

# THE PARADOX OF PROJECT CONTROL IN MATRIX ORGANISATIONS

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## ABSTRACT

This paper explores the hypothesis that, within complex matrix organisations, the 'zone' between the strategic vision set by senior management and the projects created to fulfil it, is a highly complex and dynamic organism. Stimulus to the organism may, or may not produce change. The change may be slight or catastrophic, beneficial or detrimental, and cannot be predicted. Succeeding in this environment needs a different management paradigm from that developed for management in traditional project industries.

Project management evolved in construction / defence / engineering organisations. Typical characteristics found in these organisations include:-

- Straightforward 'command and control' structures.
- Well-defined management hierarchy.
- Authority and responsibility reasonably balanced.
- Project objectives clearly understood by most, if not all of the stakeholders.

The characteristics of a complex matrix organisation are completely different. They include:

- Multiple/competing lines of authority.
- Virtual and partial/part time teams.
- Changing scope and divergent objectives.
- Many competing levels and types of authority.

Despite the obvious differences, managers at all levels seem to expect the 'zone' to always react to management stimuli in the same way. When unexpected outcomes eventuate, the reaction of senior management is to see the project process as being 'out of control'. The solution of choice is usually to introduce more or better control mechanisms such as new KPIs: the assumption being that an adjustment to the controls at the top of a matrix organisation will have predictable outcomes at the lower levels inhabited by projects and project managers. This almost never eventuates because the only certainty in the 'zone' is unpredictability!

This paper will demonstrate:

- The capability and competence of project managers and project teams are known, understood and available within matrix organisations. However, the areas where successful outcomes can be predicted tend to be limited to an inward and downwards focus (team building / vendor management / schedules / etc).
- The techniques and skills necessary to help projects and project managers to manage upwards and outwards (communications / stakeholder management / etc) are also becoming better understood, but frequently the results these efforts produce are unpredictable and unexpected.
- Similarly, the application of control systems and performance measures to align projects with their organisation's strategic objectives (project offices / KPIs / etc) are becoming better understood and more commonly used, but again the results produced by these control processes are frequently unpredictable and unexpected.

The paradigm shift in management thinking needed to succeed in managing projects across the 'zone' is acceptance that the outcome from any management input to the 'zone' is unpredictable. To succeed, managers need to combine vigilance and flexibility; to identify and capitalise on unexpected gains and deal with unexpected problems. Communication networks and more flexible management of relationships are keys to resolving problems and creating success in the dynamic ever-changing environment of the 'zone'.

Projects deliver change, but are not just about change management; more than anything, they are about managing relationships both within and around the project team. (Bourne and Walker, 2003) In the days when the construction and defence industries were the primary users of projects to deliver outcomes, the focus on schedule, budget and quality/scope was considered by the project management profession and their senior stakeholders to be sufficient for the successful delivery of project outcomes. Change was viewed as a linear process, science and technology worked together to achieve incremental improvements. When the world of business 'discovered' projects to deliver business outcomes and organisational change the situation became more complex. Implementing change successfully became more difficult to achieve as organisations moved from the relatively simple functional structure to the complexity of the matrix structure. The dynamics of the global economy and the ensuing increased complexity had consequences for organisations and their people. These consequences impacted on the individual's increasing uncertainty about his/her role; the ensuing anxiety lowered productivity, leading to an increasing focus by the organisation's senior management for more and more control. The challenge now for project managers is to deliver successful projects in a climate of change and uncertainty within an organisational framework that responds to this change and uncertainty by imposing more control.

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## INTRODUCTION

Projects deliver change, but are not just about change management; more than anything, they are about managing relationships both within and around the project team. (Bourne and Walker, 2003) In the days when the construction and defence industries were the primary users of projects to deliver outcomes, the focus on schedule, budget and quality/scope was considered by the project management profession and their senior stakeholders to be sufficient for the successful delivery of project outcomes. Change was viewed as a linear process, science and technology worked together to achieve incremental improvements. When the world of business 'discovered' projects to deliver business outcomes and organisational change the situation became more complex. Implementing change successfully became more difficult to achieve as organisations moved from the relatively simple functional structure to the complexity of the matrix structure. The dynamics of the global economy and the ensuing increased complexity had consequences for organisations and their people. These consequences impacted on the individual's increasing

uncertainty about his/her role; the ensuing anxiety lowered productivity, leading to an increasing focus by the organisation's senior management for more and more control. The challenge now for project managers is to deliver successful projects in a climate of change and uncertainty within an organisational framework that responds to this change and uncertainty by imposing more control.

The paradox of project control is that the project manager must be vigilant in controlling the outcomes of his/her project in the current climate of change and uncertainty where the project manager and the project stakeholders are affected by the same change and uncertainty. In particular, the project must continue to deliver according to the agreed budget, schedule and scope/quality while operating within an organisation where the predictable (but not known in advance) deviations from plan are viewed by senior stakeholders as being 'out of control', and where senior management reaction to regain control will most likely result in instability within the project. This instability can be in the form of resignation or removal of team members, new reporting impositions or a requirement to maintain the original budget, schedule or scope even though conditions external to the project, but affecting its ability to deliver on time, budget or within scope, have changed dramatically.

This paper is constructed as follows: the first section is a discussion of the context of projects in the environment described above, looking at the project controls and relationships necessary for project success as well as the particular case of the relationship between the larger organisation and the project organisation. The second section explores the nature of uncertainty and anxiety and its management within organisations and their projects. Finally, the third section looks at ways that project managers when faced with lack of power or authority, in an ever-changing environment with impossible deadlines and 'vanishing' stakeholders, will need to operate to deliver successful project outcomes.

## PROJECT CONTROLS AND RELATIONSHIPS

The implication of environmental complexity means that to succeed, project managers must establish and maintain relationships with many stakeholders both within and beyond the project management organisation. 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 this paper will be that a successful project manager must be able to balance the requirements of *art* and *craft*, of *management* and *leadership*.

Briner, Hastings and Geddes (1996) explore 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 (2002) describe a seven-element framework as the network or 'sphere of influence and support' on which a project depends for its very existence.

## The Paradox of Project Control in a Matrix Organisation

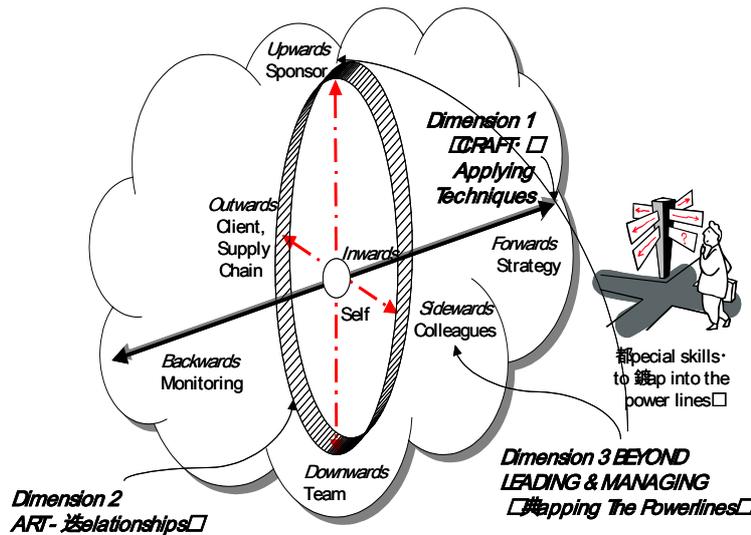


Figure 1 - dimensions of project management

Figure 1 defines what a project manager must do to be successful. The project manager must manage the project control processes to develop and monitor the plans, schedules, reports, lessons learnt and forecasts that will serve as communication devices to everyone who has an interest. This is 'Dimension 1' looking forwards and backwards. 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 should also be fulfilled through successful completion of the project. This aspect of stakeholder management – looking inwards - is often neglected. (Hock 2000) 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 fulfilled. (Bourne and Walker, 2003) Looking outwards, managing the needs of clients, suppliers and users, requires a mix of management and leadership. Looking downwards, requires considerable leadership skills to motivate followers and ensure all team members have their needs and wants satisfied. Looking inwards, outwards, upwards and downwards in the context of overt, simple project relationships are 'Dimension 2' skills. Dimension 3 in

Figure 1 focuses on satisfying the needs and wants that a project manager's peers and senior managers require beyond the formal project deliverables. This demands significant interpersonal skills that call upon flexible and appropriate responses to situations when these stakeholders threaten the success of the project. It also requires the project manager to understand the nature of the organisation that these stakeholders operate within. 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) even if he/she was able to stay within the original time, budget and scope. Project control, defined as successful delivery of projects, must be considered as requiring more than the craft of maintaining time, cost and quality. Project control includes managing relationships with stakeholders. In matrix organisations in particular, it includes those stakeholders who work within and are influenced by, the imperatives and culture of the organisation.

An understanding of the 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 processes to identify project stakeholders and their 'how, why and when' issues so that these needs might be best addressed. Project teams and their stakeholders operating in today's climate of complex organisations with multicultural or outsourcing environments and multi-vendor teams must demonstrate a greater level of flexibility, leadership and ability to 'read' the organisation as well as the stakeholders that operate within it, to work together to jointly deliver successful outcomes. (Mintzberg, 1989; Viney, 1997; Theilen, 1999).

## ORGANISATION AND PROJECT STRUCTURES

Project management evolved in construction / defence / engineering organisations. (Morris, 1994; Bourne and Walker, 2004) Typical characteristics found in these organisations include:

- Straightforward 'command and control' structures,
- Well-defined management hierarchy,
- Authority and responsibility clearly defined,
- Project objectives clearly understood by most, if not all of the stakeholders.

Bolman and Deal (1991, p42) describes this structure as *vertical coordination* – where higher levels in the hierarchy use “authority, rules and policies, and, planning and control systems” to control the work of the lower levels within the hierarchy. Talbot (2003) has proposed that the development and creation of industrial and post-industrial organisational forms derives from military models, traced back to military organisational innovations of Napoleon in the early 19<sup>th</sup> century. Infrastructure projects such as the Western Railroad of the US were the catalyst for the hierarchical and bureaucratic line and staff management structure. Adopted by other railroads, it became the dominant management structure – the traditional functional structure. The language and culture of management as we practice it today has direct links to this military connection. (Talbot, 2003, p331). Mintzberg (1979, p27) refers to the 'chain of command' in his discussion of organisation structure. The military culture is echoed in the metaphor of business as war, whose reference manual is Sun Tzu, *the Art of War* and whose language includes such terminology as 'indefensible claims', targets, 'arguments shot down in flames'. (Lakoff and Johnson, 1981, p4)

The structure, culture and language of the military has been the pre-dominating one in the world of organisations, and still drives the dominant paradigm of senior management being 'in command' and therefore 'in control'. Other structures have emerged – in particular the structure of the matrix organisation. Bolman and Deal (1991, p45) define matrix structures as an aspect of the *lateral coordination*. The characteristics of the environment of the matrix organisation, then, are completely different from those of the functional structure. They include:

- Multiple/competing lines of authority,
- Virtual and partial/part time teams,

- Changing scope and divergent objectives,
- Many levels and types of authority.

Matrix organisations focus on multiple relationships. For the project manager operating in a matrix organisation, the task of successful project delivery will be complicated by multiple reporting relationships for project team members and consequent issues around acquisition and allocation of resources and communication that requires more than just top-down commands or bottom-up reports. The project's most powerful stakeholders, the organisation's senior management will most likely still be operating in the culture of the traditional functional organisation and have the expectation that they must control all outcomes, moving to impose more controls when project results do not meet expectations. (Fonseca, 2002)

### Relationships between Organisations and their projects

Projects should be considered as organisations in microcosm, of human scale. The structure(s) of both projects and their organisations are, by definition, similar. Projects have purpose, structure, groups and teams, authority networks, culture. The major difference is that projects are *temporary* organisations whose structures may or may not reflect that of the organisation that it operates within. The structure may be formed through the combined endeavours of multiple groups all from different cultures and organisation structures. (Theilen, 1999) It is also important to recognise that project structures need to be optimal for the task that they must perform. It is possible that a matrix organisation may initiate a project that is best structured around traditional organisational concepts. Projects must also by their nature, and the nature of the single task to be performed, work within the tradition (from the military and construction) of a clear focus on time, cost, quality. The maturity of the organisation with respect to its project management systems, culture, style, organisational structure and project management office can also influence the project. (PMI - Project Management Institute, 2000, p18)

“The formulations of scientific management defined management as the tasks of organising, planning and controlling. Prescriptions for the accomplishment of those tasks were given in terms of rational analysis of task requirements and human motivations to perform them. Success was equated with accurate predictions and the removal of uncertainty and conflict, so sustaining states of equilibrium.” (Streatfield 2001, p8) The profession of project management has been firmly in the grip of this management theory – with most effort of professional development, training and research being directed to the control aspects of organising planning and controlling. (PMI - Project Management Institute 2000) The theory has been that the successful project manager is ‘in control’, while at the same time acknowledging that he/she is ‘not in control’ through the myriads of courses, papers, conferences devoted to the topic of project control.

## CHANGE, UNCERTAINTY AND ANXIETY

The transformation of the business environment of globalisation, high-speed communications, mergers and acquisitions and the concept of shareholder value as a major driver of organisational strategy, has led to extraordinary changes in the nature of organisations and the interaction of people within these organisations. The “traditional paradigm of organisational change holds deep, largely unconscious assumptions and values about efficiency and control.” (Olson and Eoyang, 2001, p5). The traditional change paradigm assumes that it is the job of senior management to define the strategy and definition of success, that there are clear goals and structures and that the outcomes can be predicted. When change does not occur as predicted and unintended consequences result in a perception of less control than before, all members of the organisation, from the CEO to the most junior member, experience the effects of this unpredictability.

Change, whatever its form will engender uncertainty. Weick (1995, p86) has characterised this uncertainty as being caused by:

- “Information load” - there is too much ambiguous data/information to be processed,
- Complexity – the increase in the complexity of each role in an organisation will increase and will affect what people select to focus on,
- “Turbulence – the combination of instability (frequency of change) and randomness (timing/period and direction of change).”

McCaskey (1982) has codified ambiguity as a set of statements:

- “We are not sure what the problem is (definitions are vague or competing),
- We are not sure what is really happening (information is incomplete, ambiguous or unreliable),
- We are not sure what we want (multiple goals are unclear or conflicting. Different people want different things, leading to political and emotional conflict),
- We do not have the resources we need (shortages of time, attention or money),
- We are not sure who is supposed to do what (roles are unclear, situations keeps changing as players come and go),
- We are not sure how to get what we want (we are not sure how to make it happen, even if we could agree on what is required),
- We are not sure how to determine if we have succeeded. (How do we evaluate success, or are unsure how to measure it).”

Both descriptions of uncertainty and that of ambiguity characterise the environment external to project and the situation of all those who need to work together to deliver the project’s outcomes.

Uncertainty, ambiguity and turbulence affect everyone in the organisation, through all levels. For managers it is the search for solutions to regain ‘control’ and to “make

sense of their own lives and their place in the scheme of things.” Watson (1994, p896) has termed this condition “double-control”.

Others, lower in the organisation structure, respond to these frustrations by absenteeism, or becoming indifferent, passive and apathetic – *withdrawal*, restricting output, deception or sabotage – *resistance*, *escape* through quitting or seeking promotion, or *solidarity* – forming groups such as unions “to redress the power imbalance.” (Bolman and Deal, 1991, pp 109 – 111) The situation is exacerbated by the inability of each group to see the point of view of the other. The nature of these asymmetric relationships (power) means that those at the top cannot understand the impact of the change and controls they impose, and those at the bottom cannot understand the reasons for management requiring these changes. (Oshry, 1995)

When the “unknown unknowns” cause unplanned outcomes to eventuate from a project, the reaction of senior management is to see the project process as being ‘out of control’. The solution of choice is usually to introduce more or better control mechanisms such as new KPIs or more detailed or frequent reporting, or in extreme situations, change project personnel: the assumption being that an adjustment to the controls at the top of a matrix organisation will have predictable outcomes at the lower levels inhabited by projects and project managers. The reality is a new level of instability and higher workload for the project team. The project manager and his/her team experience, as a group, the turbulence and turmoil experienced by individuals in the organisation.

## DELIVERING SUCCESSFUL PROJECT OUTCOMES

In most organisations, project managers are accountable for the successful delivery of complete projects. Increasingly, this success depends on project managers’ possessing and utilising skills and competencies that may initially appear contradictory. (Bourne and Walker, 2004) The project manager must be seen to be ‘in control’ of the project time, cost and scope components (traditional project controls) as well as ‘in control’ of the project relationships (stakeholders), while at the same time operating in the turbulent, uncertain and unstable environment. The project manager, the project team and possibly most stakeholders will be experiencing the anxiety and ambiguity that the rest of the organisation is experiencing while having to maintain stability and control within the project organisation. The key to surviving this paradox is through a combination of understanding and working within the ‘politics’ of the organisation and a proactive communications strategy that builds and maintains robust relationships with the project’s key stakeholders.

Projects are affected by both the ‘hidden agendas’ and the actions, both overt and covert, of the 2<sup>nd</sup> and 3<sup>rd</sup> Dimension project stakeholders as well as the actions of the organisation and its management. This group extends well beyond the more readily recognised traditional stakeholder groups. In large complex organisations, understanding the power structures and using them to influence project outcomes is often understood as ‘politics’. Awareness of the need, and the ability to manage different types of stakeholders and their ‘how, why and when’ issues so that these needs might be best addressed is an essential part of a successful project manager’s

toolkit. This process can be supported by tools such as the *Stakeholder Circle*. (Weaver and Bourne, 2002)

The contribution that Pinto (2000, p86) makes is to focus on behaviours and competencies that project managers can use to make organisational politics work for project success. This 'political' behaviour is important for a project manager to acquire because when projects exist outside in a matrix organisation, access to resources (financial, human, material and informational) must be negotiated. This is because typically project managers are not assigned the authority or status to manage their team members, who will still be organisationally attached to functional groups elsewhere in the organisation. At best these members will be 'loaned' to the project and may have roles on multiple projects. Ensuring the best performance from these team members is therefore based on leadership qualities and the ability to manage conflict and the competing claims on their project resources.

When the project manager lacks formal power, he/she needs to be able to influence people and outcomes; through building and nurturing what power they have in optimising "coalitions of support" (Boddy and Buchanan, 1999). Failure to understand and control the political process has been the downfall of many good projects (Senge, 1990; Lovell, 1993) To manage successfully within an organisation's power structures it is necessary to understand the organisation's formal structure (an organisation chart should illustrate this), its informal structure (friendships, alliances, maintaining acquaintance with former work colleagues and its environment (each player's motivation, priorities and values). (Block, 1983)

Communication is a vital tool for project managers to develop and maintain robust and effective relationships with stakeholders within all three organisational structures. Active communication, including sharing access to the 'grapevine', is more easily accomplished *sideways* with the project manager's peers, mostly in the informal organisational structures through meetings, telephone calls and perhaps regular (even if infrequent) coffees, or through a Community of Practice.

Maintaining communication, tapping into the power lines, in an *upwards* direction is a great deal more difficult but not impossible. It is generally in the domain of the formal organisational structure influenced by elements from the organisational environment described above. Regular project updates and formal project communications and presentations to influential senior stakeholders and effectively managed governance meetings are formal means. Other effective *upwards* communication techniques require knowledge of the organisation and product offerings and exploiting the 'grapevine'.

Inevitably, 'rogue' stakeholders (supporting one of the conflicting parties, or seeking to establish ascendancy over other stakeholders, or with other hidden agendas) will incite conflict or cause trouble for the project manager. This trouble can come in the form of seeking to cancel the project or change the scope or technical direction of the project, reduce the funding, or perhaps requiring additional or different reporting. It may come as a result of the turbulence caused by another management attempt to resume 'control' within the organisation. If the project manager has established credibility, disaster can be averted. To establish credibility, the project manager must build the appropriate power and influence foundations by involving all relevant

stakeholders throughout the project and maintaining them with active communication systems.

### **CONCLUSION**

The paradigm shift in management thinking needed to succeed in managing projects within the turbulent environment of a modern matrix organisation is acceptance that the outcome from any management attempt to regain 'control' is unpredictable. To succeed, project managers need to combine vigilance and flexibility, to identify and capitalise on unexpected gains and deal with unexpected problems. Communication networks and more flexible management of relationships are keys to resolving problems and creating success in the dynamic ever-changing project environment of these organisations.

In a matrix organisation, the project manager only has limited authority over the project team, in the sense that project authority is the right to suggest to others what needs to be done and when it needs to be done. This paper has discussed ways that the project manager can manage the relationships within and around his/her project to deliver successful projects, through an understanding of how the organisation's political structure works and by using communication to build and maintain, (and re-build) the appropriate relationships.

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## REFERENCES

- Block, R. (1983). The Politics of Projects. New Jersey, Yourdon Press.  
Explores the political component of project and system failures
- Boddy, D. and D. Buchanan (1999). Take the Lead: Interpersonal Skills for Project Managers. New York, Prentice Hall.
- Bolman, L. G. and T. E. Deal (1991). Reframing Organizations: Artistry, Choice, and Leadership. San Francisco, Jossey-Bass.
- Bourne, L. and D. H. T. Walker (2003). Tapping into the Power Lines: a Third Dimension of Project Management Beyond Managing and Leading. IPMA World Congress, Moscow.
- Bourne, L. and D. H. T. Walker (2004). "Advancing Project Management in Learning Organizations." The Learning Organization **11**(3): 226 - 243.
- Briner, W., C. Hastings, et al. (1996). Project Leadership. Aldershot, Hampshire, UK, Gower.
- Fonseca, J. (2002). Complexity and Innovation in Organizations. London, Routledge.
- Hock, D. (2000). The Art of Chaordic Leadership, Leader to Leader Institute. **2004**.
- Lakoff, G. and M. Johnson (1981). Metaphors we live by. Chicago, The University of Chicago Press.
- McCaskey, M. B. (1982). The Executive Challenge: Managing Change and Ambiguity. Marshfield, Mass, Pitman.
- Mintzberg, H. (1979). The Structure of Organisations. Englewood Cliffs, NJ, USA, Prentice-Hall.
- Mintzberg, H. (1989). Mintzberg on Management: Inside Our Strange World of Organisations. New York, MacMillan.
- Morris, P. W. G. (1994). The Management of Projects A New Model. London, Thomas Telford.
- Olson, E. E. and G. H. Eoyang (2001). Facilitating Organizational Change. San Francisco, Joffey-Bass/Pfeiffer.
- Oshry, B. (1995). Seeing systems: Unlocking the mysteries of organizational life. San Francisco, Berrett-Koehler.
- Pinto, J. K. (2000). "Understanding the role of politics in successful project management." International Journal of Project Management **18**: 85 - 91.
- PMI - Project Management Institute (2000). Project Management Framework and the Project Management Body of Knowledge (PMBOK), Project Management Institute.
- Streatfield, P. (2001). The Paradox of Control in Organizations. London, Routledge.
- Talbot, P. A. (2003). "Management organisational history - a military lesson?" Journal of European Industrial Training **27**(7): 330 - 340.
- Theilen, D. (1999). The 12 Simple Secrets of Microsoft Management. New York, McGraw-Hill.
- Viney, J. (1997). The Culture Wars: How American and Japanese Businesses have outperformed Europe's and why the future will be different. Oxford, UK, Capstone Publishing.
- Watson, T. J. (1994). "Management 'Flavours of the Month': Their Role in Managers' Lives." International Journal of Human Resource Management **5**(4): 893 - 909.
- Weaver, P. and L. Bourne (2002). PMI Conference. Maximising Project Value, Melbourne, PMI Melbourne Chapter.
- Weick, K. E. (1995). Sensemaking in Organizations. Thousand Oaks, CA, Sage.