *management* is a more recently established *craft*. According to Kotter, management was 'invented' to assist the new, complex

capitalist industries of "railroads, steel mills and auto companies" deliver profitable products that were consistent in quality. Kotter also defines management as "coping with complexity" and leadership as "coping with change".

Projects are about change, and the Managers of these projects should be considered as agents of change, particularly projects in the non-traditional, non-construction Projects such as IT or Business Process change. There are times throughout the life of the project when the PM has to decide wether to "pull – inspire or persuade" or "push – Direct or control" (Bennis and Nanus (1985 p20). The experienced PM knows when to "push" and when to "pull"; and how he/she does this depends on the "style" of the PM. Some aspects of "style" can be learned but others are personal traits and can either be modified or enhanced to be effective.

Bredillet defines *art* as a "personal , unanalysable creative power" and *craft* "implies expertness in a workmanship". To this set of definitions he also adds *science* as "The body of systemised knowledge".(Bredillet 2002). For the purposes of this paper, the concept of *science* is implicit in the concept of *craft.* Webster identifies 'left brain/right brain' polarities in the *art/craft* discussions. (Webster 1994)

Briner et al (1996 p16) state that successful completion of project deliverables depend on both "hard" (time, cost, scope) and "soft" (relationships) project criteria. The focus must be on managing relationships as well as controlling and monitoring performance throughout the project lifecycle; how to start the project right; how to ensure that the project delivers as defined (and expected); what to do when performance isn't meeting expectations. It is in the context of the personal traits of the *art* of Project Management that this paper will proceed.

This paper will focus on the three Case Studies of Group 2 as a device to begin drawing conclusions about aspects of relationships in Project Management. These conclusions along with my own experiences of managing IT projects in large complex organisations as well as the experiences of colleagues, in the DPM program and in the wider PM community should be able to provide a direction for further research to support any conclusions that may be drawn from such a small sample.

The Case Studies

Two of the DPM Leadership Group 2 Case studies reflected on Information Technology (IT) Projects in large Australian organisations, the third was based on the experiences of a young Australian Construction Project Manager working on his first Project in Asia.

Case Study 1

This project was established within the Internet Service Provider section of a large Australian utility Company to automate aspects of registration and renewal of domain names and provide IT support for capture of issues and tracking of resolution activities. Although this project was initiated to reduce the likelihood of legal issues for the Company and promote the concept of social performance (Walker 2000), it was viewed as 'easy' and an inexperience Project Manager was assigned.

Many of the assumptions at project startup were false, there was conflict of interest within the Stakeholder group and the first PM was replaced by a second PM with more experience, but not enough to unravel the Stakeholder issues. The Project was completed, but it went over time, over budget, and did not meet Stakeholder expectations. Both Project Managers described their experiences as 'extremely stressful'.

Case Study 2

This project was a sub-project within the much larger Chek Lap Kok - Hong Kong Airport Construction Project. It was to be delivered by a set of Joint Ventures and Strategic Alliances comprising of Partners representing many countries and cultures. It was planned to be delivered in 6 months and appeared to be a straight-forward construction project.
The Australian Project Manager had never worked in a project in Asia before. He was competent in managing the 'hard' criteria of time, cost, quality and scope, but had never needed to develop skills and experience in managing relationships in a multicultural environment.(Trompenaars and Hampden-Turner 1997), (Hofstede 1997).
The project did deliver the required scope, on time and within budget. However, even after eight years had passed, the Project Manager still describes that assignment as 'the worst ever'.

Case Study 3

The Project Manager was assigned to this project to 'fix' a complex, multi-vendor, highly visible project that was experiencing lack of cohesion, lack of leadership and schedule and budget overruns. Once again, this was a stressful experience for the Project Manager, who had come to specialise in 'troubleshooting' projects such as these. Progress on the project had been stalled, with conflicts arising from cultural misunderstandings between the major delivery groups – one group of 'staff'-Business Analysts, one group of technical contractors and one group was from a Company with clear visions and methods (Cusumano and Selby 1995) which conflicted with the vision and methods of the other two groups as well as the vision and methods of the Project.
In addition there was no clear leadership and four project managers attempting to implement what each believed was the best outcome through the best means. This situation was finally resolved when Senior Management decided to support the methods and vision of one group. This intervention should have occurred much earlier. Eventually the project did deliver to the satisfaction of the users, but in a much longer timeframe with a significantly reduced scope.

Each of the Case Studies described Projects of different 'typology'. The combined (Briner *et al.* 1996), and (Turner and Cochrane 1993) typology map defines the categories.

Table 1 - Project typology

Category	Types of projects	Goals defined	Methods defined	Project 'type'	Clarity of Roles/ Responsibility	
Type 1	Large engineering projects	Yes	Yes	Concrete	**High** (in the Western context) However, the PM was unaware of the difference between western and Chinese views of roles and hierarchical structures	Hong Kong Airport
Type 2	Product development	Yes	No			
Type 3	S/W development, IT	No	Yes	Occasional	**Unclear.** There was conflict of interest within the team and sponsor structure	Farrell ASA
Type 4	Blue sky	No	No	Open	**No.** Organisational cultures with different goals, methods and ways of working did not allow for smooth team relationships	ASA

While it is not necessary for Project Managers to know this theoretical construct, he/she must know how to adapt to projects where the extent and quality of definition of goals, methods and Project roles vary significantly. This is the *art* of Project Management. An effective Project Manager must be adaptable. Even projects of the same size and type will have differences from all others; whether it is because the team structure is different, the owner(s) has different expectations, or perhaps the substance of the deliverables is different.

Even though the Hong Kong Airport project was a Type 1, with clearly defined goals and methods, roles and responsibilities, there were many elements of similarity between this one and the other two less well-defined IT projects. These areas of similarity are best described in the lessons learned from the projects and were discussed in the Introduction as the areas of discussion for this paper:

- The need to focus on the 'soft' – relationships as well as the 'hard'- measures and controls
- The importance of defining and maintaining the Project Vision
- The effect that Stakeholders had on the outcomes of the project.
- The part that a PM's knowledge, experience, personal style and management preferences played in project success.

Project Criteria – 'hard' and 'soft'

Table 2 defines the principal elements of 'hard' criteria as the 'what', and 'soft' criteria as the 'how'. Adapting the categories developed by (Walker 2001) from (Briner *et al.* 1996) , I have added a column indicating the level of PM skills and knowledge required to manage *Third Dimension* situations. I am using this term *Third dimension of Project Management* to describe the "ability to read the power structures of the organisation". I have used this term rather than 'politics' because of the negative connotation applied to this activity in an organisational context. Along with the ability to read the power structures must come the knowledge, experience and art necessary to act effectively for project success (Cleland 1995).(Peled 2000)

Table 2 - Defining Success Criteria

The Third Dimension	Hard Criteria The what	Soft Criteria The How	PM Skills & Knowledge
In the Open Declared, visible, openly discussed by stakeholder	Performance specs Time and Cost Contractual Terms & Conditions Delivery terms, Quality	How to control project Review meetings Procedures to use if it goes wrong How communication is to take place	PMBOK tools and techniques Clearly defined as part of PM *Craft*.
Under the Table Withheld deliberately, undeclared by oversight, or not usually discussed, but very influential	'Real' budget constraints that are arising or foreseeable e.g. delivery dates, resources available	Political concerns 'don't rock the boat' or 'if anything goes wrong you are on your own' 'Hidden agenda'	A combination of *Craft* (tools & techniques) and *Art* (experience, knowledge and leadership skills)
May Emerge Unknown by both parties, but should be dealt with positively when they emerge	New options arise from practical events and experience The unexpected enforces different constraints 'Acts of God' crisis	Risks too large for the client personally Outcomes from joint participant days of problem-solving	*Art* of negotiation, problem-solving Combined with PM adaptability which can only result from experience (see Walker notes re best experience)

Adapted from (Walker 2001), (Briner *et al.* 1996)

Referring to Table 2: Every Project Manager is expected to be competent in the first set – *in the Open.* The Second Project Manager of the Farrell Project could be judged as reasonably competent at this level. The first Farrell PM still had much to learn. The set – *under the Table* requires much more knowledge and experience for not only identification but also satisfactory resolution. The PM of the Hong Kong Airport project was continually battling with *under the Table* issues. He had some small successes in managing the relationship, but his skill in managing the *in the Open* issues meant that the project did deliver on schedule and within budget. The true test of the Project Manager is how he/she anticipates and identifies the *May emerge* set and negotiates the best resolution for the Project. In some cases the best resolution may be to close the Project. This was the eventual outcome of project Taurus, the London Stock Exchange's 500 million pound IT venture where weak project definition along with the impetus developed through unchecked stakeholder expectations caused massive budget overruns. (Drummond 1998). The *may emerge* category was the level that the ASA PM should have been able to operate at. She did not know how to read the power structures of the new organisation, whereas the Microsoft team leader did (Boddy and Buchanan 1992). This knowledge of who and how the organisation worked was the element that made the difference in this project. I will discuss aspects of working within these power structures later in this paper.

Stakeholder Influence

(Cleland 1999, p151) identifies the need to develop an organisational structure of Stakeholders through understanding each Stakeholder's interests and negotiating both individually and collectively to define the best way to manage their needs and wants. Stakeholders have been described variously as "The ones who holds the beef" (Dinsmore 1999), those who have an Interest, (Boddy and Buchanan 1992), essential in "people-oriented project cultures"(Vaupel *et al.* 1999), essential at all points in the project from 'initiation' to 'closeout'(Gray and Larson 2000), (PMI 2000).

(Briner *et al.* 1996, p16) explores the idea of a framework of six directions of which a 'project leader' must be aware to manage a Project's Stakeholders successfully. Weaver and Bourne(Weaver and Bourne 2002) describe the 'Stakeholder Circle' as the network or 'sphere of influence and support' on which a Project depends for its very existence.

Project Management: Art, Craft or ???

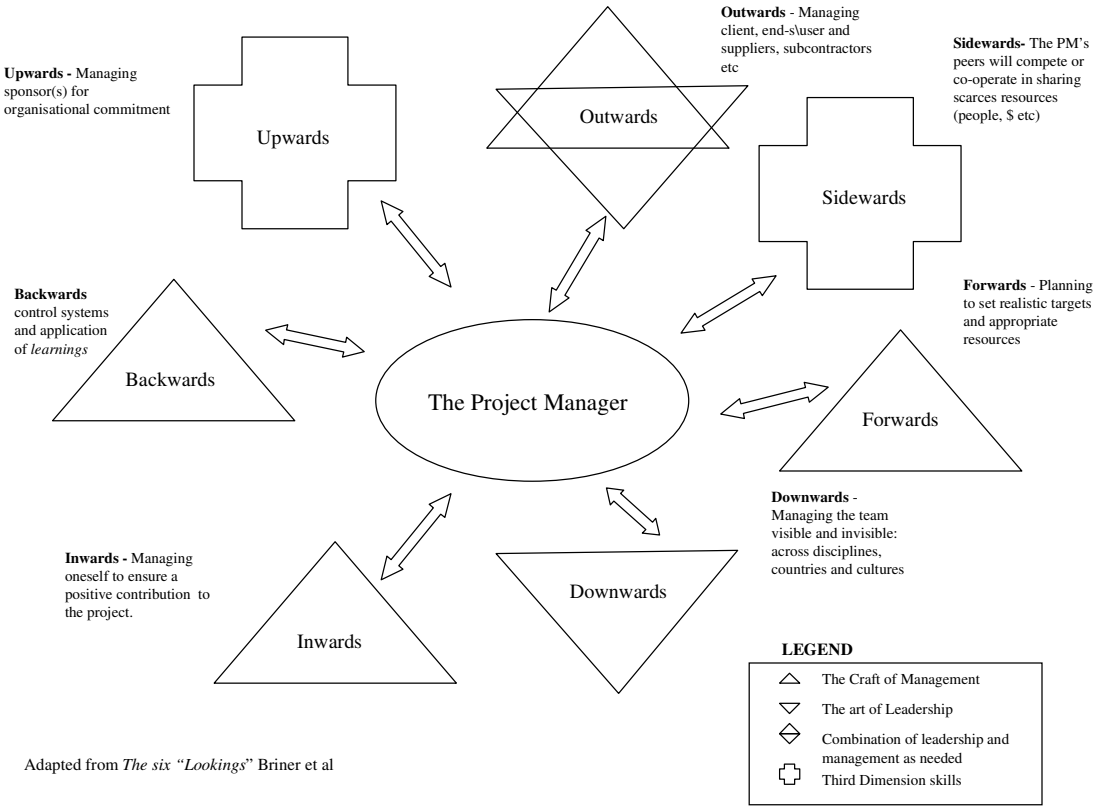

Figure 1: Project Manager Influence Matrix

The Influence Matrix

The Influence Matrix developed in Figure 1 attempts to define the nature of what a Project Manager must do to be successful. Within the Stakeholder Circle, The Project Manager must manage the processes to develop the plans, schedules, reports, learnings and forecasts that will serve as communication devices to everyone who has an Interest. The Project Manager must also manage him/herself, from the point of view of personal discipline, but also from the point of view of having needs and wants that must also be met through successful completion of the project. This aspect of Stakeholder Management is often neglected. If the Project Manager's needs and wants have not been satisfactorily delivered, it cannot be termed a successful project, because all Stakeholders have not had their interests met. (Weaver and Bourne 2002)

Looking *outwards,* requires a mix of management and leadership, and clearly looking *downwards*, requires considerable leadership skills to motivate followers and ensure all team members have their needs and wants satisfied. It is the looking *sidewards and upwards* that I will focus on, satisfying the needs and wants of these groups – peers and senior managers, requires signficant interpersonal skills that call upon a flexible and appropriate set of responses to situations when these Stakeholders threaten the success of the project.

Project Vision

It is important that Stakeholders should jointly define Project success criteria and that the Project Manager must have the ability to convert the Project Vision into a strategy and action plans. In the instance of both the Farrell Project and the Hong Kong Airport project, even if either Project Manager knew that this must be done, neither had the experience or support from their organisation to know how to actually achieve a positive outcome. In the ASA Case Study, the PM did not have the opportunity to re-define these criteria across the whole project, although she was able to conduct this exercise for her own part of the project. Through this activity she was able to form a cohesive 'group' of her own team and gave them a purpose, specific goals and a sense of urgency. This enabled the members of that team at least to buy in to the vision of the Design Team and be 'persuaded' to support the vision they had jointly developed. (Conger 1998). At least the ASA PM knew her team would support her through the conflict engendered by the other dysfunctional aspects of ASA.

Each of these Case Studies illustrates that, without attention to the needs and expectations of different sets of Project Stakeholders, the Project will probably not be regarded as successful (and certainly not to the Project Manager herself) even if the Project Manager was able to stay within the original time, budget and scope.

While Stakeholders external to the Project Team can define the Project's objectives, the Project Team is called on to achieve those objectives. (Katzenbach and Smith 1993) indicates that 'groups' can form very powerful teams when given a "purpose in which the team members can believe". While this paper will not discuss in detail the part that a Project Manager's leadership skills play in forming and maintaining effective teams, it is important to recognise that this is an essential component of project success.

Project Manager influence

An understanding of concept of managing different types of Stakeholders in different ways is an essential part of a Project Manager's *art* AND *craft.* Another essential element is the knowledge and understanding of who needs to be 'managed', and how and when. Table 3 analyses how each of the Project Managers fared in understanding and responding to the challenges of the relationships and power structures that affected their projects. Project teams and their stakeholders operating in multicultural environments, outsourcing environments with multi-vendors teams, must still demonstrate flexibility and still require leadership to ensure that they can work together to jointly deliver successful outcomes.
(Mintzberg 1989), (Viney 1997), (Thielen 1999).

The 'lookings'

The table below assesses the success of stakeholder management in each of the projects. Success has been rated on the scale of 1 – 5 (with 5= high; 3= medium; 1=low). Expected ratings for PM level of experience are in brackets (-).

Table 3 Stakeholder Management success

	Farrell	**HK Airport**	**ASA**
Project Typology	Type 3	Type 1	Type 3/4
Upwards - managing Owner (and other Senior Managers) for organisational commitment	0 (1-2)	2 (3)	2 (4)
Outwards – managing the client, end-user, external stakeholders	1 (1-2)	3 (3)	3 (4)
Forwards – planning for realistic targets, obtains appropriate resources to achieve these targets	2 (1-2) PM #1 had done some planning. PM#2 developed good plan and schedule	0 (3) (Planning had already been done and resources allocated before PM joined project)	3 (4) (Planning for overall project done by others, PM did project startup with Design team members. Resources had already been allocated before PM joined project)
Backwards – monitoring progress with control systems, ensure team learns from mistakes	2 (1-2) (control systems) 0 (1-2) (process for capturing learnings)	0 (3) (control systems in place) 4 (3) (monitoring progress) (unsure about the process for capturing learnings	4 (4) (monitoring progress) 4 (4) (process in place for learnings which formed part of the subsequent review)
Sidewards – working with the Project Manager's peers. Project Managers within the organisation will often compete for scarce team skills and funding $$.	0 (1-2)	1 (3) The PM was slow to understand the needs and wants of his peers, primarily because of cultural differences (Guanxi relationships)(Hampden-Turner and Trompenaars 1997)	0 (4) The PM's inability to gain the co-operation of the other PMs on ASA meant that the situation could no the resolved within the project
Downwards – managing team members (visible and invisible) across disciplines, departments , countries and cultures	2 (1-2) (PM had difficulty working through conflicts of interests of team members)	3 (3) (PM had varying degrees of success. Most difficulty with Chinese team members, least difficulty with fellow Westerners)	4 (4) (PM was able to forge a team quickly within her own team. But unable to merge all other groups into one Project team)
Inwards – managing oneself. The concept of oneself as a Project Stakeholder is not usually considered. PMs do have needs and wants which will probably not be met if the project is not successful on any other count. *It is difficult to gauge a PM's own wants and expectations. I have assumed for this exercise that at least a '3' would be expected.	0* (3) Stressful experience for both PMs	0* (3) Stressful experience	0* (3) Stressful experience

The inset below provides the key to analysing the results of each of the Project Managers described in the Case Studies and defined in Table 3

Scale is 1 – 5 (with 5= high; 3= medium; 1=low).	**Relative Experience Level**	**Expected ratings**	**Actual ratings - averaged**
Farrell Project			
PM #1	Very low (neophyte)	1	
PM #2	Low to medium	2	1
Hong Kong airport	Medium	3	2
ASA	Medium to high	4	2.5

The results of Table 3 indicate that all Project Managers rated close to expectations on individual elements except for Managing *Upwards, Sidewards and Inwards.* The wants and needs of individual Projects Managers are subjective, but clearly, if there has been constant conflict on a project and it is not accepted as successful by Stakeholders, achievement to expectation will be below required level. This will probably affect the behaviours of Stakeholders. Lovell states that behaviours ranging between Accommodating and Assertive will be displayed by the Stakeholders depending on each persons perception of how needs and wants are being met. (Lovell 1993).

In the three Case Studies analysed in this paper, two elements varied most widely from the stated expectations – Managing Upwards, and Managing Sidewards. This is in accord with the definition of these elements as the ones requiring knowledge and skills in understanding and working within the power structures of the organisation.

The Third Dimension

What was missing in all three Case Studies was the knowledge of how the organisational structure supporting (and encircling) the project worked. For the Farrell Project, both PMs were unaware of the need to understand and operate in the relationship dimension. The HK Airport project illustrated the importance of understanding the cultural differences between the groups in the Joint Venture and then *knowing how best to operate within that framework.* It is likely that the ASA Project Manager was able to recognise the cultural differences between each of the groups within her project and knew that she needed to operate within the specific framework developed through these differences, but she was new to the organisation and could not identify who she needed to influence, what their needs and wants were and therefore, how to communicate with them; she needed more time to build up the relationships and earn credibility within that organisational framework.

From the small sample of (unsuccessful) Projects represented by the Case Studies, it is clear that there is a range of skill, leadership and management ability and personal style that a Project Manager has, acquires or develops that will enable him/her to manage projects of increasing complexity or importance to an organisation. My own experience, and that of my colleagues in Group 2 support this statement.

I have looked at these different ranges from inexperienced to experienced, and I have alluded to the Third dimension – understanding and using the *power lines* – as the other essential ingredient to success with IT projects in a large complex organisation.

Earlier in this paper, I identified four elements of project success for IT project Management in large complex organisations:

- The need to focus on the 'soft' – relationships as well as the 'hard'- measures and controls (Briner *et al.* 1996), (Walker *et al.* 2001)
- The importance of defining and maintaining the Project Vision (Drummond 1998),(Briner *et al.* 1996)

- The effect that Stakeholders had on the outcomes of the project. (Dinsmore 1999), (Drummond and Kingstone Hodgson 1996)
- The part that a PM's knowledge, experience, personal style and management preferences played in project success.

This paper will now focus on this fourth element of project success by looking at:

Power structures around the project

Aspects of Leadership

The idea of "the 'leader and the led' in organisations is not monolithic, but is composed of varying levels of relationships, contact and situations". (Popper and Zakkai 1994). This statement holds even within the most rigid hierarchical organisational structures, such as the mature bureaucratic organisation of the large companies of two of the Case Studies. (Mintzberg 1989). According to Popper and Zakkai, response to leadership can be emotional, as defined by (Bennis and Nanus 1985), or 'give and take' exchange relationships as defined by (Hershey *et al.* 1996). Leadership is about the "effect of the leader on People, individually or collectively, in relation to their environment". In this context leadership has three forms; Inspirational Leadership is "Heart Leadership"; Strategic leadership is "Head Leadership" and Supervisory Leadership is "Hands Leadership"(Nicholls 1994) According to (Bass 1985) there are also three major types of leadership: transactional, charismatic, transformational
Transactional - based on expectation of reward. "Transactional leaders pursue a cost-benefit economic exchange to meet current material and psychic needs in turn for 'contracted' services. (Bass 1985) This is similar to the exchange model of Hershey, Blanchard and Johnson.
Charismatic – central to transformational leadership, exerting great power and influence and causing followers to love the charismatic leader. (Bass 1985) Personal weaknesses may result in leaders who attempt but fail to be transformational despite their charisma, consideration or intellect. This is an emotional relationship.
Transformational leadership – leaders intellectually stimulate followers. Transformational Leaders recognise existing needs in followers but tend to go further, seeking to arouse and engage the full person of the follower" (Bass 1985)

Leadership Role Models

Potential Leaders do not lack role models. Sir Ernest Shackleton's Leadership during the disastrous expedition to Antarctica is an excellent example of leadership emerging in times of crisis. Shackleton's leadership qualities were outstanding in the (years-long) crisis. He inspired, led by example, cajoled and delegated authority at the appropriate moments. His leadership qualities make him a role-model to many; he may not have succeeded in his mission, but supplemented with a great deal of good fortune he brought all the *Endurance* crew to safety after a series of disasters.(Shackleton 1999),(Morrell and Capparell 2001). Within the organisational context Frank Blount and Bob Joss serve as examples of Corporate leadership – using a mixture of leadership, persistence, persuasion, corporate knowledge and experience to turn around two monolithic Australian organisations – Telstra and National Australia Bank. (Mair 1999).

Many corporations have now programs to develop leadership skills within the organisation. A Report on the strategies that companies such as General Electric, Hewlett Packard and Johnson & Johnson use to ensure a steady stream of leaders "moving up", identified five essentials of leadership development. (Fulmer *et al.* 2000). The five essentials were:

- Awareness of external and internal challenges and opportunities

- Anticipation – going beyond the traditional focus on the past and best-practice view of the present to an emphasis on the future
- Action learning, not merely the application of knowledge.
- Alignment of assessment, development, coaching and succession planning
- Assessment of the effects leadership programs through measures of individual behavioural changes and business success.

Personal style and management preferences

(Kinder and Robertson 1994) defines four major person styles and characteristics for successful leadership. By analysing successful figures from business and politics such as Anita Brodderick (the Body Shop) and Michael Gorbachov and following up with research, Kinder and Robertson have identified four traits – Creativity, Analysis and Judgement, Resilience and persuasiveness. The list that Yukl defines adds Energy, self-confidence Integrity and emotional maturity to that of Kinder and Robertson. (Yukl 2002) Goleman's account of "Emotional Intelligence"(Goleman 2000), defines four aspects: self-awareness, self-management, social-awareness and social skills, which match the previous set of traits reasonably closely. (Sweetman 2001), cites data from new studies that have found that the most effective leaders "admit they don't know all the answers – and are willing to ask employees for help". This exercise in knowing how to "embrace uncertainty", according to Sweetman included such aspects as setting inspiring goals and then working with the stakeholders to define the best way to achieve these goals. As was stated earlier in this paper, a good leader is able to apply his/her skills and knowledge to suit the situation, the nature of the followers and the power relationships between leader and led.

Table 3 attempts to distil the essence of leadership through a comparison of the ideas expressed above. It becomes obvious that what is needed is a set of skills that can be defined in the Right brain/Left brain terminology, or as 'hard' and 'soft' or Analytical and Creative. It is also obvious that the key is in the appropriate balance of these characteristics.

Table 4 Personal Characteristics of a good leader

Webster	Kinder et al	Yukl	Goleman	Block
Left brain: Analysis and judgement control	Analysis and judgement	energy	Self-management	Introspection Control Analysis and judgement
Right brain: Creative Spatial Holistic emotive	Creativity Persuasiveness Resilience	Self-confidence Integrity Emotional Maturity	Social awareness Self-awareness Social skills	Insight into others' goals and motivations Creativity Tenacity

(Kinder and Robertson 1994), (Yukl 2002), (Block 1983; Goleman 2000),(Webster 1994)

Power and the Project Manager

It is important to note: "The power base of the individual PM depends on the status of the particular project as well as his/her reputation and influencing skills…. Knowing which styles of persuasion to use and when depends to large extent to the political skills and courage of the particular PM" (Lovell 1993).

According to Hershey and Blanchard, an effective leadership style depends on a follower's ability (and willingness) to follow a leader. (Hershey *et al.* 1996) Leadership of Project Team members is not the subject of this paper; but is important to raise in the context of Hershey and Blanchard's statement that an effective leadership style depends on the perceived and apparent power base of the leader as well as the power relationships between leader and led. This can apply equally well for Project Managers operating in the Third Dimension.

(Hershey *et al.* 1996)have defined the forms of power in their charts as:

Table 5 Forms of power influencing leadership styles and effects on followers

Coercive	Based on fear. Failure to comply results in punishment
Connection	Based on 'connections' to networks or people with influential or important persons inside or outside organisations.
Reward	Based on ability to provide rewards through incentives to comply. Is expected that suggestions be followed
Legitimate	Based on organisational or hierarchical position
Referent	Based on personality traits such as likeable, admired etc, thus able to influence
Information	Based on possession to or access to information perceived as valuable
Expert	Based on expertise, skill, knowledge which through respect influences others

This theory of how power relationships affect Leadership effectiveness is useful at a high level, because it provides a useful guideline for establishing the framework for understanding and managing organisation power structures. According to (Yukl 2002), Hershey et al's model has limitations, but for the purposes of this paper, the context it defines is a useful framework, as long as it is considered in a situational context and the caveat that human behaviour cannot be neatly predicted. There are always unexpected human behavioural factors that will unravel even the neatest model.

The effect of a PM's knowledge and experience

In analysing the three Case Studies, it was clear that none of the Project Managers was able to operate within the power structures of the organisation outside the Project. Even those who recognised it was necessary could not always do it. One thing is clear from the comments of each Project Manager, they now know (each at his/her own level) more than they did before.

Project Managers must learn about power relationships the hard way: by trial and error, "most successful project managers have the scars to show for it".(Block 1983) p46. The 'scars' help to enrich the Project Manager's perception of project and organisation 'reality'. With each new experience expanding this perception of reality, the Project Manager builds a significant portfolio of 'learnings' as well as healthy cynicism to hone those instinctive alarms. (Trompenaars and Hampden-Turner 1997).

From my own experience, nothing is a more effective teacher that a spectacular mistake within a Learning Organisation.(Senge 1990). An opportunity to work through the steps free of the need to justify my actions, or deflect blame (Baldwin 2001) has been the most effective learning experience I have encountered. However, organisations can help IT managers to develop an ability to deliver successful projects by helping them hone the 'soft' skills of their IT Project Managers. (Peled 2000).

The ideal situation for (Webster 1994) is for the Project Manager to be "multi-dominant": to be able to access right brain skills to be more conceptual, emotive, spatial and holistic but also when appropriate to access the left brain: responsible for speech and lineal, analytical and rational thought. Research at the time of writing the paper in 1994 had indicated a left-brain preference in the PMs surveyed. It would be a interesting exercise to follow up this line of research as part of any investigation I do in the areas of IT Project Managers in large, complex organisations.

The Power structures and how to survive them

Building relationships

The key to surviving (and thriving in) the 'politics' of an organisation's power structures in and around a Project is to build and maintain durable relationships. (Briner *et al.* 1996). Briner et al define 'politics' as "the peaceful settlement of difference" p72. Politics don't have to be negative or "too hard". As has already been shown through the Case Studies described earlier, it is dangerous to ignore the effect of 'politics' on the outcomes of a project. It is important to understand how the patterns of political activity "manifest themselves in any organisation" p72 It is also important for a Project Manager to understand how he/she reacts to these situations and if necessary adapt behaviours to ensure success. Overly emotional reactions will lead to disaster. Once again the emphasis must be on striking a balance between left brain and right brain activities – development of deliberate rational thoughtful strategies as well as supporting the psychology of the emotive and intuitive aspects. (Thompson 2001). It is significant that these qualities are ones that Thompson emphasises as those of a successful negotiator.

Only a very small number of managers are good at anticipating, identifying and knowing how to dilute disasters caused through unequal power relationships. "Generally, managers who have survived over the years have the skills…Project Managers who have delivered successful major systems have by necessity become politically skilled." (Block 1983). Block has also defined "Project politics as actions and interactions between project team members and people outside the team that have impact on the success of the project, its system, the project team, and the project manager" (p21)

According to Briner et al, every organisation has its own dynamics, distinctive patterns of action and reaction. An effective project Manager is one who can read the relationships and adapt to those relationships which can be unique for every single relationship.(Briner *et al.* 1996).

Tapping into the power lines

Understanding the power environment within the organisation and the position of the actors within it for particular issues is also crucial (Lovell 1993). With experience, this understanding is a combination of conscious and intuitive, almost instinctive, thought processes leading to actions. It occurs through changing situations and adapting attitudes to be more in line with the project's goals.(Block 1983) This sounds deceptively simple, but requires knowledge of the environment and all the 'players' in this process and what their drivers (needs and wants) are. Even when the Project Manager lacks formal

power, he/she needs to be able people and outcomes, through building and nurturing what power they have optimising "coalitions of support". (Boddy and Buchanan 1992).

Failure to understand and control the political process has been the downfall of many good projects".(Lovell 1993) (Heery 1998). To manage successfully within an organisation's power structures it is also necessary to understand the organisation's formal structure (an org chart will illustrate this), its informal structure (friendships, alliances, maintaining acquaintance with former work colleagues and thirdly its environment (each player's motivation, priorities and values).(Block 1983)

Active Communication

The PMBOK (PMI 2000), and other Project Management manuals highlight the importance of Communication as part of the Project Manager toolkit. And certainly, for the Project Manager to operate successfully within power structures he/she must treat this tool as one of the most important. Regular meetings with key stakeholders can be time-consuming, for them as well as for the Project Manager, but essential for ensuring trust, commitment and interest are maintained when things are going smoothly, so that the inevitable need(s) to give bad news results in not only the messenger living, but also the recommended actions being supported and assisted through the organisation.

Communication is vital for Project Managers for relationships with close, supportive 'tame' stakeholders. These power structures are complex and constantly changing and require a high level of maintenance. Maintenance in the form of 'active communication' systems will also provide the necessary 'early warning 'systems'. (Briner *et al.* 1996). Active communication, including sharing access to the 'grapevine', is more easily accomplished with the Project Manager's peers, through meetings, telephone calls perhaps even regular (even if infrequent) coffees. Maintaining communication, hence the power lines in an upwards direction is a great deal more difficult, but not impossible. Regular project updates and formal project communications and presentations to defined Senior Stakeholders and frequent governance meetings are formal means. The informal ones require more 'face': always making eye contact and greeting them, also ensuring currency in knowledge of the organisation and product offerings, not to mention tapping into the 'grapevine'. Block also warns against developing 'negative relationships' – 'nonfriends', enemies, rivals or the tenuous relationship where two individuals dislike but respect each other.(Block 1983) I learned very early in my career never to deliberately offend another person, in case I needed to form an alliance with him/her some time in the future. Groups from projects that have project dependencies on each other should try to socialise, thus creating further networks for interaction and better understanding. (Urch Druskat and Wolff 2001)

Early warning systems

Inevitably, 'rogue' stakeholders – supporting one of the warring parties in the team, or seeking to establish ascendancy over the 'tame' stakeholders, or with other hidden agendas- will incite conflict or cause trouble for the Project Manager and seek to cancel the Project or even worse, change some aspect of the Project; change the scope, technical direction, reduce the funding, require additional or different reporting. If the Project Manager, has established credibility, built the foundations by involving all Stakeholders from Project Startup and establishment of Shared Vision and developed relationships through the power structures of the organisation and maintained them with active communication systems, disaster can be averted.

A Project Manager must be able to recognise the danger signals, the 'early warning systems' the warning of possible trouble with senior stakeholders. Boddy and Buchanan list these danger signals as: interfering without consultation, not providing support when needed, poor communication links – too many reporting levels between the Project Manager and the Senior Stakeholder, unfounded promises

or commitments (Boddy and Buchanan 1992). Only a Project Manager who has built credibility, and knows how to tap into the power structures of his/her organisation can recognise these signs, and defuse potential crises before disaster strikes.

A Project Manager who has built credibility widely in the organisation, has clear, strong communications within and through the power lines of the organisation, is ahead in this game but not guaranteed of winning. Briner et al support the idea of ensuring that sponsor (and other important stakeholders know the good and the bad news. (Briner *et al.* 1996) p71. The main leadership skills still are around being able to assess the size and effect and urgency of the issue and provide options and recommendations. Once again the most important skill here is listening, according to Briner et al.

"Good solutions come from anticipating problems and planning long-term strategies that pursue goals in a well-thought-out manner. Events, organisational structures, and sometimes people conspire to generate political problems."(Block 1983)p106

The successful power player (as distinct from a manipulator) is also an effective leader, exhibiting the same characteristics defined in Table 5according to (Block 1983) Is it possible to go from this similarity to a conclusion that the qualities and actions that make a good leader will support a Project Manager working successfully within the power structure of an organisation?

Organisations must support Project Managers

Developing people

Sorcher and Brant identify leadership traits that should be valued in an organisation: effective communication, development and managing project vision, and leading and influencing all stakeholders to successful project outcomes. (Sorcher and Brant 2002)

"Leaders today are required to be more proficient that their predecessor on three distinct fronts: technology, administration and 'politics'. " (Peled 2000)Organisations focus on preparing the technological and administration skills of their Managers, but neglect the political skills. Peled also supports the argument that leaders with extensive backgrounds in organisational politics complete more projects more successfully because they manage the appropriate aspects of their stakeholders (upwards and outwards, sidewards) while at the same time being able to tailor their technological vision to the day-to-day reality of their organisations. Technological managers with less political experience tend to manage inwards and downwards and build 'generic' solutions that fit 'any organisation'.

It may be possible to learn how to operate in the Third Dimension less painfully and to significantly reduce learning period and the number of errors. Organisations are now initiating programs to "grow leaders" through coaching and mentoring (Foote 2001), specific seminars and training programs and other action learning methods as well as planned job rotation to ensure a balance of work experiences. (Dessler and Griffiths 1989).

Focus on Balance

Organisations can fall into the trap of overvaluing certain project leadership attributes, in many cases the traits that best manage the 'hard' project criteria. Instead, the emphasis should be placed on the ability to operate in 'grey' areas, to adapt, to have a balanced set of skills.

Leonard-Barton advocates the use of 'people with T-shaped skills' (Leonard-Barton, D. (1998) These individuals can see the world from two or more different perspectives – knowing one discipline (or more) in great depth as well as having a broader view of the bigger picture.

Patching and Chatham state that many managers "leave their personalities at the door as they enter their offices and start to act out the role of manager"(Patching and Chatham 1998). As people become one-dimensional 'managers' in projects, "celebrating firmness, toughness, logic" and other left-brain traits, there is little room for the right brain traits of caring, imagination and creativity.(p316). They believe that "many managers look at the political activities in an organisation very differently from how they see technical issues, and that this separation reinforces the role/person separation". This view also reinforces the stereotype of the technical Project Manager as lacking in business and interpersonal skills. The career path of these managers has been through technical rules-oriented technical roles. Learning from their peers and mentors who have also followed this technical route reinforces the stereotype. Without clear guidance they will continue to fight the wrong battles, provoke senior stakeholders with politically naïve remarks, and fail to build vital power partnerships.

In organisations, there are often no right or wrong absolute answers – organisations are conceptual and boundaries are unclear. So a technical person from a binary true/false culture will often not understand business decisions which go against their values and beliefs – sometimes they see 'wrong' decision being taken – often "political decision" means wrong decision. They often confuse "professionalism" with separation of person and role, with left and right brain activities.(Patching and Chatham 1998).

"There is a widespread view that technical professions lack leadership skills." The personality traits and professional profiles of techs are quite different. Generally of a younger age, with a craftsman's approach to work, operating in isolation from corporate society these highly skilled technical people operate in absolutes."(Thite 1999)

In the projects that are the focus of this paper, technical teams reflect this profile. Because the work must be done by groups of people with specialist skills and different cultural norms and perspectives, it is easy to see that conflict will result. Not only will the Project Manager need to resolve these conflicts but the he/she may also need to short-circuit communication paths that have been established through other relationships that circumvent the Project Manager.

Matching PM skills to appropriate Projects

Docker et al, write about "corporate Project Management competence", (Docker *et al.* 2001), as being only part of what an organisation must do to deliver more successful projects more often. "The demands made by a project in terms of complexity and management capability must be understood and where necessary, the characteristics of the project must be modified to meet the level of project management capability available." In other words, an organisation must not put the project at risk by assigning someone who doesn't have the capabilities necessary to ensure success. If these skillsets are not available, then Project Managers whose skillsets are almost at the necessary level must be trained, coached and mentored by the organisation to achieve this level.

Conclusion

"Clearly the effective management of a … project requires the exercise of a range of analytical and planning techniques", especially when the project is large (and is operating in a large, complex organisation). These approaches feature strongly in Project Manager training and in the professions

from which Project Managers are traditionally drawn. "A new emphasis is needed - acquisition and use of a wider range of interpersonal skills. These enable the Project Manager to work more effectively in the uncertain and political environments and to take the lead in managing the different interests around it…."(Boddy and Buchanan 1992)

In summary, a Project Manager from a technical background and is well versed and completely successful in the management and control projects. In looking at the three Case Studies, and drawing on my own experience and that of my colleagues in large organisations, it is possible to identify what possibly could be an emerging thread. With such a small sample it is not possible to draw clear conclusions. But nevertheless there is enough similarity in the reasons for the Project Manager to believe that there was failure, in what appear to be three unrelated Projects, to define research to test out the following hypothesis .

"Project Managers in large complex organisations have responsibility and authority for managing the schedule and costs, but does not always have a sufficient level of authority to manage all aspects of the project. Those Project Managers who have delivered successful Projects – within budget and schedule and to agreed scope and to the expectation of all stakeholders, have invoked additional knowledge of the power structures of the organisation and skills to 'tap into the power lines' of that organisation.

The question remains to be answered: How does the Project Manager get the necessary authority and influence to achieve such success in large complex organisations"

Luck still plays a part in project success!

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