

University of Warwick institutional repository: <http://go.warwick.ac.uk/wrap>

A Thesis Submitted for the Degree of PhD at the University of Warwick

<http://go.warwick.ac.uk/wrap/56231>

This thesis is made available online and is protected by original copyright.

Please scroll down to view the document itself.

Please refer to the repository record for this item for information to help you to cite it. Our policy information is available from the repository home page.

**Re-thinking the Project Manager's role and practice: A case
study in the context of an IT department**

By

Eamonn O'Laocha

A thesis submitted in partial fulfilment for the degree of Doctor of Philosophy in
Industrial and Business Studies, Warwick Business School, University of Warwick

October 2012

Table of Contents

Table of Contents	2
Diagrams and Tables	4
Dedication	8
Acknowledgement	8
Declaration	9
Abstract	10
Chapter 1 - Introduction	11
Chapter 2 - Literature Review	16
The contested construction of a discipline	16
The possibility of an agreed professional construct	20
Professional Construct Questioned	23
Project management as a contested construct	41
Chapter 3 - Conceptual Framework	63
Locating an appropriate conceptual framework	63
Structuration Theory Examined	68
On the choice of Structuration Theory	78
A Critique of Structuration Theory	80
Proposal with regard to Structuration Theory	92
Chapter 4 – Research Design	109
Chapter 5 - A Descriptive Account of the Case	142
Organizational Context	142

The conditions and consequences of Project Managers' Practice	155
The rhythm and tempo of project managers' practice	119
Chapter 6 – Analysis Chapter	222
Introduction	222
Phase One: Initial Enquiry and Observation	226
Phase Two - Participatory Observation	236
The possibility of alternative categorization	255
Chapter 7 - Discussion	258
The Organizational Construction of Project Management	259
Constructing the project management role and practice	263
Project managers at the boundary	271
Implications for the study of project management	278
Chapter 8 - Conclusion	289
How might professional project management be re-framed?	294
References	298
Appendix I	322
Appendix II	327
Appendix III	329
Appendix IV	330
Appendix V	331
Appendix VI	333

Diagrams and Tables

Diagrams

Diagram 2.1 Projects as history-dependent	p.49
Diagram 3.1 Habitus	p.65
Diagram 3.2 Structure in Structuration Theory	p.72
Diagram 3.3 Three level stratification model of the self	p.73
Diagram 3.4 Reciprocity between Structure and Agent	p.76
Diagram 3.5 Reciprocity between agents in space-time	p.78
Diagram 3.6 Areas of challenge in the use of ST	p.91
Diagram 3.7 – Perceptual ambiguity from Katz (1951)	p.97
Diagram 3.8 – Empirically focused Structuration Theory	p.108
Diagram 4.1 Elements requiring consideration	p.110
Diagram 4.2 Relationships in the major research areas	p.111

Diagram 4.3 Unit of Analysis	p.113
Diagram 4.4 Multiple Units of Analysis	p.114
Diagram 4.5 – Staff members interacted with	p.118
Diagram 4.6 Conceptual Categories mapped	p.129
Diagram 4.7 Integration of research questions	p.130
Diagram 4.8 – Iterative research cycling	p.131
Diagram 5.1 IT Department Org. Chart	p.143
Diagram 5.2: Project Management Directorate	p.145
Diagram 5.3 Organizational Structure of the IT Dept.	p.146
Diagram 5.4 Significant Events of the field based research	p.147
Diagram 5.5 PMI Project Life-cycle Processes	p.152
Diagram 5.6 Org. Project Life-cycle processes	p.154
Diagram 5.7 PID construction	p.195

Diagram 5.8 Waterfall Approach to Project Management p.202

Diagram 5.9 Iterative Approach to Project Management p.203

Diagram 6.1 Iterative research cycling p.222

Tables

Table 4.1 – Staff members interviewed p.125

Table 5.1 Project Managers with PMP Certification p.171

Abbreviations

APM – Association For Project Management

CPM – Critical Path Method

EM – Email data collected

EVA – Earned Value Analysis

FN – Field Note data collected

IPMA – International Project Management Association

IT – Information Technology

IS – Information Systems

ISD – Information Systems Development

IV – Interview data collected

LPM – Lead Project Manager

OB – Observation data collected

PERT – Program Evaluation and Review Technique

PID – Project Initiation Document

PIR – Project Implementation Review

PMI – Project Management Institute

PMIS – Project Management Information System

PMP – Project Management Professional – a professional certification of the PMI

PSR – Project Success Review

SDLC – Software Development Life Cycle

ST – Structuration Theory

WBS – Work Breakdown Structure

Dedication

This thesis is dedicated to Meena and Maya in appreciation and gratitude for all that they have given me.

Acknowledgement

The guidance, suggestions, encouragement and observations of my supervisors Ms. Yasmin Merali and Dr. Andrew Martin are gratefully acknowledged.

The comments, encouragement and guidance received from the examiners Dr. Chris Sauer and Dr. Sue Newell, on the initial submission of this thesis, is gratefully acknowledged.

I would like to thank the case study organization and its employees for their generosity in letting me into their organization and in challenging and developing the lines of research that I have developed. Without them this study would not have been possible.

I would like to thank all those with whom I have interacted through the course of this study. I thank them for their support and generosity of time and spirit in assisting in the development of my ideas.

Declaration

This work is entirely my own original work. The data analyzed and interpreted was gathered in the conduct of the field case study. All extracts and other sources have been appropriately attributed and referenced. This work has not been submitted for a higher degree elsewhere. All interpretations and suppositions are the sole responsibility of the author and do not in any way represent the views of the case study company, its employees, or the University of Warwick.

Abstract

This thesis explores the social construction of the project manager role and its enactment within an organizational context. The research builds on the themes of the Rethinking Project Management agenda in focusing on research that is about, in and for project management practice (Winter et al. 2006b). The complex organization context of project practice is engaged with and themes such as role legitimacy, organizational power, organizational boundaries and the nature of project and organizational time are explored. The importance of the influence of the professional association's project management model to the construction of the organizational project manager role and enactment is investigated. The research utilizes an empirically focused treatment of structuration theory (Giddens 1984) as a conceptual framework in addressing the social construction of the project managers' role and its enactment. The research was conducted using a case study approach in which multiple instances of project managers' practice in a shared IT organizational context were examined from the perspective of interactions across the boundary between the projects and the organization. The case study data was analysed and findings were generated through the iterative engagement with the organizational phenomena, the conceptual framework and the research questions being explored. The conclusions of the research support the Rethinking Project Management agenda and propose a wider and more social consideration of projects and their management that takes into account the social construction of projects, the importance of boundary spanning activities and objects, and the social nature of time as key elements in rethinking the role and practice of project managers.

Chapter 1 - Introduction

The Rethinking Project Management agenda has taken as its focus the development of theory about, for, and in project management practice (Winter et al 2006b).

In doing so it addresses long-standing academic concerns and debates as to the nature of projects and their management (Bredillet 2005b; Cicmil and Hodgson 2006; Lundin and Söderholm 1995; Sauer and Reich 2009; Whitty 2005; Winter et al. 2006b).

Given a construction of organizations as complex social phenomena, and of the IT industry as complex, dynamic and emergent, the suitability and adequacy of the professional associations' models of projects and their management has been examined by scholars and the encouragement of further empirical research in this area has been stated (Besner and Hobbs 2008b; Cicmil and Hodgson 2006; Engwall 2003; Hodgson 2005; Lundin and Söderholm 1995; Söderlund 2004a&2004b; Winter et al. 2006b).

The interplay between the professionally endorsed project management constructs and the needs of organizational action has been identified as a significant area of practice in need of further practice based empirical research (Hodgson 2004).

The Scandinavian School of project management construct the project as a 'temporary organization'. This construct of the temporary organization is described as socially and historically embedded in organizational contexts. This construct of projects highlights the multi-membership of project team members in both the project and the organization, and cross boundary activities as central elements in the accomplishment of project activity (Engwall 2003; Lundin and Söderholm 1995; Sahlin-Andersson 2002; Söderlund 2004a&b).

The nature of the boundary between organizations and projects, and the rigidity and permeability of that boundary, are highlighted areas of interest that have led to the identification of project related research themes such as the social legitimacy of cross boundary roles, the importance of power dynamics, and time and the temporariness of projects as significant in the understanding of the project manager role and its enactment (Boland and Tenkasi 1995; Carlile 2004; Lundin and Söderholm 1995; Newell et al. 2004; Sahlin-Andersson 2002).

The mechanisms through which the social capital of the project manager role affects the possibility of project practice, as experienced in interactions across boundaries, is seen as a significant factor in the construction of project managers' role and practice (Newell et al. 2004).

This dissertation examines the significance of the social construction of project management and the effect this this construction has on the definition of the project role and its enactment across boundaries in an IT organizational context. It builds upon the themes and issues of debate in the literature and it helps to explain the manner in which organizational constructs locate and shape projects and their management in relation to ongoing organizational operations.

The manner in which the research has been conducted has been through the adoption of an empirically focused practice theory that aligns clearly to the research focus of an examination of project managers' practice in context (Bourdieu 1977 & 1980; Giddens 1984; Polanyi 1967).

An empirically focused treatment of Giddens's (1984) structuration theory was constructed that takes into account structural and agentic elements of practice, the importance of boundaries, and the use of time as an organizational resource. It takes as its focus of analysis the role of the project manager in engaging in project management practice in an organizational setting.

The correspondence of the research approach to the research area focus of project managers' practice in an organizational setting has been achieved through the in-depth involvement of the researcher in organizationally embedded case-study activities (Cavaye 1996; Nandhakumar and Jones 2002; Walsham 1995; Yin 2003).

An approach to rethinking the project manager's role and practice is made in light of the case study research findings, and in line with the urgings of the Rethinking Project Management agenda (Sauer and Reich 2009; Winter et al. 2006b).

Dissertation road map

The dissertation begins with a review of the project management literature as it relates to the construction of project management practice and its suitability and adequacy to the organizational and industry contexts in which it is applied.

Further review and discussion follows on the challenging nature of the Information Systems Development context, as it relates to project management, further highlighting themes of interest to the research such as the competing software development models developed to deal with the ambiguous, complex, non-linear and dynamic nature of IT projects.

An alternative construction of project management as temporary organization, proposed by the Scandinavian School, is reviewed and the themes of boundaries and of time as significant to the construction of project managers' role and practice are drawn out.

The literature review concludes with the identification of themes and gaps in knowledge on project management practice from the literature encapsulated as part of the Rethinking Project Management Agenda.

The research question proposed examines the factors that influence and shape the role and the practice of project managers. It takes as its focus the organizational construction of project management, the project managers' role and practice, the mechanisms of knowledge and power, and the social nature of time as they are enacted across the organization / project boundaries.

The dissertation continues with the description of the conceptual framework and justification of the case study based approach used in which the role of participant observer is adopted by the researcher in the gathering of detailed data over ten months in an IT organizational setting.

The nature of the data collected and the manner of their collection is discussed and explained in terms of congruence with the research area and the conceptual framework in use.

Chapter five of the dissertation contains a rich and detailed description of the case study data. It locates the research activities in the organizational context in which they occurred.

The data collected is mapped onto the conceptual framework to allow for its analysis in line with the conceptual categories constructed earlier, the research focus area, and the research questions posed.

Following this analysis, chapter seven presents the findings of the research on project managers' role and practice in an IT organization context. The findings focus on the impact of project management constructs on the role and practice of the project manager, the importance of boundary spanning activities and objects, and the importance and impact of time on the construction of the project manager role and practice.

The dissertation concludes with speculative discussion on the importance of project management constructs in shaping the role and practice of project managers. It re-states the centrality of boundaries and their management to the dialectical relationship between the organization and the project. Possibilities of future directions in project management and the project manager role and its activities are proposed.

The research project, its conduct, findings and conclusions are put in the context of the ongoing Rethinking Project Management agenda. It demonstrates the contribution this research makes to the ongoing discourse on project management, and in particular to the re-thinking of the project manager role and its enactment.

Chapter 2 - Literature Review

The contested construction of a discipline

Project management as a discipline has been subject to significant academic debate over the past fifteen years. Much of this debate has focused on the nature of projects and on the ontological and epistemological assumptions underpinning their management (Lundin and Söderholm 1995; Packendorff 1995; Pollack 2007; Sauer and Reich 2009; Shenhar and Dvir 2007; Söderlund 2004b; Winter et al. 2006b).

This review will locate some of the central issues relating to projects and their management in both the wider project management literature, and in the Information Systems literature as it relates to the Information Systems Development context and the manageability of development activities.

This review will highlight the significance of the social construction of project management, the effect this has on the definition and enactment of it as a professional management practice, and how these definitions locate projects and their managers in relation to the ongoing operations of organizations.

The professional construction of project management

The 1950s have been associated from a project management perspective with the engagement in large scale complex works, primarily in the engineering and construction industries, on a project basis (Cleland 1998; Gaddis 1959).

Large-scale, innovative, technological project initiatives saw the development of the now widely known and used project management scheduling tools and techniques Critical Path Method (CPM), and Program Evaluation and Review Technique (PERT) in the 1950s and 1960s (Blomquist and Söderholm 2002; Cleland 1998; Shenhar and Dvir 2007).

Project management professional associations were established in the late 1960s starting with the International Project Management Association (IPMA) in 1965, the Project Management Institute (PMI) in 1969, and with the Association for Project Management (APM) established in 1972 (Blomquist and Söderholm 2002; Cleland 1998; Shenhar and Dvir 2004).

The various project management professional associations define projects in differing ways. What is common to these diverse definitions is a focus on the

- a) Uniqueness of the outcomes of purposeful project work and/or
- b) Temporariness as a central element in the definition of projects as organizational forms (APM 2009; IPMA 2006; PMI 2008b).

The establishment of professional associations marked the beginning of a professionally based approach to defining the process and practice of project management, however it was not until the mid-1980s to 1990s that professional association endorsed standards of project management practice - Project Management Bodies of Knowledge (PMBOK) - began to make an appearance (Blomquist and Söderholm 2002).

These standard setting approaches to the field of project management were put in place by the professional project management associations through the development and publication

of various divergent project management bodies of knowledge (Morris et al. 2006; Wideman 1995; Wirth & Tryloff 1995)¹.

These professional associations create and support the diffusion of normative standards of practice through publication and certification. They also play a major part in the development of a professional project manager identity that is strongly associated with the use of these normatively derived and standardized approaches, tools and techniques (Blomquist and Söderholm 2002).

The creation and propagation of this normative mode of project management practice has been achieved through the flow of project management knowledge carried by consultants, standardization bodies, professional associations and large companies (Blomquist and Söderholm 2002; Morris et al. 2006)².

The prescribed and somewhat divergent perspectives on project management practice take a generic, process-based, linear and normative view of project management practice. They emphasize process efficiency and optimization focused tools and techniques such as Earned Value Analysis, Critical Path Methodology, and Monte Carlo simulations (Besner and Hobbs 2008b; Urli & Urli 2000).

1

The first PMI PMBOK was published in 1987 as a white paper and released in 1996 as a professional standard guide (Blomquist and Söderholm 2002)

² The full flow of project management knowledge as described by the authors is as; follows Legitimacy, Standardization, Project Control, Success, Commercialization, Volume, Professionalization (Blomquist and Söderholm 2002, p. 37)

The influence of the professional associations on project management professionals

PMI had a stated membership exceeding 5000,000 (PMI 2009) and the APM a stated membership of over 15,200 (APM 2009).

These professional associations are influential through their governing and operation of project management professional certification, and act as 'de facto' governing bodies for project management as a practice (Blomquist and Söderholm 2002; Whitty 2005; Whitty and Schultz 2006).

Their influence is due to some extent to the large number of project management professionals aligned to the PMI. It is also due to the use of PMI's Project Management Professional Certification (PMP) as a prerequisite to employment by many employers in their project manager recruitment advertisements worldwide.

This dominant market position of PMI in the world of project management practice may carry with it an inherent rigidity with regard to its project management construct that is subject to

- 1) the contextual influences of the originating PM approaches, tools, and techniques built upon and propagated through standardization over time that are likely to be less amenable to serious and wholesale criticism, should it be warranted, and
- 2) the inherent conservatism of market dominance is likely to constrain the acceptance of innovative departures from the normative, standard and endorsed guidance proposed (Mintzberg 2004).

This interpretation would suggest that the responsiveness of professional association guidance to inadequacies in its construct may be hampered by both the dominance of the PMI as the preeminent project management professional association, and its 'rootedness' in industrial models and approaches of the mid to late twentieth century.

It is clear that the relationship between standardized practice models of project management (as manifested in PMBOK), and industry and application context presents an area for further review and research in which the knowledgeability and capability of the project managers' should be explored (Hodgson 2004).

The professional project manager identity, as defined through identification with professional associations and their guidance (Blomquist and Söderholm 2002) may lead to challenges in the creation of organizational identities of project managers in which the PMBOK guidance is perceived as inadequate or irrelevant.

The impact of conflicting organizational and professional association demands on project managers' identities and their practice is an area of project management research that requires further investigation.

The possibility of an agreed professional construct: The possibility of a Unified PMBOK

The various and divergent PMBOKs of the competing professional associations and the inherent confusion this causes has led some scholars to consider the possibility of the creation of a 'Unified' PMBOK (Crawford, et al. 2007; Morris et al. 2006; Wideman 1995).

Wideman (1995) proposes criteria required for the building of a unified PMBOK that includes, among other elements:

- First plan, then produce
- Take into account project environmental context of culture, technology
- Attend to internal and interacting factors of time, cost, scope and quality
- Plan and optimize effectiveness
- Lead, direct, command or control and
- Transfer from project completion to operations.

(Wideman 1995)

However, these broad and high level criteria could be applied equally well to all the present PMBOK variants and still leave the practitioner at a loss as to which, if any, of the PMBOK approaches best guides project management practice.

A process-based approach to the development and maintenance of a unified PMBOK is proposed by Morris et al. (2006). They argue for a deeper engagement by all (practitioners, academics, professional organizations and other interested stakeholders) in the development of a 'Unified' Body of Knowledge for the emerging discipline of Project Management (Morris et al. 2006).

Extending on this collaborative approach to building a unified PMBOK, Crawford and Pollack (2007) suggest that an ongoing management of a unified PMBOK would be desirable.

Given that projects are defined as 'unique' undertakings, it is argued that projects are likely to defy attempts at a stable standardization of practice. However, given that projects are defined as following a similar process from initiation through to closure, it is also argued that there is likely to be commonality amongst projects (Crawford and Pollack 2007).

This paradox between uniqueness of project activity and similarity of process through standardization may not require resolution, rather it might be managed by paying due attention to the creative tensions between:

- (a) The nature of that which is unique about projects and that which is universally applicable
- (b) The views of those deploying project management in the traditional areas of engineering and construction and the views of those deploying its practice in new areas such as IT
- (c) The requirements of generic certification and education and the need for 'local' contextual understanding in application areas (Crawford and Pollack 2007).

These tensions can be seen as symptomatic of the challenges being faced in extending the project organizing model from its original locus of new product engineering, construction, and technology development to areas of business where projects are perceived as the preferred operational response to the desire for rapid, multifunctional, innovative operational agility (Crawford and Pollack 2007).

In the place of a universal PMBOK applicable to all domains there seems to be a trend, from the PMI, to 'localize' and 'customize' the standard project management approach based on the specific contexts of given industry applications³.

To date, the contextual considerations of the standardized practice, as promoted by the PMI, are catered for through the publication of industry specific extensions to PMBOK standards (PMI 2009)⁴.

Professional Construct Questioned: Challenges to adequacy and credibility of the PMBOKs

There is some debate as to which, if any, of the PMBOKs best represent the practice knowledge requirements of project managers (Delisle and Olson 2004).

Not all researchers agree that the existing PMBOKs or a proposed Unified PMBOK constitute an adequate source of knowledge for practitioners across the various industrial application areas (Besner and Hobbs 2008a; Söderlund 2004a; Wirth and Tryloff 1995). It has been asserted that the normatively derived tools and technique-focused bodies of knowledge developed by the project management associations have sustained a mechanistic approach to project management, despite the use of project management in increasingly

³ The extensions published to date cover Construction and Government projects (PMI 2011)

⁴ The recent addition of Agile Project Management in the third quarter of 2011 is an as yet untested deviation from this more 'additive' approach taken by the PMI to date (PMI 2011).

complex, dynamic and non-mechanistic application areas (Hodgson 2004; Söderlund 2004a)⁵.

Challenging the normative claims of the PMI's PMBOK, recent research of project manager practitioners, the majority of whom were accredited by the PMI, found that their project management practice tool and technique usage did not conform to the model suggested in the PMBOK (Besner and Hobbs 2008b). It was argued that there is a bias of 'fit' in the PMBOK defined processes, tools, and techniques to the industries (new product engineering and construction) from which they originated (Crawford and Pollack 2007).

Because of this 'bias of fit', the adoption of project management processes, tools, and techniques (as defined by PMI) in industries newly adopting project management has been problematic (Crawford and Pollack 2007).

This 'traditional bias' observation has an echo of Wirth's (1996) conclusion that project management practice, although largely generic across industries, is less well fitted to IT, an industry characterized as having 'high uncertainty' project elements (Wirth 1996). For example, respondents associated with the IT industry eschewed the prescribed use of Earned Value Analysis for adopted a larger than prescribed set of tools and techniques associated with the management of risk (Crawford and Pollack 2007).

⁵ The manner in which the PMI construct updates to the PMBOK is through questionnaire based surveys of practitioner and facilitated workshops as to the processes, tools and techniques in use. This are combined with the facilitation of working parties to discuss the survey findings and their implication on the PMBOK and PMP certification requirements (PMI 2008).

These differences in 'fit' are also viewed as a difference of project management maturity levels across various industries (Cooke-Davies and Arzymanow 2003). This difference in maturity is expected to be remedied through the increased adoption of the use of standardized, enterprise wide, and professionally mandated project management practice for which the development of a 'maturity model' on project management practice has been devised by the PMI (PMI 2008a).

The change in project management approaches in accommodating the circumstances of its use in increasingly non-traditional contexts is seen as evidence of 'evolution' in line with use (Cooke-Davies and Teague 2007).

There is a contrary view that there exists a stability in project management practice across industries (Urli and Urli 2000), suggesting a consistency of project process and project management application in diverse contexts, that is in line with the application of standardized PMBOK guidance across multiple application areas (Pennypacker and Grant 2003).

Such a similarity is seems as at odds with and pays insufficient attention to the importance of the diversity of contexts in which project management is being used, and promotes the applicability of generic and narrow linear model in specific and non-linear contexts (Söderlund 2004a).

In the field of IT project management, Information Systems Development approaches are being extended to include the project management activities of projects such as in 'Agile Project Management' (Chin 2004) and 'eXtreme Project Management' (DeCarlo 2004). To

date there is no empirical research on the efficacy of either of these approaches to IT/IS project management.

It is of interest that the PMI have recently added a new project management credential to their portfolio of professional certification, 'Agile Project Management', based on iterative software development methodologies. This certification was launched in the third quarter of 2011 and its impact and importance have yet to be determined.

Information Systems Development (ISD) context

Many IT departments within organizations have as their remit the construction, maintenance and support of Information Systems.

The process followed in the development of Information Systems has developed rapidly over the last three decades in line with the organizational and technological challenges experienced by practitioners (Mahmood 1987). Concerns with the use of the traditional linear approach to ISD with regard to time, cost, reliability, performance, and functionality issues spurred a review of ISD methodology and its effects on software development success (Davis and Bershoff 1988).

Criteria for a Software Development Methodology choice have been proposed that take into consideration

- Requirements volatility i.e. the likelihood that the requirements will change
- The “shape” of requirements volatility i.e. discrete leaps, based on brand new threats; or gradual changes, as with a need to do things faster

- The longevity of the application; and the availability of resources to develop or affect changes i.e. it may be easier to get resources up front than to devote significant resources for enhancements (Davis and Bershoff 1988, pp. 1458-1459).

These criteria emphasise the unstable and changeable nature of ISD projects and the need for activity management processes that cater for them.

Berger and Benyon-Davies (2009) concluded, from an organizational adoption perspective that

'The adoption of an ISDM (Information System Development Methodology) is not necessarily a linear, all-or-nothing process... ISDM adoption and application must be considered a dynamic and continuous process that affects not only the ISDM itself but also the organization within which it is applied ' (Berger and Benyon-Davies 2008, p. 2).

Developing on the theme of SDLC (Software Development Life Cycle) choice, Austin & Devin (2009) suggest the use of a contextual dependent 'contingency approach' that takes into account the benefits and costs of each of the SDLC approaches (Austin and Devin 2009).

There has been longstanding debate and discussion on the appropriateness of methods of software development (SDLC) in given IT contexts, with a general trend away from the linear sequential waterfall style approaches towards the more iterative and agile approaches to software development.

A situated perspective on ISD implementation process is described by Nandhakumar et al. (2005) who note,

“the link between the ERP implementation process and the underlying and often subtle influences within the context” (Nandhakumar et al. 2005, p. 221).

The ISD process is described as continuous stream of 'intervention, bricolage, improvisation, opportunism, interruption and mutual negotiation' (Nandhakumar and Avison 1999, p. 188) that is ill suited to the mechanistic approach inherent in traditional linear ISD approaches.

The linear model of ISD was further described as 'a necessary fiction to present an image of control or to provide a symbolic status' (Nandhakumar and Avison 1999, page 176).

The non-sequential approaches to ISD are seen as practice-based responses that better fit the ambiguity and complexity of software development, from user requirements uncertainty to technological interdependence, and organizational and inter-organizational complexity.

Yet, even these iterative approaches are not perceived by all as having achieved their aim of effectively developing IS in dynamic and uncertain contexts. There are continuing challenges to the successful delivery of IS projects that have not been solved by the adoption of iterative SDLC approaches (Davis and Bershoff 1988; Molokken-Ostfold and Jorgensen 2005).

While there are a variety of SDLC models that may be chosen, the organizational context is seen as key as to its consideration and successful implementation (Davis and Bershoff 1988; Molokken-Ostfold and Jorgensen 2005; Nandhakumar and Avison 1999).

The choice of SDLC approach can be considered at the project level, especially given the uniqueness of projects and their varying context and conditions under which projects will be performed including the many guises of inter-organizational cooperation through outsourcing (Currie and Willcocks 1998).

The ISD context has been described as ill-suited to linear approaches of activity management (Nandhakumar and Avison 1999). The manner in which project managers accommodate the ISD context in their application of a rational and linear project management approach is an area of project manager practice that requires further examination.

The Complex ISD Context

This dynamic interplay of the individual, the technological, and the organization that characterizes the Information Systems Development (ISD) field is constructed by Xia and Lee (2004) as inherently complex. Although technological aspects of ISD projects may be more apparent, the organizational aspects of ISD projects have the more significant impact on project success (Xia and Lee 2004).

ISD projects are complex not only because they deal with complex technological issues, but also because of organizational factors beyond a project team's control. In other words, the complexity related to ISD 'is multi-dimensional' (Benbya and McKelvey 2006, p. 14).

Developing the issue of wider involvement in ISD processes, Levina (2005) suggests that given the differing work cultures and role expectations of diverse involved stakeholders a

multi-party collaborative working practice be employed that is labelled “collective reflection-in -action”.

This practice is described as activity that is enacted through the sharing of explicit objects across boundaries. Participants can choose to respond to the sharing of the explicit objects by using various social repertoires of ‘adding to, ignoring or challenging’ (Levina 2005).

These views of social boundary spanning and the use of boundary objects as sense making devices resonate with work of Carlile and others (Boland and Tenkasi 1995; Carlile 2002 & 2004; Lindgren et al. 2008; Merali 2002 & 2006).

Merali (2006) develops the context of complex ISD activity in emphasizing the networked nature of both business and society. This widened and dispersed collaboration across borders, cultures, and languages further reinforces the advantage of management practices that take seriously the challenge of the complex boundary spanning practices and the role of boundary objects (Merali 2006).

The assumption of a rational bureaucratic basis to organizational behaviour, that underpins traditional approaches to both project management and ISD, is challenged by IS scholars whose organizational definitions coalesce on a more dynamic, emergent perspective on organizational life.

‘Organizations are defined as complex, dynamic, non-linear systems that do not evolve in a steady, predictable way.’ (Benbya and McKelvey 2006, p. 17).

Information Systems (IS) have been described as the 'subtle interplay between technologies, actors, organizational relationships, and tasks at multiple levels' (Lyytinen and Newman 2008). This challenges the linear approaches and guidance to project management (and by extension IT project management) endorsed by the project management professional associations.

Given the longstanding debate and ongoing development of SDLC, the adherence to linear and sequential project management processes in dynamic contexts such as Information Systems development deserves some further scrutiny (Crawford and Pollack 2007; Wirth 1996).

Given the complex domain of IS development we are left with some unexplored areas of IT project management practice

- What are the project manager practice responses to the complex, uncertain and dynamic nature of Information Systems Development projects?
- In what way and when should the project manager address these possibilities in project design, initiation and planning?
- How does the IT project manager navigate and engage in boundary spanning activities in a complex ISD environment?

There is an opportunity to explore the manner in which project managers' take into account the complex and dynamic nature of projects in IT settings.

Projects constructed as executable activities: Project Structuring

The goals and objectives articulated before project commencement are assumed to be sufficiently defined and structured so as to be amenable to project execution activities (PMI 2008, IPMA 2009).

This view of adequately defined and structured project goals and objectives is open to challenge (Winter 2006).

“Where then might researchers look to assist practitioners at the messy front-end?

One area which holds particular promise is the area of problem structuring methods...and the work involved in conceptualizing messy situations and the action needed in these situations.” (Winter 2006)

Winter (2006), describing a project case study, points out the deficits in project management tools and techniques for use in problem structuring and goes on to describe the use of Soft Systems Methodology (Checkland and Scholes 1999) as a complementary approach to the project management tool-set.

This theme is continued by others (Joham et al. 2009; Pollack 2009) with descriptions of the use 'soft' and 'hard' systems methodology, again adapting the 'soft' problem structuring methods to complement the 'hard' systems project management paradigm in 'messy' initial project stage situations.

In discussing Information Systems Development (ISD), Benbya and McKelvey (2006) comment on the magnifying effect of continuous (environmentally, organizationally and politically induced) changes to user requirements on ISD project complexity.

The much cited likelihood of user requirements incompleteness and instability contributing to IS project failure (Standish Group 1995) suggests a need to adopt an approach to ISD project management that embraces the manageability of the emergent nature of information systems. The importance of this perspective can be seen as three-fold.

First, the assumptions inherent in the project process, promoted by the PMI and other professional associations, assumes a non-problematic project nature with regard to the organizing of the team, the definition of project objectives, and the criteria of success.

This suggests that project management methods are seen as geared towards 'problem execution' as opposed to 'problem structuring'. The 'execution only' approach is particularly problematic in the context of Information Systems Development projects (Nandhakumar et al. 2005).

Second, in projects where information as to 'what' is required is both unclear and unstable throughout the course of the project, there is a need for project organization and coordination approaches that are inclusive, iterative, flexible and adaptable as opposed to planned, executed and controlled.

Third, given the nature of projects as being one-off, out of the ordinary, and out of sync with the operational processes ongoing within organizations, expectations as to the structuring of such unique undertakings would seem to be of particular importance.

'Project management thus concerns more than the execution of goals and the use of technical instruments (budget plans, deadlines, etc.). It also has to address the causal ambiguities, interest conflicts and legitimacy issues one normally finds in social relationships.' (Sydow and Staber 2002, p.217).

This proposes that factors considered at project structuring should not be limited to the definition of the product to be produced, or the outcome to be delivered. They should also include the manner in which projects are structured from a social organizing perspective (Sydow and Staber 2002).

The activities undertaken by the project manager in starting up a project mark a critical point in awareness and action by the project manager of the split between ongoing operational activities and prospective project work (Lundin and Söderholm 1995).

Project planning stages represent the most concentrated events in project managers' practice. The consideration of the nature of the project from the perspective of a professional knowledge base, and in the context of its relationship to the organization within which it takes place represents 20 of the total of 42 project management activities (PMI 2008)⁶.

⁶ Of the 42 activities described in the project management process groups and knowledge areas mapping there are; 2 activities in the Initiating Phase, 20 in the Planning phase, 8 in the Executing phase, 10 in the Monitoring and Controlling phase and, 2 in the Closing phase (PMBOK 2008, p. 43)

Of these 20 project management activities, the majority (18) are associated with project planning. The low number of activities in the initiating phase (2) reinforces the contention of execution focused projects in which the possibility of a problematic and 'messy' front end to project practice is ignored (Winter 2006).

The reasoning employed by project managers in the structuring of projects, and in the choice of process and tools in their project management practice is an important research and practice area. It is an area that has yet to be fully researched from a project manager role and practice perspective.

Projects constructed as the control of cost, time, quality and scope

The CHAOS report (Standish Group 1995), in examining project success in the software development industry, takes as its focus the identification of

- The scope of software project failures
- The major factors that cause software projects to fail
- The key elements that can reduce project failures.

The methodology employed in doing so focused on the time, budget and feature objectives of software development projects. There were 365 respondents surveyed, representing 8,380 IS applications across multiple industry areas in the USA where MIS were deployed.

A high level finding of this report was that on the basis of completion to time, cost, and scope only 16.2% of these IT projects could be judged to be successful.

Of those that were unsuccessful, using these criteria, 31.1% were terminated before completion, and of all projects surveyed 94% had unplanned restarts. Less than two out of every ten projects had completed to its initially agreed targets (Standish Group 1995).

Almost one quarter of all failures were attributed to incomplete or changing requirements and specification (24.1%), which when combined with the failures attributed to lack of user input increases the failure rate to over one third of all the project failures (36.9%) (Standish Group 1995).

Given this particularly bleak picture of IS project success it is not surprising that many scholars have investigated the critical success factors (CSF) that best position IS projects for success.

The critical success factors proposed by some scholars have been formulated without challenging that basis on which the definition of project success is constructed (Agarwal and Rathod 2006; Butler and Fitzgerald 1999; Turner 2004; Wateridge 1998).

Elsewhere, identified factors central to the success of the development of ERP Information Systems include the intentionality of managers, the affordances of technology, and the context of power and culture (Nandhakumar et al. 2005).

In line with the wider challenges to the constitution of project management as a field, the 'traditional' definition of project success as delivery to time, cost, and quality specifications have been challenged (Atkinson 1999; Bryde 2005; Cooke-Davies 2002; Dvir et al. 1998; Fortune and White 2006; Fowler and Walsh 1999; Morris 2001; Shenhar and Dvir 2007).

Atkinson (1999) challenges the objective success criteria put forward as appropriate to the evaluation of project execution of 'Cost, Time and Quality' which he characterizes as 'two best guesses and a phenomenon' (Atkinson 1999). Time and cost in most projects are little known at the outset of the project (the two best guesses), and the quality (the phenomenon) of a given project are likely to depend upon the perspectives of the diverse stakeholders.

Atkinson (1999) proposes a framework for understanding and categorizing project success that takes into account

1. the delivery stage of projects (which is subject to project manager control) and
2. the post-delivery stage (which is subject to a wider organizational view that can tend to be more complex and disputed an area of success criteria) (Atkinson 1999).

Thus indicating two boundary elements at play

1. Organizational, that of organization and project and
2. Temporal, that of delivery and post-delivery.

Project success criteria, as proposed by Atkinson (1999), should include the direct benefits associated with project product or service delivery as well as the indirect benefits associated with employee performance and development.

Atkinson (1999) proposes success criteria that are both negotiated and agreed across the project/organizational boundary. This approach is, given its cross boundary nature and inclusion of multiple stakeholders' perspectives, potentially conflict laden. This potential for conflict is seen to be accentuated by what is characterized as the inherent 'action and task focus' of projects, as opposed to the 'goals and objectives orientation' of permanent organizations (Lundin and Söderholm 1995).

Success criteria are likely to differ locally given divergent stakeholder perspectives that might include the importance of the project, the type of project, the team-client relationship, and the organization's performance management system (Bryde 2005).

There is a consistent identification in these accounts of the social, organizational, and technological issues (to a lesser extent) coinciding with the description of projects as having an important social dimension. This re-conceptualized view of project success, focusing on the identification, negotiation, and agreement of success criteria, implies a process of social engagement that takes into account projects' effects on the wider organization beyond the boundary of direct project execution.

The construction of success, its evaluation, and interpretation are posed as socially situated phenomenon in which cross boundary inter-subjective negotiation and agreement plays a greater part than absolutist objective criteria such as budget, schedule and quality metrics compliance (Bryde 2005).

The importance of success is of particular interest and focus to those engaged in IT project management, and is likely to be an important factor in the construction of the purpose, role, capabilities and focus of the project manager at project start up in given organizational contexts.

Organizational power and the construction of success and failure in IT projects

The issue of power in shaping perception and behaviour, as it relates to the definition of Information Systems (IS) project success, is explored by Fowler and Walsh (1999), Wilson and Howcroft (2002) and Bartis and Mitev (2008).

The nature of the success and failure narratives was seen to change over time, and to be contingent on the expectations and agendas of those who held them. It was seen that the narrative of most powerful became the most dominant, irrespective of the voices and experiences of project performance articulated by less powerful voices (Bartis and Mitev 2008).

A multi-voiced narrative approach to understanding IS project success and failure is advocated by Fincham (2002). These narratives are described as sense-making devices that evolve, change and influence behaviour (Fincham 2002). The need to justify high risk IS projects, given the high failure rates discussed previously (Standish Group 1995), can act as a powerful incentive to present a positive judgement on the performance of IS projects, and may be contingent to the needs of the organizational narrator.

Fincham (2002) describes the narrative based perspective of IT success and failure as organizational behaviour, and project action as socio-political in nature accessible through symbolic action, themes, plots and stories. In exploring these narratives an interpretive sense-making perspective has been advocated, in which success can be viewed as a social construct subject to narrators' organizational power (Fincham 2002).

Lyytinen and Robey (1999) suggest that organizational discourse and memory play a part in failures to learn from past mistakes, in some cases embedding failure proven practices and self-defeating myths as part of the organizational repertoire. Given the multi-narrative perspective and the socio-political nature of success/failure as socially constructed, the factors that impact escalated management involvement in cases where failure is anticipated is of interest.

The negotiated construction of project success and failure emphasizes the importance of IT project managers' role, legitimacy, and power in the definition and delivery of perceived project 'success', negotiated across the project / organization boundary.

Organizational responses to IT/IS project failure

Given the high-risk nature of IS projects and the common phenomenon of failure, research has also been undertaken into the organizational reaction to failure indications, through an organizational escalation of commitment response (Keil and Robey 1999).

Indications of project failure were found to be either not communicated by project members, or at other times ignored by those in senior positions to the project members (Keil and Robey 1999). When communication of project challenge led to management escalation it was seen to have, in general, a strong negative effect on the successful completion of projects thus reinforcing the reluctance of project team members to communicate project challenges or possibilities of failure to senior management (Keil et al. 2000).

The reluctance to report bad news in projects is further explored by Keil et al. (2007) from the perspective of face-saving. The recognition that feelings of emotional safety and social identity can be at stake in social interactions allows for an integrative and social-psychological view of IS project team interactions (Keil et al. 2007).

The strong theme emerging from the research of success and failure, critical success factors and organizational power, reinforces the organizational focus and the social nature of project activity within the IT organization. It also emphasizes the relationship of the project and its members to the ongoing operations of the organization through project manager identity and project located boundaries.

Project management as a contested construct

In contrast to the seeming stability and continuity suggested in the PMBOKs of the project management associations (Pennypacker and Grant 2003; Urli and Urli 2000), the academic community has expressed concern as to the philosophical foundations, conceptual robustness and cohesion of the project management field (Lundin and Söderholm 1995; Packendorff 1995; Pollack 2007; Söderlund 2004b).

For some, the definition of project management as a discipline is in need of fundamental and critical re-appraisal and review as to its purpose, characteristics and nature (Bredillet 2004, Söderlund 2004a).

Project Management has also been characterized as a knowledge field that is not yet clear and that can best be categorized as in a pre-paradigmatic phase (Bredillet 2004).

Constructing projects as complex social phenomena

'Project management is to be understood as a complex discipline because it aims to deal with complex reality.' (Bredillet 2005a, p. 4).

This view resonates with the proposal that the adoption of a complementary way of thinking and talking about projects, and IT projects in particular should include concepts such as non-linearity, emergence, unpredictability and self-organization characteristics it is argued that are shared by both complex systems and project management (Remington and Pollack 2007)⁷.

Not all researchers, however, are enthusiastic about the unquestioned assumption of projects as complex. Whitty and Maylor (2009) argue that most projects exhibit characteristics that are more akin to complicated interconnectedness within which stability is dominant.

This view of 'complicated interconnectedness' resonates with the comments of Sydow and Staber (2002) who posit that the stable enduring nature of the organizational networks within which project members are embedded act as a counter-balance to the temporary nature of the project.

The rush to 'complex project management' is decried as a 'fad' given the lack of empirical research in the project management area of complex tools and techniques in use or an

⁷

A guide book on processes, tools and techniques to use in the management of complex projects constructed as a new approach to project management develops this theme in a practical manner in Remington, K. and J. Pollack (2007). Tools for Complex Projects. Aldershot, Gower Publishing Limited..

adequately founded description of complex project management practice (Whitty and Maylor 2009).

Regardless of the veracity of claims for or against projects and their inherent complexity it is clear that there is an empirical gap in the research with regard to the non-linearity, emergence, unpredictability and discontinuities associated with project work and its management (Bresnen et al. 2003; Cooke-Davies et al. 2007).

Broadening the focus of projects and their management

Artto and Wikstrom (2005) propose the consideration of a wider theoretical base, such as sociological theory, innovation theory, and strategy theory to further develop the theoretical basis of a project business research agenda (Artto and Wikstrom 2005).

Söderlund (2004a) echoes the proposal of broadening project management research that takes into consideration the temporary nature of project organization and the taking of a 'projects' view as opposed to engaging in a single project focus. This broadened focus would then take as its unit of analysis the organization, as opposed to the traditional perspectives that take as their unit of analysis the project within the organization (Artto & Wikstrom 2005; Söderlund 2004a).

This broadened view aligns strongly with the view of projects as 'temporary organizations', embedded in the ongoing operations of a persisting organization, as put forward by the Scandinavian School.

Projects constructed as temporary organizations

Packendorff (1995), referencing a Harvard Business Review article on project management by Gaddis (1959), presents a more organizationally centred and socially focused view of the then nascent activity of project management. Gaddis (1959) describes project managers as interlocutors between the needs of organizationally situated administrative management and the requirements of scientists and engineers engaged in new product design and development within project teams.

Projects are identified as 'organizational units' appropriate to the management of activities where there exists technological novelty, time constraints and the utilization of expertise from diverse functional areas of the firm. The temporary nature of projects and the uniqueness of project team and project purpose are seen as central defining elements of projects (Gaddis 1959).

In contrast to the functional management of the time, project management is described as the management of people whose specialist knowledge exceeds that of the project manager. As such, the project manager's approach required collaboration and coordination to a degree greater than that of the contemporary line management as a necessary basis for success. This highlighted the differing capabilities and expectation as to knowledge of the project managers as compared to the 'typical' line and operations managers of the time (Gaddis 1959).

Lundin and Söderholm (1995) outline an action oriented theory of temporary organization that to some extent can be seen as a continuation of Gaddis's insights, and are more clearly a

broadening of the considerations appropriate to the concept of temporary organization as it relates to project work.

The Basic concepts of temporary organization are defined as

- Time – its reversibility or irreversibility
- Task – its repetitive nature or unique nature and, its action focus
- Team - ability and commitment that is task related and the likely multi-membership of both temporary organization and 'parent' organization
- Transition – The initial and end states of temporary project membership, seen as the causal nature of project task based work, the transformation imperative inherent in temporary organization assembly and, its completion as marking a temporary organization's dissolution (Lundin and Söderholm 1995) .

The introduction of multi-membership of team members and the project manager point to the importance of identity as an element of project practice.

Lundin and Söderholm (1995) further develop their framework with a 'process' based approach they label as 'sequential concepts'

- Action based entrepreneurship – The importance of initiation from either a clear institutionalized base for repetitive tasks or through employing imperative laden rhetoric for unique tasks
- Fragmentation for commitment building – the need to decouple the temporary organization from its parent organization and re-attach it when the temporary organization is terminated. This area points to the need to work in a boundary

spanning manner and could be classed as a boundary spanning activity, and the impact of this on role identity

- Planned isolation – The execution phase of project work where the activities and responsibilities to the project are given focus and where the 'unit' acts autonomously
- Institutionalized termination – the termination of project work, bridging the learning back to the organization, and the dissolution of the temporary organization in a manner that could be classed as a boundary spanning activity, and the impact of this on role identity (Lundin and Söderholm 1995).

This process based view of temporary organization highlights the importance of initial project set up/structuring, and suggests a differentiating between the organizing of projects and organizational operations.

The central concept of the project's temporary nature stems from the specific and terminal nature of the proposed purpose for which the project has been initiated or planned.

In other words, built into all projects are a) the completion of purpose and b) the dissolution of the project organization within the continuing operation of the associated organization(s).

Inherent in these temporary organization activities is not only a conception of project members' multi-membership but also that of temporary identities associated with project work. The impact of a persistent organizational identity interlaced with multiple temporary project related identities (with the possibility of a persisting extra-organizational professional identity), and the impact of these on project managers practice is an area of project managers' practice not fully explored.

The position of the project manager as boundary spanning interlocutor, and the existence of professionally prescribed, and organizationally required boundary objects to assist in 'de-marking' the project from the organization present themselves as important elements in the practice of project managers engaged in the temporary organization of projects.

Constructing 'Time' and 'Temporariness' in projects

This temporary nature of projects is seen in contrast to the assumed persistence of the ongoing operations in which time is perceived as 'eternal' (Lundin and Söderholm 1995).

The planned forming and dissolution of projects, it can be argued, is the central differentiating feature between the project as an organizing form and other organizing forms (Lundin and Söderholm 1995).

This temporal nature of projects, task driven and time constrained purposefulness, has led to a concentration on the management of 'time' as a key element in project management processes, tools and techniques (IPMA 2009; PMI 2008).

The duration of projects and the time constraints under which they are conducted leads us towards a linear and absolutist view of time and an efficiency based perspective of project management. Temporariness, on the other hand, has a relative rather than an absolute nature. The temporariness of organization directs us towards a more relative and organizationally situated perspective of project management that is social in nature and organizational in focus (Grabher 2002).

This focus on the duration of projects and the management of time as a constraint, though technically important in project management, is not equivalent to projects' defining characteristic of 'temporariness'.

Others have remarked on the nature of time and its use and construction in terms of physical and social interaction, constraint and power (Nandhakumar 2002), and as an element of importance in the relationships between technology, time-space and social structures in the context of IS research (Sahay and Walsham 1997).

The importance of time and space, and their impact on projects in the context of organizational operations persistence is also examined in the context of project boundary spanning activities (Maaninen-Olsson and Mullern 2009) and as a boundary issue in organizational theory (Cunha 2004).

The importance of time as a social construct and as an element of organizational structuring is an area in which elements such as regularity, pace and rhythm are proposed as having an impact on project management practice (Brown and Eisenhardt 1997; Butler 1995; Orlikowski and Yates 2002).

It is an area, in the context of both the temporariness and organizational context of projects, and project managers' practice that requires further investigation.

The Project constructed as an organizationally situated phenomenon

Organizational processes, however configured, not only constitute project management as an activity they also help to delineate the boundaries between the project and organization

through identifying project entry and exit points within the context of the 'persistence' of the organizational processes (Engwall 2003).

This situated nature of projects within the ongoing organizational activities has been noted by Engwall (2003) as having a significant effect on project practice and activities given that projects can be defined as “history-dependent and organizationally embedded”.

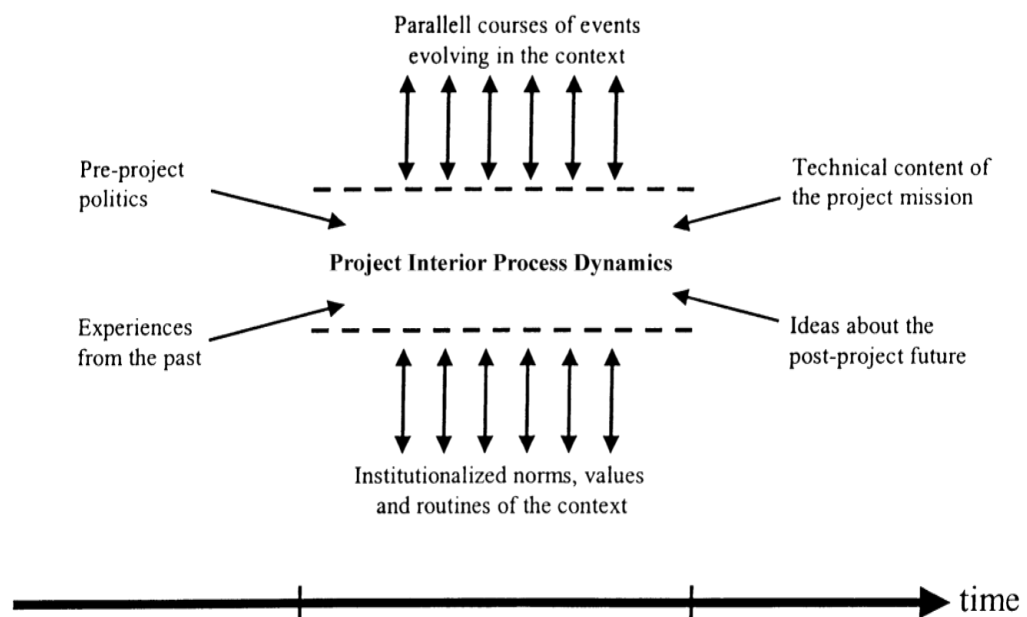


Diagram 2.1 Projects as history- dependent and organizationally-embedded from Engwall (2003, p. 805)

The relationships that exist between organizations and projects highlights certain features of projects and their management that mark projects as differing from the ongoing organizational context, such as the ‘one-off nature of project work and the many discontinuities of methods of organization, and flow of personnel, material and information.’ (Bresnen et al. 2003).

Projects can also be seen as phenomena that crystallize some organizational elements in time, and over time, through the membership of project personnel in both the project and

the organization, and through the possibility of investigating their practice as being 'apart from' as well as 'part of' the organization (Bresnen et al. 2003 & 2005; Grabher 2002; Swan et al. 2002).

Organizationally induced transformation initiatives are also seen as instances where the 'attenuated links that exist between organization-wide change initiatives and project management practice' can clearly be seen in the continuities and discontinuities of anticipated change (Bresnen et al. 2004).

The manner in which the dialectic relationship is achieved between organization and projects is an area of highlighted importance in the literature concerned with the organizational context in which project management takes place (Bresnen et al. 2005; Grabher 2002; Swan et al. 2002; Sydow and Staber 2002).

Research that uses the project as 'context' in the wider literature takes as its focus the analysis of the project / organizational dynamics and offers a very useful backdrop to research where projects are in focus. Their research helps to identify some of the factors of interest on the project / organization dialectic such as;

- characteristics of boundaries between ongoing organizations and projects
- the multi-membership in organization and projects of project team members
- the centrality of social organizing elements in change initiatives
- the persistence of organizational elements in project organizations.

The conceptualization of projects within organizations also supports the proposal from others to renew the projects research field through broadening its focus beyond the tools

and techniques of task management to a fuller, and more holistic engagement with research on projects as organizational in essence and as social in nature (Bredillet 2005b; Cicmil and Hodgson 2006; Söderlund 2004b; Winter et al. 2006b).

This area between projects and organizations can be explored further to better understand the effect of, and mechanisms through which organizational context influences project management practice.

The recognition of the importance of the organization / project as a conduit through which social legitimacy, role definitions and expectations of success and failure of projects are constructed is an area of interest in the further understanding of the project manager role and its enactment.

Projects as Boundary Dwelling Phenomena

The importance of boundaries in understanding organizations has been explored and their importance in the study of organization stated;

“(boundaries) reflect the essence of organization” (Santos and Eisenhardt 2005, p. 505)

The concept of ‘interlocutor’ between organizational personnel and project personnel first described by Gaddis(1959) can be understood as an example of the important boundary spanning activity engaged in by project managers.

The nature of boundaries and their enactment has been viewed in multiple project and non-project contexts from the perspectives of identity (cognitive and emotional), the conceptions of self and 'others', and the conditions of action and agency (Carlile 2004; Merali 2002; Santos & Eisenhardt 2005; Sturdy et al. 2009).

These boundary related factors resonate with earlier discussion on the multiple membership of project managers and team members, and on the possibilities of tension between professional association based project manager identities and organizationally endorsed role based identities (Kellogg et al. 2006; Merali 2002; Sturdy et al. 2009).

The enabling and disabling conditions of action associated with boundaries (Merali 2002) are of significant interest to projects in which an unproblematic enactment of prescribed professional guidance is assumed and in which contextual considerations are seen as of secondary significance (Hodgson 2004; Söderlund 2004a; Winter 2006).

Newell et al. (2004) propose an understanding of project boundaries on the basis of social capital of project managers as operating in two ways;

- Bonding for a shared sense of purpose (while being mindful of group-think)
- Bridging to access dispersed organizational knowledge.

This emphasizes the cross boundary nature and multiple membership nature of project managers' roles (Newell et al. 2004).

The importance of project members' social capital in the integration of organizational and project knowledge across internal and external project boundaries is seen as an important element in understanding project manager activity.

The nature of project boundaries can therefore be seen as both multi-dimensional and variously configured. The identification of boundary location within project based work includes the boundary between the organization and the project, the execution phase and the use phase of the project service or product, and the boundaries that exist between the members of the project team.

The dimensions associated with these boundaries include social structure, identity, knowledge flow and nature, and power and legitimacy (Carlile 2002 & 2004; Carlile and Rebentisch 2003; Merali 2002; Kellogg et al. 2006; Newell et al. 2004; Richter and Niewiem 2009; Santos and Eisenhardt 2005; Sturdy et al. 2009).

Given this complex definition of boundaries, and their close association with projects and the boundary spanning activities of project managers, an investigation into project managers' practice as it relates to boundaries will contribute beneficially to an understanding of project managers' role and activities.

Constructing Project Managers' Practice

It is useful to clearly explain what is meant by the broad term of project manager practice.

“By ‘practice’, then, we refer to action informed by meaning drawn from a particular group context.” (Cook and Brown 1999, p. 387), that takes place within the historically embedded situation of organizations (Engwall 2003).

Practice is 'ongoing, social and dynamic' (Gherardi 2000) and, 'under which skillful performance is more and less likely to be enacted' (Orlikowski 2002).

The multiple membership nature of project managers within organizations, their identities as being both 'apart from and a part of' the ongoing organization, the temporary nature of project endeavours, and the complex nature of the IT context, the boundary spanning practices of the interlocutor, and the identification of the influences on project managers' practice all form a multi-dimensional construction of project managers' practice.

This highlights the importance of engaging in research that explores the nature of project managers' practice from a socially based perspective in which boundaries, identity and knowledge are examined in a manner consistent with the dynamic and complex nature of that practice.

In engaging in practice research scholars have emphasized the importance of the object in the articulation of meaning across professional and organizational boundaries as sense making and sense taking devices (Boland and Tenkasi 1995).

In the context of project management research intermediate objects of design (Papadimitriou and Pellegrin 2007) and the role of boundary objects in the negotiation of project contracts have been touched upon (Koskinen and Makinen 2009).

The importance of boundary objects in practice is highlighted by Levina (2005) who advocates Collective Reflection In Action through the use of shared objects and boundary spanning responses such as 'add to', 'ignore' or 'challenge' (Levina 2005).

It can be argued that project management as a discipline is ideally suited to such a boundary spanning and boundary object treatment given the particularity of each project situation, the practice of project managers in the use of documents to shape both their practice and that of project team members, and the rapid manifestation of these effects in a project based setting.

Rethinking Project Management

Project management researchers have been engaged in classifying and reviewing the field over the last fifteen years (Artto and Wikstrom 2005; Bredillet 2005b; Cicmil and Hodgson 2006; Lundin and Söderholm 1995; Meredith 2002; Packendorff 1995; Pollack 2007; Sense 2007; Shenhar and Dvir 2007; Söderlund 2004a&2004b).

While there is a shift in project management focus towards the socially situated nature of practice there also remains a strong ongoing tradition in the development of 'hard' scientific models and tools that occupy a significant place in both literature and practice (Betts and Lansley 1995; Pollack 2007).

Some researchers suggest that project management theory and practice have begun to embrace the more complex and socially constructed nature of project work, and as a result a 'shift' in approach and a broadening of the tools and techniques applied to the management of projects is manifest both in the project management literature and in project management practice (Pollack 2007; Sense 2007).

In line with stated and identified challenges of professional association derived project management constructs' attenuated relevance to practice in non-traditional fields, a major two year initiative sponsored by the UK government, Rethinking Project Management (RPM), was undertaken (Winter et al. 2006a & 2006b).

The project management field is categorized by Winter et al. (2006b) on ontological and epistemological based perspectives. These categories they describe as

- (1) The rational, universal, deterministic 'hard systems' model as characterized by a focus on the tools and techniques of project management, and the possibility of optimization of project performance through the use of reductive and quantitative analysis
- (2) Organizational Design / 'Scandinavian School' model as characterized by a focus on the organizing elements of projects as temporary, and the requirement to engage on organizational based understanding to better improve project performance
- (3) Management of Projects perspective as characterized by a focus on the organization and environmental factors that best complement the use of projects as an appropriate form for business benefit delivery (Winter et al. 2006b).

These three classifications of the project management field can be seen as three overarching constructs of the field that have implications for both the role and the practice of the project manager.

This practitioner/academic collaborative partnership identified challenges in the project management field and proposed five directions in which the development of project management research and practice could usefully develop (Winter et al. 2006b).

The future directions of project management research and development identified through the RPM program are described as

1. From the life-cycle model of projects and project management towards theories of the complexity of projects and project management
2. From projects as instrumental processes towards projects as social processes
3. From product creation as the prime focus towards value creation as the prime focus
4. From narrow conceptualizations of projects towards broader conceptualization of projects
5. From practitioners as trained technicians towards practitioners as reflective practitioners (Winter et al. 2006b).

These five directions point towards a broadening of the field from a technically based, instrumental, and narrow focus on product delivery, towards a socially based and reflective practice concerned with value creation.

The increased focus on the socially situated impacts of project management practice suggests a direction of focus towards the interplay between professionally proposed knowledge bases, such as the PMBOKs of the professional associations, and more local situated organizational knowledge bases (Ajmal and Koskinen 2008; Reich and Wee 2006).

What is not clear is how this interplay is enacted and to what extent tension or synergy may exist between locally situated knowledge and professionally proposed knowledge bases.

In areas such as the development of IT systems, the complex social and technical characteristics of the work have stretched and challenged the adequacy of ‘traditional’ project management perspectives in developing solutions and products that meet the needs

of customers while conforming to the controlled aspects of delivery (Currie and Willcocks 1996; Pollack 2007; Shenhar and Dvir 2007).

In Rethinking IT project management Sauer and Reich (2009) comment on a new mindset evident in the thinking of high level IT project managers. Personal qualities such as clear-sighted realism, personal responsibility, long-term perspective, and willingness to let go are suggested as central to this new mindset that also embraces an ongoing adaptability, willingness to learn, innovativeness and creativity for the purpose of value creation in a devolved collective effort based on trust (Sauer and Reich 2009).

These additional elements, proposed as of importance in the construction of the practice of IT project managers, further emphasize and reinforce the broader conceptualization of projects in a manner consistent with an appreciation of the socially situated nature of the project managers' role and its relationship to practice.

The centrality of initiation and planning in the creation of the project as a temporary organizing, and the concentration of project management professional planning activity at these project activity stages lend themselves as an appropriate 'process bracket' within which to investigate key elements of the project manager role and practice, and its relationship to ongoing organizational activity.

The bracketing of focus on the initiation and planning phase of projects provides a clear and helpful concentration in that

- It occurs at a time of 'action based entrepreneurship and fragmentation for commitment' (Lundin and Söderholm 1995) and as such emphasizes the nature of

the boundaries between projects and organizations (Boland and Tenkasi 1995; Engwall 2003; Levina 2005)

- It occurs at a time when the widest sets of activities, tools and techniques of the project manager are expected to come into play (PMI 2008)
- It exposes the challenges and opportunities of the project manager in engaging with the organizational, technical, team and project success issues (Bryde 2005)
- It is an area that has not been subject to wide scale empirical research (Winter 2006).

The focus of this research is that of IT project manager role and practice as manifested in the initiation and planning of projects in the complex and dynamic Information Systems Development (ISD) context.

The relationship between the IT project managers' practice and the organizational context in which they take place is explored. The sense-taking and sense-making activities (Boland and Tenkasi 1995) employed in the construction of a project, its team, its goals, and the formative practices of project managers as they institute a project structure are explored. The value of this contribution will be to better understand the mechanisms involved in the construction of the project manager role and practice under local circumstances.

The Information Systems application context has been highlighted as both significant in the use of generic project management approaches, and as a key sector that has challenged and stretched the adequacy of the normatively derived generic approach and tool-set (Currie and Willcocks 1996; Pollack 2007; Shenhar & Dvir 2007).

Given the important insights afforded an investigation into practice by boundary activities and objects, and the clear affinity with the dynamic and boundary dwelling nature of projects and project managers, it is proposed that focus on these areas will offer value by increasing knowledge on project management practice.

There is a need for further empirical research that focuses on the phenomenon of project management practice that takes into account

- the relationship between ongoing organizational practices and the factors that influence project management practice
 - the boundaries enacted between organization and project and between project team members
 - The temporal context of the project within the organizations operations
 - The effect of project temporariness of project team member commitment and project manager authority
 - The legitimacy and identity of the project management role and the project manager
 - consideration of the ISD approach being proposed

(Bresnen et al. 2004; Cicmil and Hodgson 2006; Cicmil et al. 2006; Engwall 2003; Sydow and Staber 2002).

The literature reviewed has identified projects and their management as contested constructs. These contested constructs are likely to have an impact on the role and the practice of project managers in given contexts.

The social nature and organizational focus of project management, identified in the literature, have highlighted a potential dissonance between professional project management constructs and project manager guidance that are likely to impact the “in situ’ role and practice of project managers.

The complex and dynamic nature of the ISD context and the potential competing and conflicting approaches to the management of project activities, identified in the various approaches to software development, present the IT context as a context in which the contested claims of the project management constructs will be robustly tested.

It is with these in mind that this research will explore the following questions.

Research Questions;

What are the factors that influence and shape the role and the practice of IT project managers?

Specifically with regard to;

1. The organizational construction of project management
2. The construction of the project managers' role and practice
3. The nature of the boundaries within projects, and between projects and the ongoing organization’s operations focusing on;
 - i. the mechanisms of knowledge, power and control, and
 - ii. the nature of organizational and project time

The research questions resonate with and follow on from the Rethinking Project Management agenda (Winter et al. 2006b), and the Rethinking IT Project Management agenda (Sauer and Reich 2009).

The focus of the research aligns with the directions of the Rethinking Project Management Agenda in that the questions

1. Examine the impact of the professional association endorsed project life-cycle model in complex organizational settings
2. Take as a starting point the social nature of projects
3. Explore the nature of contribution the project manager role offers the organization
4. Explore the importance of the mechanisms of power in the enactment of the project manager role
5. Take as a starting point the reflectiveness of project managers as they engage in their practice (Winter et al. 2006b).

Chapter 3 - Conceptual Framework

Locating an appropriate conceptual framework

The purpose of the research is to explore the impact of project management constructs on the project manager role and its enactment, with a particular focus on the mechanisms in use across project /organization boundaries in an IT setting.

Conceptualizing project management as a 'social' practice (Cicmil and Hodgson 2006) requires the use of a conceptual framework that takes as its focus the ongoing production and reproduction of social practice.

Two dominant practice theories, Bourdieu's 'Habitus' (1977 & 1980) and Giddens' Structuration Theory (1984), have at their heart the interrelatedness of human agency and social structure manifested through instances of practice (Bourdieu 1977 & 1980; Giddens 1984; Schatzki 1997). These practice theories take as their focus phenomena produced through the ongoing interactions amongst actors within their social context.

These theories of practice encompass the elements of the research under investigation which is that of project managers' practice within a professional and organizational context. As such, they are seen as appropriate lenses through which to engage with the research questions stated above.

Structure and Agent Duality

There are many similarities between the conceptual models of Giddens and Bourdieu.

- Both emphasize the process based, temporal nature of social action and interaction

- Both conceptualize social structure as historically constructed and internal to the agent, as opposed to existing in a reified form external to the agent (Bourdieu 1977; Giddens 1984).

These practice theory approaches conceptualize a 'knowledgeable' human agency constrained and/or enabled by social structures as the key elements in the dynamic and ongoing production, and reproduction of social practice. This conceptualization of agency that is enabled and/or constrained by internalized social structure is termed the 'duality' of structure and agency.

In Structuration Theory (Giddens 1984) structures have no external reality as they are internal to the agent in the form of memory traces. Agents, through action, bring structure into being, while structure produces the possibility of agency (Cassell 1993). This is in contrast to the conceptualizations of social structure that are seen as 'real', external to, and separate from the agent.

The work of both Giddens (1984) and Bourdieu (1977), in focusing on the duality of structure and agency manifested in practice, has been shaped in response to twin problems they and others identified in dualistic approaches such as;

- primacy being given to social structures external to the agent in objectivist sociology that deny the impact of human agency on social action, and
- primacy being given to human agency in subjectivist sociology that denies the impact of structure on the performance of social acts (Bourdieu 1977; Browne 1993; Giddens 1984; Stones 1991).

Agents actions explored in Bourdieu's Habitus

Habitus is defined as a historically situated process that both structures and is structured by the agent's 'dispositions'. This 'habitus' includes the internalization of social structures, such as societal norms, role legitimacy and regulative constraints in the creation, maintenance, and transformation of the agent's 'habitus' or disposition to the field - which can be seen as the context in which the agent is engaged (Bourdieu 1977).

The agent's 'habitus' is invoked in her practice in the field through an externalization of the societal norms, role legitimacy, and regulative constraints (and other elements of social structure) while engaged in the field (Bourdieu 1977).

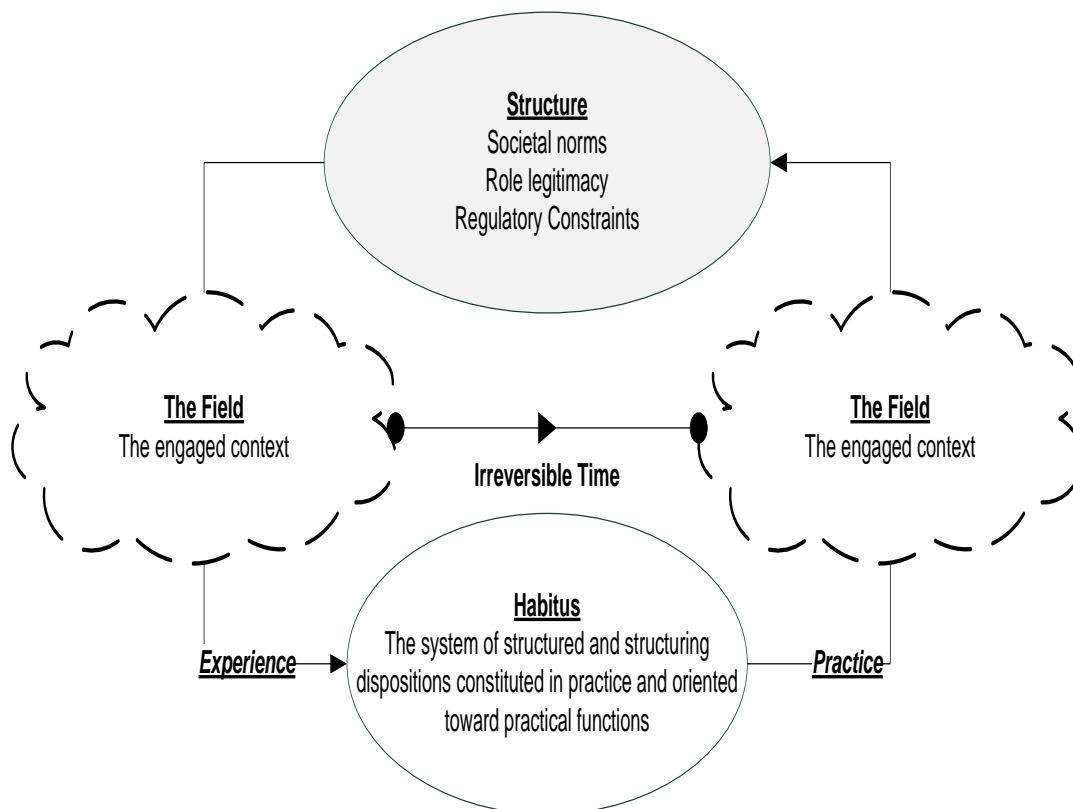


Diagram 3.1 Habitus (Bourdieu 1977), internalized through experience and externalized through practice

From the perspective of Bourdieu's habitus the discretion of the agent is limited to the 'practical logic' within the habitus.

“Each agent, wittingly or unwittingly...is a producer and reproducer of objective meaning...The homogeneity of habitus is what... causes practices and works to be immediately intelligible and foreseeable, and hence taken for granted” (Bourdieu 1977, p.79).

Bourdieu's focus is on the habitual disposition of agents in the historically constructed situations in which they find themselves.

Habitus emphasizes the discretion of the agent in engaging with the social in an ongoing interaction with practice as

“The habitus (is) the durably installed generative principle of regulated improvisations” (Bourdieu 1977, p. 78)

The use of habitus is very well suited to the exploration of the externalities collectively generated, reproduced, and transformed in a given social setting (Bourdieu 1977).

The characterization of agentic discretion, described by Bourdieu as “regulated improvisations”, suggests limited reflectivity and possibility of doing otherwise (Schatzki 1997). Given the characterization of project managers' practice as being reflective (Crawford et al. 2006; Winter et al. 2006b), contextual, and professionally informed (Blomquist and Söderholm 2002), the emphasis in Bourdieu's theory of agentic possibilities might be seen as less suited to the prevalent dynamic contexts of interacting agents in IT project management

settings than it is to analysis of historically constituted organizations in which stable membership and practice are manifested.

However, given the contested understanding of project managers' practice, and in particular the tension between context and professional guidance (Crawford et al. 2006; Engwall 2003; Sydow and Staber 2002; Winter et al. 2006b) the concepts used in Bourdieu's Habitus will not be discarded but will be revisited later in supporting the construction of the conceptual lens for this research.

Further, some of the limitations described below in relation to Giddens's structuration theory with reference to empirically based research can be addressed through the use of concepts borrowed from Bourdieu's habitus. Given the philosophical closeness of each of these practice theories with the other (Schatzki 1997) a judicious complementary 'borrowing' of one from the other is justified.

Agents' Actions explored in Giddens's Structuration Theory

The concept of personal identity in structuration theory can be used in the context of professional and organizational roles.

“Personal identity is no longer ascribed by membership of an encompassing collectivity... (the) reflexive project of the self ... takes place in the context of multiple choices as filtered through abstract systems” (Cassell 1993, p.33).

Structuration theory takes a view of agentic possibilities in practice in which the transformative possibility of agentic action is emphasized

“Action logically involves power in the sense of transformative capacity”

(Giddens 1984, p.15).

This 'transformative' capacity and abstractly referenced view of identity might be seen as an appropriate conceptual fit to the expected role of IT project managers in that;

1. transformative actions implicit in the establishment of temporary forms of organization that are both a part of, and apart from, the ongoing practices within the organizational setting
2. professional identity of project managers is tied up with definitions of role memberships to a professional association with its own practice, and ethical standards, and to organizations with their own employee role and responsibility definitions.

With this in mind, further examination of structuration theory follows and its suitability as an overarching conceptual framework for the research is highlighted.

Structuration Theory Examined

The central theme in structuration theory is the ordering of social practices across space and time.

“The basic domain of study in the social sciences, according to the theory of structuration, is neither the experience of the individual actor, nor the experience of any form of societal totality, but social practices ordered across space and time...It is the specifically reflexive form of knowledgeability of human agents that is most deeply involved in the ordering of social practices” (Giddens 1984: pp. 2 – 3)

The elements of structuration theory

The main elements in Giddens' structuration theory as referenced in this research are;

1. the human actor as knowledgeable agent
2. the social structures that are recursively referenced by the agent in the production of practice
3. the duality of agents and structures
4. the processes by which social relations are stretched across space and time.

Each of these elements is discussed briefly below.

The Knowledgeable Agent

Giddens' constructs a theory of self that he bases on an interpretation and development of the psychoanalytical constructs proposed by Freud and later further developed by Erikson (Erikson 1963; Stones 2005).

However, in contrast to both Freud and Erikson, who define the self as an organization of the id and the superego mediated by the ego, Giddens defines an elemental ontology of self in which a knowledge of self replaces the ontologically separated id, ego, and superego of the psycho-analytical model.

”The self...is not some kind of mini-agency within the agent. It is the sum of those forms of recall whereby the agent reflexively characterizes ‘what’ is at the origin of his or her action. The self is the agent as characterized by the agent. Self, body and memory are therefore intimately related.” (Giddens 1984, p. 51).

The self, described by Giddens, is a historically informed ongoing construct in dynamic appreciation of itself in the 'situation' of being.

Giddens summarizes his 'theory of self' in a three level stratification model of the agent categorized as

- Discursive consciousness – the basis of rationalization
- Practical consciousness – the basis of reflexive monitoring and
- The unconscious – the basis of motivation (Giddens 1984).

Agents' motivations are characterized as a drive for the achievement and/or maintenance of ontological security and the avoidance of anxiety as appreciated by the agent through these three levels of consciousness.

The hermeneutic aspect of structuration theory, inherent in the reflexivity of the agent, resonates with the ongoing planning, monitoring, adjustment, and re-planning of action in interaction and agreement with others, that constitutes the project manager's role (PMI 2008).

The knowledgeableability of the agent fits the core concerns of this research in exploring the use by IT project managers in their practice of professionally based knowledge, organizational conditions and personal dispositions towards action. It also fits with acts of agentic engagement with others by those occupying the IT project manager role.

Giddens' introduces the term 'double hermeneutic' to describe the processes by which the world of social agents is interpreted by others, and as the process by which this interpretation can be understood and acted upon by the agent in the transformation of her practice (Cassell 1993; Giddens 1984).

This concept of the 'double hermeneutic' alerts us to the likely impact of researcher presence and interaction on the practice of IT project managers, and hence on the research context.

The project managers with whom the researcher interacts are likely to incorporate perceptions of practice stated and implied by the researcher (and others) as newly acquired reflexive elements in their practice. This incorporation of researcher observations may dynamically and irreversibly alter the 'reality' of the practice being observed and act as an element in IT project manager practice.

It also alerts us to the likelihood of reflective practitioners engaging in emergent forms of practice in which the frame of reference 'in use' is continuously reviewed and updated.

Social Structures

Structure is described, by Giddens, as sets of rules and resources (sets of transformation relations) organized as properties of social systems. These properties are referenced recursively, by the agent, and exist out of time and space as abstractions.

Social structure is seen as being internal to the agent, having been internalized by the individual through experience. The categorization of these rules and resources centres on three main elements:

Signification:

Drawing on the theory of coding, persists in social practices through the ordering of understanding symbolically and in the modes of discourse practised by agents.

Domination:

1. Drawing on the theory of resource authorization, the types of transformative capacity of generating command over persons or actors.
2. Drawing on the theory of resource allocation, the types of transformative capacity generating command over objects, goods or material phenomenon.

Legitimation:

Draws on the theory of normative regulation in establishing normative social practices and in employing sanctions through which these norms may be regulated / enforced.

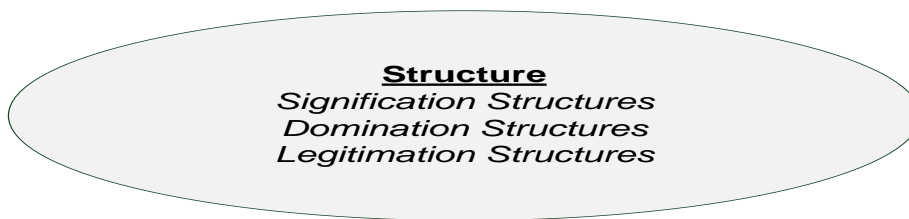


Diagram 3.2 Structure in Structuration Theory

In the context of IT project management practice the concepts and language used in describing structure resonate strongly.

The multiplicity of stakeholders with divergent needs, professional purpose, and domain specific language can be recognized in the signification domain.

The interplay of the authorization of project work (the domain of the project manager) in relation to the allocation of resources (the domain of the functional manager) resonates with

the oft-cited challenge of project managers' 'responsibility without power' in non-projectized organizational structures (PMI 2008).

The organizational and historical context of practice and the normative expectations of the diverse organizational roles as they temporarily collaborate can be located within the domain of legitimation, especially given the temporariness of the projects in the context of the ongoing persistence of organizational operations (Engwall 2003).

Agents, Structures and Duality

“The structural properties of social systems are both the medium and outcome of the practices they recursively organize. Structure is not external to individuals.”
(Giddens 1984, p. 25)

The properties of social systems and the knowledgeable ability of the agent in her dynamic interaction with them points to elements of action being known (discursive consciousness), tacitly known (practical consciousness) and unknown (unconscious) to the agent.

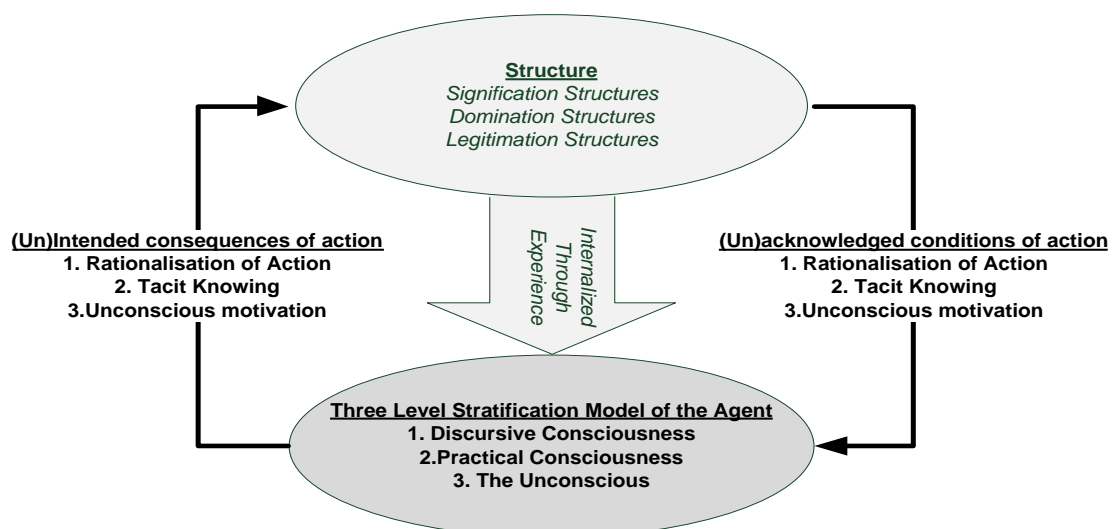


Diagram 3.3 Three level stratification model of the self and its manifestation in practice

Inherent in the agent's practice are elements of unacknowledged conditions on which she acts. Inherent in her action are also unintended consequences. These unacknowledged conditions and unintended consequences are a result of;

1. the unknown unconscious, hidden from the agent and others by the 'bar of repression'
2. the tacit knowing of the practical consciousness, internalized repertoires of acting or 'getting on', habitually engaged in by the agent
3. the bounded knowledgeability of the agent with regard to the context in which practice occurs (Giddens 1984)

While Giddens posits these uncertainties as manifest in all social action, they describe a mechanism for understanding the specific issues of uncertainty that are characteristic of IT project management.

The acknowledgement of unknown conditions of action is an appropriate description of what is described as the messy front end of projects (Winter 2006).

The consequences of actions, both intended and unintended, can relate to the uncertainty of action inherent in projects' unique endeavours and their emergent characteristics (Atkinson 1999).

This uncertainty of consequence is further elaborated in the management of IT projects and in the development of information systems as complex emergent social processes discussed earlier (Austin and Devin 2009; Berger and Benyon-Davies 2008; Lyytinen and Newman 2008; Nandhakumar et al. 2005).

Not only are the conditions and consequences of action of individual actors to some extent unknown and unknowable, the conditions of interacting agents engaged in unique endeavours, such as IT projects, can be seen as adding to the unknown and unknowable elements of project management practice, especially when project team members are;

1. confronted with a break to habitual organizational routines as they engage in a temporary organizing in the form of a projects
2. confronted with the unique requirements of a project that are not fully defined, previously experienced or completely understood
3. confronted with dynamically constructed expectations of the project, and the project manager, by organizational agents.

The centrality of the project manager in navigating and managing this uncertainty, in both conditions and consequences of uncertainty, is clearly stated in the project management literature (Cicmil and Hodgson 2006; Söderlund 2004; Winter et al. 2006a).

The dynamic interaction of the knowledgeable IT project manager with the circumstances of project practice highlights

- a. the heightened uncertainty of conditions at project initiation (Winter 2006) and
- b. the inherent uncertainty on the outcome of actions in unique project circumstances (Atkinson 1999).

This acknowledgement of uncertainty conceptually captures the dynamic complexity of the project manager's practice landscape.

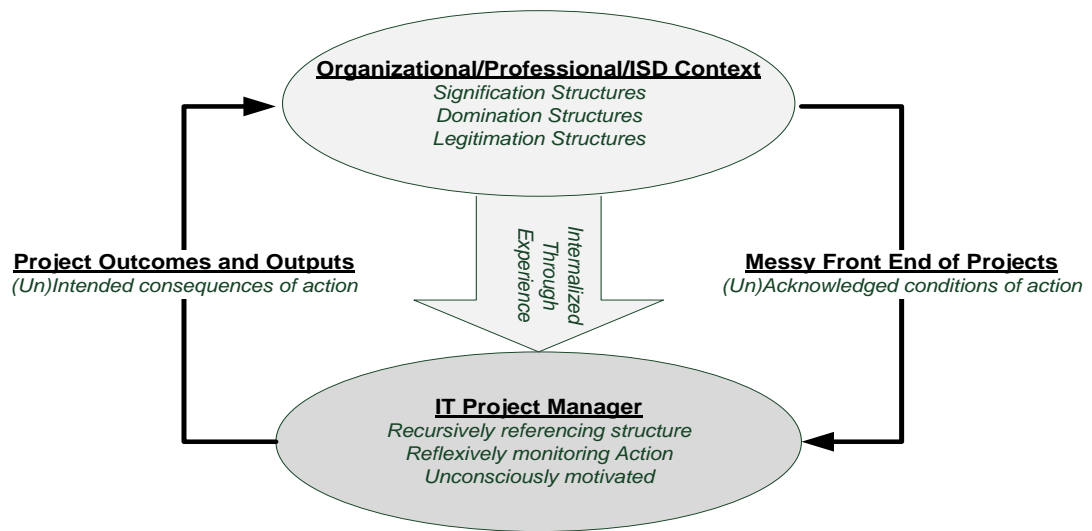


Diagram 3.4 Reciprocity between Structure and Agent through Practice Adapted from Giddens (1984, p. 5)

Structuration Processes across space and time

It is through an exploration and analysis of structuration's integration processes that an understanding can best be reached on the process by which social structures are (re)produced by knowledgeable agents in the context of situated activity across time and space.

The processes by which this ordering of social practices occurs across space and time are described by Giddens as 'social integration' and 'system integration'. These two integrative structuration processes encapsulate all possibilities of structuration occurrences in Structuration Theory.

These integration processes are differentiated by the manner in which inter agent reciprocity occurs and are described as;

1. Social Integration; reciprocity between actors in contexts of co-presence
 2. System Integration; reciprocity between actors or collectives across space and time
- (Giddens 1984: p. 28).

The clear distinction between the two integration processes hinges on the co-presence of actors in social integration and their absence in system integration.

Time is described in structuration theory as more than the temporal context in which action takes place. It is also seen as implicated in the exercise of power in social interactions

“The control of time is a resource employed in structures of domination.” (Giddens 1984, p. 184)

In describing the generation of power through the production and reproduction of structures of domination the role of stored information and knowledge is cited as a key element in the stretching of social practices over space and time (Cassell 1993, p.188).

This strong focus on information and knowledge as a powerful force in the production of social acts across space-time resonates with the practice of IT project managers in the creation of project documentation that seeks to coordinate and direct the actions of multiple actors through time, within a given time-frame, and across space, given disparate and geographically dispersed project teams.

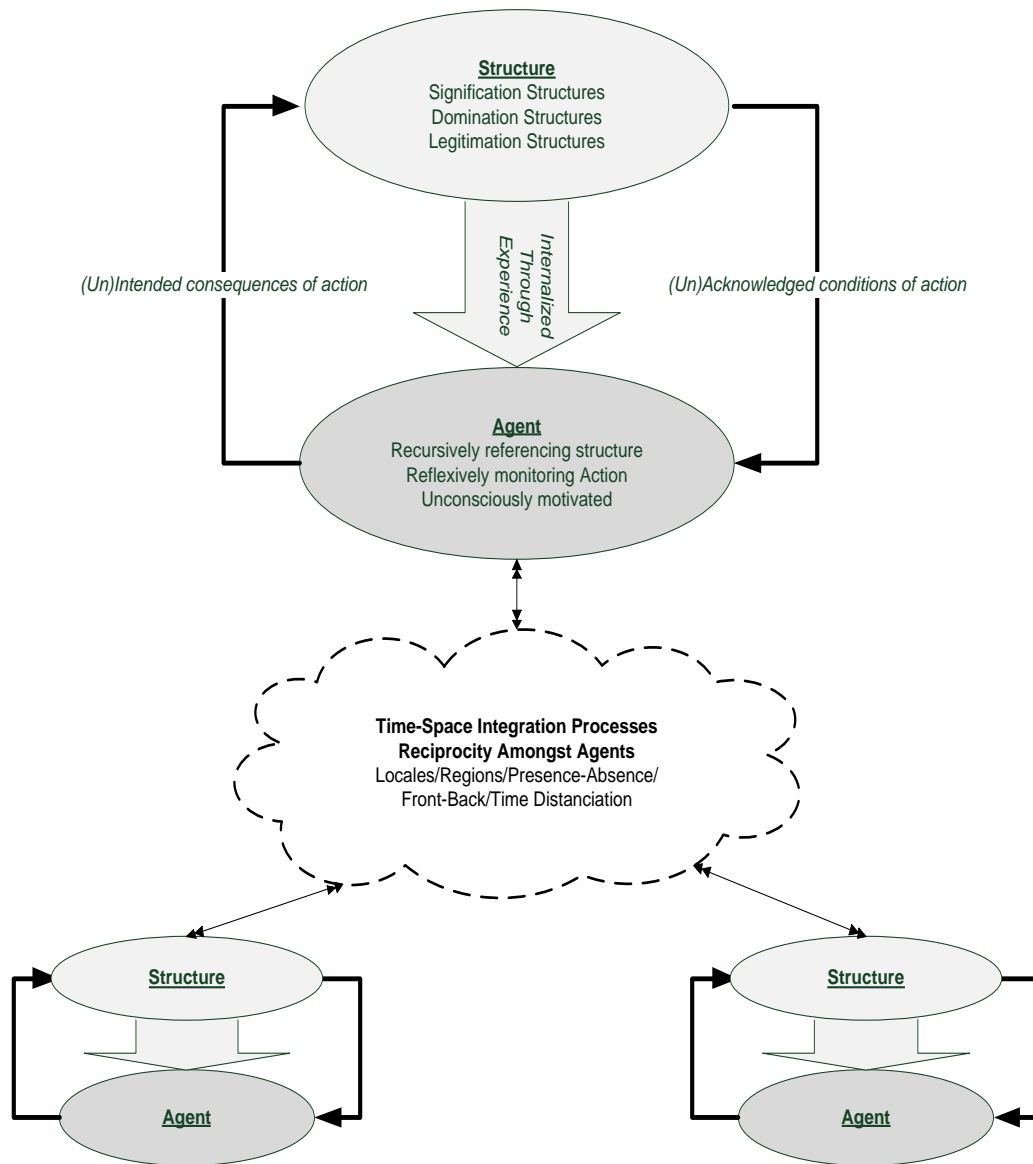


Diagram 3.5 Reciprocity between agents in space-time

On the choice of Structuration Theory

Structuration theory, with a knowledgeability constituted view of the agent, and a rules and resources based view of structure is very well suited to the exploration of given instances of practice by agents from diverse settings in shared contexts and maps well onto the complex social practice of professional IT project managers.

Project managers are expected to knowledgeably utilize rules and resources in the temporary organizing of diverse stakeholders within the context of ongoing organizational operations.

The explicit treatment of the temporal inherent in structuration theory, social and system integration, historicity, time space distancing, and time boundaries (Browne 1993; Giddens 1984) resonates strongly with the temporal nature of project work and the importance of time in the practice of project managers.

Structuration theory can be described as

1. Interpretive – in that social reality is posited as a social construction enacted by knowledgeable social agents
2. Hermeneutic – in that recursive reference to transformational rules in the pursuit of action outcomes is posited as the manner in which the social structure is accessed
3. Doubly Hermeneutic – in that the knowledgeable agent's reflexivity can include a reflective interpretation of the self and of changes in the context of action that could include newly acquired perspectives, in the monitoring and commission of ongoing social acts.

This description of ST resonates closely with the research questions posed that are focused on the examination of IT project management practice in the context of organizational factors in dynamic and complex social situations.

Given this apposite fit between the concerns of project management and the concepts of structuration theory, structuration theory is used as the overarching conceptual framework for this research.

A Critique of Structuration Theory

The challenge of using ST in empirical research

The abstract nature of the structuration theory framework has been suggested as a major obstacle to this translation of the theory to a rigorous methodology for empirical work (DeSanctis and Scott-Poole 1994; Poole 2009; Pozzenbon & Pinsonneault 2005).

“Our belief was that Giddens’s theory, along with other social theory, was too lacking in specification to actively guide research” (Poole 2009, p. 583)

On close scrutiny of ST, there is however, some methodological guidance with regard to empirical research available. Explicit references are made to Garfinkel, Goffman and Hagerstrand in the early chapters of the Constitution of Society (Giddens 1984) and explicit reference made to social scientific empirical approaches and techniques for field research in a later chapter (Giddens 1984: pp. 327 – 333).

However, as noted by Stones (2005), the empirical examples used by Giddens serve to support the validity of structuration theory as 'ontology-in-general' as opposed to explain 'ontology-in-situ', that of specific sociological questions in context (Stones 2005).

The purpose of the research in this paper relates to 'ontology in situ', specific questions that relate to social practice in a given context. As such, the abstract nature of structuration theory and its 'distance' from concrete circumstances requires the researcher ‘operationalize’ its concepts for the purpose of empirical research.

Giddens, it can be said, has not proposed the use of structuration theory as an empirical methodological frame. Indeed, he argues against such a treatment and recommends its use as a 'sensitizing' device (Giddens 1984, p.326). The use of structuration theory as a sensitizing device allows us to construct the specific social ontology we wish to explore in a coherent and cohesive manner that incorporates knowledgeable, socially situated, and emergent human interaction in diverse and specific settings.

Yet, there remain challenges with the translation of ST' from conceptual framework to empirical research focused methodological process. Some of these challenges exist in, and are intrinsic to, elements of Giddens's conceptualization of structuration theory, these are discussed below.

The construction of the Agent/Self challenged

Giddens spends considerable effort in elaborating a theory of the self he based on and building from the psychoanalytical writings of Freud and Eriksson (Giddens 1984; Stones 2005). Giddens replaces Freud's Id, Ego and Super-Ego with the threefold division of the stratification model of;

1. basic security system,
2. practical and
3. discursive consciousness.

This theory of self is that of historical (self) construction in which the self is implicated in its own ongoing production and re-production through the motivation of the basic security system. Indeed, the constitution of society, through the manifest actions of the agent

‘conflated’ with the duality of structure, can be argued to be concomitant with the ‘constitution of the self’.

The elemental nature of the self and the unconscious is emphasized by Giddens utilizing a ‘stunted’⁸ formulation of Erikson’s development stages with some ‘dilution’ of the psychoanalytical basis of their construction⁹.

Giddens further argues that of the three levels of knowledgeability / consciousness only two (practical and discursive) are accessible to the agent and/or to others.

The hidden element of the agent - the unconscious - to which the motivation for social action is attributed becomes a challenge in understanding agents' motivations in practice.

The motivational drive of the self as proposed by Giddens is that of ‘ontological’ security. Given the oblique definition of the motivation of the self in the unknowable unconscious, the question of security for ‘who’, as manifested in ‘what’, remains unclear. Indeed, the unconscious as an element of agency is somewhat obscured in Giddens’ assertion of both its ‘instrumentality’ and its ‘unknowability’ (Giddens 1984).

⁸ Giddens utilizes Erikson’s first three of eight stages of development of the self as a rationale for the purposeful construction of the agent’s basic security system while jettisoning the process of mediation put forward by Freud and incorporated by Erikson of the self of the corporeally located libidinal drives mediated by formative experiences of the ‘other’

⁹ Giddens concept of the unconscious and the ‘bar of repression’ that protects the unconscious is reminiscent of the definitions of Freud and Erikson of the id and the repression through the ego of its libidinous drives through the socialization aspects of the super ego, representing the social. This is at odds with the integration aspects of the practical and discursive consciousness in ST as the mechanism is seen in both these cases as both constraining and enabling, with the unconscious the view is clearly that of constraint.

Therefore, the constitution of the self is challenging in that the unconscious knowledgeability of the agent is both instrumental to her motivation and inaccessible to either the agent or those who observe her (Giddens 1984, p.7), as such its empirical manifestation can be described as problematic.

The construction of structure challenged

Inadequate attention paid to the material

Given the intimate relationship of the self, body and memory (Giddens 1984) the importance of the material elements of structure is given insufficient attention in structuration theory. The conception of social structure, virtual transformative sets of rules and resources, does not adequately address the materiality of resources in use by agents in the conduct of practice (Sewell 1992).

Given the importance of materially based boundary objects in IT project management (project plans, IT infrastructure schemas etc.), the stuff of system integration, it is important that the conceptual frame in use should incorporate the full ontological range of the research context.

It is unclear where or how the materiality of practice should be dealt with in structuration theory. As materiality is a major element in the practice of IT project managers it is necessary to include it as an 'element' within the conceptual framework.

In addressing this issue in the use of structuration theory in IS research DeSanctis and Scott-Poole (1994) introduce Adaptive Structuration Theory (AST).

“AST provides a model that describes the interplay between advanced information technologies, social structures, and human interaction” (DeSanctis and Scott-Poole 1994, page 125)

and

“Together, the theory and method (of AST) provide an approach for penetrating the surface of advanced technology use to consider the deep structure of technology-induced organizational change.” (DeSanctis and Scott-Poole 1994, p. 122)

AST promotes the use of structuration in which social structures are joined as a category that constrain and enable agents' actions by technological structures (DeSanctis and Scott-Poole 1994).

“...there are structures in technology, on the one hand, and structures in action.”
(DeSanctis & Scott-Poole 1994, p. 125)

In doing so, DeSanctis and Scott-Poole (1994) use a reified construction of structures that exist and persist outside of human agency, and that are instantiated by human agents through interaction with these technological structures (Jones and Karsten 2005).

This is done through a definition of technology as possessing 'affordances' (Hutchby 2001), described as by DeSanctis and Scott-Poole (1994) as 'spirit', with social structuring potential outside of human agency.

“A coherent spirit would be expected to channel technology use in definite directions. An incoherent spirit would be expected to exert weaker influence on

user behavior. An incoherent spirit might also send contradictory signals, making use of the system more difficult.” (DeSanctis & Scott-Poole 1994, p. 127)

While the analytical power and use of such a treatment for empirical research is clear (Poole 2009), so too is the clear conceptual departure from one of the central elements of structuration theory, that of the 'virtual' existence of structure within the 'memory traces' of agents (Giddens 1984; Jones & Karsten 2008).

Accompanying this concept of technological structure is the description of the role afforded the researcher in 'understanding' the spirit of the technology being used

“Usually the best person to make this reading is the researcher, who is able to consult with designers, investigate the structure of the soft-ware, analyze training materials, study manners of implementation, consider a range of typical user interpretations, and triangulate among these sources of evidence ” (DeSanctis and Scott-Poole 1994, p.126).

This proposes that the researcher occupies a position of privilege in the understanding and analysis of the technology's spirit, as interpreted by its designers and users, by combining and analysing triangulated evidence (DeSanctis and Scott-Poole 1994, p. 126).

Whereas the value and legitimacy of this stance in the investigation of technology and its uses in given and varied contexts might be argued, its validity as an approach to exploring agents' practice, with a strong emphasis on practical consciousness is at odds with agent knowledgeability in structuration theory (Giddens 1984).

Such an 'objective observer view' is also clearly rejected by Bourdieu, who states

“(The observer) who seeking to interpret practices, tends to bring into the object the principles of his relation to the object” (Bourdieu 1980, p.27)

and

“Claim to an absolute viewpoint ... contains a claim to a power, founded in reason, over particular individuals, who are condemned to error by the partisan partiality of their individual viewpoints.” (Bourdieu 1980, p.28)

In keeping with the fundamental concepts of structuration theory of agent knowledgeability, it is argued that the inclusion of a privileged expert voice would likely diminish the primacy given to the agents' voice in the construction of their practice (Giddens 1984).

Whereas it is neither necessary, nor has it been advised by Giddens (1984) to take structuration theory 'in toto' as a basis for empirical research (Jones and Karsten 2008 & 2009), it is argued here that it is possible to engage in an empirically appropriate treatment of structuration theory without compromising its fundamental features, such as the definition of structure as implicated by and instantiated by the agent in her practice (Jones & Karsten 2008 & 2009).

An approach that recognizes the importance of materiality, including technologies, and its importance in use by the agent in engaging in practice while retaining the core tenets of structure and agency will be proposed, in line with the urging of Jones and Karsten (2008 & 2009).

Given the clear focus of AST on the interplay of technology, agency and structure (DeSanctis and Scott-Poole 1994), and its departure from some of the core elements of structuration theory (Jones and Karsten 2008), it is argued that its inclusion as an element in the conceptual lens of this research would introduce conceptual conflict and empirical incongruence.

Institutional bias in the categories and language in use

The conceptualization of rules and resources as structural elements has been defined by Browne (1993) as a suffusing of the modern institutional context where a more abstract conceptualization had been the intention of Giddens (Browne 1993).

This institutionally suffused nature of the concept of social structure maps neatly to the modern institutional context of project managers' practice, and as such aligns well with the organization specific context of the research. What might be seen in the abstract as problematic in general terms, in our specific circumstances matches well with the organizational research context.

The construction of Time and the Agent challenged

The construction of agency has been characterized as lacking in rigour and completeness (Emirbayer and Mische 1998).

A more temporally aligned construction of agency has been proposed that conceptualize

“a temporally embedded process of social engagement informed by the past ... oriented toward the future ... and toward the present ... within the contingencies of the moment” (Emirbayer and Mische 1998, p. 962)

The proposed use of time (and space), by Giddens, as an element of action through which social practices are stretched remains a potent concept, and its identification with the structural power of domination in system integration is of clear interest to research in which the production and reproduction of social acts across space and time are a central element, as is the case in the practice of IT project management.

However, the definitions in use by Giddens do not afford an empirically focused operational use of time. In what way is time used to integrate social acts in instances of integration? How might these be manifest? What might we observe and how might we interpret it?

Given this ‘abstract’ definition of time, there is a need to develop a treatment of time that is suited to empirical research and that remains congruent with the elements and interactions inherent in structuration theory.

The use of time, central to Giddens's structuration theory and as an area of interest to this research, requires further 'operational' definition.

Disentangling Agency and Structure

Archer (1995) contends that the ‘elision’ of agency and structure (in theories such as structuration theory) produce a ‘central’ conflation of two distinct entities (agency and structure) and in place of resolving the conceptual differences between them have succeeded in dissolving the differences between them (Archer 1995).¹⁰

¹⁰ Archer(1995) states a very clear resolution to the issues of social systems in her critical realist morphogenetic approach. However, it is the description of the challenges posed by structuration that is of interest in this discussion, as opposed to conceptually based counter theorizations of their resolution.

The challenge for the researcher lies in the potential inseparability of structure and agency for the purpose of presenting either descriptive or explanatory record of social phenomena, and may have an impact on the possibility of using the conceptual framework in the conduct of empirical research.

When does our observation or our participation in an act directly relate to the agent, and when the structure when both are inseparable in the act of manifestation?

The disentangling of structural effect from agentic action is problematic due to the elision of structure and agent, given the concept of duality in use by Giddens. This poses a challenge for the researcher in differentiating between the agentic intent and structural influence in empirically based research.

So how can the conceptual framework of structuration theory be applied as a methodological frame, in a given and specific social context for the purposes of empirical research while continuing to remain congruent with the philosophical underpinnings of the theory?

Critique Summarized

In all there are four main challenges identified with the use of structuration theory as a conceptual framework for the purposes of this empirical research into the practice of IT project managers;

- (1) The definition of the self, the constitution of the agent by Giddens, is problematic in that the unconscious knowledgability of the agent is both instrumental to her

motivation and inaccessible to both the agent and those who would observe the agent

- (2) It is unclear where or how the materiality of practice should be dealt with in structuration theory. As materiality is a major element in the practice of IT project managers it is necessary to include it as an 'element' within the conceptual framework
- (3) The use of time, though central to Giddens structuration theory, is inadequately defined for the purposes of empirical research
- (4) The disentangling of structural effects from agentic actions is problematic due to the elision of structure and agent, given the concept of duality in use by Giddens. This poses a challenge for the researcher in differentiating between the agent and structure in empirically based research.

The diagram below captures these issues and their location on the conceptual framework built up above. Each of these issues will be explored to resolution below.

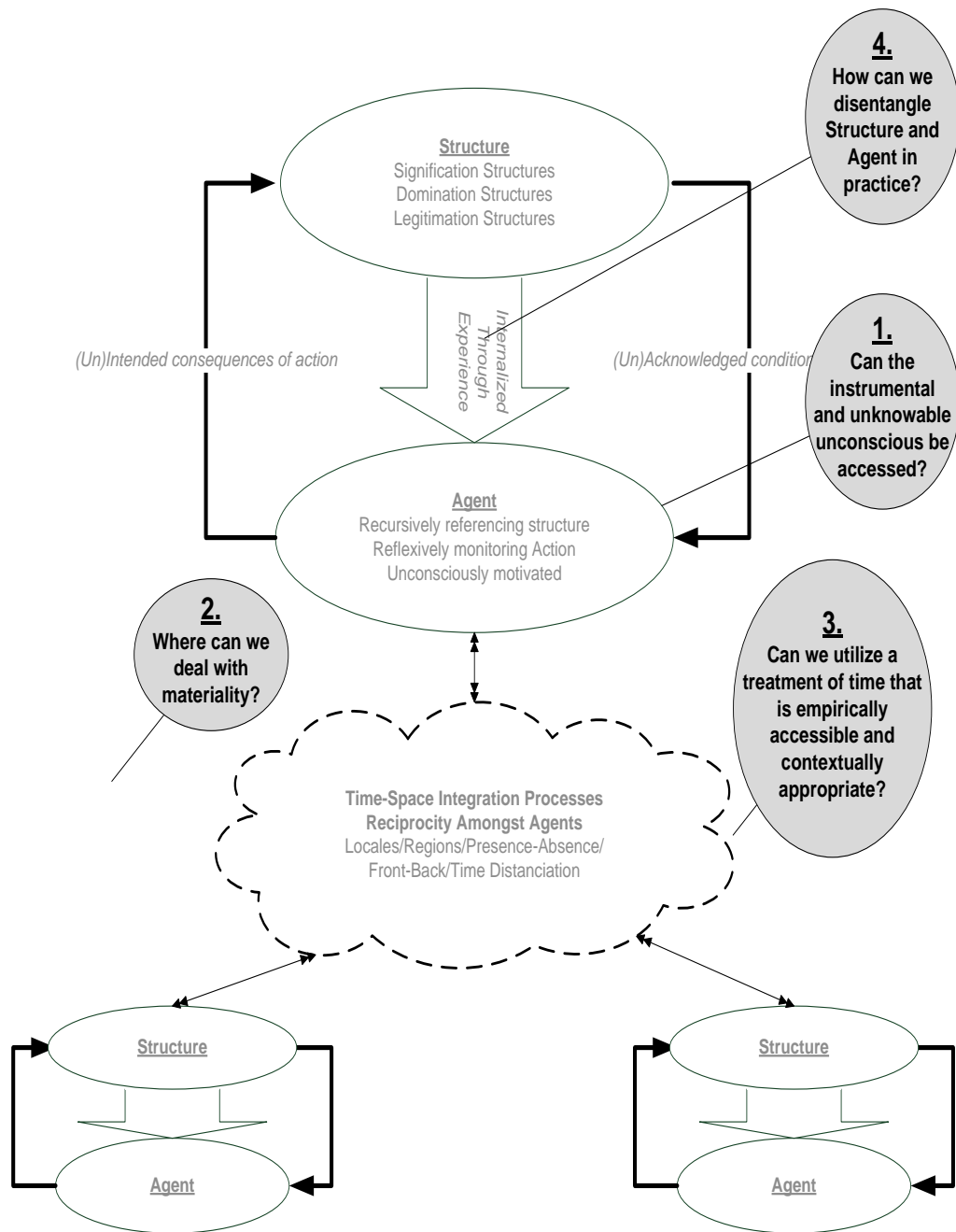


Diagram 3.6 Areas of challenge in the use of ST for the specific empirical purposes of this research

Proposal with regard to Structuration Theory

There have been some noted applications of ST in field research, particularly in the field of IT (Pozzenbon and Pinsonneault 2005).

The main contention within the paper is that the abstract nature of structuration theory is not immediately amenable to use in empirical research. Further, there is the contention that structuration theory, when it has been used, is used as a sensitizing device. Strategies as to its use are shaped by the purpose to which it is put (Jones and Karsten 2008; Pozzenbon and Pinsonneault 2005).

These purposes are described as being grounded in particular elements of the theory, such as the duality of structure, time and space, or agents' knowledgeability that reflect the specific research questions being addressed by the researchers (Jones and Karsten 2008). Data collection, analysis and interpretation methods that best fit the purposes of the research, and the circumstances of study are utilized in concert with these selectively chosen conceptual elements of the theory (Pozzenbon and Pinsonneault 2005).

Although the development of empirically focused treatments of structuration theory is well established (Jones and Karsten 2008; Poole 2009; Pozzenbon and Pinsonneault 2005), a definitive treatment has not been developed (Jones and Karsten 2008), nor indeed does it seem appropriate to the conceptual nature of the theory that one should be developed (Giddens 1984, p. 326).

The differences in context and the specificity of the research question being asked can be seen as the basis on which the empirical ‘operationalizing’ of the theory might be considered (Pozenbon and Pinsonneault 2005).

It is with this in mind that the following proposal has been constructed, not as a definitive treatment, but rather as a particular application of the conceptual framework in a specific context for given purposes.

Giddens suggests that there are two types of methodological bracketing possible with structuration theory, namely;

1. Institutional Analysis , in which the “structural properties are treated as chronically reproduced features of social systems” and
2. Strategic Conduct Analysis, in which “the focus is placed upon modes in which human actors draw upon structural properties in the construction of social relations”
(Giddens 1984, p. 288)

It is with strategic conduct analysis that this research is concerned. The centrality of IT project managers’ role and practice to the research, and the manner in which organizational factors and actors, as well as professionally constructed knowledge bases are implicated in that practice is taken as the research focus. This clearly places the 'human actors' and their construction of social relations in focus.

Giddens suggests three guiding tenets for the strategic conduct analysis using structuration theory;

1. The need to avoid “impoverished descriptions of agents' knowledgeability”
2. The use of a “sophisticated account of motivation” and

3. “an interpretation of the dialectic of control” (Giddens 1984, p. 289).

The proposed treatment specified below attempts to fulfil these criteria while acknowledging the challenges implicit in translating the abstract nature of elements of the theory into a context specific empirical setting.

“The concepts of structuration theory ... should for many research purposes be regarded as sensitizing devices... they may be useful for thinking about research problems and the interpretation of research results” (Giddens 1984, pp. 326 - 7)

A proposed empirically focused treatment of Structuration Theory

Given the identified challenges with regard to the methodological treatment of ST in field research, a methodological research approach is proposed below that takes into consideration the problematic areas of

- 1) The definition of the self
- 2) The lack clarity as to the treatment of the 'material'
- 3) The use of time
- 4) The disentangling of structural effects from agentic actions as outlined above.

The paragraphs below discuss resolutions to each of these issues.

The problematic definition of the self

“The self is the agent as characterized by the agent. Self, body and memory are therefore intimately related.” (Giddens 1984, p. 51)

Gestalt psychology makes a clear distinction between the body of the self ‘the organism’ and the psychology of the self, and proposed that agents can “discriminate between the physical organism and the self as a particular experienced thing” (Kohler 1947, p.211).

The locating of the subjective and the objective within the self, in Gestalt psychology, is consistent with Giddens’ structuration theory of the reflexivity of the knowledgeable agent. The agent, in practice and through discourse, may construct that which is objective and that which is subjective through to the extent of objectifying the self in socially situated role based activities.

The understanding of the self, in role based activity, introduces the concept of a plurality of identities (Rowan and Cooper 1999) that is consistent with Cassell’s contention with regard to the self in structuration theory that

“(the) reflexive project of the self ... takes place in the context of multiple choices as filtered through abstract systems” (Cassell 1993, p.33).

This insight leads us to a consideration of the knowledgeability of agents extending to an understanding of the role based self. This understanding of the role based self can be understood by the agent as being subject to internalized structural expectations of the role-holder in organizational settings.

The agent, the IT project manager, may reflexively identify the self as enacted within a professional role and as such differentiate between rationalization of action in discursive consciousness, and the practice of role authorized activity in practical consciousness.

The role-holder and the self are not one and the same. The multi-membership of individuals in differing social circumstances can be described as a plurality of selves that is enacted and reflexively monitored by the agent (Rowan and Cooper 1999).

This multi-membership has also been touched upon by project management research in relation to the differentiation between organizational and project based team membership (Bresnen et al. 2003 & 2005; Lundin and Söderholm 1995; Scarbrough et al. 2004; Swan et al. 2002).

This 'gestalt perspective' in which the external and internal are constructs emanating from the perceptual consciousness, as discussed by Merleau-Ponty and referenced briefly by Giddens (Giddens 1984, p.66), is utilized by Polanyi (1967) in a manner that allows for empirical treatment through the concepts of the proximal (attending from), and the distal (attending to) terms (Polanyi 1967).¹¹

In focusing on certain particulars of a situation, or representation, a construction of its entirety is manifest. A focusing on other particulars, in the same situation, can call up a differently constructed manifestation. This reflexive ability of agents to 'flip' between perceptual frames of reference has been demonstrated in visual form through the use of the following diagram (Katz 1951).

¹¹ Polanyi describes four aspects of tacit knowing the functional, structure, phenomenal structure, semantic aspect and ontological aspect.



Diagram 3.7 – Perceptual ambiguity from Katz 1951, p. 47

From one perspective the image can be perceived as a black drinking vessel or vase, while from another it can be seen as two white faces in profile facing each other.

This perceptual process, pioneered in Gestalt psychology as the laws of perceptual organization (Wertheimer 1945), is developed by Polanyi in the development of the concept of tacit knowing. The process of 'attending from the particulars of an event to its entirety' can be used as a structuring frame for the researcher in attempting to explore the role based plurality of selves of the IT project managers.

The methodological application of these concepts (proximal and distal) helps in the differentiation of 'selves' through the reflexivity of the agent and the rationalization invoked in the justification of action. For the purposes of this research the identity that will be focused on will be that of IT project manager.

Although this approach does not resolve the issue of the gaining access to the unconscious, it is proposed as an appropriate treatment of the concept of self for the given purposes of exploring IT project manager practice (the role based identity enacted by the agent in organizational contexts).

This approach is congruent with the guidance offered by Giddens that in the conduct of strategic conduct analysis primacy be afforded to the discursive and practical consciousness, and to the “strategies of control within defined contextual boundaries” (Giddens 1984, p. 288).

The materiality of practice

The importance of the material in the (re)production of social practice is given insufficient attention in ST for the purpose of this empirical research. The widespread use of documentation constitutes material elements implicated in the practice of IT project management.

Drawing on the inclusion of materiality as an important integrating element in social practice (Orlikowski 2007), and recognizing the boundary spanning nature of project management practice (Carlile 2002) the concept of 'boundary object' is seen as a useful addition to the social structure implicated by the agent in the (re)production of social acts, especially in relation to their role with regard to their social and system integration potential.

The inclusion of documents add the advantage, to the researcher, of being material traces of agents' action that are used both as outcomes of actions and as conditions of other actions. As such, they can act as an anchor to agent reflexivity in the moment and as a spur to rationalisation after the fact (Hodder 2003).

The use of boundary object as sense-making and sense-taking devices (Boland and Tenkasi 1995), and in use by project managers while engaged in boundary spanning activities (Levina

2005) emphasizes the importance of considering the impact of materiality on the practice of IT project managers.

Use can be made of IT project management documentation as 'media' through which system interaction can be extended (Giddens 1984, p. 332). As such, the retention of the conceptual placing of the material in the time-space integration processes of structuration theory is congruent with the research context of the use of project management documents as coordinating artefacts. This approach diverges from that of DeSanctis and Scott-Poole (1994), and Orlikowski (2007) in that materiality is not identified as a 'structural' element, but as a resource contingently used by the agent in the production and reproduction of social systems.

“Some forms of allocative resources (such as raw materials, land, etc.) might seem to have a 'real existence' in a way which I have claimed that structural properties as a whole do not. In the sense of having a time-space 'presence', in a certain way such is obviously the case. But their 'materiality' does not affect the fact that such phenomena become resourcesonly when incorporated within processes of structuration.” (Giddens 1984, p. 33)

It is in line with the incorporation of 'materiality' within processes of structuration that material will be seen as an integrative resource for the purpose of this empirical research.

The use of Time

A detailed treatment of the temporal is examined by Bourdieu in his analysis of disconnect between calendar time and practice time (Bourdieu 1977 & 1980).

This disconnect between the “distributing guide marks along a continuous line” and “incommensurable islands of duration” (Bourdieu 1977, p.105) can be seen as analogous to the challenges faced by IT project managers in the planning and management of linear project schedules while engaging in complex emergent IT project practice.

In particular, this manner in which time is constructed resonates strongly with the earlier discussions on time and temporariness (Nandhakumar 2002; Orlikowski and Yates 2002).

In the context of an IT project, time management has been described as

“characterized by routine as much as by milestones; by interruption and opportunism as much as by regularity; by individual preference as much as by management control; by improvisation as much as by planning” (Nandhakumar and Jones 2001, p. 205).

This treatment of time takes seriously the concept of temporal structuring proposed by Orlikowski and Yates (2002) in which time is constructed as a structural element that is implicated in and affected by agents’ practice. However, as with materiality discussed above, time in this regard is seen a facilitating resource through which the structuration processes are achieved, as opposed to being a condition and an outcome of those processes.

Time in this regard is constituted as both ‘Event time’ – qualitative and socially defined by organizational members, and ‘Clock time’ – quantitative and measurable (Nandhakumar and Jones 2001; Orlikowski & Yates 2002).

Constituted in this fashion, the dual nature of time as a resource in its varying use in shaping and being shaped by practice can be seen as an important element in the exploration of IT project managers' practice.

The use of time as an element in the exercise of power (Bourdieu 1977; Bourdieu 1980; Nandhakumar and Jones 2001; Orlikowski and Yates 2002) in both system and social integration can also be further enriched, from an empirical analysis perspective, through the use of terms such as tempo and rhythm, again described by Bourdieu

“Time derives its efficacy from the state of the structure of the relations within which it comes into play...We know ... how much advantage the holder of a transmissible power can derive from the art of delaying transmission” (Bourdieu 1977, p.107)

The utilization by Bourdieu of concepts such as rhythm and tempo and their importance in the constitution of practice will be adopted as complementary to the social and system integration processes within structuration theory. Bourdieu's conceptualization also supports the use of time as 'coming into play' with regard to social structure, as opposed to being constitutive of social structure itself.

The focus on the management of time in projects within the professional PMBOKs concentrates on a 'Clock time' conception of time (PMBOK 2008). This exclusive focus on clock time is seen as a partial treatment of time in the practice of project managers, especially given a socially constructed treatment of that practice and the historically constituted nature of the agent in structuration theory (Giddens 1984).

This extension of the use of temporal elements inherent in social interaction will help in strengthening the analytical approach to understanding agents' contexts of action. This strengthened temporal analysis will also be of particular interest in the examination of IT project managers' practice in relation to the project managers' role and identity, contextual processes in place, and the relational power afforded the project manager role with regard to temporal control in projects (Bourdieu 1977; Grabher 2002).

The disentangling of structural effects from agentic motivation

In a like manner to the treatment of the plurality of the self through role enactment, the tacit knowing concepts of attending from the particulars of an entity to its entirety (Polanyi 1967) will be used as a mechanism through which structure and agent can be dis-entangled.

In any given social act the proximal terms (attending from) may consist of;

1. Agent motivation (the agentic element of social action) and
2. Acknowledged and unacknowledged conditions of action (structural elements of social action).

The distal terms (attending to) likewise may relate to agents (re)production of social structure for the purposes of

- ontological security,
- as a means of 'getting on' with social activities,
- as the projected outcomes of action.

In situated instances in the production of these relations the proximal and distal constructs will be used to map and disentangle the agent from the structure through an exploration of the particulars in use, by the agent, in attending to social action.

Reproduced relations between actors, organized as regular social practices, draw on the structural institutions of Signification, Domination and Legitimation. They engage the agents' facilities of communication, power and sanction (Giddens 1984).

By identifying the mechanisms in use by agents in attending from 'particulars' - conditions of action -, to given projected social 'outcomes' – consequences of action -, the structural and agentic elements of social reproduction may become discernible, one from the other, through the reflexive facilities of the IT project managers.

Polanyi constructs tacit knowing as;

1. We rely on our awareness of particulars only in so far as they assist us in attending to the object of our focus – the functional structure of tacit knowing
2. We are aware of the particulars from which we are attending to the object of our focus in the appearance of that object – the phenomenological structure of tacit knowing
3. We attend to the meaning of the impact of the particulars from which we attend in terms of its effect on the object of our focus – the semantic aspect of tacit knowing
4. We comprehend the object of our knowing by relying on our awareness of its particulars in attending to their joint meaning – the ontological aspect of tacit knowing (Polanyi 1967).

Knowledgeable agents attend from the (un)acknowledged conditions of action and unconscious motivation to the enactment of purposeful social acts. This is done in a reflexive manner in which the agent monitors the ongoing particulars from which she is attending to the object of her focus.

The constitution of the object of focus as the projected outcome of social acts allows for a comprehension of the 'particulars' from which it is constituted (the ontological aspect of tacit knowing). As such, the reflexive identification of the conditions of action can be explored through an initial focus on the outcomes of social action.

From an IT project manager practice perspective, an examination of the outcome of IT project manager activities can allow access to the conditions of that action. This treatment of structuration theory with a focus of the tacit knowing (Polanyi 1967), or practical consciousness (Giddens 1984), resonates with both the IT project managers' context and the fundamental elements of structuration theory itself.

“The study of practical consciousness must be incorporated into research work.”

(Giddens 1984, p. xxx)

and

“The notion of practical consciousness is fundamental to structuration theory”

(Giddens 1984, p. 6)

Proposal Summarized

The development of an empirically focused treatment of Structuration Theory is achieved by complementing and supplementing the concepts proposed by Giddens' in a manner that retains the social constructivist nature of the model while incorporating elements of complementary socially based theories to solidify its use for empirical research.

The theory of tacit knowing (Polanyi 1967) is used to assist in;

- the identification of IT project managers' intentions
- the separation of agent and structure in the knowledgeable ongoing practice of agents through an exploration of conditions and consequences of action.

The materiality of practice is addressed through the use of;

- The inclusion of materials as resources through which social processes are referenced and enacted in and across space and time.
- That material, as media, may be constituted variously by agents in accordance with a) the intentionality of the agent and b) the range of 'affordances' the material has to offer the agent (Hutchby 2001), as media in line with the instantiation of practice.
- Boundary objects (Boland and Tenkasi 1995; Carlile 2002; Levina 2005) can be used to specifically address the boundary spanning nature of project management as a practice, and boundary objects as shared and at times contentious integrative resources/elements in the enactment of practice.

This approach diverges from that of AST (DeSanctis and Scott-Poole 1994) in that it remains congruent to the philosophical principles of Giddens' structuration theory of structure as internalized memory traces of human actors. Further to this, the approach used

here shifts the focus of the material (and the temporal) from that of structural constitution, out of time, to that of media through which the integration processes of structuration processes are enacted across both space and time.

The definition of technological structure as existing outside of human memory traces presents us with the problem of its compatibility with the definition and description of structure as used by Giddens. The elements of structure such as signification, domination and legitimation brought into play variously by agents are incompatible with the characterisations of technology 'spirit' and affordances as described by DeSanctis and Scott-Poole (1994).

The bringing into play of technology, by human actors, places the material firmly within the integrative processes of structuration described by Giddens. Given this integrative nature of technology its inclusion as a 'stand-alone' and competing structural element of practice seems misplaced. The placing of the material as media does not lessen its importance as an element of practice rather it highlights its significance as a mediating element through which practice is enacted.

Recourse to the inclusion of technology in the integrative elements of the theory is intimated in the language used by DeSanctis and Scott-Poole (1994) and afforded in the guidance offered by Giddens (1984). The synchronous and asynchronous nature of high level technology allows it to span both the system and social integration processes of structuration theory. The manner in which this is achieved allows for interpretative emphasis on its importance, by agents, as an element of practice that does not require its reification as a persistent structural element of agentic disposition (Bourdieu 1977).

The enriched treatment of time is achieved by using;

- Elements of Bourdieu's treatment of time (Bourdieu 1977; Bourdieu 1980), such as rhythm and tempo, while acknowledging the 'structuring' nature of 'Event time' and 'Clock time' (Nandhakumar and Jones 2001, Orlikowski and Yates 2002) as resources implicated in the integration process.

This shifting of the focus to the integration elements of the structuration process highlights the nature of both materials and time as resources through which the possibilities of agentic repertoires are enacted across space and time. Thus, the integrative properties of these aspects of practice exist as relational elements of practice that may be at times contested and negotiated by agents in their interactions with each other in the joint and inter-subjective actions of undertaking the (re)production of the social.

In taking this approach the empirical treatment of materiality and time are afforded a broad possibility of both manifestation and interpretation that allows for a contested definition of events amongst agents and that affords greater understanding of the social forces at play in any given interaction under examination.

Taken together these elements constitute the treatment of the ST conceptual framework in engaging in empirical research into the practice of IT project managers in a complex organizational setting.

Chapter 4 – Research Design

The establishment of the conceptual lens through which the research has been viewed is seen in this section in the context of the more local and specific concerns associated with the field research approach, data collection and data interpretation.

“Humans are complex, and their lives are ever changing. The more methods we use to study them, the better our chances will be to gain some understanding of how they construct their lives and the stories they tell us about them” (Fontana and Frey 2005, p. 722).

The purpose of the research is to understand how project management constructs influence project management role and practice, and how project management relates to ongoing organizational operations. It is an attempt to understand the manner in which organizational, professional, and other social structures impact and are impacted by the project managers' actions in engaging in the project initiation and planning phases in which project structuring occurs.

Further, the research proposes an approach to engaging with the social elements of IT project management practice in a coherent, cohesive and contextually specific manner through the empirically focused treatment of structuration theory as a conceptual framework, as described above.

This framework has as its philosophical base the interpretive nature of social reality in which hermeneutics and double hermeneutics are at play in the knowledgeable enactment of social actions (Giddens 1984).

In line with the proposition of project management as a social act in which project managers reflectively engage a socially situated approach to the field research is warranted (Cicmil and Hodgson 2006).

The conceptual framework in use, the tacit knowing treatment of ST, clearly states a philosophical position on the nature of social reality and on the possibilities of accessing knowledge about that reality that can be described as an interpretive hermeneutic approach. The choice of research design is therefore constrained to those approaches of field research study that can adopt the perspectives and positions taken in the definition of the research topic, and those of the philosophical position of the conceptual framework in use.

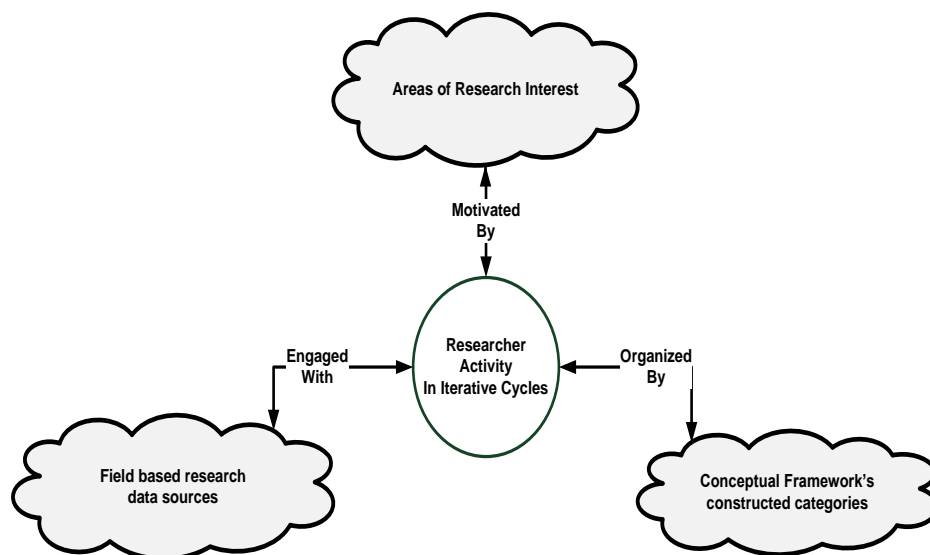


Diagram 4.1 Elements requiring consideration in the design of the research

In order to understand the context of action it is necessary that the researcher engage in the context of practice in a manner that affords exposure to the conditions and consequences of action being experienced by IT project managers (Pettigrew 1997). The use of a case study fulfils these requirements. More specifically, a case study approach in which multiple embedded instances of projects and project managers' practice as they are enacted within a

shared organizational context allows the researcher access to the reflexivity of project managers in practice (Nandhakumar and Jones 2002; Yin 2003).

Characteristics of case studies include the opportunity of studying phenomena in their natural setting and engaging with the multiple and dynamic situational variables (Cavaye 1996). They are therefore a good fit to the research questions' focus on situated project managers' practice. The case study approach is also consistent with the building of theory from research in that there is no 'a priori' hypothesis of the findings proposed, and where opportunistic data collection is seen as a useful addition to the collection of planned data sets (Eisenhardt and Graebner 2007).

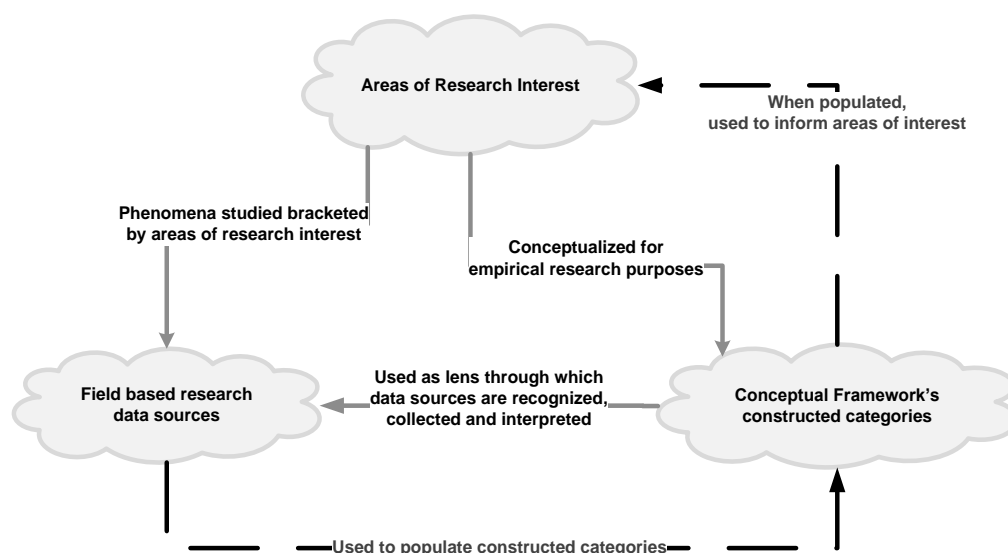


Diagram 4.2 Relationships among the major areas of the research

In order to better support the value of the research findings and their validity and use to the building on the corpus of academic knowledge, great care has been taken in solidly grounding the theoretical basis of the research work through the use of a clearly articulated conceptual framework.

The findings and expected claims of the research supported by the broad and detailed empirical basis for these claims anchored in a theoretical framework make them suitable to the building of theoretical contributions (Eisenhardt and Graebner 2007; Weick 2007).

The construction of a 'thick description' of the context in which the research has taken place further adds to the credibility of the account and remains congruent with the nature of the research questions and the underpinning philosophy of the conceptual framework in use.

“All social research has an 'anthropological' aspect to it by virtue of the double hermeneutic...'thick description' of connected levels and dimensions of meaning is sometimes called for.” (Giddens 1984, p. 285)

Case Study

Two major factors in the selection of the case study concerned

- 1) availability of rich data through prolonged engagement that would facilitate an understanding of the complex contextual issues related to IT project management practice, and
- 2) availability of multiple instances of practice that would facilitate a comparative analysis of the practice of project managers.

With this in mind, the researcher approached the organization in an attempt to evaluate its potential as a feasible case study site in which access could be gained to projects and ongoing operations.

The case study is based in the project management directorate of an IT department in a global financial institution. The department is located on the North American continent. Their cooperation was possible only on the condition of absolute anonymity.

Unit of Analysis

An instance of IT project managers' project structuring practice was taken as the research's unit of analysis. This process-based unit of analysis was bracketed by the organizational processes of project authorization to project initiation document completion and is contextualized within the boundaries of project process and organizational structure (Van Maanen 1979; Yin 2003).

This unit of analysis reflects the focus of the research questions in highlighting the practice of project managers in the structuring of their projects. Each project structuring instance was the responsibility of one of the local IT project managers.

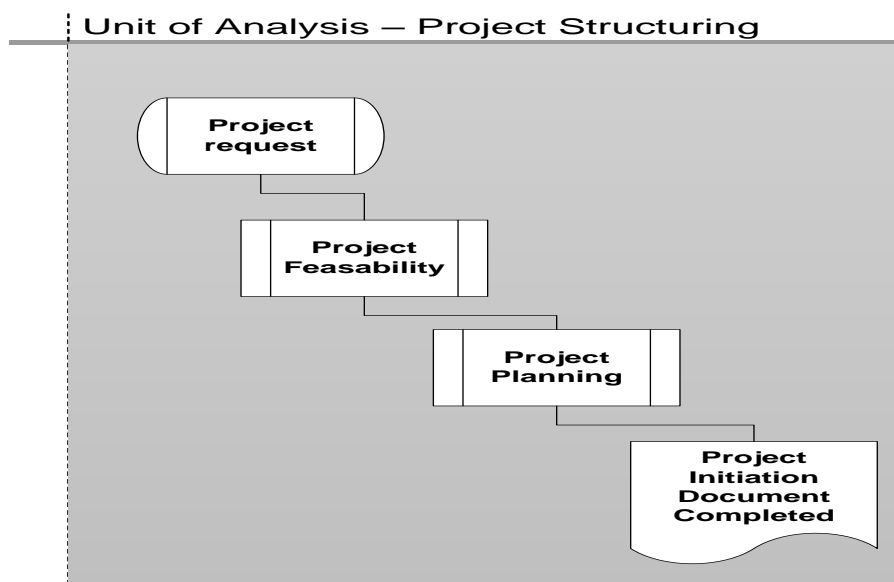


Diagram 4.3 Unit of Analysis

The multiple instances of project managers' practice allowed for a comparative analysis of their practice in a shared context. This afforded the researcher the opportunity to identify continuities and discontinuities of practice, boundaries associated with the practice of project managers, the normative, symbolic and regulative power at work, and the recursive interaction between structure and agency as it occurred in practice (Pettigrew 1997).

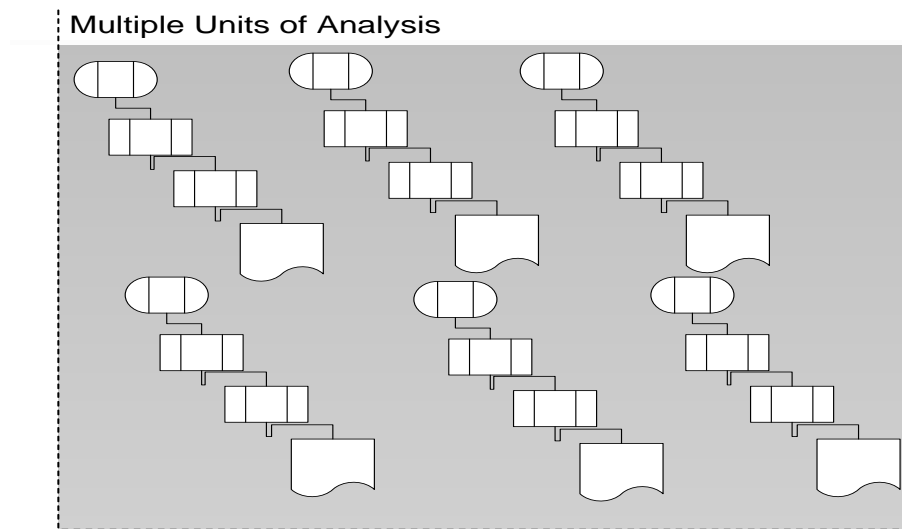


Diagram 4.4 Multiple Units of Analysis

This case study can best be described as a multiple case study in that multiple instances of project structuring (the unit of analysis) were explored, embedded in a single and shared organizational context (Yin 2003).

Access

The involved role of the participant-observer researcher benefited from privileged access to organizational processes and documents such as those associated with performance reviews of IT project managers, and proposed internal re-organization of the project management directorate, access that is not normally afforded to organizational outsiders.

Access was also afforded to project management team meetings, review meetings, and one to one interviews with project managers as chosen by the researcher.

The professional standing of the researcher as a fellow project manager allowed the researcher to share a view of the world, from a professional perspective, with his fellow project managers in the organization (Lincoln and Guba 1985)¹².

This access had been made possible by the agreement of the organization and through the familiarity of the researcher with the field under study. This familiarity with the context and practice of the project managers being engaged with helped the researcher interpret project managers' practice from a peer perspective (Yin 2003).

The greater access to some elements of the organization came with a cost of being identified as a part of the organization's management structure and hence in a position to influence the careers of project managers, both positively and negatively. This led to a reticence on the part of some project managers in speaking freely to the researcher.

Further to this, the audio recording of interviews was abandoned following three denied requests as to its use as this was felt to create a further barrier to informant comfort and confidence and lead to interviewee inhibition in relating to the researcher (Walsham 1995).

In an effort to limit the perceived reticence of project managers in sharing practice experiences in an open and frank manner most individual semi-structured interviews were conducted in a local coffee shop and introduced as being of help to 'the research'.

¹² The researcher is an experienced IT project manager with PMP and Prince2 practitioner certification.

Specific reference was made to the effect that the information would not be made available to the organization and full interviewee confidentiality and anonymity was also assured.

Interview notes were recorded in a conspicuous research notebook (labelled “Research” in prominent black marker) that was used solely in the coffee shop interview context (Lincoln and Guba 1985).

Notwithstanding this, it is likely that there remained suspicion of the researcher, his motivation for asking questions, and his influence within the organization. On some of these occasions the researcher observed interviewee behaviour and interpreted interviewee responses that suggested both reluctance to be fully frank and open and a ‘guardedness’ in the content and wording of the responses given, these non-verbal cues were duly noted in the field notes taken.

As will be noted below, the research findings will not rest solely on the interviews conducted in the field. Attention has also been paid to the documentation produced by project managers and to the commentary they have made on project matters for reporting purposes, as well as to notes taken in meetings, and related observations noted by the researcher.

The various sources of data used in concert were cross-referenced and triangulated. They constitute the data set from which the findings are drawn. This multi-sourced, triangulated approach to data collection acts as an aid to the robustness of the empirical aspect of the research (Yin 2003).

The research activities included ten months of approximately 15 hours a week of observation and participation in a project management practice setting. The initial three

weeks were taken observing project management behaviour in meetings and in interviewing project managers as to their perceptions of their roles and practice. The remaining time was focused on participation and observation within the ongoing project work context of the department.

Research Data Sources

The research data sources used and the collection methods employed allowed for a broad spectrum of data to be collected in line with ensuring the empirical robustness of the case study (Nandhakumar and Jones 1997; Stake 2005; Yin 2003).

The process used in all cases was that of handwritten notes taken in and after interaction with employees within the context. The decision not to use voice recording equipment during the case study was taken on grounds of suitability to the context and interpersonal trust building (Lincoln and Guba 1985; Walsham 1995), as mentioned above.

The staff members accessed by the research spanned all levels of the IT department, and as such gave a multi-voiced perspective to the research conducted.



Diagram 4.5 – Staff members interacted with during the field based study period

The participant observer role of the researcher

The clear and pressing needs of the organization with regards to the practice of project management, and their interest with engaging in activities that would improve the practice of their project managers, was key to confirming the suitability of this opportunity as a case study of project management research.

The quarterly release nature of the IT department allowed for sufficient iterations of project initiation instances to support the collection and analysis of data of project managers' project structuring practice within the time frame of the field research.

The organization's senior managers made it quite clear that their interest was primarily in the assistance that could be offered the project directorate as opposed to any findings of the research study. The clear understanding was that the researcher would engage in the life of the organization as a professional participant and that the direction, intention and purposes of the researcher were a separate matter of no interest or concern to the organization. To this end the researcher was engaged as a part-time paid assistant to the Projects Director.

This clear distinction of practice interest from academic research interest resonates with the contention of researchers that IS practitioners perceive little value to the immediate needs and imperatives of organization in the empirical research of academics (Benbasat and Zmud 1999; Lyytinen and Robey 1999).

On one hand, this lack of engagement with the research aided the researcher to proceed unhindered in the collection and analysis of data while on the other hand it deprived the researcher of critical engagement with those within the context with the unfolding themes and findings of the research.

Interpretative research was undertaken on a case study basis (Yin 2003) in which the researcher had assumed the role of the 'involved researcher' (Walsham 1995). This approach was used to examine the practice of project managers in a temporally based socially situated organizational setting (Benbasat et al. 1987).

Within the case study approach the method of participant observation allowed for a prolonged engagement in the social context under investigation. The researcher, in becoming 'accepted' into the social context, had the opportunity to intimately experience the social context (Lincoln and Guba 1985).

The participant observer role undertaken differs from an action research role in that co-investigation and co-production of the possibilities of practice were not to be key elements in the design and conduct of the research (Kemmis and McTaggart 2005). The desire to achieve particular practice outcomes did not relate to the purpose of the research itself (Nandhakumar and Jones 1997).

The researcher, as both an involved and highly engaged organizational agent and academic researcher, had two primary inter-related but separate goals. On the one hand, the researcher as organizational participant shared a desire for organizationally defined and sanctioned improvements to project management practice specifics. On the other hand the researcher was focused on the theoretical implications of how project management practice, variously constituted, was being enacted (Nandhakumar and Jones 1997).

The researcher as participant was engaged in the content, shape, challenges and process of project managers' practice. The researcher as an observer was concerned with exploring the mechanisms in use in the enactment of project management practice (whatever the practice might be).

The clarity of the separation between research and practice, from an organizational view, ensured the role the researcher maintained was that of a participant observer (Nandhakumar and Jones 1997). The dual role nature of this approach led to the researcher taking a considered view on his actions and subjectivity as part of this process of research (Darke et al. 1998), and indeed in "reflecting in and on action" on an ongoing basis for the purposes of the research (Schön 1983). These reflections were captured and form part of the data set collected and analyzed.

The researcher appreciated that the nature of his involvement has led him to be co-subject, co-object, and author of the research, and as such had amplified the problematic nature of participant bias and over-involvement that is inherent in all socially situated interpretative research (Nandhakumar and Jones 1997; Weick 2002 & 2007).

This involved role of the researcher has aided in the rich and detailed description of the work by including as data sources the researchers perceptions, emotions and reflections on organizational interactions where his role based knowledge has been 'at stake' (Carlile 2002) and where, as a participant, uncertainty and possibility might have been sacrificed for conformity and rigidity in the face of a role based ontological anxiety and epistemological uncertainty (Weick 2002).

The researcher reflexively attended to the research interest, as an observer, from the experiences encountered as a participant, and on an ongoing basis throughout the field study 'flipped' between these roles and identities as circumstances dictated (Nandhakumar and Jones 1997).

This is not to suggest that the identity of the researcher as participant observer was either universally coherent or stable over time (Angrosino and Mays De Perez 2003). The identity of the researcher, through his role in context can be described as an ongoing negotiation of relationship with those with whom he interacted.

This role identity 'mutated' as context required, from researcher engaged in participation to participant engaged in research, with all shades in between (Angrosino and Mays De Perez 2003).

Indeed at moments of challenge within the research the researcher utilized this shifting identity as a means to validate perspectives, contributions and challenges, when confronted either by challenges of 'disconnect' ('You are just an academic') to challenges of supervision ('I am just an academic').

The identity of the researcher in context shaped the process of inquiry, and made available repertoires of interaction and information sharing that were particular to the context of the relationship between the researcher and those with whom he interacted. It also, by the same token, excluded him from the possibility of other interactions and information that would be made available in circumstances of differing in situ relationships.

Although the ongoing stream of interaction made available an infinite stream of possible data, the role and personal identity of the researcher, and the impact this had on peer relationships narrowed the range of these possibilities (Angrosino and Mays De Perez 2003).

The involved participant observer approach allowed the researcher to adopt an interpretive hermeneutic approach into the project managers' practice. The double hermeneutic turn, through reflexive interviewing (Denzin 2001; Riach 2009) allowed for consideration by the project managers and the researcher of the impact of social structures on their practice, and on the impact of their agency on the social structures they experienced as conditions of action (Giddens 1984).

The use of multiple sources of data (Silverman 1998) and the writing of an observations and reflection log (Nandhakumar and Jones 1997) go some way in acknowledging, documenting and addressing the problematic issues inherent in participant observation research.

Interviews conducted

Interviewing as a method has been subject to much re-evaluation with its characterization moving from a method of data collection to that of a negotiated text (Fontana and Frey 2003).

It is also acknowledged as the most popular form of social science data gathering approach, accounting for upwards of three quarters of social research projects (Riach 2009). Indeed, it is argued that interviewing as a social interaction is so culturally widespread as to be considered institutionalized, with widespread understanding within the broader public as to the roles to be adopted and the expectations within those roles (Denzin 2001).

The use of interviewing as a means of understanding complex social phenomena has been criticized in that actors may provide a biased view of their practice in order to impress the interviewer, perform the role of interviewee successfully, hide elements of practice that might disclose collective secrets, personal failings or perceived character defects (Nandhakumar and Jones 1997; Yin 2003).

The conception of the interview of a historically, politically and contextually bound cultural moment (Fontana and Frey 2005) without privileged claims to credibility has been put forward as an approach that situates interviewing as a social act (Lincoln and Guba 1985).

As social acts they can be framed as 'provoked accounts' (Silverman 1998) in which interviewer respondent roles and interaction are negotiated and socially situated. Interviews are social acts in which trust, power and agents' intentionality play a part in the creation and selection of the elements of the interaction negotiated (Lincoln and Guba 1985).

The interview approaches utilized in the case study can best be categorized as reflexive interviewing (Riach 2009). The interaction engaged in centred on the rationalization of practice punctuated by interviewer and respondent challenges to the completeness of the rationale, and/or the purpose of practice. This reflexive approach had the potential to act as an element in the knowledgeability of agents that reinforced or altered the practice of interview interaction and/or of the practice of project management being discussed.

The initial set of interviews, referred to below as 'open', took place within the first three weeks of the researcher's arrival on site, and as such, the relationship between interviewer and respondents was of a less familiar nature and the content discussed was of a more general kind.

The second set of interviews, referred to below as 'focused', took place throughout the following nine months of fieldwork and were characterized by a greater familiarity between interviewer and respondents, a more clearly defined understanding of the relative roles and authority of each, and a concentration on the specifics of a given instance of project managers project structuring practice. The second set of interviews tended to be more disputatious and addressed in more detail and at greater length fundamental elements of project practice (Riach 2009).

The field notes taken of these interviews captured an interpretation of both the conversational and non-verbal elements of these interactions in order to better present the context in which the interviews took place (Guba and Lincoln 1985).

Individuals Interviewed

Interviewee	Role Held	Open Interview	Focused Interview
US	Lead Project Manager	1	
BQ	Lead Project Manager	1	
CU	Lead Project Manager		2
CD	Lead Project Manager		2
EX	Senior Project Manager	2	1
QW	Senior Project Manager	1	
ST	Senior Project Manager	1	1
KQ	Senior Project Manager	1	1
EM	Senior Project Manager	1	1
II	Senior Project Manager	1	1
LX	Senior Project Manager	1	1
MK	Senior Project Manager	1	
TH	Senior Project Manager		1
MM	Senior Project Manager		2
KD	Technical Project Manager	1	
IP	Technical Project Manager	1	2
DX	Junior Project Manager	1	
BX	Junior Project Manager	1	
ON	Junior Project Manager	1	2
KT	Junior Project Manager	1	
TD	Junior Project Manager	1	1
DP	Senior Developer		2
Totals		18	20

Table 4.1 – Staff members interviewed, identified by role and using disguised initials

Document Gathering

The documents collected range from project specific documentation to generic organizational guidance, process and structure diagrams.

The organization, given its geographically dispersed nature, utilized e-mail as the standard mode of communication. This use of email as a mode of communication was also the case with locally based communication (i.e. project manager to project manager within the department). Reflecting this usage, and the importance of this mode of communication in understanding the shared concerns and perspectives of project managers, a large number of e-mail threads were collected.

The organizational data, especially those relating to guidance and the use of templates, are of central interest in the understanding of project manager practice in the construction of project manager documents.

These have been collected and analyzed in order to conduct a comparative analysis between guidance and practice and in order to analyze the assumptions and constraints that this guidance and these templates may have had on the possibilities of practice. They were also compared to and with some of the professional association based guidance. The researcher attempted to source all documents referenced by project managers in their practice, where possible.

The organizational context data is anchored in the presentations and diagrams depicting structure and process, as well as in the multiple e-mails and observations relating to the diverse elements of organizational context in which the project practice occurred. The

associated practice meaning has been analyzed from the documents collected in support of the research questions (Hodder 2003).

Data not collected

The choices made by the researcher to focus on some elements of data over others, to engage in some activities over others, and to bracket the ongoing stream of phenomena in the way which he has was premised on;

- The bracketing of the research through the articulation of the research questions
- The identification of a conceptual framework that allowed for a framing of these questions
- The identification of a bracketed unit of analysis that bounded research focus and organizational context
- The availability of opportunities in which to engage with this bounded and constructed phenomena (Nandhakumar and Jones 1997).

However, there had been opportunities for exploration denied and elements of data inaccessible that the researcher would have preferred to access. These centred on the lack of availability and existence, in some cases, of project specific documentation. The systematic production of full documentation sets for all projects reviewed, although organizationally prescribed, was not locally practised.

Data transferred between organizational actors across the short messaging system application in use was not collected. The communication that occurred with this system tended to be the textual equivalence of telephone conversations with one or more parties.

Although widespread, its use was not encouraged by the organization. This messaging was perceived by users as 'personal' and as such was not made available to the researcher.

The data sources accessed during the case study are listed below.

- 18 open semi-structured interviews with project managers (coded IV(n))
- 20 focused project focused semi-structured interviews with project managers (Coded as OB(n))
- 192 email threads from July 2008 until April 2009 (Coded EM(n))
- 29 Project Status Reports (coded STAT(n))
- 90 Project specific documents relating to 49 projects- (Coded PR(n)), including
 - 37 Project initiation Documents
 - 21 Business Requests and Requirements Specifications
 - 11 Technical Specifications
 - 9 Post Implementation Review Reports
 - 5 Test specifications
 - 7 Sets of project meeting notes
- 84 Observation log entries (Coded OB(n))
- 78 Field note entries (Coded FN(n)), including
 - Meeting notes
 - Candidate project manager interviews
 - Workshop notes
- Organizational Documents (Coded Org Doc document_name), including
 - Project document templates and guidance

- Process and Structure Diagrams
- Presentations
- Professional Association Documentation (referenced by Author), including
 - Project Management Bodies of Knowledge
 - Project Management Practice Guides

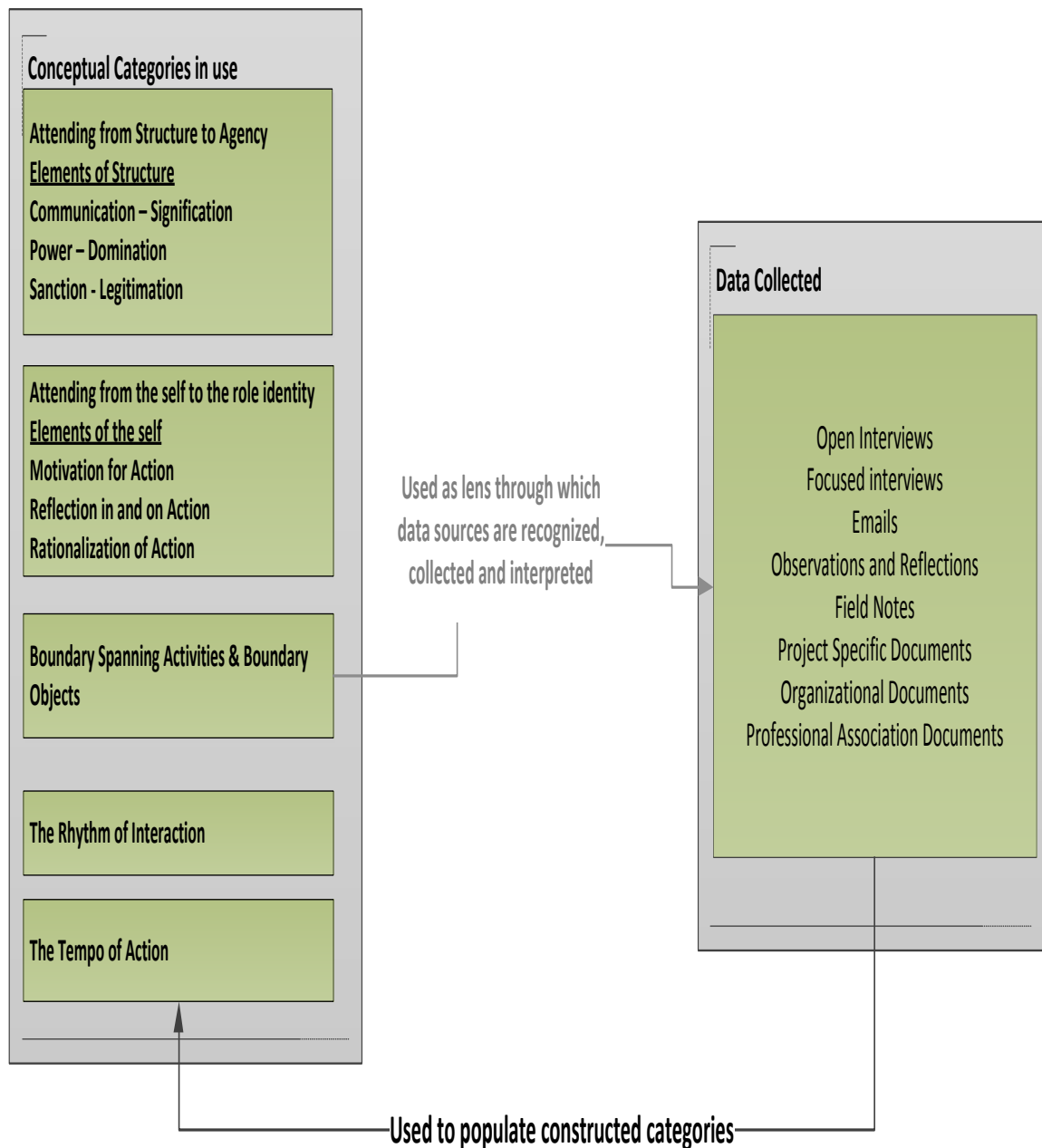


Diagram 4.6 Conceptual Categories mapped on to Data Collected

Data Analysis and Interpretation

The data collected was subjected to an interpretive analysis congruent with the conceptual frame described earlier and in keeping with the research questions posed above. There is a realisation that the interpretive conceptual frame itself has been subject to change and modification through its use in this research practice.

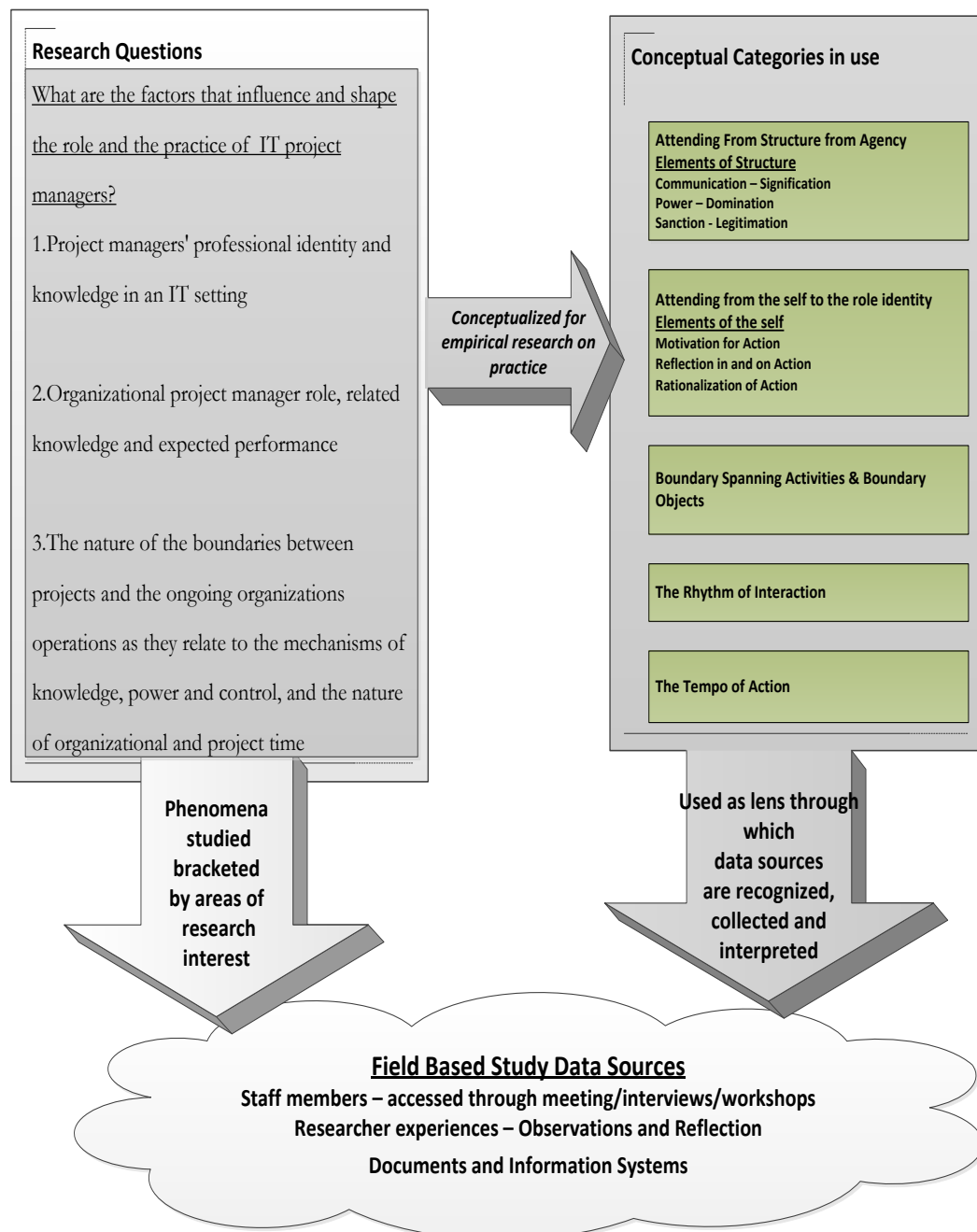


Diagram 4.7 – Integration of research questions, conceptual framework and data sources

The researcher as a knowledgeable agent in the complex and dynamic context of research became the 'sensitizing device' through which the research was conducted. The use of the conceptual framework, as discussed above, set the philosophical basis on which the researcher approached the phenomena under investigation. As such, it introduced an ontological and epistemological basis on which the research has been conducted.

Data collection and analysis proceeded in an iterative manner, with gaps in data for given aspects of the phenomena being researched triggering further data collection and analysis.

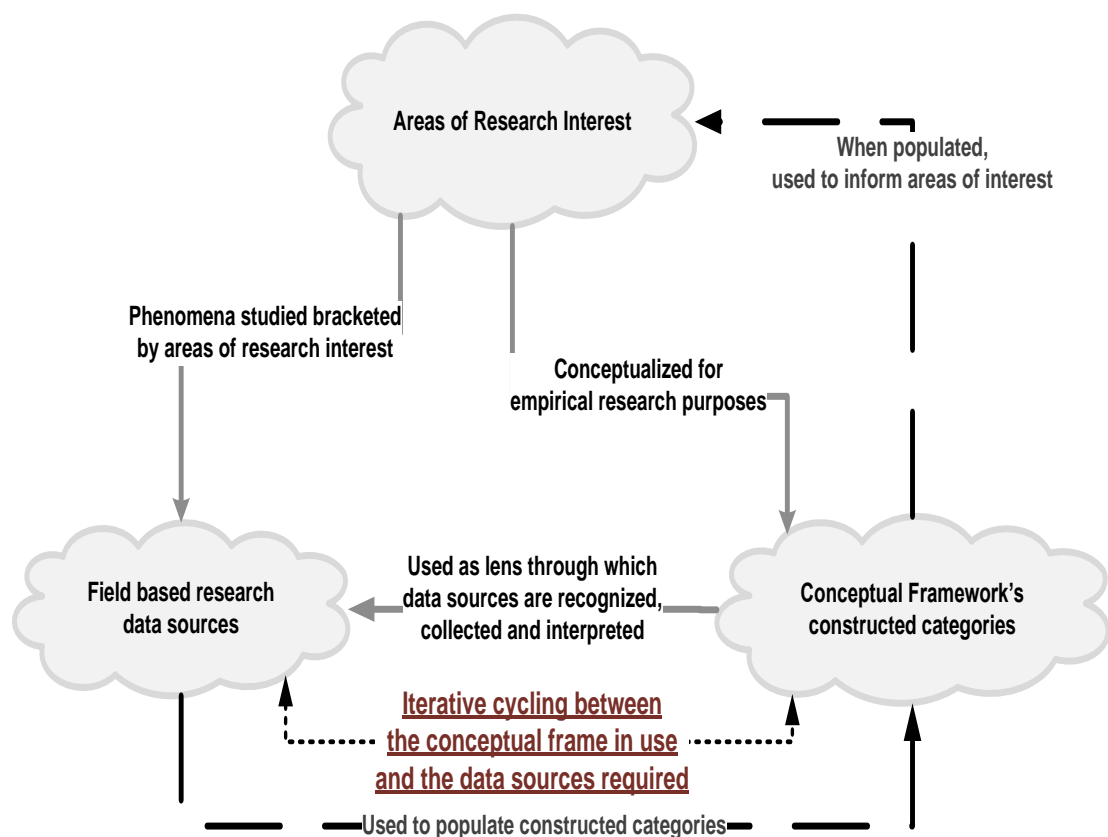


Diagram 4.8 – Iterative cycling between data and conceptual frame in the context of the research areas of interest

Double hermeneutic (Giddens 1984) and hermeneutic (Klein and Myers 1999) approaches were taken in considering the case study phenomena. An interpretive position on the nature of social reality was enacted. This led to the collection of data that is best described as

qualitative in nature, in keeping with both the phenomena being researched and the conceptual framework employed (Pettigrew 1997; Silverman 1998).

The incorporation of the tacit knowing construct as ‘from the particulars of a thing to its entirety’ acted as an organizing element with regard to the analysis of data. Data was analysed in a thematic manner. In this manner the data collection and analysis centred on the knowledgeability of the practitioners as social actors in complex and shared contexts engaged in the structuring of diverse project instances.

This focus on the IT project managers’ knowledgeability in context ensured congruence with the guidance of the use of structuration theory as a sensitizing device.

“All social scientists... need to remain 'sensitive to the complex skills that actors have in coordinating the contexts of their day to day behaviour’” (Giddens 1984, p. 285)

The data collected and its interpretation became elements of the researcher's understanding, and as such were communicated to, and challenged by the IT project managers on an ongoing basis. This approach allowed for the comparative analysis of practitioner focus and the use of social rules and resources, and material objects in the production and re(production) of IT project managers’ practice.

The data was analysed using a process of inductive data analysis. The data analysis cycled dynamically and iteratively between the (deductive) conceptual framework developed above and the (inductive) data collected and interpreted throughout the case study (Thomas 2003).

This critical iterative cycling through the data with reference to the conceptual framework and its alignment with the research questions led to creation and population of data categories and research themes (Thomas 2003).

The data collected and interpreted was initially 'reduced' to aligned categories within the conceptual framework and to some categorization not initially created within the conceptual framework where uncertainty or ambiguity as to category 'fit' was experienced. In many cases the phenomena studied did not neatly map to pre-established or developing themes and categories. The messy and varied stream of phenomena with its undifferentiated elements of practice was unpicked and appropriately reduced for the purpose of interpretation and analysis.

This leaves the data collection, interpretation and analysis open to charges of selective reduction for the purposes of research ease and prediction with regard to the phenomena being explored.

The researched engaged in ongoing reflection in and on action (Schön 1983) and the review of the categories and findings (in the language of the organization and practitioners) on an iterative basis. Some of these communications have been appended to this paper.

The initial phase of the research centred on open ended interviewing and non-critical appreciation of project managers' description of practice. This phase elicited initial structural and agentic conditions of practice that were reviewed with stakeholders on an immediate feedback basis ("this is what I understand you said"), and through presentation of the collected findings to project management practitioners and their managers including both all who had contributed, and some who had not.

The feedback from this wider group confirmed an agreement as to the identification of significant project practice elements, translated into conceptual categories, by the researcher.

The second phase research consisted of a more critical approach to the data initially collected and categorised. Focused interviews, observation and data review were engaged in, and explanations given earlier were explored and challenged, further challenging initial analysis of the placement of organizational elements and practitioner discretion within the categories of the conceptual framework.

In this manner a more rigorous identification and analysis of organizational factors influencing project managers' practice was achieved. These constructed categories were mapped (and therefore interpreted) by the researcher, and further data elicited as themes of professional identity, status and expectation developed. These categories were 'tested' against the interpretations of project managers' practice as stated by organizational actors and conflicts were noted in the constructs used by the different role actors.

The categories defined, coded and collected were then re-framed in the organizational language of the project managers and presented to them as findings in order to glean feedback on the accuracy of the 'sense' being made of their practice by the researcher. The feedback in workshops, meetings, and interviews led to the identification of some further factors.

Disagreement as to the identification of issues as being agentic (due to project manager capability) or structural (due to organizational context) emerged through reflexive dialogue with both project management practitioners' and other organizational actors. This conflict in

agreement, for the most case, through use of the conceptual framework and focus on the knowledgeability of project managers, assisted in the analysis of the data collected.

The conflict in project manager expectations and rationale stated for failures in project management, between project managers and senior management, helped identify the discretionary elements of senior management practice being experienced as structural constraints in project managers' practice.

The availability of this data from the multiple perspectives sourced not only enhanced credibility through triangulation of data sources, it also worked as an element of analytical cross checking that helped the researcher better appreciate the organizational context of the project managers' practice.

Further data collection was engaged in to validate and challenge the categorization of the data collected, interpreted and analysed. This data collection and analysis also served the purpose of increasing trustworthiness through the use of data triangulation, as wider sources, in terms of individuals engaged with and material reviewed were brought to bear on the initial categorization.

Critique of the Research Method

As described above, the research undertaken has taken interpretivist, social constructionist view of social science in keeping with the research questions that focus on the situated practice of project managers in their project structuring activities. The explicit declaration of the theoretical frame in use, described above, is in keeping with the contention that observations and knowledge in the field is 'theory-laden' (Smith and Deemer 2003).

This declared conceptual frame clearly positions the researcher's philosophical perspective in this research as social constructivist, in which the social reality worlds of actors is open to multiple interpretations as opposed to an assumption of absolute knowledge (Bourdieu 1977; Smith and Deemer 2003).

An interpretivist approach to social science proposes a socially constructed reality in which knowledge of that reality can be accessed only through the interpretation of the actions, perceptions and rationale of actors engaged in that reality. As the interpretive approach does not take there to be a reality 'out there', an absolute benchmark against which to judge reports of a socially constructed reality cannot exist (Klein and Myers 1999).

There is however, a social requirement from those who would read research reports that what they are reading is a 'credible' and 'trustworthy' account of the social phenomena being described, while acknowledging the subjectivity of any interpretation of social phenomena (Denzin and Lincoln 2005).

“In essence the question that is being asked in addressing the trustworthiness ... is not whether it is the truth but whether or not one is persuaded of its trustworthiness” (Lincoln and Guba 1985, p. 329).

For the qualitative researcher this is a challenge in that the basis on which observations and interpretations are made in the field are subject to the ever changing dynamics of flux and confusion in which an infinite array of possible observations and interpretations can be said to exist (Denzin & Lincoln 2005; Nandhakumar & Jones 1997; Smith & Deemer 2003).

Various approaches exist that can assist researchers and their peers in assessing the sufficiency, rigour and quality of the research activities undertaken. These constructed evaluative criteria have been defined on the basis of the case study research approach used (Darke et al. 1998; Yin 2003), the participant observer role of the researcher (Nandhakumar and Jones 1997 & 2002), or more generally on the basis of a qualitative interpretivist stance being taken (Klein and Myers 1999; Orlikowski and Baroudi 2002; Smith and Deemer 2003).

The choice of case study as the research approach used in the examination of situated practice is clearly in keeping with the research focus and questions as discussed above. Inherent challenges in the case study approach include difficulties in generalising research results and the subjectivity of the data collection and analysis processes (Darke et al. 1998).

With regard to the generalising of results from case study research it can be argued that;

- Clear upfront articulation of a conceptual lens that utilises generalised abstract categories,
- Recursive analytical cycling of the rich data being collected 'in situ' and
- The intertwining reference to extant literature

contribute to the creation of research results that refer to theoretical abstractions and extant literature categories that are by their very nature compatible with generalisation (Eisenhardt and Graebner 2007).

The subjective bias of the researcher, inherent in all modes of research (Denzin and Lincoln 2003; Smith and Deemer 2003) is an unavoidable element of the interpretivist stance.

In the process of conducting research the practice of standing back from the ongoing flow of interaction and engaging critically with the data allows the researcher some 'objective' distance (Nandhakumar and Jones 1997), this was achieved through the participation in the field of the researcher on a part time basis and through the keeping of an observations and reflections log.

Multiple source of data collected guard against the danger of uni-dimensional perspective of social practice taking hold (Yin 2003). The multiple sources of data collection used through;

- the examination of multiple project managers' project practice in context
- the collection of data through multiple means such as interviewing, participant observation and documentation review
- the use of organizational and professional association derived reference material
- the use of researcher observations and reflections log
- interaction with IT staff members from all levels of the department,

ensured a multi-voiced and multi-sourced data set that contributed to the building of multiple perspectives and multiple voices being represented in the research data collected and the analysis conducted.

These approaches to the process and product of data collection guarded against overly 'researcher derived' report of social phenomena that would be more characteristic of auto-ethnographic accounts (Ellis and Bochner 2003) than of case study reporting.

A more pragmatic concern with regard to case study research can be the availability of suitable case studies within organizations. The negotiation required in gaining initial access

and to achieve useful levels of cooperation and access can be problematic (Darke et al. 1998).

The case study conducted provided access to all aspects of project manager practice within the organization required by the researcher. However, the disinterest of the management with regard to the research denied the researcher the opportunity to formally validate findings with the organizational actors (Lincoln and Guba 1985).

The iterative and reflexive nature of data collection and analysis to a great extent allowed for this validation of observation and findings to be performed informally.

Elements of participant observation that can indicate a serious commitment to the production of plausible case study reports have been met though;

- clear identification of the context in which the research has been carried out
- identification of the number and roles of the social actors involved in the research (disguised initials used)
- explanation of the project structuring activities being undertaken
- provision of a time line of critical organizational events
- descriptions of members roles, perspectives and meanings captured and reflected and
- the identification and analysis of the social rules and resources in play in social acts (Nandhakumar and Jones 1997).

The dynamic social change within the research environment and its impact on the ongoing practice of the project managers 'in situ' is clearly documented through the longitudinal data

collected, and gives a flavour of the living reflexive environment in which practice occurred (Orlikowski and Baroudi 1991; Pettigrew 1999).

The extensive data collected and analysed in this case study using varied and triangulated data collection techniques, coupled with the comparative analysis of multiple project managers' practice in a shared context, supports a coherent and comprehensive focus on the research questions in context (Yin 2003).

The situational constraints of both the researcher as participant observer and of project managers in the conduct of their project structuring activities is captured in the use of the tacit knowing ST conceptual frame and in the large multi-voiced quantities of data considered (Denzin and Lincoln 2005).

The credibility of the research is supported through the clear evidencing of the findings and the pertinence of the research to topics of current theoretical interest (Charmaz 2005).

The researcher was in a privileged position in so far as doing the research and disseminating its results are concerned (Angrosino and Mays De Perez 2003). This is particularly true in this case where the organizational members from whom access was granted and permission to proceed was received declared a resolute disinterest in the process and products of the research.

It is submitted that;

1. The in-depth and prolonged involvement of the researcher in the ongoing practice of project managers within the organization
2. The large volume of documents made available for scrutiny

3. The opportunities for reflection and validation of observations through interviews and workshops and
4. The ongoing 'research log' on researcher thoughts and considerations in which the bias and lenses in use of the researcher can also be captured and considered

all help to ensure an adequate and credible empirical basis of the research findings (Eisenhardt and Graebner 2007; Lincoln and Guba 1985; Weick 2007; Yin 2003).

Chapter 5 - A Descriptive Account of the Case

Organizational Context

The field study took place in the IT department of a global financial sector company located on the North American continent. The department served the IT needs of the banking services, both internal and client facing, to a geographic region in North America.

Access to the organization for the purposes of research was given under the condition of absolute anonymity and that the researcher would act in the role of assistant to the projects director on a part-time basis. The new project management director was both new to post and new to project management delivery.

The IT department had over four hundred employees, thirty of whom were project managers, twenty four on the research location site, and six located in another city some thousand miles distant.

The multiple uncertainties experienced by the local IT organization's employees at the time of the field research included;

- the ongoing reorganization of the teams and directorates to which they belonged (restructured twice in the space of twelve months)
- A major process review and change as a result of the work of a specially convened task force in a bid to improve perceived weaknesses in the project delivery processes of the department

- the shifting patterns of power and relationships within the department and with other departments (strengthening of regional IT and the weakening of local business units)
- the major global disruption and anxiety due to the Global Credit Crunch.

The recent departmental restructure organized the IT department along the lines of professional role, a move away from the earlier model of organization by software application area.

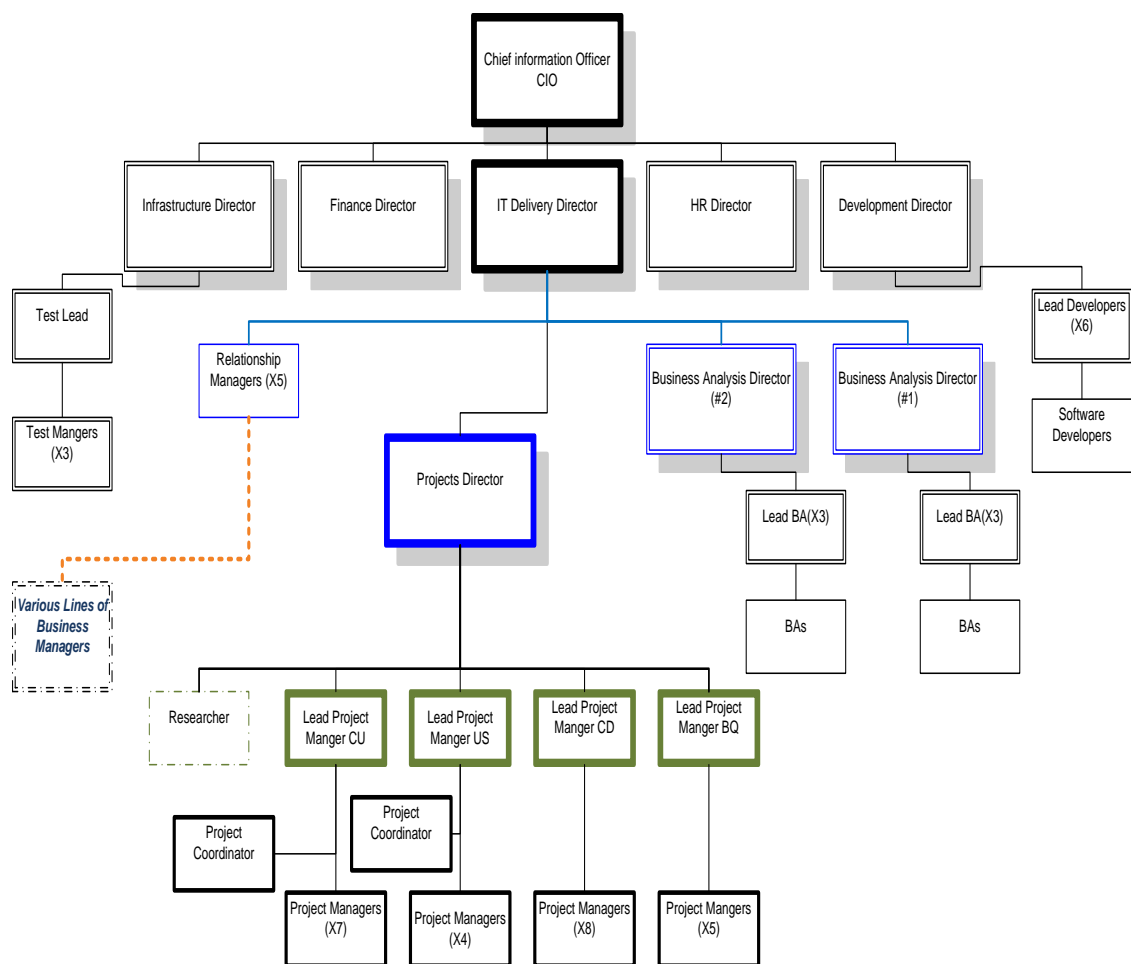


Diagram 5.1 IT Department Org. Chart at the commencement of the field based study

The commencement of the field research took place two months following the appointment of a director to the newly formed project directorate.

The Project Directorate

All of the department's IT project managers were assigned to the new projects directorate, whereas before they had been assigned to the three major development teams reporting to software development directors.

This structural change gave 'significance' to project management as a specialist role and was modelled on the project management approach successfully operating in another of the organization's local IT departments at a location in Europe.

The new projects director had an extensive background with the organization in IT and business operations with a focus on software quality. Although she did not have a background in project management she was both well-known and well regarded within the organization.

The projects director had a local project management staff of nineteen full time project managers, as well as three managers known as lead project managers, two coordinators who were dedicated to processing change request orders, and a remote staff of one lead project manager and five project managers.

This combined project management team delivered projects to the value of \$40 million annually in the form of complex IT solutions to focused business units for the purposes of revenue creation and/or cost reduction.

The development effort was led by the local development team leaders with significant elements of the software coding and testing being sourced to organization colleagues located in lower cost economies.

The hierarchical structure of the project management function at the beginning of the research can be seen in diagram 5.2 below.

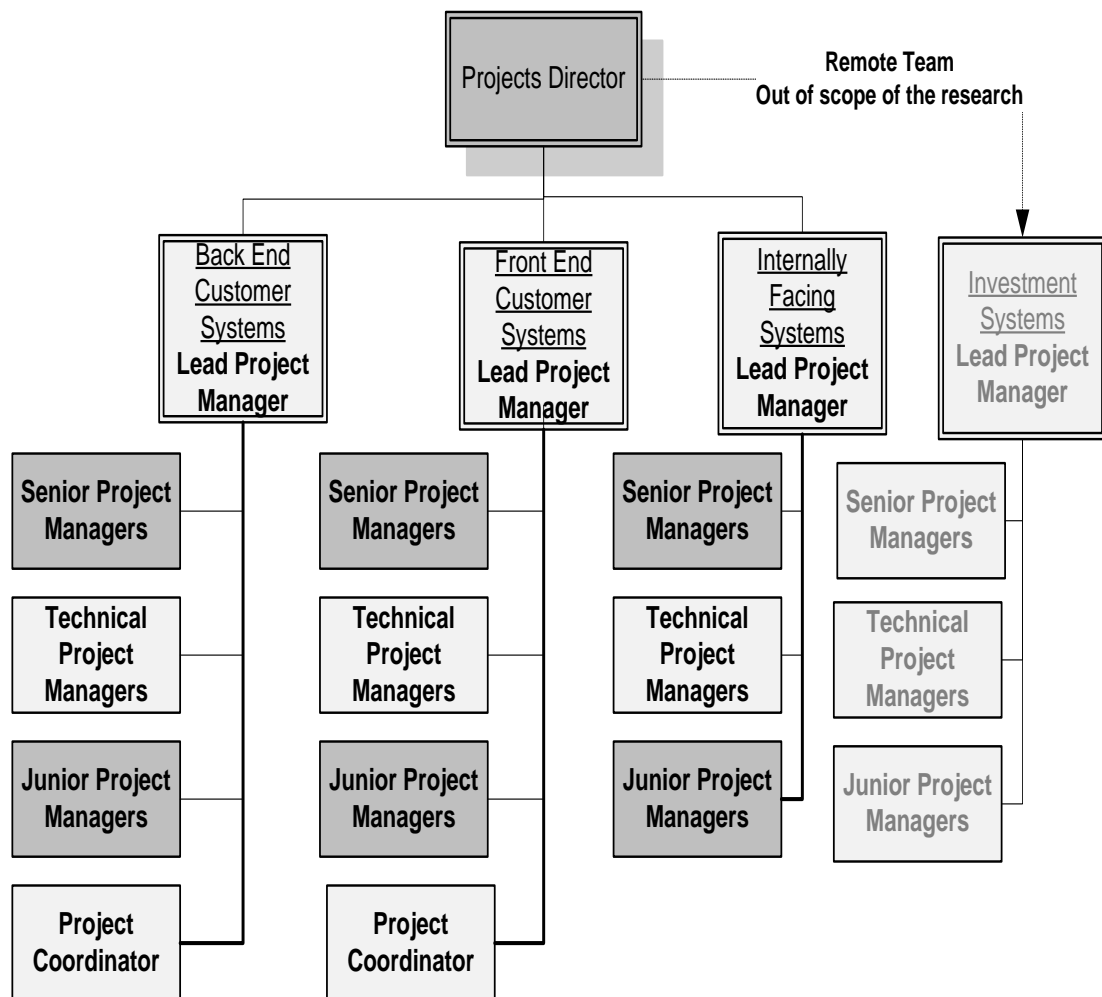


Diagram 5.2: Project Management Directorate – local site management lines

The project managers were expected to coordinate and manage the IT project work of business analysts, software developers, infrastructure and quality control personnel, both

locally and within other geographic locations (a summary description of roles that interacted directly with projects is available in Appendix I).

The projects department was restructured in January 2009 with three of the incumbent lead project managers being assigned to portfolio manager duties (two local and one remote). The remaining local lead project manager was assigned a resource management role for senior and mid-level project managers, and a senior project manager was promoted to resource manager for more junior project managers. The Project Management Office was set up with a staff of three project administrators in an effort to reduce the administrative load on project managers.

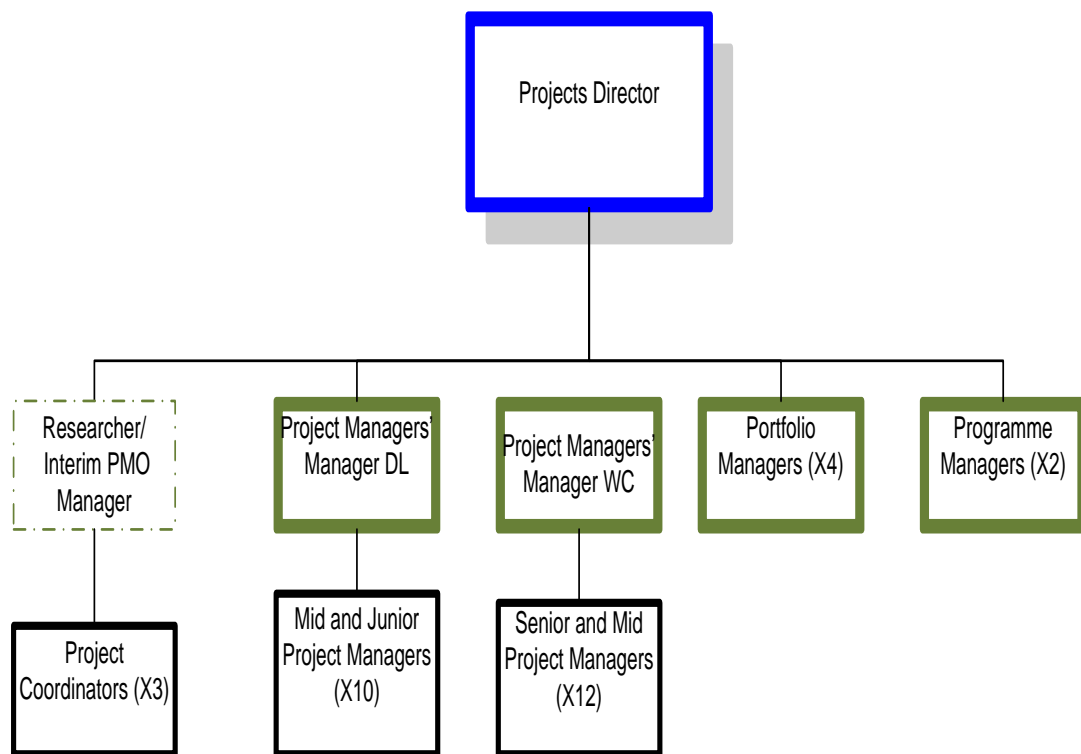


Diagram 5.3 Organizational Structure of the IT Department at field based research completion, including new recruits to the department, January 2009

Time Frame

The field based case study research commenced in July 2008 and completed in April 2009.

Ten months of fieldwork was conducted on a part time basis of approximately fifteen hours per week. This period of time within the organization coincided with a global and regional consolidation and standardization of both business and IT practices.

The senior management team initiated a major review and change to the IT departments processes. Alongside these changes a shift in the power dynamics between IT and the business units was taking hold. The increased power of global and regional IT was being felt at the local level by both business and the IT department.

Within the Project management directorate itself significant changes took place during the field based research that included research field based activities, major information systems product releases, physical relocation of staff, the introduction of extended roles and responsibilities for staff, and a project directorate restructuring.

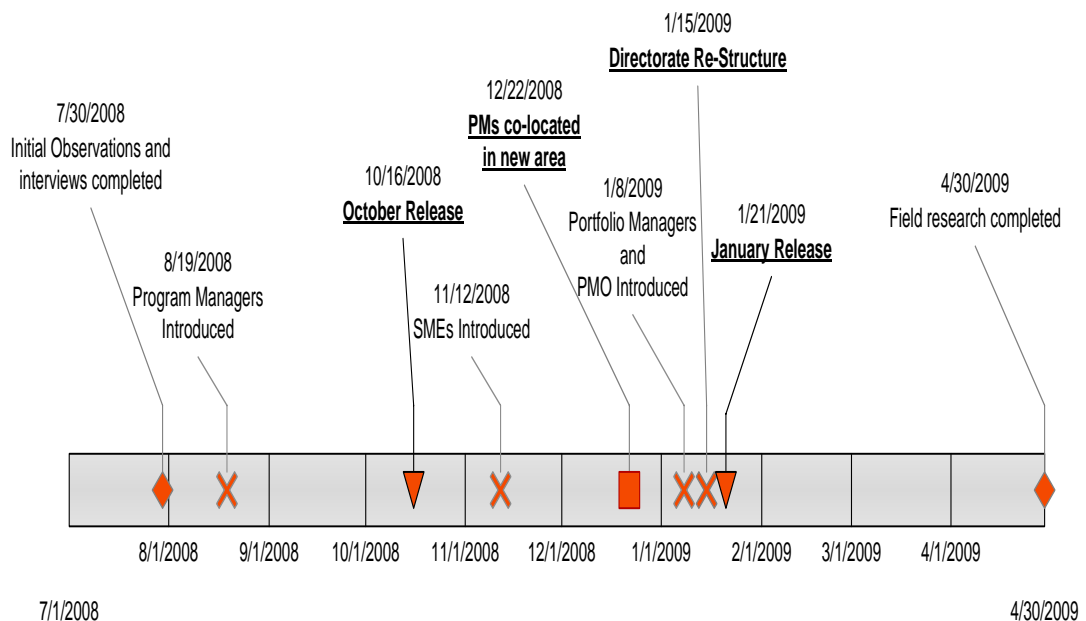


Diagram 5.4 Significant Events during the life of the field based research

The definition of project practice issues by senior organizational players

The IT delivery director and the projects director expressed the shared opinion that assigning all the IT project managers to a single directorate and re-engineering the project processes did not address the central issue in failing project management practice, that of reluctance by the IT project managers to take ownership of projects and to take responsibility for project performance.

The CIO's views of the project managers performance agreed with these observations, as he described IT project managers as 'failing in their practice' and that they see themselves as 'project reporters' as opposed to 'project managers' (FN 13).

Project managers and project management disciplines were relatively new to the department. They had been described as "at best been tolerated and at worst ignored." (IV 1).

In the year prior to the research commencing, three major quarterly product releases from the department failed in terms of deadlines missed and poor levels of quality leading to revenue loss.

Given that the process for product development and release was that of project management, the senior management within the organization was seriously concerned with the ongoing failure and perceived inadequacy of its project management capability.

The project director's mandate was primarily focused on the improvement of project management practice. This improvement was expected to manifest itself in measurable improvements of project delivery to cost, time and quality.

Data Collection Approach

The data was gathered and interpreted in two phases within the field study that can be broadly categorized as 1. Practice Investigation and 2. Practice Change.

The construction of these two phases of the field based study has been done for the convenience of understanding the research data collection and its analysis and in recognition of the changing role of the researcher in the dynamic organizational context in which practice was being conducted.

The first phase, Practice Investigation, occupied the first two months of the field study and was dedicated to observation, open ended semi-structured interviews, explorative workshops, and documentation review followed by data interpretation.

Initial findings were presented to and discussed with the projects director and all of the project managers within the local IT department in which the field study took place (OB12).

The second phase, Practice Change, led to a focus on project managers' practice transformation that was sponsored by the IT delivery director. This was led and driven by the projects director. This second phase was characterized by observation, focused interviews, developmental workshops and documentation review, with ongoing and iterative

interpretation of the data and emerging themes taking place. The second phase of practice change continued to the end, and beyond, of the field based study.

Throughout the first phase the researcher's role and activities centred on observation and non-critical interviewing with the project managers, their lead project managers and the projects director. This was accomplished through note taking, the posing of open questions, and empathic listening in the context of conversations and meetings with the project managers.

Most of the conversations took place outside of the office in the coffee shop. The researcher self-identified and was identified by the organizational actors as an outsider with a 'detached' and academic interest in the ongoing practice of the project managers (OB 2).

When the researcher had completed this initial review of project managers' views of practice and had presented and discussed the findings with the projects director, the lead project managers, and the project managers the role of the researcher was seen to have changed from outside observer to inside participant. The researcher was still seen as somewhat detached as he did not engage in the everyday work of the organization on a full time basis (OB 12/13/16, EM 6).

Many of the issues raised by the project managers, and presented by the researcher were agreed to be of concern by the projects director (Appendix II).

The projects director proceeded in an attempt to engage in a supportive and collegial manner through workshops, meetings and one to one conversations with project managers in order to 'transform' project management practice (OB 15).

The value given to the findings of the researcher elevated the perception of his influence within the organization, and by doing so positioned him within the organizational hierarchy as an organizational agent. As soon as this shift from primarily observational to primarily active participation was experienced and perceived, the nature of the researcher's role and related identity within the organization changed, as did the interactions with project managers experienced by him (OB 16, EM 6).

Open interviewing was replaced with detailed 'digging' and questioning. Observation became more participatory with the inclusion of questions, suggestions, comments and re-direction. Rather than being seen as a sympathetic ear, the researcher was being interacted with the perception that he was also an active voice (OB 16, EM 23/45/63).

What follows is a presentation and analysis of the data collected and interpreted through these two phases as seen through the conceptual framework presented above as it emerged and was engaged with by the researcher.

The data is broadly arranged in three broad sections as follows;

- (1) The conditions and consequences of project managers' structuring and planning practice
- (2) Focus on the practice of constructing the Project Initiation Document
- (3) The rhythm and tempo of project managers' structuring and planning practice.

Objects of focus

The field study focused on the practice of the IT project managers in the production of project structuring and planning document, known in the context of the field study as Project Initiation Documents (PID).

Within the global organization there existed a project management standards body that had ownership of the project management methodology in place and of the supporting documentary templates produced for use by each of the organization's regional entities.

The project management life-cycle followed a staged process that progressed from an initial business request (project initiation) through to project success review (project closure). This staged process was generally depicted in a linear sequential flow format punctuated with the requirement of key document creation and approval (Org Doc process_flow_chart). This guidance and the document templates were available to staff from the organization's intranet site.

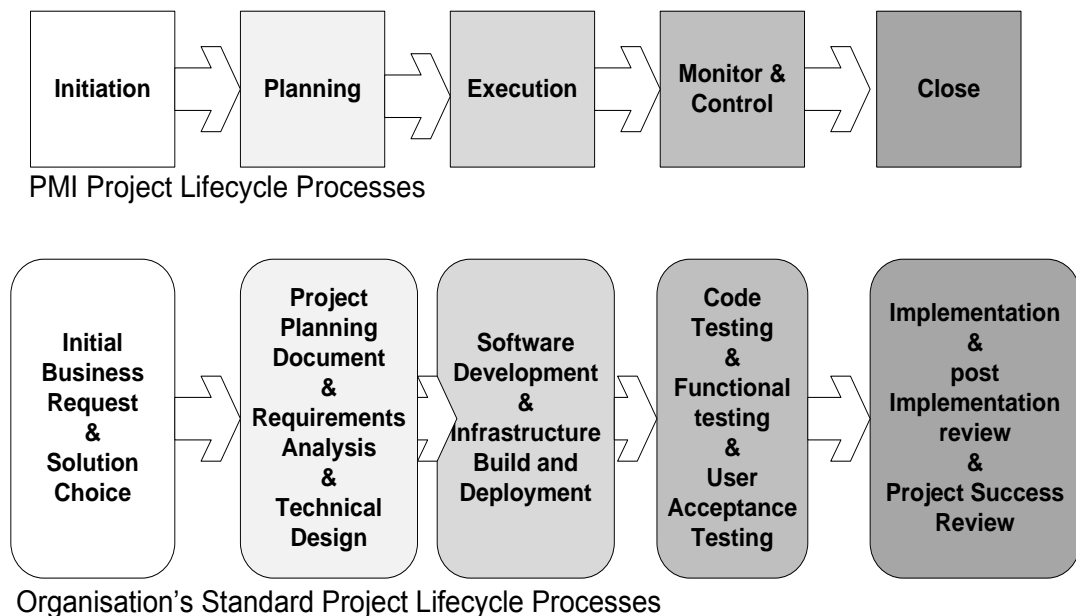


Diagram 5.5 PMI Project Life-cycle Processes and the Organizations Project Life-cycle processes

The organizational guidance on project management, and within it the structuring and planning of projects, was documented in the project management methodology guidance notes and prescribed project document templates (Org Doc PID_template). This process roughly followed the phased process approach favoured by the PMI.

The key documents identified within the process were supported with document templates that included paragraph by paragraph headings and embedded guidance notes (Org Doc Template_Documents). These process and key document templates were supported by a role derived, stage by stage, responsibility chart.

The responsibility chart denoted the level of involvement of the various roles throughout the process and was an indication of the centrality of documentary artifacts to the organization in the permitted progress of activity from one phase to the next (Org Doc Roles_&_Responsibilities_chart).

The production of the Project Initiation Document (PID) took place following the completion of a feasibility report. The completion of the PID signalled the start of the project execution phase and its approval signalled the release of funds and approval for project activities to begin.

The production of the PID took place within the context of the wider project life cycle process as illustrated in Diagram 5.6 below, and as described in further detail below.

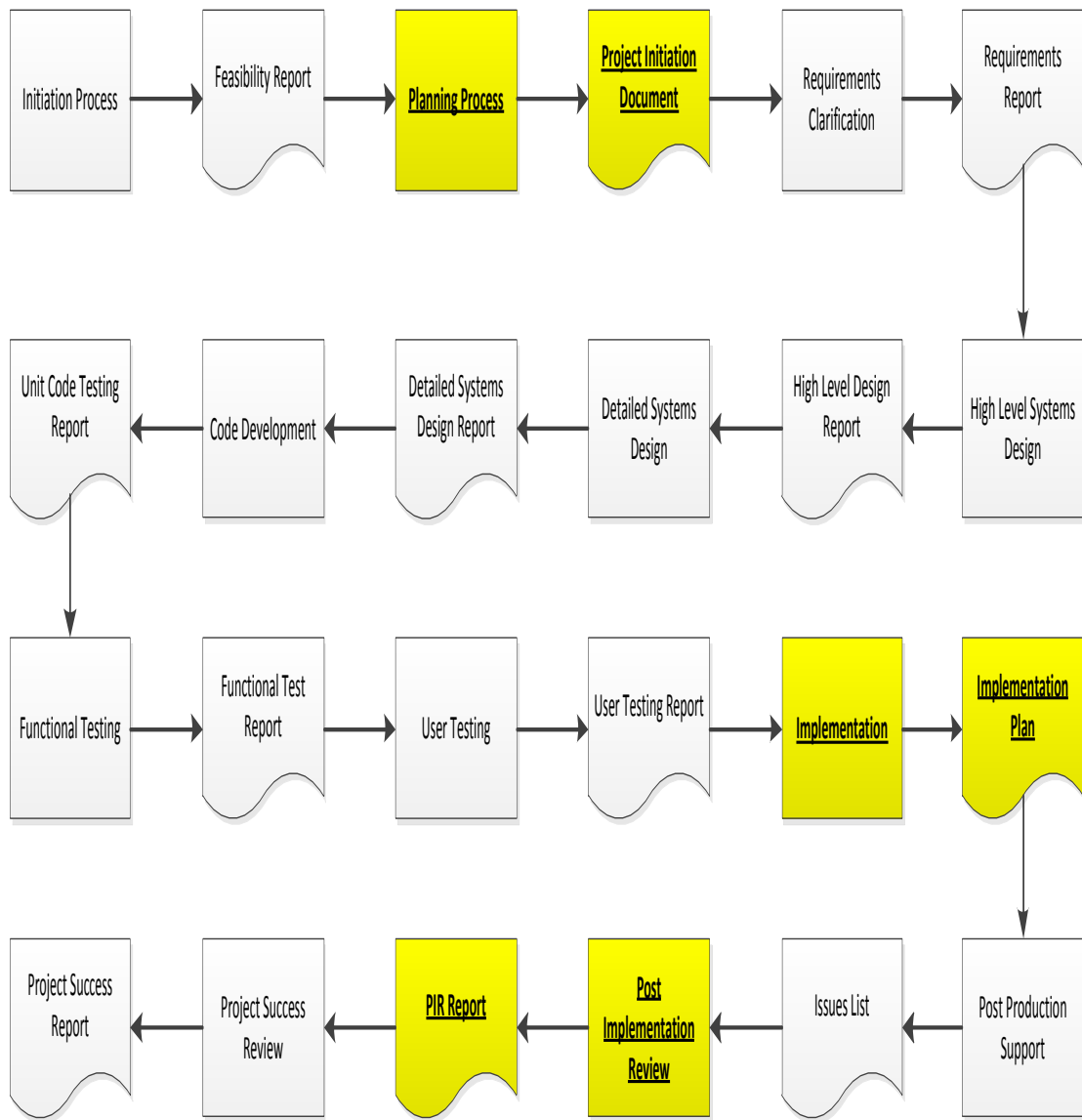


Diagram 5.6 – Project Life-cycle processes – Project Manager responsible processes are highlighted

It should be noted that the project manager's activity, in the local context, began when the lead project manager allocated a project to the project manager with the purpose of creating the project PID.

Following the approval of the PID the project manager played a secondary role to business analysts, developers and testers until the implementation stage was reached, at which time

the project manager again assumed primary responsibility. Primary responsibility was taken also for the final time at the post implementation review stage.

This local process differed from the global process in that locally the project manager was excluded from the initiation process phase. This exclusion of the project management engagement at project initiation was seen as a major element in project manager frustration and difficulty with regard to the structuring and planning of projects (OB 6/11/31).

The local process map depicting the project life-cycle included the key roles and responsibilities for each phase of the projects as well as the expected contributors at given activities within these phases. Whereas, in general this followed the organization's global standards, in the key area of the project initiation activities the exclusion of project management involvement was clearly at odds with both professional and global organizational guidance.

The rationale for this exclusion, given by a lead project manager who was party to its design, was that the business analyst who drew up the process felt that business analysts were best placed to perform the "up front, business interface" required at this stage. The lead project manager conceded that he did not feel confident in arguing otherwise (OB 31).

The conditions and consequences of Project Managers' Practice

The conditions and anticipated consequences under which project managers conducted the practice of producing the PID can be described as the structural elements historically internalized by project managers, which acted as acknowledged and unacknowledged conditions of practice.

As mentioned earlier, the unacknowledged conditions of practice were accessed in the course of observation and through reflexive interviewing episodes with project managers.

The use of project manager produced artifacts such as Project Initiation Documents, in various stages of development, aided these reflexive conversations in that they grounded the discussion in material traces of project managers' intentionality.

Organizational Guidance: The Project Management planning and structuring phase

Organizational guidance, as expressed in the global project management process, was that the project initiation document should contain the informational basis for making a business decision to proceed with project execution, and should serve as the guidance document and plan for the project's execution (Org Doc PID_template).

The business decision to proceed was expected to centre on the clarity of the business case, the fit, cost and timeliness of the solution proposed, and the overall level of project risk. It was expected that the project initiation document would clearly articulate the likelihood of successful project delivery against the time, cost, quality and scope criteria laid out within the document.

There was an expectation that a clear description of the required participation of internal and external resources, and the project organizational and reporting structure would be clearly framed within the project initiation document.

The required elements of the project initiation document, as laid out in the global standard template (Org Doc PID_template), included the following;

1. Executive Summary – outlining the business rationale for the project, the IT solution proposed to meet the business need, the high level costs and schedule and any major risks
2. Project History – Charting the progress of the project from initial proposal to project initiation documents
3. Goals and Benefits – Detailing the goals aimed for in the deployment of the IT solution for business benefit, the benefits expected to be achieved and their measurement
4. Scope – Describing the meeting of business requirements through the development of an IT solution
5. Target Platform – identification of the IT Hardware, Infrastructure and Application to be used and impacted by the proposed solution
6. Constraints, Dependencies and Assumptions – identification and description of the context of the project's activities
7. Acceptance Criteria – What project success looks like, when, how and by whom it can be measured
8. Project Approach – How the project will be structured and organized to best meet the stated success criteria, usually described in terms of 'Waterfall' or 'Iterative'
9. Project Specification – What the project will produce as an output, its deliverables, including project management documentation
10. Deliverable Contribution Matrix – A clear articulation of the high level activities of the project, and a cross referencing of the roles that will contribute to the completion of these tasks, usually in the form of a Responsibility Assignment Matrix

11. IT Terms of Engagement – Detailed breakdown of the IT costs to be incurred in completing the project
12. Project Organization – An organizational chart of the main functions and roles involved and how they relate to each other and a list of key project role holders
13. Reporting – The communication plan for the project
14. Escalation Procedures – the triggers and procedures in place should escalation be required to resolve project issues that may arise
15. Risk Assessment – A description of the risk management process to be used and an initial identification and assessment of project risk (Org Doc PID_Template).

Each of these PID template sections was expected to be completed for each project by the project manager. There was neither prescription nor guidance as to how the informational elements required to do so should be acquired, analyzed or constructed.

Given that there was a focus on the recruitment of project managers holding a PMP certification, there was an implication that the tools and techniques advocated by the professional body should be used in the construction of the project initiation document and its contents (Org Doc Recruit_Advert).

Local process guidance

From a project management point of view the exclusion of project management input at the project initiation stage was seen as problematic. In the views of project managers it had led to project managers being 'dumped on' by the relationship managers and business analysts with a committed project, without having had the opportunity to validate the feasibility of successfully completing the project from a project management perspective (OB 11/31).

This exclusion of the project manager, at what can be seen as key interface with stakeholders at the formative stage of the project, was cited as a contributing factor to project managers' feelings of inequality with other roles and being undervalued with regard to their contribution (OB 6).

In response to project managers' opinions on the importance of inclusion at the initiation phase of projects, the project director put in place program management responsibilities for senior project managers in September 2008. These program managers were given the remit to coordinate related projects from feasibility through to closure and therefore had legitimacy in attending the initial feasibility stages of projects (OB 15).

This added responsibility was expected to ensure project management presence at early stages of the project so that project manageability questions were being addressed at the initiation phase and within the feasibility document. It was also expected to provide a continuation of project management engagement with the project throughout the full project life-cycle.

The enlargement of the existing role was done in preference to the creation of a new role so as to circumvent any potential objections from other directorates. The scope of the new responsibilities was discussed and agreed with the IT delivery director and the relationship managers before being made public to ensure political backing for the involvement of project managers in the initial stages of projects (OB 15, EM 20).

Despite this attempt to engage early in projects, there continued a side stepping of the project managers at initiation with few program managers being invited to, or including themselves in initiation process meetings (OB 42).

In one noted case where a program manager did attend an initiation process meeting, the program manager, in this case a lead project manager participated in the costing and scheduling of a project prior to engaging in any analysis as to the feasibility of the date or the accuracy of the cost (OB 32).

This local exclusion from the initiation process was seen as a condition of structuring and planning practice that led to disconnect, lack of pertinent knowledge, and a sidelining of project managers in the early formative decision making.

Global auditing project standards compliance

Yearly audits of compliance to the standard approach focused on the construction of key project documentation and the securing of project approval signatures from key stakeholders.

This focus on project documentation and approval, in the opinion of one project manager meant that

“We don’t do risk based project management (as stated in the organizationally prescribed methodology), we do approval based project management. Our focus is to get senior management approval, not necessarily to deliver successful solutions - a successful project is a documented and approved project” (IV 5)

Ongoing monitoring of projects was accomplished through the interrogation of reports of extracted information from the project management information system's database on budget and baseline data. In practice this was limited to a perusal of the existence of project records, input status, baseline and budget. Red flags were triggered when denoted flagship project records were not inserted, and where project budget exceeded 50% of the input project baseline. The validity and credibility of the data within these records was not investigated by the project standards audit group, this data was found by the researcher to be mostly inaccurate (EM 62, OB 77).

One of the conditions of project management practice, from the perspective of the project managers, was that of adherence to the global and local process standards. This adherence fixated on compliance to the sequence of project document production and sign-off.

Global guidance on evaluating project success

Project success, as far as the espoused process was concerned, would be evaluated in two phases.

Project Implementation Reviews (PIR)

Firstly, a Post Implementation Review (PIR) would be carried out by the project delivery team, led by the IT project manager, to evaluate the performance of the project to plan, as set out in the project initiation document (PID). These measures can be described as project implementation success measures based on delivery to time, cost, scope and quality as defined in the project documentation.

Within the duration of the case study (10 months from July 2008 – April 2009) seven PIRs were conducted. These followed the pattern of a meeting being called by the project manager, and voluntary project stakeholder attendance that in all cases was sparse given that most of the developers as business analysts and testers had already disbanded to work on other projects.

It was common practice for the project managers to follow, paragraph by paragraph, the PIR document template, soliciting input from those few present. Any information not immediately available would be omitted. The PIR would then be signed and archived (OB 56).

There was no evidence or testimony to PIRs being used as input to new project planning or to organizational review or change processes (OB 83). Indeed, for most it was seen as an exercise in process compliance that was of no value to the project, the role, or the organization (OB 56/83, IV 18).

At the completion of the field based study a new process of PIR had been agreed that used a specialized internal facilitator. The facilitator was expected to call and manage all PIR meetings and PIR data gathering activities. This data was to be used to consolidate and present the lessons learned from project execution to the department's senior management on a quarterly basis for process change consideration (OB 83).

The activation of the new project implementation review process took place following completion of the field work and lies outside the scope of this paper.

Project Success Reviews (PSR)

Project Success Reviews were expected to be conducted by business between three to six months following successful project implementation. This business led process would evaluate the business benefit accruing on the basis of the projects activities against the business case put forward in the Feasibility report, and the Project Initiation Document.

No PSRs were conducted during the duration field research or at any time previous to this according to a long standing lead project manager who had been with the department for five years and who had oversight of twenty releases, and hundreds of projects. The researcher searched the project archives for evidence of PSRs having been conducted with no success (OB 83).

There was little perceived oversight of project success from a schedule, cost and quality perspective following project delivery and no interest whatsoever, it seemed, from a business benefit evaluation perspective.

The Project managers were aware of the scant regard being paid to the project success criteria from either an execution or business value basis, and as a consequence the importance of these factors was seen as secondary to the factors associated with process compliance.

Organizational reaction to project failure

The organization did, however, react to high profile and high impact failures. Previous to the commencement of the field study two major reviews of project failure took place, one in

2006 following the failure of a major systems upgrade that resulted in loss of revenue, loss

163

of data and system unavailability, and another in 2008 following the failure of a 'direct to business' IT solution, resulting in service loss, and consequentially revenue and reputation loss.

Both these reviews were conducted 'in-house' by local directors not directly connected with the failed projects. Their remit was to identify the causes for failure and to make recommendations that would reduce the likelihood of this failure in the future.

Key elements that contributed to the failure identified from the first major review of 2006 included:

- Lack of senior management involvement
- The business case not being well known or understood
- An absence of clarity in the local processes in both the analysis and design phases
- Detailed Design phase not being completed and the detailed design key document being neither produced nor approved
- The software development team having a split focus on development, support and maintenance
- Commissioning business units being inadequately engaged and involved in the project delivery processes (PR 46 PIR).

Key elements that contributed to the failure identified in the second major review of 2008 included:

- 1) Lack of senior management involvement
- 2) Failure to identify and respond adequately to project risk
- 3) Inadequate testing failing to identify technical / coding errors and functional errors

- 4) Inadequate documentation leading to gaps in understanding as to the changes in the software product produced by the upgrade
- 5) The key Detailed Design document not being produced
- 6) Staff fatigue, inexperience and lack of capability (PR 43 PIR).

By the commencement of the field based study the following actions had been taken in response to these identified failings. These actions are interlaced with project managers' responses to these changes.

1. A Task Force was put together that reviewed and redefined, in detail, the roles and responsibilities of all roles involved in project delivery and their responsibility within project phases, and for the production of project key documents

Viewed as: The task force exercise produced spreadsheets and diagrams, however these new models of working did not translate into changes in practice (IV 2, OB 4/31).

2. The development team was re-structured with a focused support and maintenance team being formed dedicated to ongoing operational issues, and separated from the software development teams

Viewed as: The development team restructure had led to the creation of more interfaces that created communication problems that had not existed previously (FN 58).

3. A weekly review of all projects 'in flight' (in the process of development for release), with a focus on process and risk management chaired by the Projects Director

Viewed as: Mostly positive in which project issues could be discussed with peers and issues rapidly escalated to the projects director's attention (OB 2/8/30).

4. Merging of the two test teams of system acceptance testing and user acceptance testing into a unified quality team

Viewed as: There was a gap in the responsibility for User Acceptance Testing (UAT) given the disbandment of the Operations testing team and the unification of the two teams. It was difficult to locate adequate and capable resources from the business units to conduct UAT and therefore challenging to secure approved sign-off from the business sponsor. The quality team remained, primarily, an IT functionality test team, and concentrated on quality control through testing as opposed to quality assurance through design (FN 4/16, Org Doc Quality).

5. Recruitment of relationship managers to manage the interface with commissioning business units on an ongoing basis

Viewed as: Mixed result depending on the relationship manager used. Two of the five relationship managers were seen as helpful in priming business for project engagement and in managing their involvement and expectations. The remaining three were seen as 'dumpers' who caved in to unworkable business unit demands and gave no support to the project delivery teams (IV 10).

6. Supervisory managers were also given the responsibility of resource manager in an effort to encourage resource usage and capability building, and the task of maintaining the resource planning and utilization spreadsheet

Viewed as: A change in terminology with no change in practice other than the added task of updating the resource usage spreadsheet, this was done in an 'ad hoc' manner that bore little relation to the allocation or busyness of staff (OB 39/45).

The resource planning and utilization spreadsheet was not used and the data contained within it was out of date, and in some instances did not include the most recent staff members. It was not seen to be used by management (OB 39/45, EM 89/91).

In general, the project managers expressed the opinion that the pressures and challenges associated with managing projects were poorly understood by senior management and the role of that the project manager was characterized as that of administrative coordinator, shouldering all the responsibility while holding none of the authority (IV 2/3/5/10).

Highly visible failure within the department prompted high level action and changes to process and structure, however piecemeal and partial they were perceived by the project managers. Although there was not a keen interest in the success of projects at any level, there was a strong inclination to avoid high visibility failure. The constitution of failure tended to centre on either time delays to a product (late release), or poor functionality. These were two areas the project managers felt were outside of their control, as will be discussed further below.

PMI guidance

Guidance from the PMBOK with regard to project planning (there is no guidance on project structuring) centred on the use of project management tools and techniques in the commission of project management activities such as;

1. Project Scope management in the project activities would be detailed through a reductive technique using a Work Breakdown Structure (WBS)
2. Project Schedule detailing the sequence in which activities would be engaged in and utilizing Program Evaluation and Review Technique (PERT) and Critical Path Analysis (CPA) to calculate both the earliest completion date and the 'slack' available for each given activity
3. Project Cost Management estimating project cost, within explicit parameters utilizing Expected Monetary Value, and thereby determining the project budget

4. Project Quality Management in which the project's outputs would be described in terms of acceptability and the basis of assuring and controlling that quality would be defined
5. Project Human Resource Management in which the personnel for the project would be acquired and the organizing basis of the project defined, using a Responsibility Assignment Matrix (RAM)
6. Project communications management in which the manner in which team members and stakeholders would inform and be informed of project matters
7. Project Risk Management in which the identification of risks would be identified, qualified and quantified and responses put in place with which to deal with them should they arise
8. Project procurement planning in which the processes for procurement of resources for the project would be defined ¹³(PMI 2008).

All of the areas above can be seen to map onto the PID elements mentioned above (Org Doc PID template) so that;

1. Executive Summary – All elements summarized
2. Project History – Charting the progress of the project from initial proposal to project initiation documents
3. Goals and Benefits – Project Scope Management
4. Scope – Project Scope Management
5. Target Platform – Project Scope Management

¹³ Project Integration Management was covered through the overall guidance, process and templates in place within the organization.

6. Constraints, Dependencies and Assumptions – Project Schedule Management
7. Acceptance Criteria – Project Quality Management
8. Project Approach – Project Schedule Management
9. Project Specification – Project Scope Management
10. Deliverable Contribution Matrix – Project Human Resource Management
11. IT Terms of Engagement – Project Cost Management
12. Project Organization – Project Human Resource Management
13. Reporting – Project Communications Management
14. Escalation Procedures – Project Human Resource Management
15. Risk Assessment – Project Risk Management.

The procurement of resources for IT projects did not take place in the time frame of the field based study and was not seen as a 'normal' occurrence.

As can be seen, the Organizational process maps neatly on to the PMI process in both the nature of the approach of 'plan then do' and in the identification of the pertinent elements of scope, budget, schedule, quality and risk.

The absence of project management guidance on the structuring of projects, that of making the project proposal amenable to its subsequent execution was seen as major challenge for project managers.

The project managers were unaware of concepts such as problem structuring methodologies and approaches, and of how these approaches might assist them in designing the activities of projects in a manner that might allow for the possibility of successful project management and execution (OB 10/42). There was an ongoing attempt to fit the project circumstances

into the project execution frame dictated by both the global and local processes, and supported by the tools and techniques promoted in the PMBOK (OB 10/42).

There were, however, some differences evident in the behaviour of project managers in this regard. The PMP certified project managers stated an awareness of, and justification rationale towards the non-adherence to professional association guidance that ranged from a lack of suitability to the IT application context to organizational political and process considerations (IV 5/6/13).

Non certified project managers cited ignorance of the professional association guidance and a reliance on certified colleagues for access to that guidance (OB 10/26). Junior project managers complained of conflicting advice received from senior colleagues that led to confusion and anxiety (OB 10/21/26).

The importance of the PMP in project manager recruitment and development

In the recruitment of project managers the projects director stated that holding of the PMI's Project Management Professional certification as necessary criteria for employment (Org Doc Recruit_Advert). However, as stated earlier, this had not always been the case nor was this requirement adhered to in the case of trusted referrals.

The ability to “get things done” in the organizational context and the demonstration of familiarity with the ‘specific’ industry and organizational elements of the department were seen as key elements in the likelihood to succeed as a project manager (OB 15, IV 1).

Project Management Grade	PMP Certified	Total employees at this grade	Percentage with PMP Certification
Lead Project Manager	1	4	25%
Senior Project Manager	5	6	83%
Project Manager	6	10	60%
Junior Project Manager	1	10	10%
Total for the Directorate	13	30	43%

Table 5.1 Project Managers with PMP Certification

It is of interest to note that the percentage of certification for the lead project managers, at 25%, was higher only than that of the junior project managers.

The self-proclaimed project management expertise of the lead project managers (OB2) was more than once called into question by project managers reporting to them. The lack of professional knowledge and expertise was seen, by some, as the basis of the confused guidance given by the lead project managers to junior project managers on an ongoing basis (OB 21/26).

The IT department stated an expectation that a professionally certified project manager should be familiar with the tools and techniques of project management and be capable of applying them in the organizational context (OB 1).

It was also stated that

“being a PMP is not enough, we need PMs that can work in our context, that can get things done without being bogged down in what should be, rather than what is” (OB 15).

PMP certification was seen as a fundamental element of project management capability as a necessary but not sufficient basis for project managers’ competent performance.

In some cases senior managers implied that PMP certification was not seen as the most necessary criteria for project manager selection, rather, a familiarity with the organization and an ability to get things done was key. PMP certification was seen as a useful addition but not one guaranteed to bring project success or suggest project manager competence.

The importance of project management certification was questioned, in particular, by one of the lead project managers. His opinion was that the ability to understand the business was of more importance than the ability to calculate a project’s critical path and that a lack of familiarity with the technology was more detrimental to the likely success of a project than the absence of a work breakdown structure (IV 1).

The transfer of six operations staff to the project management team, at the beginning of 2008, also suggested a perception of project managers and their practice that did not place a particularly high value on the professionalism of the role. None of the six employees transferred had either experience or certification in the discipline of project management. Neither transition nor training was put in place for them. They were put in role and projects assigned to them within a week of joining the projects directorate (OB 10).

Despite this somewhat low occurrence of PMP certification within the directorate there was widespread awareness and knowledge of both the professional association and the PMP certification. It was seen by most of the project managers as a badge of professionalism and as such was regarded unquestioningly as the definitive guide to project management practice.

Lead Project Managers' influence on project structuring and planning practice

What follows is a brief description of the identities and some of the actions of the lead project managers central to this case study, as the LPMs were seen to hold a central place in guiding and evaluating the practice of the project managers.

There were three lead project managers interviewed and observed over the time of the field study. The role of the lead project managers was four fold as they were project, program, release managers and people managers.

Their responsibilities were observed to be;

- responsibility for large and/or complex project delivery
- responsibility for internal customer interface with regard to programs
- rotating responsibility for quarterly release management and
- responsibility for the management of project managers (OB 28).

The lead project managers priority of focus followed the pattern of project focus, program focus, release focus and staff supervision (OB 28). The project and program management focus afforded the lead project managers visibility within the wider organization as they interacted, in these roles, as interfaces between IT and business (OB 28). This led to a

reduction in their availability to attend to the supervision and management of their staff (OB 28).

It was apparent from the outset of the case study that the lead project managers were reluctant to take ownership or action with regard to project delivery or change activities as they impacted the practice of their staff, except in the case of high visibility re-working process maps, in collaboration with senior managers from across the IT department (OB 1/6/13/16/17/24).

The importance of external visibility and regard might be understood as professional survival in an organization in which stability of senior personnel persisted in the business departments, whereas fluidity and change were the order of the day for the IT department.

LPM1

LPM1 had been a lead project manager for more than two years, and a senior IT project manager for three years prior to that within the organization. He was PMP certified and had five years of experience in IT departments and software development companies before joining the organization.

LPM1 was recruited to lead project manager from his role within the organization as a senior project manager. He had been selected, without interview, to replace the previous lead project manager who had left the organization. None of the other senior project managers within the team applied for the lead role (OB 17).

LPM1 was the most vocal of the LPMs in support of a focus on project standardized process, pro-forma templates, and adherence to PMI project management guidance (OB1). However, in practice he supported a 'politically expedient' approach to project manager role responsibility, process and standards (OB 14). LPM1 believed that failures in project management performance were the result of non-adherence to process, and to the actions of 'others' (non-project managers) needed to 'come up to bat' (FN 15).

LPM1's pattern of response to project management practice issues was a call for further detailed guidance, templates and process for project managers to follow (OB 17/26). He was known to 'buckle' under the requests of senior managers, directors and the lead business analysts, and as such was viewed as not supportive of the project managers' autonomy (OB 14).

In one instance this was manifested through his subversion of the project management process, and over the protests of the delivering project manager, in agreeing a release date for a project that had not been scoped or scheduled by the project manager. When questioned on this, by the researcher, his response was that in this case this was what 'senior management wanted' so we needed to go with what they wanted and 'make it work' (OB 14). This exchange took place less than a week following clear agreement to engage in rigorous project management scope, schedule and cost planning before a release date would be agreed, an approach championed and supported, at that time, by LPM1 (OB 24).

LPM1 was mostly unavailable to his staff and inclined towards directing junior staff to copy and paste sections of project documents previously constructed. He was not seen as supportive of his project staff in either their professional development or interactions with members of other departments (IV 2/3/6/14, OB 5/14).

LPM2

The second of the lead project managers had a background in financial systems. He was not a certified project manager (FN1). LPM2 was put into the lead project manager role following the latest major re-organization in which his previous manager was let go. There was no interview for the role (OB 17).

LPM2 was generally scornful of IT, and IT project management, and believed the control of the projects should be held by business project managers (FN 15). He believed the focus for improved practice should concentrate on technical and business capability as opposed to project management capability (IV 1).

His main concern was his own very large project, the reason he cited for joining the organization from a major global investment firm. He was clear in his disinterest in managing a team as his ambition was to lead a major global program (IV 1). LPM2 frequently delegated his management activities to staff members and prioritized the management of his project over his responsibilities as a people manager (OB 4).

LPM2 was very confident and quick to assert opinions and take charge (FN 15/22). He was also at times dismissive of the project director and was very adept at deflecting attention from himself towards others, primarily by occupying a 'reviewer' role, especially when in conversation with the projects director (OB 1/9/10).

LPM2 was mostly unavailable to his staff (IV 15, OB 6/21), disinterested in process change (FN 6/8), and unimpressed with the capabilities of his colleagues (IV 5, FN 22). He was

characterized as a manager who wanted his staff to 'just do it' and not to trouble him with problems (FN 24, IV 5/10). LPM2 exhibited a directive, brusque and authoritarian approach to staff based on positional power rather than capability or management expertise (FN 22). LPM2, along with LPM1, stated that, by virtue of their role as Lead PMs within the organization, they had project management expertise superior to that of their project management staff (OB 1/4/17/18).

LPM2 showed, on occasion, enthusiasm and interest in the exercise of organizational power (FN 22, OB 2/18/21). In one instance this was manifested through dismissing the comments and input of more organizationally junior, though professionally senior, colleagues (OB 18). In other instances, LPM2 described judging and rating employees performance as part of the twice yearly performance review in an off-hand, cavalier manner (OB 21).

When asked to describe by a job interviewee the role of program managers, LPM2 replied that the role was there “To hold someone's feet to the fire” in case of difficulties or failure (OB 32).

LPM3

The third lead project manager had recently transferred from the business operations department, where she had acted as a manager. She was very knowledgeable of the systems in use by the business customers of IT. She had no project management certification and little project experience (OB2). LPM3 was transferred from her management role in operations to a management role in project management. No interview was conducted (OB 17).

LPM3 was very interested in her new role and staff, some of whom had previously worked for her in the operations department. She readily sought advice, engaged with colleagues and organized workshops for her staff (OB 4/10).¹⁴

LPM3 tended not to put forward practice improvement suggestions in meetings with other LPMs (OB 10/15), however she did engage with her staff and the projects director in attempting to understand and improve both her practice and those of her staff. In one instance of her staff engagement, LPM3 attended a project structuring workshop with her staff in which she took the role of participant and learner. She asked questions on project management and supported the questions asked by others. She was also open with the challenges she was experiencing in managing an IT project (OB 10).

Perceptions of the lead project managers in action

The personality and approaches of each of the lead project managers differed greatly. Whereas the first two lead project managers (LPM 1 and LPM2) felt that there was little likelihood of project performance improvement, as either the project managers were incapable or the organization was dysfunctional. LPM3 operated on the basis of the possibility of success.

Of the three, LPM3 was most likely to be open to the possibility of change and improvement and was quickest to embrace new ways of working (OB 39). She was also the

¹⁴ Although out of scope for this research, it is possible that the ethnicity and gender of the lead project managers played a part in their organizational status and standing. Of the three, LPM2 was the only 'local' person. Being male and belonging to the dominant societal class may have had significance in his behaviour and the perception of his behaviours by others.

most available, interested and supportive of her staff. As she was the most junior of the three she was mostly silent in lead project manager meetings (OB 15).

It was noticeable in the lead project manager meetings that LPM1 and LPM2 would cite project management practice (often incorrectly) as rationale for rejecting suggestions for improvement from the project director. When challenged on the basis of their objections they tended to reverse their objection and concede the need to make changes. However, there was a singular reluctance, by all lead project managers, to take the lead in pushing through change. This responsibility fell to the projects director.

The most visible IT wide activity engaged in by project managers was that of quarterly release. It was the practice that a lead project manager would take the position of release manager for each quarterly release. This responsibility included the management and coordination of the full suite of IT changes for the given quarter, and the oversight of the completeness and quality of project managers' release plans.

In the year of the case study there had been two major and highly visible release failures (April & July 2008). It was interesting to observe that both LPM1 and LPM2 disavowed responsibility and ownership for two major release failures, releases for which they had full charge , LPM2 in April 2008, and LPM1 in July 2008 (OB 10).

The lead project managers were not regarded highly by senior management. In particular both LPM1 and LPM2 were singled out for harsh criticism

“They are big egos that need to shape up or ship out (referring to LPM1 and LPM2)” (OB 9)

“They stymie the potential of the project managers in their teams (referring to LPM1 and LPM2)” (OB 14)

The senior management team had put the projects director on notice that if an improvement in the practice of the lead project managers (LPM1 and LPM 2) was not witnessed that she would be expected to remove them from their roles (OB 32).

Late into the case study, January 2009, a re-organization of the projects directorate moved LPM1 and LPM2 from their roles as lead project managers to roles as portfolio managers. LPM3 was retained as a 'resource' manager, a more management focused role with little project delivery responsibility (OB 55).

Allocation of Projects to Project Managers

The basis of allocating projects to project managers as practised by the lead project managers was on an immediate availability basis (IV 5/14, EM 81). In one instance, a junior project manager with less than six months in post and with neither experience nor qualification as a project manager was assigned a major global 'flagship' project that had previously been managed by a senior and well-seasoned project manager (IV 2).

The project manager felt she was ‘abandoned’ to get on with the project and that the level of interaction with others was beyond her experience and capability. This experience was leading to severe stress and depression. She was seriously considering resigning her post as she felt the pressure was “too much to bear” (IV 2).

This approach had led to instances of project managers feeling out of their depth and unable to cope with project demands more suited to more senior colleagues (IV 2/10).

Following the re-structuring of the project directorate, in early 2009, program and portfolio managers were assigned the task of requesting project management resource from the newly created project resource manager role. A complete project categorization (please see Appendix III for the project categorization table) was a required element of this request that was planned to enable the project resource managers appropriately allocate project managers to the projects that best suited their capability level, as judged by the resource manager, and as discussed with the project manager.

The resource managers also took charge of the scheduling spreadsheet and maintained an up to date record of utilization and capacity that was submitted in a monthly report to the projects director who presented it to the CIO at the monthly senior management meetings.

In some cases, when the lead project manager had notice of a large and complex project a senior project manager would be 'set aside'. However, in most cases, uncertainty as to projects in the 'pipeline' being approved led to immediate availability being used as the basis on which projects were allocated.

For their part, project managers were anxious to engage as early as possible in projects so as to avoid the pressure of 'catch up', as projects often proceeded without a project manager in place or official 'execution approval', once business approval had been secured (IV 5/13).

The absence of lead project manager support and guidance

Project managers commented on the difficulty in gaining access to their lead project managers whose availability was perceived as particularly limited (IV 2/3/5/10/11/14). This was particularly so in the case at project planning time, immediately following project

initiation, when project managers were engaged in the construction of the project initiation document.

Given the batch release process in use within the organization the immediate post release phase of release was rapidly followed by 'next release' preparation for projects. This led to a shared busyness across all project management teams at the crucial project planning phase. This collective busyness allied with the lead managers responsibility in planning their own, usually complex projects, explains the unavailability of lead and peer support for project managers in their initial engagement with new projects.

This absence of support was most keenly felt by the junior project managers who felt their only recourse at this phase of the project was to follow PID template guidance and copy and paste from previously constructed PIDs (EM 7/40).

The impact of this unavailability was most keenly felt by the junior project managers, many of whom were struggling with issues related to navigating the organization, familiarity with IT, familiarity with the project management process, and understanding and experience of project management approaches, tools and techniques (OB 10).

Project manager performance

Project management personnel, as with all personnel, were subject to twice yearly performance appraisals and a once yearly performance rating. Each project manager was awarded one of five performance scores of;

1. Outstanding performance , performing consistently above expectation
2. Above expectations, performing consistently at or above expectation
3. Satisfactory, performing consistently to expectation

4. Below expectations, performing at times below expectations
5. Unsatisfactory, consistently performing below expectations.

Those who scored '1' or '2' would be rewarded with bonus payments and potentially a pay increment. Those who scored '3' would receive a small bonus payment. Those who scored '4' would be required to improve their performance within the following six months or face dismissal. Those who scored '5' would face dismissal (OB 5).

The organizational system in place for project managers' performance management was that of;

- i) appraisal against performance targets agreed with line managers and
- ii) relative appraisal against peers, with a forced performance rating distribution of
 - 20% performing above expectation – graded one or two and therefore eligible for significant bonus
 - 70% performing to expectation – graded three and eligible for minimal bonus
 - 10% performing below expectation – grade four or five and subject to improved performance within six months or dismissal (OB 5).

The person responsible for setting the performance goals and objectives with the project manager was the lead project manager.

The nature of authority with regard to the role as it related to project success was a theme that was much discussed across both the project management team and the lead project management team. Lead project managers, whose responsibility it was to set performance

criteria to be agreed with project managers, displayed a disjointed and ambiguous approach to the setting of goals and objectives (EM 10/34/166, FN 5/6/26, OB 2/6/17/21/24).

While project managers agreed, in principle, that the project manager bore responsibility for project success and that a 'fair' indication of project manager performance would be that of project success, it was stated that in practice the project manager had so little authority that such a measure would be unfair, as the success of project delivery lay outside of the project managers' control (IV 3/6, OB 21, EM 1/10).

A review of the performance management contracts drawn up between the project leads and the project managers for 2008 revealed a disconnect between evaluation of project success and the rating of project manager competence. The goals and targets given the project managers tended to concentrate on issues of process compliance, promptness in reporting project status, and lead project managers' subjective impressions of project managers' contribution (EM 1 and OB 2).

The 'subjective' nature of the judgement of performance was an area of much rancour with project managers with comments such as, the object of performance was to 'make the lead look good and feel happy, not about how the projects are performed' (IV 3/5/6).

Project managers interviewed had a mixed response to the formulation of the performance based goals and objectives. On the one hand, they were unwilling to be held responsible for project success criteria they felt they had no control over

“Project success and the metrics linked to success are difficult for project managers to manage” (IV 12).

On the other, they were unhappy with the discretion available to lead project managers to interpret the 'subjective' opinion of others as to their performance on the basis of a perceived personal like or dislike.

"I don't think LPM1 likes me" (IV 6)

Project managers seemed quite clear in their understanding as to how the performance management system worked and indeed in how it was to be worked if bonus and promotion were desired. The consequences of 'solid' project performance were seen as secondary to the political 'pandering' to those who were in a position of judging performance, namely the lead project managers.

Although it is clear that the project managers were unhappy about this subjective and political nature of performance evaluation, they were equally unhappy about being judged on project metrics over which they felt they had little control (IV 3/6, OB 21, EM 1/10).

It was of interest that some of the certified project managers promoted the linking of project performance criteria of cost, time and scope /quality to project managers' performance. However, given the local conditions of practice they stated that it would be unfair to do so in their present context (IV 5/6/13).

On a related matter, the perceived promotion of some project managers over others was seen as being done in an ad hoc 'political' manner by the lead PMs (Org Doc Employee_Survey), with allegations of favouritism and cronyism being raised (IV 3/ 6).

An attempt to change the basis of IT project manager evaluation

Much effort was made by the projects director, from the commencement of the field based research onwards, to create appropriate project management performance targets and evaluation (OB 6/21/24, EM 10/34/166).

In early July 2008, the projects director requested the lead project managers make available the performance measures they had discussed with their team members so that commonality of approach and measures for practice evaluation could be established (EM 1).

After much discussion and review of earlier documentation (EM 1) it was agreed that a new set of performance criteria be established that linked project managers' performance evaluation with project execution success and with the building of project management capability within the department. To this end multiple drafts of these performance criteria were circulated and discussed (EM 10/15/22/34/166).

It was agreed with the lead project managers that all performance criteria would align to principles of;

- 1) transparency – it would be clear to the project manager what the practice performance expectations were and how they could be achieved
- 2) traceability – it would be clear and agreed what evidence would be used in the evaluation of performance and how it would be interpreted and
- 3) relevance – that all measures used would take into account the context in which project managers worked, and that elements outside of the control of project managers would be taken into account in the interpretation of performance evaluation (EM 34).

Lead project managers had taken the agreed performance measures, discussed them with the project managers, and submitted them to the organization's performance appraisal system.

A meeting to discuss the interim half-yearly evaluating ratings to be assigned individual project managers was held in August 2008 and was attended by the lead project managers, the projects director and the researcher.

At this meeting the lead project managers proposed individual project manager ratings that were to be discussed before a 'forced distribution' of 20:70:10 was attempted (OB 21).

What was of note at this meeting was that the lead project managers were very clear and comfortable with the ratings they had assigned to each individual project manager. However, when asked to produce the targets agreed with the project managers, and the evidence of their attainment or otherwise, the lead project managers were unable to do so.

All lead project managers assessments were based on 'personal' perceptions of capability gleaned through interpersonal interaction with the project managers and through comments received from 'trusted' colleagues (OB 21).

The projects director, clearly unhappy with this approach, stressed the need to align evaluation to what was agreed and documented in the performance targets and to supply the evidence against those criteria (OB 21). The Lead project managers were tasked with this work and the meeting re-scheduled for a week later.

The following meeting proceeded smoothly with evidenced evaluation being presented by the lead project managers. The evaluations of a significant number of project managers had

changed from the previous week. Some of those who had been afforded high praise were evidenced as meeting but not exceeding expectations, and some of those judged as below expectations were evidenced as meeting expectations (OB 24).

It seemed to be the case that until required by the projects director the week previously, the manner in which evaluations had taken place within the directorate had followed the subjective and personal interaction based judgements of the lead project managers. This gave some credence to the project managers charges of 'cronyism' and 'favouritism' levelled at the lead project managers (IV 3/5/6).

Organizational expectations of project managers

There was a perception that the project initiation document set the tone for the project. It was also used as a gauge by the senior management 'approvers' as to the credibility of the project manager, as it represented the first substantial contribution of the project manager to the project delivery process (OB 16, EM 41). The approval of this key document, the PID, was seen as the start 'proper' of project delivery (OB 16/42, EM 40/41, Org Doc Process_Map).

At the commencement of the case study project managers and their credibility was seen as compromised by what was described as "shoddy, cut and paste practices" (OB 12) in the construction of these documents.

The performance of project managers in face to face meetings with senior management, at project board meetings, and at project escalation meetings were the basis of one senior

manager stating “they lack all credibility, don’t seem to know what is going on, they don’t have a handle on things and don’t seem to want to have a handle on things” (OB 1).

The stated lack of confidence in the project managers was echoed by the CIO who was considering removing the project management role from the department and re-structuring delivery teams to be headed by delivery managers (OB 9).

The CIO, IT Delivery Director, and Projects Director shared the view and the concern that the project managers were lacking in focus on their role responsibilities, were reluctant to engage with the authority invested in their position, and were lacking in behavioural capability to carry out their roles (OB 1/9/28).

What Project Managers thought of their role

Project managers focused on the difficulties, challenges and conflicts inherent in their roles in describing their practice. In doing so, they utilized a construction of the project management role based on the definition in use by the PMI (PMI 2008) of having authority and responsibility for managing projects to successful completion in terms of scope, quality, schedule and budget (IV 5/10).

The considerations of the organizational context and circumstances were seen to diminish the possibility of professional practice and identity. Organizational structure was seen, on the whole, as constraining. These constraints ranged from the process defined (regulative) exclusion of project managers from initial project phases to the culturally experienced (normative) acquiescence of project managers to the perceived power and authority of other staff roles within the organization, and experiences of being disregarded and disrespected professionally by senior management (IV 2/3/5/6/13).

Project managers were frustrated and disillusioned with the contribution they believed they were making through their role (IV 5/13). In many instances the project managers described the position they occupied within the organization as not being 'proper project management'. The refrain of "We are seen as project coordinators not project managers" was consistent across interviews.

"project managers' activity within the department is better described as project coordination as opposed to project management... project management processes are frequently short circuited by senior management" (IV 5)

Episodes of 'bad' professional project management practice such as the absence of critical path analysis at project schedule planning were described as being 'outside of the project manager's control' due to the very poor practices of senior management, quality personnel, business analyst and development colleagues, and to the lesser role they felt the organization afforded project managers (IV 2/3/5/10/12/13).

"Project managers suffer from a lack of equality (with other roles)" (IV 13)

Many of the project managers voiced a belief that the role, and they within it, were little valued and that their role was inferior in status to other staff roles, while being higher in stress and responsibility (IV 3).

"Project managers have no say in anything" (IV 2)

and

"The project manager's power to refuse has gone... senior people do not take ownership or responsibility... IT is powerless" (IV 10)

The general thrust of the comments centred on a perception that project managers served a 'chase up' and administrative as opposed to a management function.

“A large amount of time is spent in getting sign offs, and chasing emails” (IV 14)

It was reported by one of the lead project managers that project managers were characterized informally by a lead developer colleague as

“Best ignored unless there is a problem, then they are useful to pin the blame on” (OB 11).

This suspicion of being the organizational 'fall guy' for project problems fed into the perception of victimization mentioned by project managers interviewed (IV 2/3/5/10/12/13, OB 11).

The penetration of the work role needs was felt to be encroaching on the personal roles of some of the project managers. The busyness combined with the perceived helplessness, isolation, frustration, and blame was being experienced by some of the project managers as upsetting and stressful (IV 2/3/8/10/11/15).

There were common themes of helplessness, frustration, overwork and unhappiness expressed by many of the project managers interviewed (IV 2/3/5/10/12/13/14).

Further evidence of project managers' perceptions of their work life can be gleaned from some of the responses given, in early 2008, to the yearly employee satisfaction survey.

Despite the inducement of financial reward (high satisfaction ratings translated into

improved levels of bonus for management and staff members alike), the survey responses from the local IT project managers were critical of many aspects of their working conditions and compared unfavourably with other role holders and directorates within the department by an average margin of close to 12%.

The global survey responses of the local IT project managers from early 2008, in relation to specific elements of employment satisfaction, found that;

1. 81% felt that promotion was not based on merit
2. 58% were dissatisfied with their jobs
3. 58% perceived a dissonance between managements guidance and actions
4. 58% felt demotivated
5. 54% felt dis-empowered in relation to practice improvement
6. 50% felt their contribution was not valued
7. 46% were unsure of what was expected of them (Org Doc Employee_Survey).

Across the general categories to which the local IT project managers responded it was notable that;

- 64% were unhappy with how they were rewarded for their efforts
- 57% were unhappy with their direct manager , the LPM
- 52% felt they were ineffective in their role
- 40% were unhappy with their work-life balance (Org Doc Employee_Survey).

The project managers' expressions of frustration, stress, of feeling devalued as professionals, and of being 'reduced' to coordination in place of management was an ongoing and persistent complaint throughout the field study. Their appreciation of the low regard in

which they were held by senior management, lead project managers and colleagues was expressed in either terms of resignation (IV 6), or in terms of anger and annoyance (IV 10).

Prescribed Input to the Planning Process - Feasibility Reports

Prior to the commencement of PID construction relationship managers, development leads, business analyst leads and business sponsors reviewed the submitted request. Project managers were not invited to attend these meetings in line with local, though not global guidance.

The output from this phase was a feasibility report that may take various forms and contain varying degrees of detailed request information such as;

1. The high level business requirements – given to specifications of completeness and accuracy
2. High level functionality to address these requirements – giving various priced options
3. Business rationale for the request including measurable business benefits.

In a review of 10 feasibility reports business cases all stipulated a cost range for the project and a targeted delivery date for its release. In no case were the business benefits measurable or the business rationale clear.

In some cases the estimated effort required to complete work seemed particularly excessive such as;

1. 6 head count months to format an existing report by adding an existing and populated database field to the report

2. 1.7 head count months to redirect existing reports to differing existing printer locations
3. 4.5 head count months to allow the populating, with minimal validation, of two existing fields on one input screen.

Regardless of the validity or otherwise of the estimates within the feasibility documents project managers restricted their engagement with these documents to a copy and paste of the summary of the business rationale at the document's beginning. Project managers neither reviewed nor queried the assertions or the absence of critical information in the feasibility report documents.

Focus on the practice of constructing the Project Initiation Document

In interviews with the project managers it was clear that the construction of the PID was seen as the most important aspect of their work within a project. The importance associated with the production of the document related to its importance as a 'key' process document, its nature as a signed approval to commence project work activities, and its centrality in the articulation of the overall project plan for project delivery.

The elements to be considered were clearly defined in the PID template, outlined above, and can be considered to be wide ranging and sufficiently detailed with regard to initiating IT project activity. The activities to be undertaken by the project manager in constructing this document encompassed all of the PMBOK knowledge areas associated with the Planning Phase (please see table in Appendix IV), and invoked the use of multiple project management tools and techniques.

The “plan then do” approach advocated by the PMI and supported by the organization’s process map highlighted the centrality of the project manager to this process.

There was a commonality across project managers, across seniority and certification differences, to engage in a copy and paste exercise in the construction of the PID (OB 42).

Rhythm and Tempo of PID production

Ideally, and in keeping with the global guidance, the PID would be constructed following the completion of the feasibility stage of project initiation and the completion of the feasibility report.

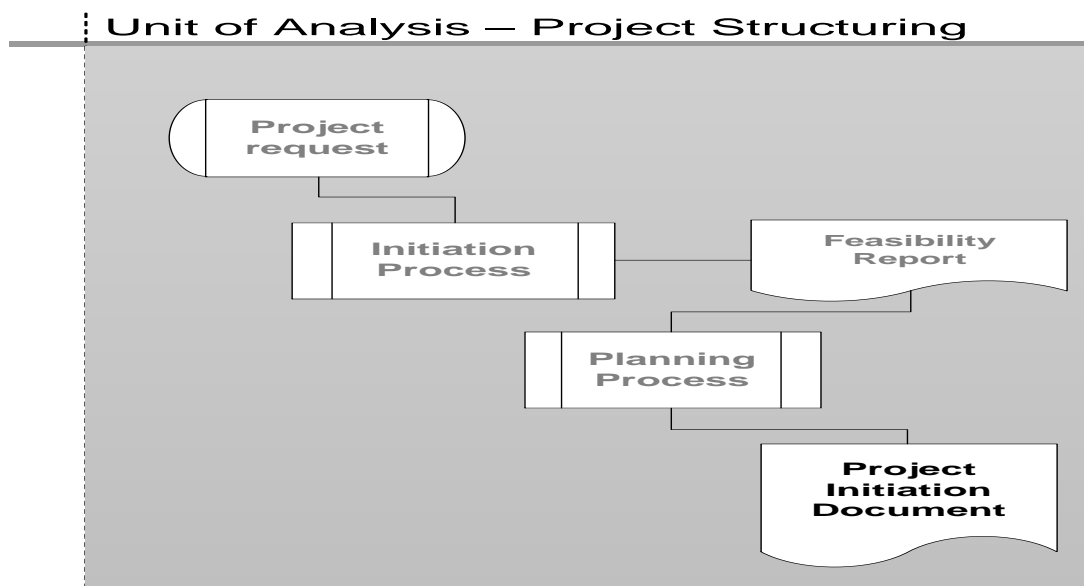


Diagram 5.7 – PID construction following Project Feasibility planning

The feasibility report was seen as the key input to the creation of the PID and was expected to assist in the formulation of appropriate project structuring and planning.

The implication of the project managers' exclusion from participation was manifold and most significantly it could be seen as a change to the rhythm of project process activity that had an impact on the IT PMs' perception of the potency of their agency.

In the case of project managers' exclusion from the initiation phase there was a feeling that the project progressed to the drumbeat of the lead developer, as the role-holder responsible for solution design, costing and scheduling, without any consideration being given to the manageability of the project and its likelihood of success. Indeed, in all feasibility reports reviewed project schedule and costing had been completed before project manager involvement had commenced.

This 'relegation' of the PID to a 'permission to proceed' document was experienced as undermining the contribution of the project manager and the importance of project planning in the delivery process.

Given the explicit statement of a project delivery date, the construction of a PID was seen as a bureaucratic irritation necessitated because of the need for process compliance and therefore best completed so that the 'real' project work could commence. The rush to complete and receive sign-off for the PID was often pushed by the lead project managers (OB 14).

The stated completion date set in place the tempo of project activities. The perceived low value of the PID and the project management contribution relegated the place of this process in the cycle to a delaying gap that was best overcome rapidly. The dual effect of rushed tempo and a de-emphasized process highlighted the lack of importance of the project managers' contribution to the project at the planning phase.

The Purpose of Writing a PID

Project Managers were briefed on the importance of the PID was “to get senior management approval” (OB 42). This focus on the needs of senior management and their sign-off was cited as one reason for not challenging erroneous business and project assumptions.

One of the senior project managers stated

“If that's what the AVP says then it has got to be right. We are just small people, they are the big people, they know” (IV 6)

Though rarely articulated as bluntly as this, it was argued by the project managers that the business benefits statements put forward by senior sponsors would be neither challenged nor queried (OB 42, EM 84).

In all PIDs reviewed, the business cases submitted either contained no measurable criteria, contradicted the stated intentions of the project, or were absent. When the project managers were confronted with these failings within their documents they countered that “the business own that side of things, it’s not our business to challenge them” (OB 42).

PID formulation

Project managers suggested that they felt obliged to 'follow the template' in constructing PIDs (OB 42). The advice received by junior project managers from lead project managers consisted of advice to

“Fill in the blanks and copy and paste from some good PIDs from senior colleagues” (OB 10).

In some instances the lead project managers provided PID exemplars that could be followed. This was problematic given that;

- lead project managers did not agree on what constituted good practice (OB 42) and
- The generic guidance of the template and previously constructed PIDs could not cater for the particular circumstances of the specific project being undertaken.

Later in the field study, November 2008, a series of project structuring workshops were held where the construction of the PID was vigorously debated by the project managers. The diverse views as to the purpose of the document, the level of detail required within it, and its use as a project management ‘aid’ clearly demonstrated the absence of a coherent view of either the project manager role or practice (OB 42).

Recognizing dual elements of the document one senior project manager suggested that a ‘sign-off’ PID be produced to meet the compliance needs of the process and the sign-off needs of the senior managers, while a project manager derived and supporting ‘charter’ be build alongside the PID to address the manageability concerns raised by project managers.

This suggestion was generally well received, however, one of the lead project managers (LPM1) suggested that any deviation from the standard process would be frowned upon and would in any case have little value, a view echoed by another lead project manager (LPM2) (OB 42). It was agreed that project managers might wish to construct project charters for

their own 'personal' use, however, the official documentation would need to comply with the process prescribed documents as defined in the template (OB 42).

Nevertheless, the use of previously signed off PIDs, the pressure to ensure process compliance, and the reinforcement of this approach to PID construction by the lead project managers all served to perpetuate a practice that worked against the likelihood of project success and that as such was acknowledged, in conversation by some, as professionally disadvantageous to project managers (IV 12, OB 6).

Structuring the project development approach, aligning project and ISD approaches

A key element in the planning of IT projects is the software development approach to be used. Generally, the waterfall approach to software development is seen as suitable in instances where there is a clear definition of both the requirements of the software user and the software solution to be implemented (IV 17).

This 'qualification' on the use of the waterfall approach recognizes the implicit assumption, within the waterfall model, that the early phases of analysis and design can be fully completed and handed over to development for coding without the need for iterative loops of redefinition and analysis. In all of the Project Initiation Documents reviewed, and in all the interviews conducted with the project managers, where the waterfall approach was used, the initial responses to the approach used varied between

1. senior project managers stating that the waterfall approach was the most suitable to both the project itself and the organizational context, and

2. junior project managers professing an ignorance of any ISD or project approach other than waterfall (OB 10).

It was pointed out to the project managers that the global standard template suggested the use of either a waterfall or an iterative approach (Org Doc PID_Template). However, in the exemplars presented by the lead project managers to the project managers the option for iterative had been rejected and removed, and the waterfall approach was adopted in all cases, perhaps giving the impression that no other approach was expected or existed (EM 40).

Upon further discussion with project managers, and review of the feasibility reports, it was found that many of the initial business requests stated the instability of business requirements and the uncertainty of the software solution as key elements to be considered in the execution of the project.

Most of the project managers were unaware of these statements and had stated they accessed the initial request documents exclusively for 'copy and paste' purposes and had not 'read to the end' (IV 18, OB 35, EM 74).

When this uncertainty was raised some of the project managers' responded that

“Development do iteration anyway, just not officially” (IV 10).

When pressed, all the project managers recognized that the approach used in designing the project had a major impact on the manageability and likely success of their projects. They also accepted that they, the project managers, were the 'victims' of this approach to structuring and planning projects as;

1. problems manifested themselves most forcefully at the latter end of projects when there was less time to recover, and where project activity had moved from business analysts, developers and testers responsibility back to being the responsibility of the project manager and
2. responsibility for project success rested squarely with the project managers, “It is our heads on the line” (IV 13).

This ‘espoused waterfall’ and ‘actual iterative’ approach that led to frenetic later phase working that compromised scope, quality, time, and cost to meet the immovable deadline of the quarterly release was reluctantly acknowledged by project managers as at least ‘partially’ a result of the decisions taken, by them, at the project initiation and planning phase.

There was also the further acknowledgement that the ability of project managers to engage in professional conversation with the development team was limited by the ignorance of many of the project managers of matters technical, and the active resistance of developers to explain, or at times even state the nature of the development work they would be undertaking (OB 10).

A lack of an integrated understanding of the project life-cycle and its importance was a cause for much concern to the junior project managers (OB 10). The importance of considering the business case, usability and functional criteria of projects in the planning stages of the project, even though the activities associated with validating them were attended to a later stages in the project, was not clearly understood.

In an attempt to relate each phase to a later corresponding phase the researcher constructed and circulated a V-Shaped diagram in an attempt to better communicate the interconnected and interdependent nature of all the project phases.

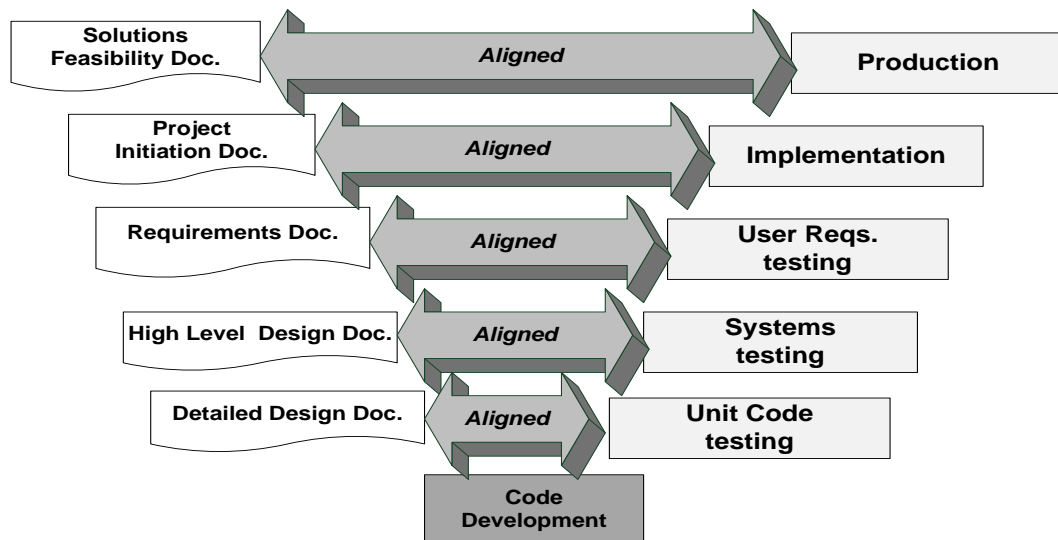


Diagram 5.8 Waterfall Approach to Project Management mapped onto Key Organizational Milestones

Although an iterative approach was mentioned in the global guidance as an option for project managers no instance of its use was found at the commencement of the field study, nor did any of the project managers have a recollection of iterative approaches being stated as the project approach in their time with the organization (OB 42).

However, in some instances it seemed the practice in projects was that of multiple re-iterations that was prompted by failures to proceed to the next project phase because of technical impossibility (the software did not function), or by technical deficiency (the software did not meet the needs as expected by the testing teams, or business users).

As the field based research progressed project managers approached the researcher with questions as to the possibility of utilizing an iterative approach to development. To this end a second V-shaped diagram was constructed and circulated that illustrated one possibility of the use of an iterative approach in the software development phase as presented in diagram 5.9 below.

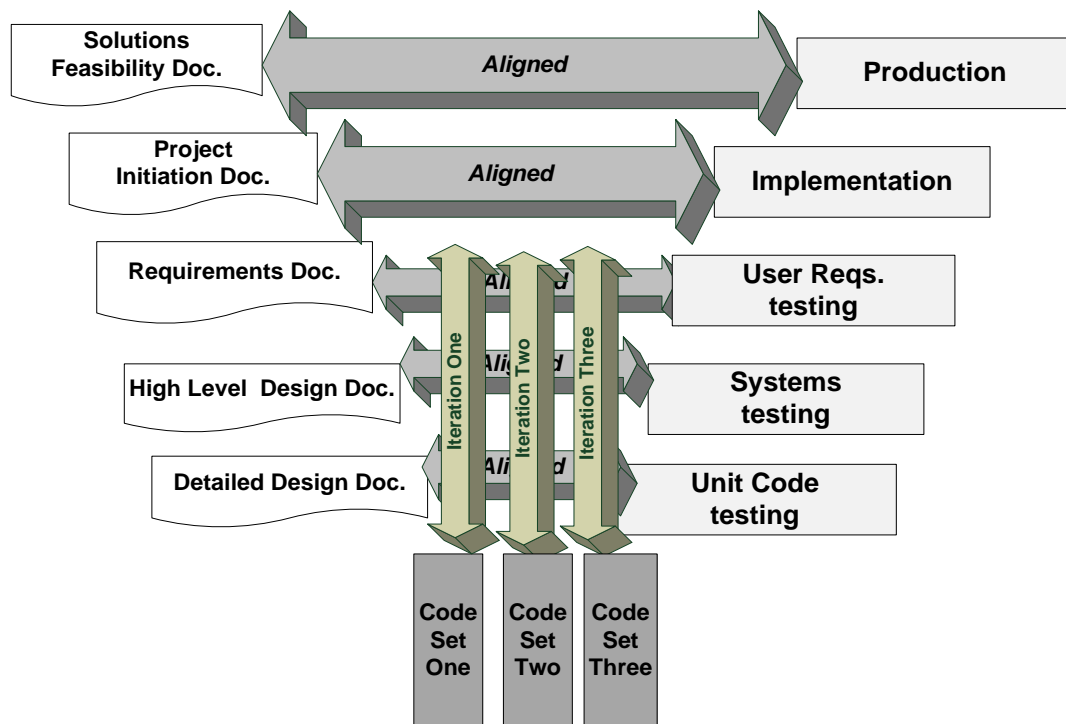


Diagram 5.9 Iterative Approach to Project Management mapped onto Key Organizational Milestones

Some of the project managers stated they had begun to use this diagram in conversation and meetings with other project team members as an aid to creating a project wide coherence and cohesion to the work being done (OB 42).

The practice of planning for delivery

Project Managers did not articulate a clear understanding of what, specifically, their projects would deliver. With the exception of two PIDs constructed by a European based PM (PR PID 24/25), in all of the PIDs reviewed before focused interviews were engaged in the project deliverables were exclusively described in terms of the key project documentation that were expected to be produced in compliance with the global standard.

This document focused formulation of what the project would deliver gave a clear indication of the over-riding importance in the eyes of the project managers of the bureaucratic elements of the project, while demonstrating a lack of interest in the products and services that constituted the rationale for project execution in the first instance.

Of the 35 PIDs reviewed the two constructed by a European based PMP certified project manager followed the same global standard in use by the local project managers, but differed from them in significant ways as follows;

- The PID document focused on a clear and concise description of the rationale behind the project's business case
- business benefits were quantified
- there was a concentration on the projects outputs in terms of the products and services being developed (PR 24 PID & PR 25 PID).

Some PIDs produced later in the field study were beginning to include some of the aspects missing from earlier PIDs. In particular, the PIDs being developed by the new lead project manager (LPM3) recently recruited from a business unit, were singular in their attention to

business detail and in their inclusion of metrics for business case success (Redrafted PR 19 PID and PR 34 PID).

The practice of defining project scope

The reticence to engage in critical dialogue with non-project management colleagues was apparent in all the focused interviews with project managers where the project scope, schedule, and budget were discussed.

In no case could the project manager produce nor had they constructed a project Work Breakdown Structure (WBS). The use of WBS by departmental project managers had been one of the main performance targets agreed with project managers the previous year and was written into the performance management contracts (EM 1).

The WBS is a basic tool used by project managers to define project activity scope and on which all budget and schedule calculations are based. As such, it is seen as the fundamental building block of project management planning activities.

Various rationales were offered by the project managers for this absence of the WBS. In some cases junior project managers were unaware of the techniques used to elicit project activity scope statements and transform them into Work Breakdown Structures.

In other cases, the senior and lead project managers' normative practice of leaving the scope of the project to the development managers was used as reason for abstaining from using this technique.

In several instances, during PID focused discussions, project managers requested the researcher's assistance in 'uncovering' the scope of the project through facilitating a meeting between the project manager and the lead developer.

One senior project manager had experienced great difficulty in eliciting scope and effort information from his business analyst, development and testing colleagues. This challenge of eliciting information was a shared challenge faced by all the project managers. When these challenges had been raised to the lead project managers, the project managers were advised to proceed with what they had and that their colleagues would give them what they needed and 'not to worry about it' (OB 10).

Other project managers experienced difficulties in engaging with colleagues, especially development staff, as they were unfamiliar with IT and its terminology (IV 10).

One of the senior project managers, though well versed in IT with over five years past experience with a major global technology company and five years with the department, had great difficulty in facilitating scope and effort discussions with the lead developers (OB 31, EM 101).

During the later stages of the research the researcher was asked to facilitate some of these scope discovery meetings with this senior project manager. It was obvious from this and other encounters with development staff that the development staff were unfamiliar and uncomfortable with making explicit the solution they would build and with calculating, with justification, the effort that it would require to build the solution (OB 31).

In order to translate the constructs in use by the development staff the researcher engaged in constructing schematic diagrams and flow charts of the application being discussed. Clarification was then sought from the developer as to the extent of development taking place in each of the software and hardware elements discussed and illustrated.

This approach animated the discussion with the developers and succeeded in eliciting significant scope and activity duration information. It seemed that when developers were approached from their professional world perspective using software development laden terminology and concepts that they were familiar with that greater informational exchange and negotiation could occur.

The stated approach of some of the project managers previous to this had been to send an email to the development staff requesting they advise the project manager of the work breakdown structure they would be using, to which invariably little useful information was received (EM 101).

Most of the project managers, up to this time, had accepted scope and effort statement from business analyst and development colleagues that consisted of statement such as 'Fourteen months of effort over two and a half months, beginning in April' as sufficient information on which to construct a project schedule and calculate project cost (IV 12/13). When challenged with the inadequacy of such a response, if the project manager were to take charge of a project, a mixed set of responses was received. One project manager with sixteen years' service within the department responded

"Should I care what they are doing? So long as they get it done what does it matter?"

(PR 20 PID, IV 10)

In some cases, business analysts produced project scope spreadsheets that were termed a 'traceability matrix' in which the business requirements were broken down into functional units ready to be traced through to the solution that would be constructed. Although this was, at times, used by project managers its utility was limited given that the focus of the traceability matrix was that of tracking customer requirements, whereas the focus of the project manager was to be that of organizing project based, solution focused activity (IV 5).

It might be inferred that the fear of losing professional credibility was seen as very real by project managers who historically had not been supported by senior managers in their attempts to challenge the authority of functional managers in project related issues (OB 42). As such, there was a reluctance to engage in interactions in which they had little experience, expertise, or likelihood of management support.

The practice of planning the project schedule

The absence of Work Breakdown Structures meant that the calculation of a project critical path and from this a project's earliest delivery date was seriously compromised.

In fact, none of the project managers had utilized critical path analysis in the calculation of the delivery date. In all cases the 'flawed' estimate from project personnel was constructed into a time based sequence, at the granularity of activity months in most cases and weeks in some, that was made to 'fit' into the quarterly release scheduled date requested by business. In most cases this necessitated the overlapping of all activities (known in project management circles as 'fast tracking', an inherently risky approach usually reserved for time critical projects).

Yet, in less than four of the thirty five PIDs reviewed, the fast tracking of the project and its inherent riskiness was identified as a project risk, and in very few of the cases was 'time to market' cited as a key business driver that would warrant such a risk being taken.

This manner of project schedule construction led to project manageability difficulties, as testified by the project managers. The overlapping of activities across different teams led to the need for re-work, and invariably compromised quality and pushed the project to non-compliance with the global process, as stages were often started and in some cases completed before official sign-off of the preceding stage had been received by the project manager.

Further, it was seen that such an approach led to multiple revisions of development code to 'get through' testing at the back end of the project. This occurred to such a degree that the four weeks up to release tended to be a constant round of late night and weekend working resulting in compromised project scope and quality, and increases in project cost not to mention disruption to work life balance and family life for some (IV 2).

As it was the project manager's responsibility to successfully implement the project at the release phase, this failure at the planning phase tended to become manifest as issues at the implementation phase of the project. The absence of robust and engaged planning in which the manager became acquainted with the project activities to be conducted and the risk associated with the overall endeavour resulted in hasty panic ridden implementations in which "getting it in" was a quarterly trauma inducing ritual (IV 5).

The estimation approaches used, by the development team in particular were seen as a major contributor the difficulties experienced by project managers in planning projects. A senior

209

project manager volunteered to become the 'estimation' Subject Matter Expert in order to resolve this widespread issue (IV 4/6/12/13/14).

However, although PMP certified, he had not at that time attempted to use or even include the project management tools and techniques designed for this task but rather engaged in challenging the basis on which other teams estimated project effort and the level of detail included in that estimation (IV 4).

It should be noted that the failure to align the project schedule planning activities with the development teams' code development practices exacerbated the challenge faced by the project managers in constructing a project schedule.

Project managers also ignored the iterative nature of the project's development activities and participated in the 'fictional' adherence to a linear sequential approach to development.

The practice of planning the project cost

Wider Context - Departmental cost management

The means by which projects were funded was that of a cross charge of the full project cost from IT to the requesting business unit. Each business unit had an agreed IT budget each calendar year and would agree a priority list of requirements with the IT relationship manager at the beginning of the yearly planning cycle (FN 55). This yearly plan would be re-negotiated on an ongoing basis between the business unit managers and the IT relationship managers with reference to changes in priorities and the actual and planned cost becoming known of various 'projectized' requirements from IT.

Identified projects were committed to a spreadsheet, which was referred to as 'the funnel' by the finance department, and was updated on a monthly basis by relationship managers and the finance department. This spreadsheet was shared with the senior managers on an as requested basis, usually on a monthly or quarter end basis. Project managers were aware of, but did not have access to, this document.

In the latter part of the study, early 2009, the PMO led bi-weekly meetings with the projects director, portfolio managers, relationship managers and resource managers that reviewed, updated and released the departmental 'funnel' to the project directorate web portal so that timely access to current information was made available to all interested parties. These bi-weekly meetings and improved currency and availability of the document allowed portfolio managers the visibility required to alert the relationship managers of risks to business department budgets and time to adjust budget forecasts and re-prioritize projects, as required.

Project Cost Tracking

The manner in which the department tracked project costs was through the use of a globally prescribed resource tracking software application system, hereafter referred to as PMIS. Each week all employees were required to update their time-sheets detailing the amount of time spent working on specifically coded project and other activities.

The line manager of each employee, in the case of the project managers this was the lead project manager, would endorse the times submitted and the details would be released to payroll to trigger the bi-weekly staff payment process. Reminder emails of non-submitted time-sheets were sent to staff and line managers alike with repeat offenders highlighted in

the CIO's monthly reports. Compliance with time sheet submission was very high within the IT department and the Projects Directorate.

The time-sheets submitted by project team members were available to project managers to interrogate, providing they were familiar enough with the PMIS to run the appropriate query. The lack of capability in this regard amongst the IT staff in general, and the project managers in particular, meant that this system functionality went unused for most of the time the field study was taking place. Late in the field based study the talents of a new member of staff were employed to assist project managers accessing the data held on the PMIS system.

This lack of project manager access to project team members' submitted time-sheets frequently resulted in project managers becoming belatedly aware of project cost overruns over which they had no knowledge, authority, or control.

The allocation of team members to projects and their allocation to project manager assigned activities was the remit of the resource manager/functional manager, not that of the project manager. The overriding of the permitted hours total for each activity did not trigger any warning or notice to the project manager when it occurred. Once a project team member had submitted his/her hours for a given task the remaining effort was rarely, if ever updated by team members. Thus, a useful estimation of forecast of time to complete an activity in progress was unavailable.

The granularity of activity and task followed the practice of the activity estimation, discussed earlier, in that the activity was defined at a high level, such as 'development coding', allocated large time durations, such as two months' worth of effort, and was therefore difficult to

both track and update. This challenge of project costs being allocated to the project without project managers' control or redress was further exacerbated in the case of offshore teams working on projects.

The challenge for project managers here was two-fold. First, the offshore teams had mandated a two week notice period for any changes to resource usage in projects so that they could better manage their resource pool. As the project managers had little detailed knowledge of project team member activities due to the absence of work breakdown structures and detailed plans the possibility of project managers being in a position to forecast their needs to this degree was slim. Frequently projects incurred resource usage costs in instances where no project activity had taken place because of the inability to request offshore resources to 'stand down' with due notice.

Second, the offshore teams managed their own version of the PMIS to which the local IT project manager had no access. The project time-sheets were billed by the offshore resource on a monthly basis. This billing information was fed straight through to finance by-passing the project manager and any possibility of scrutiny by her. This led, on many occasions, to project costs escalating without the knowledge, authority or control of the project manager.

The rationale given by the project managers for this lack of granularity in the PMIS was that the effort of using the software was so great that it adversely impacted the project, in some cases taking more than a day to load and being next to impossible to modify and update.

Whereas some of the responsibility with this inability to manage project costs and schedule could be laid with project managers and their lack of detailed planning and knowledge of project activity, the PMIS was seen to constrain practice with regards to the discretion of the

213

project manager in managing project costs and schedule and the ability of the project manager to track both project incurred and forecast costs, and calculated time to completion.

The PMIS was therefore used as a time-sheet input and tracking system that was used as a support to the IT department's finance operations and not as a support to the IT projects being developed. Project managers rarely and reluctantly interacted with the system despite its stated organizational importance (EM 1/8/62/177/178, OB 77).

Project Managers inability to communicate project cost information

The absence of detail of who would perform which activity within any given phase in the project (as a result of the absence of a WBS and the limitations of the PMIS) led to project managers retrospectively review submitted project costs with a one week time lag. This led to frequent instances of confusion and frustration in conversation with team members and project board members, as project managers could neither accurately relate the cost incurred to date on their projects nor could they demonstrate whether the project was below, within or over budget at any given time (EM 131- 139).

The Project Managers were clear in their admission that the ongoing costs associated with project activity were unavailable to them and that at any given time in the project they were hard put to evaluate the project's status in terms of the project being;

- On schedule and to budget/over budget/under budget
- Early and to budget/over budget/under budget
- Late and to budget/over budget/under budget (OB 42, EM 131-139).

This lack of clarity as to project status, while frustrating from the point of view of one project, taken in the context of a portfolio of projects for each line of business resulted in relationship managers and business managers being uncertain as to the funds available to them. This lack of accurate and timely information left them with a difficulty in deciding the business priority of projects planned for the remaining months of the business year.

Although in earlier times this had not been a great consideration given a full focus by IT on the lines of business needs, the transition to global projects and the associated funds allocated to serve them meant that lines of business were faced with a serious reduction of IT project funds available to them. This new reality accentuated the need for clear and accurate project financial status and schedule information in the minds of both the commissioning business managers and the IT relationship managers put in place to support them (OB 31, IV 4/6/12/17).

The practice of planning project risk

One key element in the management of software projects is the management of risk. The emergent and uncertain nature of software development projects has been commented on above (Standish Group 1995).

The PMI's guide to the PMBOK dedicates a chapter to the specific knowledge area of risk management. The professional journal of the association regularly features articles on the challenge of managing risk in projects.

Both the global and local project management guidance focuses on the identification and mitigation of risk as key elements in the production of the PID. Project managers themselves, however, were less inclined to engage with risk management activities as would

be expected given this strong focus in both professional and organizational guidance documentation.

One project manager's belief was that the manner in which the project documents were approved, coupled with the lack of project management understanding at senior levels led to the practice of approval based project management, a practice focused on gaining approval for action from senior members of staff in which the downplaying of risks was seen as necessary to avoid unnecessary interference and delays (IV 5).

A review of the PIDs and subsequent conversations with project managers did not, however, fully support this belief. In all of the local PIDs reviewed there was either an absence of risk identification, incorrect identification of constraints as risks, risks as assumptions, and constraints as dependencies, or identification of risk effect but not of risk cause.

Certified project managers seemed unaware of the generic definition of a risk as “a possible future event that may have an impact on one or many of the project's objectives” (PMI 2008). This lack of clarity with regard to risk identification led the projects director to question her own understanding on the reading of PIDs received from three of the directorate's most senior project managers (EM 188).

The researcher was aware of only two instances of risk management workshops taking place during the field based study. On one occasion, in this case the largest single project ever conducted by the department, the identification of risk was confined to technological immaturity and resource constraint related to the technical teams' activities and was led by the lead developer. Consideration of risks associated with the project approach, processes,

scheduling and costing were not considered. When questioned on this the project managers involved cited the uncertainty of requirements and the incompleteness of information as reasons for ignoring project based risk (OB 75/83).

On the second occasion of a risk planning workshop taking place the lead project manager (LPM3) led the workshop the output of which the researcher observed. In this case the project manager had engaged with the wider project team in identifying risks and responses which were then committed to 'post it' notes attached to the meeting room wall. This approach facilitated wide ranging conversation on the risks that any of the activities might have on the achievement of the project objectives which were displayed prominently on large sheets on the facing wall (PR 24 PID 19).

In general, however, the absence of a detailed understanding of the project activities compromised the possibility of project managers working with team members in the identification of project risks. The difficulty in engaging project team members in workshop discussions and eliciting information from them (mentioned earlier) served as a barrier to engaging in this activity. Lastly, the lack of understanding of and familiarity with the concepts of risk management served as a further barrier to robust engagement with project risk.

Project Managers' ad hoc information systems

The non-compliant use of the standard software became an issue late in the field study when the regional compliance group stated their concern that use within the local IT department was so low. A telephone call ensued in which the CIO robustly defended the project managers in their practice of focusing on project management over standard compliance.

The CIO negotiated an agreement with the standards compliance group that high level

status and easily accessed functionality would be attended to, and that complementary systems such as MS-Project and MS-Excel would continue in use until such a time as the standard PMIS was proven to enable as opposed to constrain project managers in 'doing their job' (OB 77).

The poor experience with the PMIS software, which included particularly slow response time, at times five minutes for a screen to load and/or update were experienced by the researcher, added to the frustration experienced by project managers. Their aversion to the system resulted in very little interface with PMIS taking place. Some of the basic project identification flags and updates were ignored, and consequently the quality of data and its use to project managers, resource managers and the organization as a whole was severely limited.

The PMIS software was seen more as an additional administrative burden that required time and management than as a support to their project management work. The purpose the PMIS served was seen to be that of overall departmental operations management at the cost of project management and administration time and effort. The PMIS was seen as a constraint on practice and a sap on time and energy. The use of complementary / supplementary stand-alone software instances, such as MS-Project and MS-Excel, were seen as of limited assistance to the project managers' efforts to manage their projects (OB 4/77).

The use of MS-Project by project managers within the directorate was very limited, most citing the difficulty in obtaining the software as senior management authorization was required given that the PMIS was standard issue. None of the project managers who cited this reason had requested permission from senior management to have MS-Project installed.

Those few who did have MS-Project installed varied in their use of it as an enabling tool.

Some replicated the high level presentation of the schedule available in PMIS and utilized MS-Project as a more 'portable' and 'presentable' version of the schedule. While others, in the few cases where Work Breakdown Structures were beginning to be constructed late in the field study used it to full effect in designing a detailed project schedule. In no cases was the cost functionality, the critical path functionality or the multiple base-lining function of the software application used by the project managers (OB 77).

In most cases extensive use of MS-Excel was made. Some of the enabling aspects of this software were the ease with which it could be used by the project managers, the rapidity with which high level updates could be made and the transferability of data representation to word documents. Major constraints in using it for the purpose of project schedule and cost management rested in its limitation in dynamically recalculating effort, activity start and end dates and critical path in the event of early completion, delays or the re-sequencing of the project's activities (OB 77).

From January 2009 onwards the Project Management Office (PMO) created project reporting templates with the project managers and compiled these into various report formats for local, regional and global stakeholders. The PMO also began a process of project management information system education, clean-up and policing in a bid to eliminate redundant processes and information and to provide meaningful timely project status data to project managers and other stakeholders (EM 107/140, OB 64/74).

The rhythm and tempo of project managers' practice

The rhythm of the project life cycle was determined by the overarching project life-cycle process. Each project activity phase was concluded by the release of a key document for

sign-off, and each following stage by a receipt of that sign-off in a key event followed by key event basis.

The key document to be produced by project managers was the PID. The trigger to commence work on the PID was received in the form of a request for project management resource from the relationship management team. When this was received by the lead project manager it was expected that the lead project manager would ensure the project to be allocated was verified as having been approved for development through the signing-off of the feasibility document. In practice this rarely happened. Project managers were assigned to projects once requested by the relationship managers with a remit to produce the PID as soon as was possible in order to meet the already agreed project release date.

This experience of always starting with time to make up and with a responsibility for 'on schedule' delivery for a project that had yet to be analyzed or planned by the project manager was frequently cited by the project managers as both stressful and indicative of their powerlessness as professionals. This starting with 'time to make up' reinforced the practice of 'following the template', and 'ticking the boxes' with information that could pass as credible, whether or not it related to the work required on the project in hand.

The reactivity of project managers to the 'drum beat' of relationship managers and development leads who controlled the feasibility process led to feelings of impotence, frustration and inadequacy. The urgency to complete the PID and obtain sign-off was communicated by developers' impatience to begin the work that they had agreed to complete by a given date.

The rapid tempo at which the project manager was required to work to complete the PID production tended to result in shoddy documents that had little or no useful substance to them. Project managers jettisoned all those elements of practice that did not directly serve the immediate purpose of getting the PID signed off. These included elements such as constructing project approaches that took into consideration the software development approach, and the planning of scope, schedule, cost, and risk management.

As these elements were most directly associated with the practice of the project manager, as opposed to those of analysts, developers or testers their absence could be camouflaged by precise if totally inaccurate assessment of time and cost. The project managers adopted a standard disclaimer in the PID of a $\pm 50\%$ accuracy. Given a specified release date in the PID, and the securing of resource for given time intervals, this proviso though present, was seen to be meaningless.

A relentless cycle of rapid reaction to the rhythm of the project as dictated by others contributed to a practice of cut and paste document production that bore little resemblance to the expectations of professional project management structuring and planning practice.

Chapter 6 – Analysis Chapter

Introduction

“(The observer) who seeking to interpret practices, tends to bring into the object the principles of his relation to the object” (Bourdieu 1977, p.27)

Inherent in the data collection activities, as mentioned earlier, has been the use of categories identified in the construction of the conceptual framework (Thomas 2003).

The mapping of the data collected and categorized onto the conceptual framework occurred in an ongoing basis throughout the field research and through the analysis phase. The diagram below (6.1) illustrates the process undertaken in the iterative cycling of data from collection through to categorization and analysis.

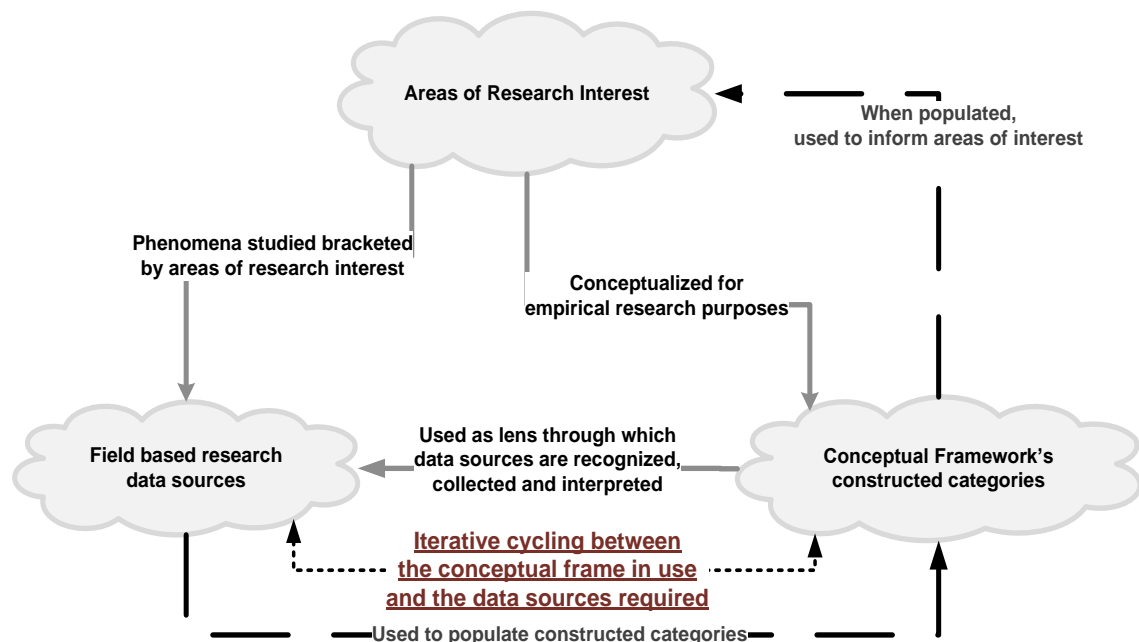


Diagram 6.1 - Iterative cycling between data and conceptual frame in the context of the research areas of interest

The data was collected categorized and mapped using the conceptual framework, discussed above, as a sensitizing device (Giddens 1984; Thomas 2003).

There were instances during data collection and analysis where initial categorization of phenomena was revised and where re-categorization of the phenomena occurred. This reworking of the analysis of the data was done on the basis of a deeper contextual understanding through an appreciation of further supporting and conflicting data (Pettigrew 1997).

The language used in practice within the organization did not include the terms used to describe concepts utilized in the framework. The highly specific and abstract terminology of theory was replaced with highly contextual professional language that was both familiar and pertinent to the organizational members.

Organizational agents used terms such as “The process”, “The organization”, “PMI/PMBOK” and “Management” in describing constraints on, and enablers to their practice. These elements were categorized by the researcher as 'structures'.

Organizational agents also used terms such as “responsibility”, “ownership”, “remit”, “discretion” and “choice” to describe their choices with regard to action, these elements have been categorized by the researcher as agentic.

Documents and information systems in use were discussed in terms of their value as shared communicable objects across both process stage and professional discipline boundaries, as

such these elements were categorized as boundary objects and the activities associated with them as boundary spanning activities.

Other terms, such as “milestones”, “hurry”, “rush”, “playing catch up”, and “time pressure” were used to describe the speed at which action was carried out and to describe the perceived stimuli to act, these were categorized by the researcher as rhythm and tempo.

This translation exercise, from contextual professional and organizational language and terminology to conceptual framework categories and terminology, retained the congruence of organizational members 'sense making' and the researcher's 'sense taking and sense making' in line with the conceptual framework in use (Boland and Tenkasi 1995).

What follows is a mapping and analysis of the data collected into the categories defined in the conceptual framework, described earlier, constituting the development of research themes.

The justification for the use of the conceptual framework has been discussed earlier. The manner in which the field research was conducted and the data collected further support the choice of a practice theory approach in exploring the role and practice of project managers in context.

The two phases of field research, the one focusing on the discursive practice of organizational actors engaged in considering project managers' role and practice, and the other focusing on the observation of project managers enacting their roles in practice, used a shared conceptual framework that allowed for a consistent and cohesive collection, interpretation and analysis of the data gathered.

The use of the practice theory based framework in categorizing the themes emanating from the data collected in the initial phase was helpful in comparing, contrasting and interrogating the discourse about practice with the practice enactment observed and discussed with the organizational actors.

The existence of the similarities and differences between these two phases in project managers' description, experience, and conduct of their roles and practice will be discussed later in this paper.

The following sections cover the field research in two phases;

1. Initial enquiry and observation phase and
2. Participatory observation phase.

Phase One: Initial Enquiry and Observation

This initial phase of the project research was focused on the discursive practice of organizational actors, predominantly project managers, and their consideration of the role and practice of project managers. What was being attended to was the 'sense making' of the role and its practice within the context of the organization.

The organizational context in which the data was collected included a widely held perception of a continuing failure of projects and their management. The project managers were aware of senior management's unhappiness with project performance and feared that they, the project managers, were being held responsible for this poor performance (the researcher was privy to conversations with senior management that lent credence to these fears). In the context of this perceived professional 'attack', the statements made by the project managers' could be interpreted as defensive.

In attending to descriptions of the project manager role and practice, the prevailing organizational discourse of project managers 'failing' in their practice can be seen as a 'sharpening' of the focus of those interviewed.

A more specific definition of that which was being attended to, in this phase of the field research, can be stated as “An explanation of the perceived failure of the project manager role and its enactment”.

The exercise engaged in, by the organizational actors and the researcher, can be termed reflective in nature, in that through the practice of discourse on project management the interviewees were attending not to practice, but to the impression of the project manager

role and practice being communicated. It is important that the reflective nature of the context of the data collection in this phase is recognized.

The analysis of research for this stage focused on the practice of discourse on the project management role in the organizational context. The extent to which this may, or may not have corresponded to the practice enacted by project managers within the organization is an important element of the overall research analysis and findings that will be further discussed below.

Despite the insistence of the researcher of talking to each of the project managers 'for the research' there remained the possibility of distrust and anxiety as to the motivation of the researcher and the uses to which the data gathered might be put (Fontana and Frey 2005; Lincoln & Guba 1985; Silverman 1998).

The project managers were not new to considering the nature of the role they were occupying, or in discussing amongst themselves the challenges being encountered in practising their role. It is possible that those interviewed viewed the researcher as a person to be influenced and persuaded (Nandhakumar and Jones 1997).

The data for this phase of the research was collected, predominantly from interviews with project managers, where the role and identity of the researcher was seen as 'informed' outsider. The researcher was known to have knowledge of the PMI project management body of knowledge.¹⁵ The project managers were encouraged to discuss their experiences,

¹⁵ The researcher had delivered PMP certification preparation courses to some of the project managers on behalf of the local chapter of the PMI.

thoughts and feelings about project management and the role of the project manager within the organization (Riach 2009).

The conversations conducted by the researcher focused on exploring what project managers “attended from” in their explanations and reflections on the project manager role and practice. The elements identified by the project managers and others were discussed, explored, and captured as thematic elements for use in populating the conceptual framework.

A summary of these themes is given below.

Conversations and observations on the role and practice of project managers

The discursive patterns and the rationalizations of action (and inaction) deployed by the project managers centred on the structural impediments to professional agency. Constraints that 'got in the way of' or 'denied' the possibility of a professional practice, as stated in the professional language of the PMI.

The PMI definition of project success and its stated expectations of project manager centrality to ensuring project success were explicitly referenced as the basis on which all organizational actors judged project managers and their practice.

This definition allows us to further sharpen the focus of that which was being attended to in the organizational discourse on project management as

“An explanation of the perceived failure, in terms of the understood PMI project definition and guidance, of the project manager role and its enactment.”

The project management professional role, as implied in the approach to projects and the use of tools and techniques in their management (as proposed by the PMI), were described either in terms of ideal practice to be striven for by those new to project management as a role, or as an impossible prescription of practice in the context of the organization by those seasoned project management role holders.

These descriptions, though varying in tone and extent, placed the PMI's PMBOK guidance as an idealized condition of practice and as an anticipated consequence of professional practice that was unachievable due to powerful inhibiting factors within the organizational context.

The elements described in opposition to the possibility of 'idealized' project management practice focused on the normative practice of other organizational role holders, in relation to that practice, and were identified as organizationally located conditions of practice.

The actions of other role holders as they related to the ongoing management of the project were generally stated as undermining the possibility of project manager 'professional' practice and discretion. As such, they were seen as constraints upon the possible agency of the project managers and were therefore mapped to the 'structure' within the conceptual framework.

The intended consequences of action were 'shaped' in line with the anticipated reactions of others to those consequences of action. The conditions of action were located 'out of

time'¹⁶ in that they took into account both the historical conditions of action and the anticipated reaction to likely consequences of action.

The impression given by the project managers, interviewed in the initial phase of the field research, was that of occupying a role in which the normative and regulative power of others conspired to limit the possibility of project managers' 'better judgement' as to how projects should be managed. As such, they were seen to act in a role that was greatly constrained as to the possibilities of professional project manager action.

There was mention by the project managers of the failure by senior members of the organization to adhere to the prescribed organizational processes. The undermining of the prescribed organizational process, the responsibility for which lay with the project manager, was a cause of frustration and anxiety for project managers. This, allied with an anticipation of having responsibility for project activities outside of project manager control and a distrust of supervisory management's intentions in evaluating project success, suggested a situation in which the practice of project management was seen as both professionally and personally dangerous.

Discussion of the powerlessness of the role, the stress of the position, and the lack of value placed by powerful others on the role were all described as conditions limiting the possibility of professional project management practice and of negatively impacting the nature of the agency allowed the project manager role.

¹⁶ 'Out of time', in the sense of not being implicated in the time space integrative processes engaged in by the agent in concert with others. Their existence remained an internalization of the social conditions under which practice was enacted.

The clear demarcation between structure and agency, as discussed with the project managers, lay in a description of constraints in play. Those constraints that were 'external' to the project manager's individual capability (they believed could not act otherwise, even should they wish to do so) were seen as corresponding to structure.

Those constraints that were identified by the project managers as weaknesses in their own capability (primarily related in their identification of learning needs) were seen as agentic. These 'learning needs' elements related to the possibility of influencing structural conditions of action as well as enabling project managers enact a more 'professional' practice were referenced as agentic elements of practice. These elements of professional learning focused on 'sense making' practices of project managers through the development of both a coherent and cohesive project manager identity and community within the department in order to manage feelings of isolation, status anxiety and role confusion (Boland & Tenkasi 1995).

The ability to influence other organizational actors, through the use of 'soft skills', may allude to 'sense taking' possibilities of practice (Boland and Tenkasi 1995), was also mentioned as a learning need by some of the project managers.

Although there were differences in the content in some cases between those experienced in project management and those new to project management, the categories used to describe agency and structure remained consistent. The differences lay, primarily, in the configuration of structural elements as used by the project managers in describing their practice.

Those newer to project management placed a greater emphasis on the importance of the PMBOK and its professional promise than those who were more experienced. The more

experienced project managers described the PMBOK as one of many elements important in the shaping of their practice. While they noted the limitations of applying PMI's PMBOK in 'this' context, it was accepted as the standard to which professionals should be held.

Frequently cited comments related to the lesser status of the role through a lack of observed respect from others in the conduct of project activities. The project managers stated that they occupied a role of project coordinator as opposed to that of project manager. They marked a clear distinction between the agency they experienced within the organization and their expectations of project manager authority, control and status as described in the PMBOK.

Project managers described feelings of being devalued, out ranked, undermined and dis-empowered attributing the diminished agency in their role to structural constraints imposed by other more powerful agents within the organization. Much mention was made of the role, its place within the organization and the lack of support and recognition that was afforded it.

For project managers, the main themes were those of organizational context in which the possibility of professional practice was seen as 'impossible'. A context in which the authority afforded the 'role' of the project manager was that of an inferior status to that of other roles (such as relationship managers, business analysts and development leads), and a frustration with an 'organization' that did not value or understand the professional project management role and practice.

The perspective of project managers occupying a coordinator role was a repeated element of senior management discourse on the project managers' practice. This characterization was regularly referred to as a failure in 'responsibility and ownership', and was contrasted with

the expectation of professional project managers (PMI) who would be expected to manage and control the project. Senior management described instances of passive, reluctant engagement of project managers in which agency was abandoned for reactive directive driven action. Senior management attributed this failure to manage projects to the failings of the individuals occupying the project manager role.

Whereas there was reference to the professional expectation of project managers by senior management, there was also the additional expectation of organizational capability and navigation as further necessary components in successfully fulfilling the role of project manager with the organization.

Both the discourse of project managers and senior management with regard to project managers' practice agreed on the limited agency of the project managers and the importance of organizational context in successful practice.

It is of interest that the general focus of all the organizational actors with regard to project managers' role and practice was on that which could not be done and the reasons for these failures. There was little mention of the work that was being done, except in terms of negation and failure.

Interaction across space and time – Project Managers' perspectives

Some mention was made of the tempo and rhythm of practice, with a focus on the reactive nature of practice due to a lack of control in the setting of deadlines, and the ongoing experiences of being under time pressure and of playing catch up.

The boundary between the project role and other roles and actors within the organization was variously described as uncertain, confusing and difficult to navigate, even for those with over ten years organizational experience.

The categorization and analysis of the first phase of the fieldwork produced a diminished view of project management agency, under problematic conditions and uncertain consequences of action, engaging in interactions with other agents in a manner that reinforced a perspective of the subservient position of the project manager role, and that emphasized the role insecurity being experienced by the project manager role holders.

The categorization of these elements into the conceptual framework for the first phase of the field research can thus be constructed as follows;

Structure:

- Senior management's poor perception of project managers as a failure in responsibility and ownership
- PMI project management practice idealized
- Lack of organizational understanding and respect for project management
- LPMs performance evaluation criteria and process not trusted
- Project managers' expectation of being subject to blame for project failure

Agency:

- Recognition of areas of agentic professional development
 - Soft skills, such as influencing and persuasion
 - Development of project management identity and community
 - IT and business understanding (newer project managers)
 - PMBOK understanding (newer project managers)
 - Perceptions and enactment of "Lower Status"

Lack of respect from other role holders

Role anxiety

Feelings of being under attack from senior management

Impossibility of Professional Practice (PMI espoused) in the
organizational context

Uncertainty of position within the organization

Stress at being responsible but not in control

Feelings of isolation and absence of organizational support

Fear of unsatisfactory performance evaluation

Interaction across Space and Time:

Boundary Spanning Activity:

Difficulty in navigating organizational and project boundaries

Boundary Objects:

PID mentioned in reference to the need for sign off approval

Rhythm and Tempo:

Reactive interaction with organization actors across project process phases

Hurried, 'catch up' rhythm and tempo experienced.

Phase Two - Participatory Observation

Phase Two of the field based research lasted eight months, and as such was the more extensive phase of the research. In this phase the researcher became more embedded in the activities of the organization and was seen to occupy a role of 'internal participant' more than that of 'external observer'.

The findings of the initial phase interviews and research were presented in a consolidated and anonymous form to the projects director, the lead project managers and the project managers themselves at a project workshop (OB 16).

The fact that the findings had been taken seriously by the projects director, and that these findings were the stimulus for organizational action, gave organizational weight and status to the researcher.

This phase of the field research took as its unit of analysis the construction of the Project Initiation Document (PID). This phase was characterized by increased observation of project manager and organizational actors in meetings, workshops and reviews, and by focused interviews with project managers in which PID activities were discussed in depth and at length in project specific terms, as the PIDs were being constructed.

This different approach to data collection and researcher action and interaction led to more robust challenges and interactions with regard to observation and interpretation than were experienced in the more generalized initial phase focus.

The 'material traces' of practice, in the form of project documents, were used as a medium for discussion and debate. Given the authorship of some of these documents belonged to the project managers interviewed the statements in defence of agency and practice were more common in this phase than had been the case previously.

The generalized description of context and structure described as impediments to agency in the initial phase became less clear and definitive in this second phase. The role and practice of the project manager, the activities engaged in and ignored, the interactions sought out and avoided, and the responsibility taken or eschewed were all features of this phase of data collection, interpretation and analysis.

It was through the observation and description of mediated interactions that the data collected was interpreted and analyzed. The following paragraphs replicate the interactive populating of the framework with the data collected through locating the elements of structure, agency and interaction across space and time in given instances of practice as the process of PID construction took place.

Unlike the initial phase of research and analysis, the participative and observational stage of data collection and iterative cycles of analysis was less 'clear cut' in the identification of structural conditions and consequences and of project manager agency in practice. In retrospect, this was to be expected given that the agents 'at play' in the initial phase were engaged in a shared practice, with the researcher, of focusing on practice description and role definition. The focus of the project managers in the second phase of research was towards the accomplishment of practice goals, while the researcher's focus remained on the examination of that practice and its implication on the construction of the project manager role.

The construction of the Project Initiation Document

The allocation of project managers to a project and the project initiation phase

The allocation of project managers to projects, and hence to the construction of the PID was made by the Lead Project Manager to whom the project request was sent. This request would normally be received by the LPM from the relationship managers (the liaison between IT and business departments) before initial feasibility had been carried out.

The project was directed to the LPM responsible for the business area in which the project was requested, such as front-end customer system, back-end customer system, internal business system, or investment systems. In cases where more than one category of system would likely be affected the system perceived to be dominant was seen as the system area to which the project would be sent.

Project managers were allocated to projects on an “as available” basis by the LPMs. Little effort was made by the LPMs to understand the nature of the project requested or the project management capability level best suited to its management. This led to project managers’ feelings of stress, frustration and incompetence in cases where a mismatch between project difficulty and project manager capability were experienced.

The LPMs ignored the initial project phase time lines, only ensuring project manager availability following the completion of the feasibility report (contrary to global guidance and in line with local guidance). In some cases this initial phase occupied many months of time awaiting the availability of business analysts and development leads, and when eventually completed a great deal of pressure was brought on project managers to “rush” the planning

phase to unplanned deadlines agreed to by embarrassed relationship managers, business analysts and development leads.

The implication of this was twofold. First, the opportunity to engage in useful boundary spanning activities in the creation of the feasibility report as a precursor to the PID was denied the project manager and not availed of by the LPM.

Second, the rhythm and tempo of the project management PID construction activities was dictated by the assurances given to business by those at the feasibility meetings leaving the project manager to reactive engagement and exposure to severe time pressure.

Structure:

Local and Global Project Management Process Guidance

Uncertainty of upcoming work activities

Agency:

Stress and Frustration,

Feelings of Incompetence and Powerlessness

Interaction across Space and Time:

Boundary Spanning Activity denied

Reactive to the rhythm set by business relationship managers and software developers and subject to a rushed tempo with regard meeting a PID completion deadline to allow for work to officially begin.

The expectations with regard to PID construction and completion

Project managers constructed PIDs to meet the approval of the business managers and senior IT management. The PID was expected to contain all the elements necessary to plan the effective and efficient execution of the project, according to both the local and global project management process guidance.

In practice, the PID was expected to exhibit a sufficient appearance of compliance to the standard template, similarity to previously approved PIDs, and accurate identification of the personnel who would be tasked with PID sign off.

The securing of business manager approval tended to be used as the basis on which other “approvers” would be likely to sign, especially in cases of high visibility, delayed or time critical projects. For most of the project managers this meant a non-critical acceptance of the business request, however vague or misguided, using the terminology received from business. LPMs were clear in their directives to project managers that the key to successful PID construction was the expedited capture of the approval signatures as without these the project would have no legitimate authority to proceed.

Project Managers recognized that producing a PID in this manner was poor practice, however they suggested they were obliged by organizational factors to do so. However, there were many opportunities for project managers to better construct a PID by engaging more robustly with colleagues. These possibilities were for the most part rejected as project managers accepted the level of their contribution to be that of reporters. There was project manager acceptance of the expectations of others that they would be of little importance and impact within the project.

Structure:

Non-critical acceptance of Business Case and rationale

Importance of producing an approved PID

Agency:

Passive acceptance of project definition and execution criteria

Acceptance of an administrative non-critical role, focused on document production and approval capture

Denial of role agency possibilities in the construction of the PID

Interaction across Space and Time:

Passivity in Boundary spanning activities

Copy and Paste of Business Case and rationale in the PID as Project Manager

Boundary Object - PID

Reactive rhythm and hurried Tempo

The elicitation of information required to construct the PID

In constructing a PID, local and global guidance, and template sections required a comprehensive set of project information be gathered, interpreted, analyzed and reworked to create a robust project planning document. In practice, LPMs encouraged 'copy and paste' of previous PIDs and of the pertinent elements within the feasibility reports. This selective copy and paste was executed in an unthinking manner, with in some cases incorrect grammar and spelling as well as imprecise description finding their way without filtering into the PID.

In the few attempts where access to business personnel was sought in an effort to clarify elements of the business case, access was blocked by the business analysts who “owned” the business interface and who wished to “protect” business contacts from repeated demands on their time and knowledge.

Basic elements of project management such as the creation and population of Work Breakdown Structures (WBS), the construction of a project schedule and the calculation of project cost were not engaged in by project managers, despite some having done so previously in other organizations and most being aware and capable of doing so. Rationale given for avoiding these fundamental project planning activities centred on a reluctance to engage with and question the assumptions and estimates of business analysts and software development colleagues.

The primary reasons given by project managers for not engaging with software development staff for the purpose of eliciting project scope and activity information, were i) a declared ignorance of IT systems and ii) a declaration of it being “none of their business”. In some cases this declared ignorance was a real deficit in the understanding and knowledge of the project manager, especially in the case of recent internal transfers from the operations department. However, in many cases, project managers with many years of IT experience both within the company and outside of it, and some who had previously been software developers were less convincing in their declarations of ignorance.

The declaration of non-interest in the details of the project activity being undertaken by software development colleagues was found to be unsupportable by project managers, who accepted with some embarrassment that though it was “their business”, it was rarely if ever pursued.

In almost all cases of PID construction the very broad and vague descriptions of system developers were taken without question and the very high level estimates and descriptions of activity, of no use on the construction of a meaningful project schedule, went unquestioned. In no case was a Work Breakdown Structure constructed by the project managers for any of the projects reviewed in this eight month period.

Project managers rarely approached project colleagues for further detailed project information. When they did so, in most cases email was used to request information from colleagues within the same building, and informational requests were formulated in a manner that spoke to the language and needs of the project manager in putting together the PID as opposed to the language of the system developer developing a plan of activity in creating an IT solution to the business request.

Project Managers in this respect respected the barrier that existed between themselves and the other project professionals engaged in project work and reciprocated by constructing their own barrier by refusing to engage in mutual collegial work through the use of shared language and interpersonal contact. This antipathy towards interpersonal contact worked towards retaining a distance between the project manager and the other project members and ultimately between the project manager and the project activities themselves from the outset of the project.

In some few instances where project managers attempted to engage development and other project personnel they were rebuffed by LPMs who instructed them to “go with what they give you”. This denied project managers the possibility of negotiating with project colleagues

at the boundary between the professional disciplines engaged in completing the project, and further emphasized their perceptions of powerlessness and isolation.

The absence of detailed project activity information coupled with the anticipated challenge to tracking, managing and reporting project status to others (such as cost and schedule), located the PMIS as a boundary object with which the project manager struggled to engage. Thus the PMIS was seen as a boundary object that through its inaccessibility was manifest in project managers' practice as a barrier to professional project manager agency.

Structure:

- Local and Global Guidance process over-ruled
- PMI PMBOK guidance
- LPM expectations of compliance
- Fear of non-cooperation or hostility from development and business analyst colleagues

Agency:

- Mechanical cut and paste administration
- Embarrassment with low level poor quality work
- Defensiveness with regard to the lack of professionalism in practice
- Stated ignorance of IT and Business context internalized as a practised position
- Feelings of role inferiority with regard to importance and access to personnel and knowledge within the project process

Interaction across Space and Time:

Boundary Object:

- PID template complied with minimally.

Acceptance of vague and limited communications from information holders
such as development leads and business analysts

Inaccessibility of the PMIS

Boundary Spanning Activities:

Boundary engagement with business blocked by Business analysts

Boundary engagement with Developers blocked by LPMs

Boundary Engagement with project members was that of barrier
construction as opposed to bridge building

Boundary Engagement with the PMIS was that of barrier as opposed to a
bridge

Distance between project manager and project team was established

Unwillingness of project managers to engage with others on terms other than
information required to “fill in” the PID document

Hurried Tempo, Anticipated rapid completion of PID by others led to working
to others' rhythm.

The consequences of PID construction

The manner in which project managers created the PID left them subject to the way in which others controlled and managed the project activities. In most cases, this meant that in the initial requirements stage the control of activity was with the business analysts, and once completed the control of project activities transferred on to the development lead. At the implementation planning stage control returned to the project manager.

The paucity of detailed scheduling and costing information for projects, and the lack of project manager control in information management and retrieval exposed project managers

to accusations of lacking in responsibility and ownership for projects as they could not clearly and accurately report on project activity status.

Project managers 'acceptance' of the secondary reporting and administration role, despite possibilities of flagging project risks and issues associated with the challenges associated with project management, denied themselves an opportunity of wresting some control and power back to the role and 'defending' the project management position.

Project Managers accepted the frenetic and disorganized quarterly “rush” to get the project in that made them “useful” to the development team by buffering the complex messiness of development and testing iterations by ignoring technical issues, and preparing clear linear reports and time lines for project implementation to senior management.

Structure:

Uncertainty as to project activities

Absence of control or information

Poor professional reputation

Agency:

Ceded authority to development leads with regard to managing development activities

Accepted relegation to reporting role of others' activities

Embarrassment in an inability to report basic project status

Anxiety as to the possibility of failure for a project over which little was control was exerted

Interaction across Space and Time:

Boundary spanning activities:

Focused on the holding, writing and circulation of project meeting minutes presenting a dangerous 'fiction' of orderliness and control –acting as buffer between disorganized development activities and senior management expectations of orderliness and control

Boundary Objects:

Meeting minutes, the PMIS, and the Project Implementation plan

Rhythm:

Project management activities were to the rhythm of the software developers and testers as they iteratively prepared the IT solution for release

Tempo:

Tended to be frenetic with long days, night and weekend attempting to get the solution “in”.

Lead Project Managers (LPM) Influence on the role and practice of project managers

As a consistent and continuing element of project managers' experiences within the organization, the LPMs can be seen as having an influence on the ongoing operation of a project management capability within the organization. The role of the LPM in shaping both the role and practice of project managers was seen as of central significance.

The manner in which LPMs 'supervised' project managers within their teams was on a project by project basis. The absence of a focus on professional development and community development, or on project manager role identity could be seen to indicate that project managers were seen more as a project resource than as organization members. The relationship of project managers with the ongoing operations of the organization was one of

'internal contractor' as opposed to full member. The organizational distance through this semi-dislocation of project managers, can be categorized as a condition of their ongoing practice that transcended specific project instances.

From an ongoing interaction basis the LPMs were cited, in most part, for their unavailability, especially in assisting newer project managers in engaging with the organization and with projects.

LPMs were also cited for their lack of support of project managers in their attempts to 'hold the line' against development leads, relationship managers and others in following the global and local project guidance with regard to due process and rigour in the calculation of project release date.

During the construction of the PIDs the consideration of LPM expectations played a large part in the manner in which project managers engaged in PID construction. As such, LPM expectations of project managers can be seen as ongoing structural condition of their practice.

LPMs were observed to override organizational guidance and best practice that they themselves espoused in the acceptance of project release date before any project management scope or activity planning had been completed. The impact of the expectations of LPM action with regard to supporting the project manager in her role was seen to be undermining.

LPM attitudes of superiority in relation to project management practice were seen to undermine the value of professional certification in project management, and to privilege the

248

politically expedient over the professionally rigorous. It was seen that conditions of professional identity were shaped in accordance with political favour as opposed to practice contribution and success. This political expedience of action in which maintaining favourable relationships with business acted as a condition of practice that isolated professional project practice and punished, in the form of negative performance evaluation, conduct which did not support the political priorities of the LPMs.

LPM management of the boundaries between projects and the business, and projects and senior management deprived project managers of the opportunity to engage in high visibility boundary dwelling activities with those concerned with the ongoing operations of the organization. The exception to this boundary blocking behaviour was on those occasions when high visibility project failure was experienced when the project manager would be summoned to explain the failure.

Towards the completion of the field research the LPM role holders had been moved aside and a more transparent and project performance related performance evaluation process had been put in place. However, the changes in place had not been seen to diminish the potency of these internalized conditions to any great extent by the time the field research concluded. Time for internalized structural change to take hold and the continued existence of other similarly inhibiting structural conditions may explain the lack of evidence of change.

The conditions related to LPM influence and expectations were identified as;

Structure

- Lack of LPM support in pursuing process compliance

- Focus on evaluating project managers against process compliance while undermining their ability to adhere to it

Disregard for professional project management capability and knowledge

Distance of project manager from organizational operations – PM as internal resource

Focus on LPMs political agendas and politically expedient action

Anticipated unavailability of the LPM to project managers

Interactions across space and time

Boundary spanning actions

Blocking interaction between project managers and powerful organization actors

Abandoning of the project manager in instances of high visibility project failure

Boundary Objects

Performance evaluation reports

The overall categorization of these all of elements into the conceptual framework for the second phase of the field research can thus be constructed as follows:

Structure:

Local and Global Project Management Process Guidance (both adhered to, and at times over-ruled)

Uncertainty of upcoming work activities

Non-critical acceptance of Business Case and rationale

Importance of producing an approved as opposed to 'useful' PID

PMI PMBOK guidance as idealized role definition and practice guidance

LPM expectations of compliance with process

LPM disregard of professional expertise

Fear of non-cooperation or hostility from development and business analyst colleagues

Uncertainty as to project activities

Absence of control over the access to or flow of information

Poor professional reputation

Project managers as internal resource as opposed to organizational members

Holding responsibility without authority

Agency:

Feelings of professional embarrassment

Defensiveness with regard to the 'necessity' of practising in a 'non-professional' manner

Claimed ignorance of IT and Business context internalized as a practised position

Ceded authority to development leads with regard to managing development activities

Self-Denial of role agency possibilities in the construction of the PID

Embarrassment in an inability to report basic project status

Perceptions and enactment of “Lower Status”

Inferiority with regard to importance and access to personnel and knowledge within the project process

Passive acceptance of project definition and execution criteria

Acceptance of an administrative non-critical role, focused on document production and approval capture

Embarrassment with low level, low quality work

Accepted relegation to reporting role of others' activities

Role anxiety

Anxiety as to the possibility of failure for a project over which little was control was exerted

Lacking control and authority of project activities and outcomes

Constantly feeling under time stress and working to deadlines imposed by others

Interaction across Space and Time:

Boundary Spanning Activity:

Access across organization boundaries at times denied

Boundary engagement with business blocked by Business analysts

Boundary engagement with Developers blocked by LPMs

Passive acceptance of information received across disciplinary boundaries

Boundary Engagement with project members was that of barrier construction as opposed to bridge building

Boundary Engagement with the PMIS accepted as a barrier to system interaction across time and space with project members and project activity

Distance between project manager and project team was established

Unwillingness of project managers to engage with others on terms other than information required to “fill in” the PID document

Acceptance of vague and inadequate communication from information holders such as development leads and business analysts

Activities centred on the holding, writing and circulation of project meeting minutes presenting a 'fiction' of orderliness and control, thereby acting as buffer between disorganized project development activities and senior management expectations of orderliness and control

Boundary Objects:

PMIS

Project Manager owned process documentation (PID) written for the purposes of overcoming bureaucratic hurdles and ensuring minimal compliance with process and in giving the appearance of project control and stability

Non-project management owned documentation and systems engaged with in a passive manner, in unfiltered copy and paste mode

Rhythm and Tempo:

Reactive to the rhythm set by business relationship managers and software developers, with a tendency to avoid face to face interaction where possible through the use of email correspondence and document forwarding

Rhythm of the project management activities was to the rhythm of the software developers and testers as they iteratively prepared the IT solution for release

Rushed tempo with regard meeting a PID completion deadline to allow for work to officially begin

At project completion the tempo tended to be frenetic with long days, night and weekend attempting to get the solution “in”.

The recurring feature of the analysis is that of project managers’ experiences of powerlessness. Stated and experienced lack of control of activity authorization and resource allocation while retaining organizational responsibility for the successful management of both for the purposes of project execution success.

It can be seen from this analytical categorization of the data collected, in phase two of the field research that project managers were attending to professional survival in what they perceived to be a hostile organizational environment. In most cases the possibility of

proactive professional practice was an ideal worthy of discussion but was of little consequence in attending to meeting the needs of those perceived to be in power within the organization.

The possibility of alternative categorization

“Perception is precisely that kind of act in which there can be no question of seeing the act itself apart from the end to which it is directed.” (Merleau-Ponty 1962, p. 435)

There are challenges in reducing a rich stream on ambiguous experience to data sets, themes and categories that are not limited to this specific research exercise. There is however the defence of the desirability of the conceptual categories in use by the researcher being declared up front, explicitly and with detailed rationale and justification. It is with this balance of explicit statement and justification that this research has been conducted (Eisenhardt and Graebner 2007; Weick 2007).

The choice of conceptual framework has been described and justified earlier and its consistent and rigorous use described above. The strength of this form of research and analysis has been the utilization of a consistent, rigorous, explicit and transparent treatment of the data collected and described. Its value has been the flexibility of its use in the varied circumstances of organizational context and researcher role and identity. The framework has been true to the area of research interest, and has been internally consistent as a framework that has been applied assiduously in practice.

The clear delimitation of categories in use within the framework has at times caused the researcher to review, question, and rework data interpretation and categorization. This was done in an effort of analytical rigour, as opposed to an act of interpretive expedience. In particular, the differentiation of the impact time space interactions and structural conditions on practice has led to a richer understanding of the dynamic process of structuration in

context and of the multiple possibilities of practice that were subject to some agentic choice, as opposed to being a constrained function of structural conditions.

The analytical possibilities offered by the conceptual framework in use through the identification of both material and time as elements implicated in processes of system and social interaction played a significant role in the identification of the shared and contested nature of boundaries in the accomplishment of project managers' practice.

This treatment of these elements of practice highlighted the emergent and dynamic nature of project activities in a manner that might not have been as readily identified and analyzed had the conceptual elements of Adaptive Structuration Theory been adopted (De Sanctis and Scott-Poole 1994).

This treatment of practice, as agent structure duality, allowed the researcher to 'access' the dynamic and historic basis through which project managers constructed their role identity and practice. Taken alone, either structure or agency would not have adequately explained the homogenized nature of practice observed of both the newly arrived and the veteran project managers.

The interactions through which the project manager role was formed and contested on an ongoing basis was manifested as an interactive, as opposed to an internal individualized process. The instantiation of boundaries as interactive phenomena in which power was enacted allowed for an exploration of the agentic practice possibilities that a more structure focused construction might mute.

This conceptual frame in use also highlighted the nature of boundaries' impact on role identity as an ongoing and contested element of organizational action and interaction.

This interactive space, by its uncertain unknowable and emergent nature, allowed for the possibility of renewal and/or transformation of project managers' role and practice, and avoided the pitfalls of fatalistic and stagnant conceptualizations of the project phenomena observed.

The theoretical strength of the framework has allowed for an exploration of project manager role and practice in context and it has avoided the dual pitfalls of either an overly objective or subjective examination.

Chapter 7 - Discussion

The analysis of the case study data presents a complex picture of project manager role construction and practice enactment. The multiple structural, agentic, and interactive elements analyzed present a rich and complex description of the project manager role and its practice.

Each of the two phases of the research presented a coherent and comprehensive picture of shaping of both the role and practice of project managers. Taken separately they might be interpreted as presenting two, at times opposing, descriptions. However, as stated earlier, the practice focus of each phase differed from a focus on a discourse on practice in phase one to a focus on practice enactment, in phase two.

The conceptual framework in use allowed for the collection of these two related perspectives on the role and practice of the project managers in a manner that allowed both contrast and synthesis. The contrast has been mentioned above. The synthesis has been achieved through the incorporation of the discursive construction of practice as a structural element in the enactment of practice.

This incorporation is of interest in that the tension and discord between the discursive and the enacted elements of practice were of significance to the project managers themselves. The project managers were both aware of and 'embarrassed' by the disjuncture between their espoused and actual practice. They used this understanding of the disjuncture to support their statement of role identity and agency in diminished and negative terms often referring to themselves as "project coordinators, not managers". This point will be further discussed and expanded on below.

What follows is a discussion of the findings interpreted from the analysis presented earlier. This discussion will follow the line of the research questions introduced at the outset of this paper as they have been informed by the data collected, and analyzed and interpreted using the conceptual framework discussed in detail earlier. The categories discussed will move from those used in the conceptual framework to those initially stated in the literature review with a view to locating the findings of this research within the larger body of knowledge on project manager role and practice.

The mechanisms by which project management was constructed by the different organizational actors are discussed below. The integrative nature of these factors is also discussed.

The Organizational Construction of Project Management

The social construction of project management its use and interpretation was seen to be contingent upon the intentions and focus of the organizational agents.

The definition of a project as unique, temporary endeavours that are amenable to successful execution in terms of the narrowly defined criteria of time, cost and quality, holds great promise for business managers in their attempt to control and manage the challenging one-off, non-standard initiatives typical of IT and other highly customized activities (Engwall 2002; Hodgson 2004).

This orderly linear approach that promised delivery of successful 'order out of chaos' can be seen as both operationally compelling and politically appealing. The many challenges to the

simplified linear approach to activities in complex, dynamic contexts, and the many examples of project failure (Standish Group 1995) have done little to dampen business enthusiasm for this promise of project management delivery (Engwall 2002; Hodgson 2004; Whitty 2005; Whitty and Schultz 2006).

The adoption of a clearly controlled and planned activity approach, such as project management, allowed the impression of certainty of action and knowledge. This orderliness was expected to be found in the project manager produced progress and success metrics.

In the case study senior management were seen to use the promise of project management planning and control as a buffer between the 'orderliness' of ongoing operational planning and the 'chaos' of the day to day ambiguity and uncertainty of the activities involved in projects. The existence of project management, as prescribed by the PMI, was seen to create a 'safety net' of knowledge and control with regard to projects was an important political construct within the organization.

The challenges perceived by senior management were not with what project management as a construct had to offer, but rather with the failure of project managers' delivery in line with that promise (Engwall 2002; Lindkvist and Söderlund 2002). Given the locating of project failure as a project manager performance issue, senior management had little incentive to more rigorously question their beliefs and assumptions as to the possibility of project management as an approach to the management of uncertainty, ambiguity and complexity. The expedient use of projects and their managers as organizational 'buffers' was not limited to the senior management within the organization. It operated both downwards from the senior management and across from the software development team.

The software development team were well aware of the complexity and uncertainty of the projects that they engaged in. They also were well aware of their need to 'protect' the possibility of an iterative development of systems within a context that was both organizationally and technologically complex and within the bureaucratic operational constraints of the department (Sahlin-Andersson 2002).

The dangerous political nature of the organization in which high visibility failure was punished was a further incentive to embrace the 'buffer' available in the role and the person of the project manager. The construction of project management as an approach that cloaked the uncertain, messy, complex, iterative and ambiguous practice of software development served the software developers by providing a 'necessary fiction' of systematic and controlled operations (Nandhakumar and Avison 1999) that was operated by project managers at a comfortable distance from the responsibility of the software developers themselves (Sahlin-Andersson 2002).

For both the software developers and the senior management actors within the organization the successful management of boundaries between themselves and project management was central to maintaining their discretion, control and standing with regard to their ongoing professional activities. A significant element of these boundary activities was the use of the project management social construct, and the project managers as a 'buffer'.

The manner the buffer operated from senior management to the project manager in terms of knowledge transfer and symbolic responsibility ensured the burden of responsibility for communicable knowledge was located within the role of the project manager. The project manager was expected to collate, manage and make 'administrative sense' of the complex project management activities in the form of PID production and PMIS reports.

The manner in which the buffer operated from software development leads to the project manager, in terms of knowledge transfer, was that of passive project manager acceptance of project activity estimates and descriptions for the purpose of administrative communication, while software developers retained the detailed information necessary for management of the activities and the resources to complete them.

In this way, the boundary behaviour of the software development leads was that of erecting an informational barrier between project activities and the project managers in order to gain optimal control and discretion of the management of resources in relation to project activities, and the resource utilization targets set the software development team.

This barrier allowed the software development team to effectively 'run' the project by utilizing their power to authorize action and allocate resources to tasks without the need to seek the 'permission' of the project manager or to take the responsibility for project failure within the organization.

The construction of a boundary spanning buffer by the software developers also served to construct the role of the project manager as an emotional 'container' of the stressful conflict between the reality of messy project work and the administrative requirement of functional control.

This buffer served a useful role for senior management, and software developers in 'freeing them' from the psychological strain that comes with competing demands and stressful conflicts in the everyday enactment of their roles. For each the project manager role was a useful 'compartment' in which to consign the conflicting elements of their activities. For

senior management the uncertainty of complex activities, and for the software development leads, the constraints of bureaucratic accountability (Kreiner et al. 2006).

Constructing the project management role and practice

Roles have been described as the instantiation of structure and agency in given social contexts (Lynch 2007). The case study analysis in engaging with the practice of project managers in context through the use of the conceptual framework offers a description and explanation of the role of the project managers.

It is suggested here that in engaging in their discourse on project management practice project managers adopted the role of professional project manager (in line with the social construct prescribed by the PMI), and adopted a quasi-external position in attending to and reflecting on the professional project manager role and its enactment in the context of the organization.

In engaging in the enactment of the project manager role within the organizational setting the project managers adopted the organizational project manager role, an internally embedded position in attending to the accomplishment of organizationally constructed success.

The historical nature of the organizational structural conditions shaped and was shaped by the ongoing interaction of organizational actors across space and time. In this manner, the instantiation of role enactment, in instances of interactive practice, were seen to manifest both structural and agentic elements of the project manager role.

Significant interactions and relationships related to the project manager role are discussed below as further elements in the constitution of the organizational project manager role and practice.

The project management professional role as a structural element of practice

The construct of the professional project manager role, linked to professional certification associated with the PMI PMBOK, served to idealize a planning and control view of project management (Cicmil and Hodgson 2006; Whitty 2005; Whitty and Schultz 2006).

This social construct of project management as defined by the PMI was accepted by project managers as the professional standard with which their practice and role was aligned. The acknowledgement and support of the status, authority and control afforded the project manager role, as a PMI construct, supported the possibility of both role differentiation and professional status for individual project managers within the organization (Blomquist and Söderholm 2002; Whitty and Schultz 2006).

This idealized professionalism with the orderly procession of activities, supported by technically proficient analysis, and with the project manager in a commanding central position was appealing to those engaged as project managers within the organization. This possibility of the project manager role, in the manner prescribed by the PMI, idealized the project manager role, sanitized the organizational context (as rational, unambiguous and non-political), and simplified project activities.

The internalization of this idealization by the project managers led to an inevitable discontent with the paucity of their role within the organization and of their performance in its enactment. Project managers expressed annoyance with the political and irrational nature of the organization and its related decision making practices and a frustration with the ambiguity, uncertainty and complexity of project activities.

The inadequacy of the PMBOK to the practice of managing projects in complex environments has been commented on by many researchers over the last twenty years (Cicmil and Hodgson 2006; Lundin and Söderholm 1995; Söderlund 2004a&b; Winter et al. 2006b). The misfit and misalignment of the prescribed role and practices of the PMI to the ongoing accomplishment of practice suggests that this construct might serve to limit the possibility of accomplishing practice rather than support it (Whitty and Schultz 2006).

However, the success of the social construct of professional project management as promulgated by the professional associations retains its resonance and predominance in the understanding of project managers as the standard definition of the project manager role and its enactment (Blomquist and Söderholm 2002; Cicmil and Hodgson; Hodgson 2004; Whitty 2005).

When engaging in a discourse on project management practice from the outside looking in (in professional project manager mode) the burden of blame with regard to project failure was levelled at the organization's 'dysfunction' and on the poor project management understanding of others.

While engaging in project management enactment (in organizational project manager mode) failings were seen as a personal inability to enact the idealized project manager role.

This perceived failure reinforced by the stated and implied discontent of senior management and others with regard to their project management practice led to professional and personal anxiety, frustration and stress manifesting itself in inertia, hopelessness, resignation and negative self-image (Kreiner et al. 2006).

The project managers were at times described by senior management and project managers themselves as “playing the part” of project managers in their stated adherence to professional association (PMI) descriptions of the role and its practice (Hodgson 2004).

This embedding of the social construction of professional project management was one of many inter-related structural elements of project managers' practice.

Project management social constructs as conflicting structural elements of practice

It was seen that the possibility of project manager agency was influenced by the 'anticipated' organizational consequences of project manager role action. These anticipated consequences took the form of both regulative and normative sanction which at times seemed to be in conflict with one another. The often contradictory and 'ad hoc' approach to regulative expectations was particularly clear in the interaction of the LPMs with the project managers.

The regulative expectation of linear, controlled process, contained within the local and global process guidance was held to be the responsibility of the project manager and was subject to a global organization conducted project level audit. However, the practice of accepting without question a project delivery date before project planning or schedule

analysis had been completed was the normative practice endorsed by the LPMs, and enacted across boundaries by project managers with business analysts, relationship managers and software development leads.

Thus, for the project manager there was the tension between two competing and conflicting structural conditions of practice, that of the regulative compliance to procedure, and that of the normative compliance to local practice expectations.

The project manager's bind was that whichever course of action she chose she would be subject to possible sanction. This introduced role enactment uncertainty, and anticipation of censure (fear) as a dynamic and structural element of organizational project management practice that existed as a result of conflicting regulative and normative elements of practice structure.

The structural conditions shaped by normative power proved to be stronger than those shaped by regulative power. This can be explained by the low probability of the regulative project audits against the certainty of the LPM conducted twice yearly performance evaluations.

The strength of the regulative was also eroded on other fronts. The perception of regulative audits was that of an audit that focused on ensuring sign off approval in key documents had been secured. The initial key document subject to audit was the PID, the major element of project managers' work. The fear of audit seemed to drive the administrative behaviour of chasing approval signatures. This was done in the hope of compliance to the administrative element of the guidance being sufficient cover for negligence of the substance of the regulative guidance on business case statement and project planning detail.

Another regulative 'safe guard' on project process was the review on the PMIS of the project costs and time-lines. As the data in the PMIS was of dubious reliability and subject to alteration with no effect on project activities, the proactive "massaging" of meaningless numbers ensured the avoidance of regulative oversight in this regard.

The interpersonal, temporal, geographic and organizational distance of the regulative interactions of the audits and PMIS evaluation also reinforced their weakness as structural elements of practice. The frequency and predictability of interactions across space and time was therefore seen by project managers an amplifying element of structural condition potency.

This weakness of the regulative conditions of project managers' practice did not render them inconsequential. As conditions of practice they were considered, by the project managers, even if they were to be rejected (as was the case with professional role expectations) in favour of the stronger, more local, and ongoing normative conditions being experienced.

The ongoing conflict of conditions of practice introduced tension and uncertainty as structural elements of practice, and added to the self-recriminatory reflexivity of project managers in the ongoing accomplishment of their practice.

The ambiguity of role and role expectations, and the uncertainty of anticipated consequences were features of the construction of the organizational project manager role. The structural conditions acted in concert and in conflict and created an ambiguous, uncertain, and tension laden structural basis for project manager role enactment.

The importance of the LPM relationship in the construction and enactment of the project manager role

The sense of uncertainty and ambiguity with regard to project manager role enactment was further emphasized in the ongoing interactions with LPMs who acted on the boundary between the project managers and the organization.

The importance of boundaries as avenues through which social capital can be developed and maintained (Newell et al. 2004) was evident in the importance placed by the LPMs in ensuring occupation of these boundaries through

1. Managing large, high visibility projects in which interaction with senior organizational players was assured
2. Abandoning project managers to the censure of senior management in cases of project failure.

The acquiescence of the LPMs to the demands of business can also be understood as activities associated with the development of strategically helpful relationships in a highly fluid and political organization.

It was of note that during the case study research LPM3 (previously of the business operations department) tended to hold a stronger line with business in relation to project manager role expectations and requests for more detailed information. The well-established social capital of LPM3 in the context of her long standing experience within the business side of the organization may offer an explanation of this being a function of high social capital, rather than more stringent adherence to professional project manager constructs.

This possible interpretation is given weight given the unfamiliarity of LPM3 with professional project management practices.

The general non-supportiveness, lack of availability, misuse of performance evaluations for political purposes, and the lack of consideration in project allocation, gave project managers an impression of isolation and of being both personally and professionally disregarded by the LPMs.

The manner in which project managers were engaged in ongoing organizational work was extremely limited. Their scope of engagement was strictly project administration delivery related and as such they were used by the LPMs as an internal project resource as opposed to occupying a role that was organizationally fixed and valued.

From the project manager role perspective this disjointed attachment to the organization contributed to perceptions of isolation and to perceptions of not belonging. The possibilities of engaging in shaping the organizational structures that impacted their role and practice were limited by the occupation of the formal boundary between the organization and project managers by the LPMs.

Given the nature of project management within the organization the constant flow of projects requiring managing and the minimal organizational involvement of project managers might be seen as unexceptional. In the context of this case study, however, the manner in which the LPMs conducted themselves brought this project / organization boundary in to stark relief and highlighted the project managers' dislocated role of being “apart from” but not “a part of” the organization (Grabher 2002).

The success of the LPMS in blocking access to the organization through the boundary between project managers and the organization helped increase LPM power (both regulative and normative), and lessened the power and the potential agency of the project managers as appeals to organizational power was denied, and the possibility of both bridging and bonding was severely curtailed (Newell et al. 2004).

The boundaries between the project managers and the wider organization were controlled by the LPMs who created barriers to the possibility of project managers building useful social capital that could have assisted in their professional and personal credibility as they engaged in project based activities.

It is in project managers' boundary spanning activities and interaction with boundary objects that the influence of the project managers on their role construction and enactment can be further understood.

Project managers at the boundary

The mechanisms of knowledge, power and control

This use of project managers and project management as a 'responsibility' buffer, as discussed earlier, can be seen as an expedient political construct that suited the needs of powerful organizational actors.

This 'judicious' use of power by the established organizational players across boundaries acted to 'set up' the project managers as containers in which the responsibility for the

uncertainty, ambiguity and complexity of project work was disowned, disguised and ultimately transferred to the project manager.

The general manner in which the project managers engaged in interaction with colleagues through boundary spanning practices, mediated by boundary objects, can be described variously as passive and non-reflective in that boundary objects were not added to, challenged, or ignored, but merely obediently incorporated (Levina 2005). There were no translation or transformation activities engaged in at the boundary (Carlile 2004) as most the activity consisted of a transfer of unfiltered, unchallenged information from one source to another.

In place of the constructive activities of bridging and bonding (Newell et al. 2004), the project managers were engaged in the building of barriers and in the passive acceptance of being used as a buffer and thus reinforcing the low social capital enjoyed by the project management role and those who occupied it.

This passivity in cross boundary interaction leading to the construction of barriers could be interpreted as a powerless response to the oppressive condition of practice being experienced by the project managers. The over reliance on 'sense taking' from others without engaging in 'sense making' from a project manager perspective in the passive transfer of information in the PID emphasized the minimal contribution of project managers across project boundaries (Boland and Tenkasi 1995).

The emotional strain of containing the organizational uncertainty and of holding the responsibility for possible failure may have led to defensive repertoires of action in attempt to protect both personal and professional existence (Argyris 1976).

The agency of the project managers in these boundary actions was not necessarily that of social dupe and powerless pawn. Project managers' actions as evidenced in their interactions suggested an agency engaged in the co-creation of some of the conditions of practice they were subject to.

The at times feigned and practised ignorance and disinterest of technical matters expressed by project managers suggested an active collusion in the organizational construction of the role as 'failing professionally' while remaining organizationally successful from the perspective of playing the role of receptacle for the uncertainty, complexity, and political jockeying played out by senior management, LPMs and lead developers.

The project managers within the organization clearly understood their role as was evident from their practice. The fact that this knowledge of the role remained tacit to some extent suggests the discomfort of the project managers' in the role enactment and a reticence to acknowledge it fully in their discourse.

There was some disparity in the depth of role understanding and practice justification between the newly transferred project managers (non-certified and inexperienced) and those whose experience spanned both time and multiple other organizations. The more qualified project managers tended to explain the inconsistencies in their practice as a function of organisational context, whereas the newly arrived project managers expressed ignorance of any other possibilities of practice.

What was of interest was the consistent manner in which both newly arrived and experienced project managers constructed their role and practice through the boundary

spanning practice of PID creation. The rapid adaptation of experienced and inexperienced newly arrived project managers to the organization's project management practice suggested a speedy appreciation of the structural conditions and agentic possibilities of the organizational project role and its enactment as experienced through the integrative process of social and system integration across boundaries.

This can be explained by the clarity and strength of interactions at the boundary with other organizational actors initially, and repeatedly experienced by the project managers. The guidance of the LPMs to 'copy' earlier created 'good' PIDs set the initial expectation of boundary object construction and with it the practice and role expectations of the project manager.

The historical absence of in-depth detail and planning elements in the PID document other than a rudimentary time bar chart made to "fit" the prescribed project delivery date set an expectation of enactment that did not include a challenging or analytical engagement with either the document, or those from whom information required to complete the document would be gathered.

The problem, solution and activity detail refused the project managers by business analysts and software development teams reinforced the expectation of the role in the enacted interaction across boundaries. It was clear that a defensive, non-threatening, and powerless project manager engagement was an expectation of the role.

The project managers were seen to have no voice or power in relation to either the allocation of resources or the authorizing of action, and in essence were not seen as significant in the running of the projects activities.

This central position that boundary spanning activity took in the project process and in the construction of the project manager role resonates with the research focus on projects as a part of and as apart from organizations in terms of operational separateness and temporal difference (Bresnen et al. 2004; Engwall 2003; Grabher 2002; Lundin and Söderholm 1995; Scarbrough et al. 2004; Sydow and Staber 2002).

The inability of project managers to manage the boundaries in a manner that supported a positive sense of identity through the enactment of a professional practice resulted in the boundaries in which their practice was enacted becoming hostile engagements in which painful social manifestations of failure were played out.

This resulted in the avoidance, wherever possible, of social interaction across boundaries and the use of non-threatening mediating objects (such as email and PMIS) in the accomplishment of system interaction.

This approach by the project managers succeeded in increasing the distance between the project managers and their unsatisfactory role and consequentially between the project manager and the ongoing project management activities.

It was also clear that the pressure associated with responsibility for a project over which project managers exerted little control, about which they had minimal knowledge, and in regard to which they were seen as bureaucratic overhead was both personally and professionally challenging. The construction of failure as personal ineffectiveness in uncertain and conflicting conditions of practice resulted in experiences of upset and stress amongst many of the project managers (Kreiner et al. 2006).

The significance of time in projects

The use of time in the form of tempo and rhythm defined a counterpoint between the project and organization operations highlighted the differences in operational approaches (between the temporary and the ongoing) and signified the power dynamic that existed between organizational actors. This was clearly seen in the gathering of project cost information in the PMIS system that followed the organizations budgetary cycle as opposed to the projects' control phases.

The tempo at which project managers worked was in most cases 'rushed'. The speed at which work was required to be completed generally resulted in delivery date focused approach to project management activities, and in particular the production of the key project management document, the PID.

The forced pace of work signified a lack of control over their work being experienced by project managers. This forced pace also operated as a rationale for a rushed sub-optimal production of project managers' work that allowed project managers to hide the absence of effort on their part to 'properly' address the planning of the project.

Project managers reacted to the signal to proceed from the LPM that their engagement in the project process could begin. This allocation of work was accompanied by clear instruction that in order for 'work proper' to commence and for resources to be released to meet the predetermined delivery deadline that PID production and signatory approval needed to be accomplished in haste.

The rhythm of the interaction placed the project manager at an ongoing disadvantage of reacting to the urgency and imperatives established by those involved in the initiation phase and to the deadline agreed before project manager involvement. These circumstances provoked urgency in project management action so as to avoid blame as the one 'holding up' the project by attempts to structure and plan the project.

The tempo of work demonstrated the lack of control project managers had over their work activities. The reactivity of the project managers to the project rhythm set by others demonstrated their lack of power in relation to the project activities as a whole.

Denied project manager requests for detailed project activity, as discussed above, also removed the project manager from any possibility of influencing the tempo and rhythm of any of the other project based activities. The inability of project managers to engage project actors in shared communicable terms with regard to the timing and sequence of activities clearly demonstrated a loss of control and role authority within the project.

The basis on which the rhythm and tempo were set seemed determined by the rhythm and tempo of the ongoing organizational activities of the powerful organizational players (LPMs, relationship managers and software development leads).

The importance of interactions across space and time were seen to clearly establish and reinforce the power and status dynamics at play within the organization and project. The time pressure experienced by project managers with expressions of being "dumped on", "playing catch up", and "rushed" added to the feelings of powerless and frustration expressed by the project managers.

This temporal subordination was also used by project managers as a rationale for the suboptimal engagement with others within the project and across the organization. It was seen that the temporal dynamic at play with regard to the project manager role shaped the possibility of boundary engagement through a clear demonstration of power, and added to the social construction of the project role and its enactment in context (Maaninen-Olsson and Mullern 2009).

Project managers have traditionally engaged with the concept of time on a standard, universal basis. The social construction of time and its implication for practice is an area of project interaction that together with boundary management activities is worthy of incorporation in the explication of projects as socio-temporal phenomena (Brown and Eisenhardt 1997; Butler 1995; Grabher 2002; Orlikowski and Yates 2002).

Implications for the study of project management

The construction of the project manager role identity and its enactment was contingent upon organizational power dynamics. Project Management was a contested construct in which organizational agents utilized structural properties and the agentic discretion/power afforded their roles in instances of time space interaction, to shape.

The mechanisms used to engage in this shaping of the project manager role can be seen in the boundary spanning activities and with regard to the associated boundary objects engaged with by the role. The manner in which boundary spanning was accomplished within the organizational context had a marked effect upon the role construction and enactment.

This finding resonates with and builds on the findings of others in which importance of boundaries in project management practice is emphasized (Carlile 2002 & 2004; Carlile and Reberntsch 2003; Merali 2002; Kellogg et al. 2006; Richter and Niewiem 2009; Santos and Eisenhardt 2005).

The construction of the project manager role was predisposed towards being 'on the boundary' (Andersson-Sahlin 2002). The nature of the boundary can include its being used as a barrier, buffer or bridge. The implications of each have a strong impact on the possibilities of practice for the project manager role holder, and can in differing configurations constitute the project manager role variously.

The possibilities of boundaries have been variously described as 'trading zones' (Carlile 2004), opportunities for bridging and bonding (Newell et al. 2004), and as the locus of fissure and delimitation between projects and ongoing operations (Andersson-Sahlin 2002; Engwall 2003; Scarbrough et al. 2004).

Further to this the exploration of boundaries as 'contested spaces' in which project manager roles are constructed adds to this area of study. The boundary spanning practices of 'bridging and bonding' (Newell et al. 2004) are joined by the practices of 'blocking and buffering' in an extended consideration of knowledge, symbolism, and emotionality as constitutive elements of these activities. It was seen in this case study that project managers were confronted with a professional association construction of role that bore little relationship to the reality of their organizational lives, either in terms of identity or enacted activities. Given the strong reliance on the PMBOK in the construction of practice ideals, and by implication the construction of the project manager role (in the form of authority, status and responsibility) a mismatch and misalignment of the PMBOK with the possibility

of action in various contexts affects not only the successful enactment of the professional but also her professional and organizational identity, and her personal feelings of value (Kreiner et al. 2006).

The language of professional project management may be used in conventional discourse by project managers creating a 'stable' description of practice that can be at odds with the enacted, organizationally situated project management practice. It is possible that the discourse on project management by those in the field will remain stable giving an impression of stability and uniformity (Pennypacker and Grant 2003; Urli and Urli 2000) that in practice may not exist.

This seeming uniformity and stability can be seen as a function of a narrow standard definition of projects and the project manager rather than corresponding to uniformity and standardization in project managers' organizationally based practice (Whitty and Shultz 2006).

Project management discourse should not be confused with project management practice enactment as to do so would be to miss the multiplicity, complexity and divergence of both the actuality and the possibility of project management practice (Becker and Geer 1957).

The discourse on project management was seen to play an important part in the construction of the project role by the project managers themselves. The importance of this as an element in self-image, and in the possibility of professional enactment is worthy of further research and discussion.

The role of organizational buffer was an important if unacknowledged role of the project manager. However, those occupying this role did so without appropriate individual and professional capabilities (Sauer and Reich 2009), this led to those occupying the role becoming 'strained' (Brookes et al. 2007) and to carrying an oppressive individual burden.

The recognition of the role of project manager as interlocutor (Gaddis 1959) brings with it boundary activity possibilities such as barrier, buffer, and bridge and has within it opportunities that were hidden to the case study project managers. The project managers were blinkered to these possibilities by the expectations of professional project manager role, and with the enactment of the role contained within those expectations.

The temptation in research such as this is to castigate the organization for its use of project managers in a manner that subsumes the role into the politics, complexity and uncertainty of the organization. This is an element of discourse now gaining traction in the PMI as they advocate the construction of an organizational context better suited to the needs of the linear rational model of project management they promote¹⁷.

A closer examination of the boundary spanning possibilities, however, would suggest that a project manager role enactment that more seriously considers the possibilities and the capabilities required in boundary spanning practices has the possibility of enhancing the contribution that project managers can make to organizational endeavours.

¹⁷ The PMI have released guidance on organizational structure and design that 'ensures' a more effective project management practice OPM3(2010)

The nature of organizations as socio-political does not seem to be at issue amongst organizational scholars (Van Fleet and Griffin 2006) however, the degree to which each organization manifests dysfunction is less clear. Much of the organizational interaction engaged in by the project managers suggests professional engagement in a dysfunctional organization (Goldman 2008). The clearly political nature of the organization and the avoidance of responsibility for project failure demonstrated by all of the organizational actors points to a misalignment of organizational activity and organizational purpose.

The existence of organizational toxicity in the case study organization has helped to highlight the socio-political nature of IT project management in a manner that might not have been as evident in organizations of a more functional nature.

It would be fair to state that the socio-political context of the case study was not necessarily representative of the socio-political contexts of other organizations.

However, its particular nature has put in stark relief the tensions that exist between the professional and organizational elements of IT project managers' practice in 'extreme' (dysfunctional) circumstances. In doing so, it highlights the elements 'at play' in the construction of IT project managers' identity of practice that can be generalized in terms of the nature of these elements and their interactions, if not in terms of their extent as manifested in this case study.

What this case study has helped to highlight is the need for broader more socially and politically focused IT project manager capabilities in the management of IT projects in

282

complex organizational contexts. The power dynamics and the knowledge transfer, symbolic importance and emotional significance of time space interaction across boundaries are not explicitly or adequately treated in the professional project management guidance.

Given the importance of such social and temporal factors of projects as organizationally embedded, unique and temporary endeavours (Engwall 2003; Lundin and Söderholm 1995) a practice-focused examination and engagement with the social nature of boundaries and 'social' time is called for.

The suggestions of the Scandinavian School of Project Management have a wider organizational focus and a higher level consideration of the possibilities of action than those of the professional associations.

Their use of concepts such as action based entrepreneurship and fragmented commitment building have within them the flexibility of multiple cross boundary engagements that place more focus on organizing contribution than on executing linear mechanical processes (Lundin and Söderholm 1995).

The ability to contribute professionally in complex situations is likely to require complex behaviours. The Professionally based guidance on project management do not provide practitioners with the requisite variety of approaches and behaviours to effectively engage in work that has within it complex and dynamic cognitive, social, political and emotional elements (Carlile 2004; Merali 2002; Santos and Eisenhardt 2005; Sauer and Reich 2009; Sturdy et al. 2009).

If we take seriously the importance of projects as ‘Temporary Organizations’ (Lundin and Söderholm 1995), and accept that boundaries reflect the essence of organization (Santos and Eisenhardt 2005), an informed social capability in which project managers more deeply understand the social nature of projects, the mechanisms of power as it is manifested through space and time in boundary spanning activities, and the centrality of boundary objects as medium and traces of boundary interaction might well promote a reflexivity in project manager enactment that engages project management on terms of its social, temporal and political manifestation in context (Bredillet 2005b; Cicmil and Hodgson 2006; Söderlund 2004b; Sydow and Staber 2002; Winter et al. 2006b).

On how research into project management practice might be conducted

The research approach used in the two phases stated above can be discussed in terms of the debate on the usefulness of ethnographic research methods in the social sciences (Angrosino and DePerez 2003; Aunger 1995; Becker and Greer 1957; Rosen 1991).

Whereas participant observation has been cited as the “the most complete form of the sociological datum” (Becker and Geer 1957, p. 28), the use of other approaches to data collection, such as interviewing are seen as limited in their use in the explanation of complex and situated human activity.

The findings of this case study suggest useful complementarities exist between practices of discursive engagements and practices of enactment observation (phases one and two of the field research respectively).

The defensive repertoires, variously configured, of explanation of failed practice in terms of professional association constructs of practice highlighted the dominance and limiting effects of the professional associations' project management discourse. These limiting effects not only constrained the possibility of project managers' practice, they were also seen to have a constraining effect on the possibility of reflection on that practice.

On its own the limited nature of project managers' reflections on practice suggested an overly constrained conceptualization of their role and its possibility. These discursive constructs were taken as elements of practice in phase two of the research and further enriched the interpretation of the project managers' role and practice

The discursive data were not taken as corresponding to practice but as corresponding to project managers' discourse on practice, and as indicative of a constraining bias with regard to practice. In this manner the two phases in concert presented a richer picture and more complete and complementary interpretation of project managers' relationship to their roles than could have been derived from either approach taken on its own.

The place of interviewing in exploring practice

It has been suggested that to some extent interviewing is a form of participant observation in which the interviewer and interviewee are engaged in the social act of 'interviewing'. The scope of interviewing as research process might be seen as limited to that which is directly observed within the enacting of the interview itself (Becker and Geer 1957, Fontana and Frey 2005; Riach 2009).

It has been proposed that the reflection of interviewees on experiences external to the interview should be relegated to 'amateur' interpretations of events to which they and not the interviewer had been party (Becker and Geer 1957). This proposal implies two issues of importance with regard to the voice of the participant and the knowledgeability of actors in the interviewing context. First, it elevates the observation and interpretation of the professional researcher to a status of privileged observer and author of 'truthful' interpretation. Second, the reflexive capability and interpretation of the actors intimately acquainted with the field is relegated to that of a potentially defensive, partial and distorted presentation (Becker and Geer 1957).

Such an approach to the status of 'trust' and interpretation are contrary to the social constructivist and interpretivist nature of this investigation into the practice of project managers in a social setting (Bourdieu 1980).

The experience of the researcher in the course of this study has been recognition of the different and complementary perspectives offered by different modes of engaging with practitioners in and about their practice.

The reflexive capability of agents during interviews offered valuable insight into the discourses and the rationalizations of practice engaged in by the project managers. These social communicative acts added to the broader understanding of the importance of the reflective context, identity and negotiated purpose of the interview (Fontana and Frey 2005; Riach 2009).

The capability of interviewees to both sense take and sense make experienced phenomena (Boland and Tenkasi 1995) was seen to be reflective of their ability to engage in broader

286

discourse on project management in a manner congruent with the interests and conceptual formulations of the interviewer.

The research of senior, experienced, and professionally referred IT project managers (Sauer and Reich 2009) is an example of highly capable practitioners engaging in broad based discourse on the practice of project management while drawing on elements of their own practice. Their ability to sense take and sense make the complex accomplishment of practice may have been criteria that, recognized by their peers and colleagues, recommended them as research participants.

Likewise, the collaboration between practitioners and researchers as part of the Rethinking Project Management program (Winter et al. 2006b) engaged in a process of boundary spanning discourse in which mutual sense taking and sense making occurred that afforded possibilities of transfer, translation and transformation across the multi-disciplinary boundary of practitioners and academics (Carlile 2004).

It was clear from this study that a partial and potentially misleading understanding of project managers' role and practice would have been gained through either an interview only or observation only approach.

The use of multiple approaches in concert, made cohesive and congruent through the use of a rigorously developed empirically focused conceptual framework, was seen as central to the possibility of complementary use of data from the multiple sources and approaches to data collection.

The abstract nature of the framework's categories allowed for flexibility in use as a 'sensitizing device' (Giddens 1984), and accommodated the complex, contradictory, and emergent nature of the phenomena being explored. In this way an understanding of the project managers practice through observation was enriched with an understanding of project managers' relationship to the practice through discourse, which as well as 'giving voice' to the research participants also gave shape and meaning to the practice being examined.

It is proposed that in undertaking research on project managers' practice that the importance of the discursive capability of project managers is seen as an important element in understanding practice and that is not mistaken as necessarily corresponding to practice.

Chapter 8 - Conclusion

It is clear that there is much to recommend a position that calls for a re-examination of the proposed approaches to project practice and the possibility of its accomplishment (Cicmil and Hodgson 2006; Sauer and Reich 2009; Winter et al. 2006b).

The danger of the unsubstantiated promise and rhetoric of the professional associations' constructs, and the 'expedient' use to which the construct can be put play an important role in the management of projects and in the construction of the project manager role identity.

It is argued that in engaging in this re-examination of project management that such activities take seriously the social construction of project management as an important element in rethinking the possibilities of the discipline (Cicmil and Hodgson 2006; Söderlund 2004a&b).

The largest of the professional associations, PMI, has reacted to the challenges to the adequacy of the project management profession through the creation of industrial context specific extensions to the PMI PMBOK¹⁸, and the construction of an Organizational Project Management guide (OPM3) that includes a project management maturity model (PMI 2008a).

In common with the PMBOK, the approach of the Organizational Project Management standard (OPM) focuses on a rational linear model of organizations and organizing with a view of Organizational Project Maturity bases on Standardization, Measurement, Control

¹⁸ Construction extension and Government Extension

and Improvement (PMI 2008a). The promise of the OPM is that it can drive “superior and sustainable results” (PMI 2008a, p.13) and can “help an organization attain its strategic objectives and achieve organizational excellence in a consistent and reliable manner.” (PMI 2008a, p.15).

The OPM promise echoes the PMBOK promise of controlled, manageable, standardized approaches that support the organization's execution of its strategy through embracing the disciplines of project, program and portfolio management (PMI 2008a).

Contextual organizational elements are mentioned in the OPM as one of the three important elements of establishing maturity, and are described as

“Structural, cultural, technological, and human-resource practices that can be leveraged to support the implementation of Best Practices in projects, programs, and portfolios in support of strategic goals” (PMI 2008a, p.197)

However, other than this mention and note of the importance of ‘organizational enablers’ as contextual factors to be recruited in the support of instituting OPM little further mention is made of the organizational context.

The introduction of OPM can be seen as a response to the well-documented failures of project management (Cicmil and Hodgson 2006), and as an echo of the project managers' refrain (in this case study) while in professional discourse mode of project management failure being a result of the inadequacy of the organizational context.

It would seem that the lessons learned from the project failure of the past few decades has led the PMI to believe that dysfunctional, complex and messy organizational realities get in the way of effective and efficient execution and of “doing projects right.” (PMI 2008a, p.198). The findings of this research suggest that such an approach to both project management and organizational factors in the context of project management is both unfounded and erroneous.

A rational planned model of execution was seen as a fiction borne of an adherence to a dominant discourse that in place of propelling practitioners towards worthwhile organizational contribution worked to narrow the possibilities of project manager contribution.

The PMI’s Project Management Competency Development Framework (PMCDF) is clear in its advocacy and promotion of this 'context transcending' approach to project manager contribution. This competency development framework proposes professional development and competence measurement based on three interlinked competencies of knowledge, performance, and personality all of which focused on the ability to execute professional project management processes and practice (PMBOK) in varied organizational contexts (PMI 2007).

To some extent, this approach takes into consideration the potential constraining and enabling effects of organizational context of project managers' practice. However, this consideration is geared towards a competence that 'overcomes' these contextual limitations so that professional project management might be enacted 'despite' the organizational context in which it is practised.

Both the OPM (PMI 2008a) and the PCDMF (PMI 2007) take organizational context as a consideration in the enactment of project management activities. By doing so, they relegate the complex, dynamic and organizationally specific to quasi-external factors for consideration by the project manager in her practice. The validity of professional project management or the possibility of its practice in any given context is never doubted (given appropriate organizational adjustment in line with OPM3 guidance). Professional project management and its practice are positioned as transcending the everyday complexities of organizational life.

The findings of this case study and the comments of a significant number of scholars have questioned this transcending rational functionalist model of project management practice. Some have argued for a review of the philosophical basis of project and their management (Söderlund 2004a&b), others for a critical appraisal of the social construct of projects (Cicmil and Hodgson 2006), and others for a rethinking of its practice (Sauer and Reich 2008; Winter et al. 2006b).

The strength of the dominant project management 'meme' (Whitty 2005; Whitty and Schultz 2006), and its widening scope in shaping the constructs of projects, programs, portfolios and organizations presents a formidable challenge to those who would challenge it. However, the existence of successful project managers contributing meaningfully to organizations through project work do exist, and are recognized by practitioners as noteworthy, and commendable (Sauer and Reich 2009).

Organizational scholars engaged in exploring organizations, organizing, boundaries and knowledge transfer also contribute to a view on project management that serves to increase the possibilities of practice without attempting to prescribe the specifics of a given practice

approach (Bresnen et al. 2003 & 2004; Merali 2002 & 2004; Newell et al. 2004; Scarbrough et al 2004; Swan et al. 2002).

The Scandinavian School's construction of projects as temporary organizations offers an alternative framing of projects and the role of project managers as they propose a temporary organizing alternative to the rational prescriptive model of the PMI and the other professional associations. The Scandinavian School offers some broad stroke descriptions of project work, such as activity based entrepreneurship that encapsulates a high level, flexible construct that allows for the configuration of multiple possibilities of practice in given contexts. The construct is, however, premised on projects as organizationally separate, and the activities associated with them as actively engaged in the creation, maintenance and dissolution of this separation (Lundin and Söderholm 1995).

This construct attractively, from a project manager's perspective, locates the project manager as entrepreneur with all the attendant discretion, flexibility, and autonomy such a role would encapsulate. However, this construct does not necessarily align with the realities of all project managers lives, and did not suggest itself as an appropriate construct that reflected experiences of the case study project managers.

Given the complexity and differences of organizational configurations, purposes, values and environments, a singular project management body of knowledge seems an impossible and fallacious expectation.

A myriad of contesting approaches and perspectives on the possibility of general management exist. No singular management body of knowledge exists. Project management, if seen as a subset of general management or as management under special circumstances is no more likely to produce such an all-encompassing guidance. It is likely to require the

broad based skills of seasoned practitioners as opposed to the narrow technical and analytical repertoire of a professional project manager (Crawford et al. 2006; Mintzberg 2004).

As with general management, certain capabilities and approaches with reference to the specific project circumstances suggest themselves. The boundary dwelling nature of the role is one such specific circumstance. This circumstance is not exclusive to, but clearly is central to project management practice.

The associated aspects of boundary spanning activities, such the use of boundary objects, the recognition of the importance of rhythm and tempo in cross boundary exchanges, the power dynamics, mechanisms and possibilities of boundary activity (such as bridging, bonding, and barrier and buffer building) are some of the areas that might be usefully engaged with.

This is not to suggest that the ability to manage time, to consider cost, and to coordinate and organize activities is of no importance. The ability of project managers to engage in these tasks in organizational settings is however contingent upon their ability to engage with them on the organization's terms.

This suggests that a review and revision of the project management guidance is called for.

How might professional project management be re-framed?

If project management is considered a boundary dwelling practice (Sahlin-Andersson 2002) in which multiple levels of organizing takes place, the considerations and mechanisms

implicated in that organizing would suggest themselves as a valuable starting place for project management practice review.

This proposition resonates with the suggestion of the Scandinavian School, and echoed by Van Donk and Molloy (2008) that projects might be viewed as organizations as opposed to processes for organizing. Concomitant with such an approach would be a re-framing of the role of the project manager in the instantiation, management and dissolution of such organizations. The capabilities required to do so are far broader than those at present associated with the professional project management expectations of the professional associations (Crawford et al. 2006; Lundin and Söderholm 1995; Sauer and Reich 2009; Van Donk and Molloy 2008).

If project managers are to successfully contribute to organizations they must begin with the organization, and from there call on the multiple possibilities of configuring both themselves, and the resources at their disposal to their task.

The ability to do so requires a psychological competence that includes emotional, cognitive, political and social engagement. The emotional impact of conflicting structural elements on project managers in an appreciation of their role and in an enactment of their practice is one such area that is both over looked, and under-researched (Crawford et al. 2006; Sauer and Reich 2009).

Further empirical research on the project manager role and its enactment in differing settings is required, and may agree with, add to, or challenge the findings of this research.

The Rethinking Project Management agenda has challenged practitioners and scholars alike to critically engage in the possibility of rethinking project management practice. This research is an attempt to do so in a manner consistent with explicitly stated theoretical constructs in an empirically engaged manner. It has taken seriously the complexity of project managers' practice and the problematic nature of the project manager role.

The findings of this research have crossed the five trajectories for future project management research in that

1. The narrowly defined, prescriptive project life-cycle model of project management has been seen as not only misaligned with the 'reality' of organizational project management, but as a construct that can have negative impacts on the possibility of the project manager role and practice
2. The social, emotional, knowledge, and political processes in project manager practice were seen not as consideration to be accommodated, but rather as the central elements of practice
3. The contribution of the project management role and practice within the organization was multifaceted, and at times hidden, and the rational economic view of contribution was seen as an insufficient construct to explaining the socio-political nature of organizational contribution
4. The construction of projects as boundary dwelling phenomena gives significance to the uncertainty, contested nature, and negotiated practice that is constitutive of project activity
5. The dominance of the professional association discourse on project management was seen as a barrier to project manager reflection and practice transformation.

It is proposed that this research has added to the ongoing discourse with regards to project management and that it has contributed usefully to the development of a dynamic and engaging discipline in which the possibilities of project managers' roles and practice can be further developed.

References

Agarwal N. & Rathod U. 2006, 'Defining "Success" for Software Projects: an Exploratory Revelation', *International Journal of Project Management*, 24, pp. 358-370.

Angrosino M. & Mays de Perez K.A. 2003 'Re-Thinking Observation: From Method to Context. In *Collecting and Interpreting Data Qualitative Materials.*, Denzin N.K. & Lincoln Y. (Eds.), Sage, London, pp. 107 - 153.

Ajmal M.M. & Koskinen K.U. 2008, 'Knowledge Transfer in Project-Based Organizations: an Organizational Culture Perspective', *Project Management Journal*, 39, pp. 7-15.

Allen P. & Varga L. 2006, 'A Co-Evolutionary Complex Systems Perspective on Information Systems', *Journal of Information Technology*, 21, pp. 229-238.

APM 2009, APM Body of Knowledge Definitions, Association for Project Management, Buckinghamshire, UK.

Archer, M. S. 1995, *Realist social theory: a morphogenic approach*, Cambridge University Press, Cambridge.

Argyris C. 1976, 'Single-Loop and Double-Loop Models In Research on Decision Making', *Administrative Science Quarterly*, 21, pp. 363-375

Artto K.A. & Wikstrom K. 2005, 'What Is Project Business?', *International Journal of Project Management*, 23, pp. 343-353.

Atkinson R. 1999, 'Project Management: Cost, Time and Quality, Two Best Guesses and a Phenomenon, Its Time to Accept Other Success Criteria', *International Journal of Project Management*, 17, pp. 337 - 342.

Aunger Robert. 1995, 'On Ethnography, Storytelling or Science?', *Current Anthropology*, Volume 36(1), pp. 97 - 130

Austin R.D. & Devin L. 2009, 'Weighing the Benefits and Costs of Flexibility in Making Software: Toward a Contingency Theory of the Determinants of Development Process Design', *Information Systems Research*, 20, pp. 462-477.

Bartis E. & Mitev N. 2008, 'A Multiple Narrative Approach to Information Systems Failure: a Successful System That Failed', *European Journal of Information Systems*, 17, pp. 112-124.

Becker H. & Geer B. 1957, 'Participant Observation and Interviewing: A Comparison', *Human Organization*, 16 (Fall), pp. 28–32.

Benbasat I., Goldstein D.K. & Mead M. 1987, 'The Case Research Strategy in Studies of Information Systems', *MIS Quarterly*, 11, pp. 369-386.

Benbasat I. & Zmud R.W. 1999, 'Empirical Research in Information Systems: the Practice of Relevance', *MIS Quarterly*, 23, pp. 3 - 16.

Benbya H. & McKelvey B. 2006, 'Toward a Complexity Theory of Information Systems Development', *Information Technology and People*, 19, pp. 12 -34.

Berger H. & Benyon-Davies P. 2008, 'The Utility of Rapid Application Development in Large-Scale, Complex Projects', *Project Management Journal*, 38, p. s111 - s122.

Besner C. & Hobbs B. 2008a, 'Discriminating Contexts and Project Management Best Practices on Innovative and Non-innovative Projects', *Project Management Journal*, 39, p. S123-S134.

Besner C. & Hobbs B. 2008b, 'Project Management Practice, Generic or Contextual: a Reality Check', *Project Management Journal*, 39, pp. 16-33.

Betts M. & Lansley P. 1995, 'International Journal of Project Management: a Review of the First Ten Years', *International Journal of Project Management*, 13, pp. 207 - 217.

Blomquist T. & Söderholm A. 2002, 'How Project Management Got Carried Away', In *Beyond Project Management: New Perspectives on the Temporary-Permanent Dilemma*. Sahlin-Andersson K. & Söderholm A. (Eds.), Copenhagen Business School Press, Copenhagen, pp. 25 – 37.

Boland R.J. & Tenkasi R.V. 1995, 'Perspective Making and Perspective Taking in Communities of Knowing', *Organization Science*, 6, pp. 350-372.

Bourdieu P. 1977, *Outline of a theory of practice*, Cambridge University Press, Cambridge.

Bourdieu P. 1980, *The Logic of Practice*, Stanford University Press, California.

Bredillet C.N. 2004, 'From the Editor', *Project Management Journal*, 35, pp. 3-4.

Bredillet C.N. 2005a, 'From the Editor', *Project Management Journal*, 36, pp. 3-4.

Bredillet C.N. 2005b, 'From the Editor: Where do We Come From? What Are We? Where Are We Going?', *Project Management Journal*, Volume 19(6), pp. 3-4.

Bresnen M., Edelman L., Newell S., Scarbrough H. & Swan J. 2003, 'Social Practices and the Management of Knowledge in Project Environments', *International Journal of Project Management*, 21, p. 157.

Bresnen M., Goussevskaia A. & Swan J. 2004, 'Embedding New Management Knowledge in Project-Based Organizations', *Organization Studies*, 25, pp. 1535-1555.

Bresnen M., Goussevskaia A. & Swan J. 2005, 'Implementing Change in Construction Project Organizations: Exploring the Interplay Between Structure and Agency', *Building Research & Information*, 33, pp. 547-560.

Brookes K., Davidson P., Daly J. & Halcolm E. 2007 'Role theory: A framework to investigate the community nurse role in contemporary health care systems', *Contemporary Nurse* 25(1-2), pp. 146–155.

Browne, C. 1993, 'Central Dilemmas in Gidden's Theory of Structuration', *Thesis Eleven*, 36, 138 - 150.

Brown S.L. & Eisenhardt K.M. 1997, 'The Art of Continuous Change: Linking Complexity Theory and Time-Paced Evolution in Relentlessly Shifting Organizations', *Administrative Science Quarterly*, 42, pp. 1 – 34.

Bryde D.J. 2005, 'Methods for Managing Different Perspectives of Project Success', *British Journal of Management*, 16, pp. 119-131.

Butler R. 1995, 'Time in Organizations: Its Experience, Explanations and Effects', *Organization Studies*, 16(6), pp. 925-950.

Butler T. & Fitzgerald B. 1999, 'Unpacking the Systems Development Process: an Empirical Application of the CSF Concept in a Research Context', *The Journal of Strategic Information Systems*, 8, pp. 351-371.

Carlile P.R. 2002, 'A Pragmatic View of Knowledge and Boundaries: Boundary Objects in New Product Development', *Organization Science*, 13, pp. 442-455.

Carlile P.R. & Rebentisch E.S. 2003, 'Into the Black Box: the Knowledge Transformation Cycle', *Management Science*, 49, pp. 1180-1195.

Carlile P.R. 2004, 'Transferring, Translating, and Transforming: an Integrative Framework for Managing Knowledge Across Boundaries', *Organization Science*, 15, pp. 555-568.

Cassell, P. 1993, *The Giddens Reader*, MacMillan, Basingstoke.

Cavaye A.L.M. 1996, 'Case Study Research: a Multi-Faceted Research Approach for IS', *Information Systems Journal*, 6, pp. 227 - 242.

Charmaz K. 2005, 'Grounded Theory in the 21st Century: Applications for Advancing Social Justice Studies', In *The Sage Handbook of Qualitative Research*, Denzin N.K. & Lincoln Y.S. (Eds.), Sage, London.

Checkland P. & Scholes J. 1999, *Soft Systems Methodology in Action: a 30-Year Retrospective*, Wiley, Chichester

Chin G. 2004, *Agile Project Management How to Succeed in the Face of Changing Project Requirements*, Amacom, New York.

Cicmil S. & Hodgson D. 2006, 'New Possibilities for Project Management Theory: a Critical Engagement', *Project Management Journal*, 37, pp. 111-122.

Cicmil S., Williams T., Thomas J. & Hodgson D. 2006, 'Rethinking Project Management: Researching the Actuality of Projects', *International Journal of Project Management*, 24, pp. 675-686.

Cleland D.I. 1998, 'Project Management: Profile of Changes', *Proceedings of the 29th Annual Project Management Institute 1998 Seminars & Symposium*.

Cook S.D.N. & Brown J.S. 1999, 'Bridging Epistemologies: the Generative Dance Between Organizational Knowledge and Organizational Knowing', *Organization Science*, 10, pp. 381-400.

Cooke-Davies T. 2002, 'The 'Real' Success Factors on Projects', *International Journal of Project Management*, 20, p. 185.

Cooke-Davies T.J. & Arzymanow A. 2003, 'The Maturity of Project Management in Different Industries: an Investigation Into Variations Between Project Management Models', *International Journal of Project Management*, 21, p. 471.

Cooke-Davies T., Cicmil S., Crawford L. & Richardson, K. 2007, 'We're Not in Kansas Anymore, Toto: Mapping the Strange Landscape of Complexity Theory, and Its Relationship to Project Management', *Project Management Journal*, 38 (2), pp. 50-61.

Cooke-Davies T. & Teague T. 2007, 'Is There Anything New Under the Sun: the Changing and Unchanging Faces of Project Management', 2007 PMI Global Congress Proceedings – Atlanta, USA

Crawford L., Morris P., Thomas J. & Winter, M. 2006, 'Practitioner Development: From Trained Technicians to Reflective Practitioners', *International Journal of Project Management*, 24, pp. 722-733.

Crawford L., Pollack J. & England D. 2007, 'How Standard Are Standards: an Examination of Language Emphasis in Project Management Standards', *Project Management Journal*, 38, pp. 6-21.

Cunha M.P. 2004, 'Organizational Time: a Dialectical View', *Organization*, 11,2, pp. 271 - 296.

Currie W.L. & Willcocks L. 1996, 'The New Branch Columbus Project at Royal Bank of Scotland: the Implementation of Large-Scale Business Process Re-Engineering', *The Journal of Strategic Information Systems*, 5, pp. 213-236.

Currie W.L. & Willcocks L.P. 1998, 'Analysing Four Types of IT Sourcing Decisions in the Context of Scale, Client/Supplier Interdependency and Risk Mitigation', *Information Systems Journal*, 8, pp. 119-143.

Darke P., Shanks G. & Broadbent M. 1998, 'Successfully Completing Case Study Research: Combining Rigour, Relevance and Pragmatism', *Information Systems Journal*, 8, pp. 273 - 289.

Davis A.M. & Bershoff E.H. 1988, 'A Strategy for Comparing Alternative Software Development Life Cycle Models', *IEEE Transactions on Software Engineering*, 14, pp. 1453 - 1461.

DeCarlo D. 2004, *eXtreme Project Management*, Jossey-Bass, San Francisco,

Delisle C.L. & Olson D. 2004, 'Would the Real Project Management Language Please Stand Up?', *International Journal of Project Management*, 22, , p. 327.

Denzin N.K. 2001, 'The Reflexive Interview and a Performative Social Science', *Qualitative Research*, 1, pp. 23 - 46.

DeSanctis G. & Scott-Poole M. 1994, 'Capturing the Complexity in Advanced Technology Use: Adaptive Structuration Theory', *Organization Science*, 5(2), pp. 121 - 147

Dvir D., Lipovetsky S, Shenhar, A. & Tishler A.. 1998, 'In Search of Project Classification: a Non-Universal Approach to Project Success Factors', *Research Policy*, 27, pp. 915 - 935.

Eisenhardt K.M. & Graebner M.E. 2007, 'Theory Building From Cases: Opportunities and Challenges', *Academy of Management Journal*, 50, pp. 25-32.

Ellis C. & Bochner A.P. 2003, 'Autoethnography, Personal Narrative, Reflexivity: Researcher as Subject.', In *Collecting and Interpreting Qualitative Materials*. Denzin N.K. & Lincoln Y.S. (Eds.). Sage, London. pp. 199 - 258.

Emirbayer, M. & Mische, A. 1998, 'What is Agency?', *American Journal of Sociology*, 103, 4, pp. 962 - 1023.

Engwall M. 2002, 'The futile dream of the perfect goal', In *Beyond Project Management: New Perspectives on the Temporary-Permanent Dilemma*. Sahlin-Andersson K. & Söderholm A. (Eds.), Copenhagen Business School Press, Copenhagen, pp. 263 - 277

Engwall M. 2003, 'No Project Is an Island: Linking Projects to History and Context', *Research Policy*, 32, , p. 789.

Erikson, E. H. 1963, *Childhood and Society*, WW Norton and Company Inc., New York.

Fincham R. 2002, 'Narratives of Success and Failure in Systems Development', *British Journal of Management*, 13, pp. 1 - 14.

Fontana A. & Frey J.H. 2005, *The Interview: From Neutral Stance to Political Involvement*. In *The Sage Handbook of Qualitative Research*. Denzin N.K. & Lincoln Y.S. (Eds.). Sage, London pp. 695 - 728.

Fortune J. & White D. 2006, 'Framing of Project Critical Success Factors by a Systems Model', *International Journal of Project Management*, 24, pp. 53-65.

Fowler A. & Walsh M. 1999, 'Conflicting Perceptions of Success in an Information Systems Project', *International Journal of Project Management*, 17, p. 1 -10.

Gaddis P.O. 1959, 'The Project Manager', *Harvard Business Review*, 37, pp. 89 - 97.

Gherardi S. 2000, 'Practice-Based Theorizing on Learning and Knowing in Organizations', *Organization*, 7(2), pp. 211 - 223.

Giddens, A. 1984, *The Constitution of Society: Outline of the Theory of Structuration*, Polity Press, Cambridge.

Goldman, A. 2008, 'Company on the Couch: Unveiling Toxic Behavior in Dysfunctional Organizations', *Journal of Management Enquiry* 17(3), pp. 226 - 238.

Grabher G. 2002, 'Cool Projects, Boring Institutions: Temporary Collaboration in Social Context', *Regional Studies*, 36, pp. 205-214.

Hodder I. 2003. The Interpretation of Documents and Material Culture. In *Collecting and Interpreting Qualitative Materials*. Denzin N.K. & Lincoln Y.S. (Eds.). 2003. Sage, London, pp. 155 - 175.

Hodgson D E. 2004, 'Project Work: The Legacy of Bureaucratic Control in the Post-Bureaucratic Organization', *Organization*, 11(1), pp. 81-100

Hodgson D E. 2005, "'Putting on a Professional Performance": performativity, subversion and project management.' **Organization**, 12(1), pp. 51-68

Hutchby I. 2001, 'Technologies, Texts and Affordances', *Sociology*, 35(2), pp. 441 - 456.

IPMA 2006, 'ICB - IPMA Competence Baseline Version 3.0', International Project Management Association, Nijkerk

Joham C., Metcalfe M. & Sastrowardoyo S. 2009, 'Project Conceptualization Using Pragmatic Methods', *International Journal of Project Management*, 27, pp. 787-794.

Jones M.R. & Karsten H. 2008, 'Giddens's Structuration Theory and Information Systems Research', *MIS Quarterly*, 32(1), pp. 127 - 157.

Jones M.R. & Karsten H. 2009, 'Divided by a Common Language: A Response to Marshall Scott Poole', *MIS Quarterly*, 33(3), pp. 589 – 595.

Katz, D. 1951, *Gestalt Psychology, its nature and significance*, Methuen, London.

Keil M. & Robey D. 1999, 'Turning Around Troubled Software Projects: an Exploratory Study of the De-escalation of Commitment to Failing Courses of Action', *Journal of Management Information Systems*, 15, pp. 63-87.

Keil M., Mann J. & Rai A. 2000, 'Why Software Projects Escalate: an Empirical Analysis and Test of Four Theoretical Models', *MIS Quarterly*, 24, pp. 631-664.

Keil M., Im G.P. & Mahring M. 2007, 'Reporting Bad News on Software Projects: the Effects of Culturally Constituted Views of Face-Saving', *Information Systems Journal*, 17, pp. 59-87.

Kellogg K.C., Orlikowski W.J. & Yates J. 2006, 'Life in the Trading Zone: Structuring Coordination Across Boundaries in Postbureaucratic Organizations', *Organization Science*, 17, pp. 22-44.

Kemmis S. & McTaggart R. 2005, 'Participatory Action Research: Communicative Action and the Public Sphere.', In *The Sage Handbook of Qualitative Research*. Denzin N.K. & Lincoln Y.S. (Eds.). 2005., Sage, London, pp. 559 - 604.

Klein H.K. & Myers M.D. 1999, 'A Set of Principles for Conducting and Evaluating Interpretive Field Studies in Information Systems', *MIS Quarterly*, 23, pp. 67 - 93.

Kohler W. 1947, *Gestalt Psychology: An introduction to new concepts in modern psychology*, Liveright Publishing Corporation, New York.

Koskinen K.U. & Makinen S. 2009, 'Role of Boundary Objects in Project Contracts', *International Journal of Project Management*, 27, pp. 31 - 38.

Kreiner, Hollensbe & Sheep M. 2006, 'On the edge of identity: Boundary dynamics at the interface of individual and organizational identities', *Human Relations*, 59(10), 1315 - 1341

Levina N. 2005, 'Collaborating on Multiparty Information Systems Development Projects: a Collective Reflection-in-Action View', *Information Systems Research*, 16, pp. 109-130.

Lincoln Y.S. & Guba E.G. 1985, *Naturalistic Inquiry*, Sage, London.

Lindgren R., Andersson M. & Henfridsson O. 2008, 'Multi-Contextuality in Boundary-Spanning Practices', *Information Systems Journal*, 18, pp. 641-661.

Lindkvist and Söderlund 2002, 'What goes on in projects?', In *Beyond Project Management: New Perspectives on the Temporary-Permanent Dilemma*. Sahlin-Andersson K. & Söderholm A. (Eds.), Copenhagen Business School Press, Copenhagen, pp. 278 - 291.

Lundin R.A. & Söderholm A. 1995, 'A Theory of the Temporary Organization', *Scandinavian Journal of Management*, 11, pp. 437-455.

Lynch K. D. 2007, 'Modeling Role Enactment: Linking Role Theory and Social Cognition', *Journal for the Theory of Social Behaviour* 37(4), pp. 379 - 399

Lyytinen K. & Robey D. 1999, 'Learning Failure in Information Systems Development', *Information Systems Journal*, 9, pp. 85-101.

Lyytinen K. & Newman M. 2008, 'Explaining Information Systems Change: a Punctuated Socio-Technical Change Model', *European Journal of Information Systems*, 17, pp. 589 - 613.

Maaninen-Olsson E. & Mullern T. 2009, 'A Contextual Understanding of Projects - the Importance of Space and Time', *Scandinavian Journal of Management*, 25, pp. 327 - 339.

Mahmood M.A. 1987, 'System Development Methods--a Comparative Investigation', MIS Quarterly, 11, pp. 293-311.

Merali Y. 2002, 'The Role of Boundaries in Knowledge Processes', European Journal of Information Systems, 11, pp. 47-60.

Merali Y.M. 2006, 'Complexity and Information Systems: the Emergent Domain', Journal of Information Technology, 21, pp. 216-228.

Meredith J.R. 2002, 'Developing Project Management Theory for Managerial Application: the View of a Research Journal's Editor'. In PMI Research Conference, Seattle, USA, 2002.

Merleau Ponty 1962, The Phenomenology of Perception, Routledge, New York.

Mintzberg H. 2004, Managers not MBAs, Berrett-Koehler Publishers, Inc., San Francisco.

Molokken-Ostfold K & Jorgensen M. 2005, 'A Comparison of Project Software Overruns - Flexible Versus Sequential Development Models', IEEE Transactions on Software Engineering, 31(9), pp. 754 - 766.

Morris P.W.G. 2001, 'Updating the Project Management Bodies of Knowledge', Project Management Journal, 32, pp. 21 - 30.

Morris P.W.G., Crawford L., Hodgson D., Shepherd M., & Thomas J. 2006, 'Exploring the Role of Formal Bodies of Knowledge in Defining a Profession: the Case of Project Management', International Journal of Project Management, 24, pp. 710-721.

Morris P.W.G., Jamieson A. & Shepherd M.M. 2006, 'Research Updating the APM Body of Knowledge 4th Edition', *International Journal of Project Management*, 24, pp. 461-473.

Nandhakumar J. & Avison D.E. 1999, 'The Fiction of Methodological Development: a Field Study of Information Systems Development', *Information Technology & People*, 12(2), pp. 176 -191.

Nandhakumar J. 2002, 'Managing Time in a Software Factory: Temporal and Spatial Organization of IS Development Activities', *Information Society*, 18, pp. 251-262.

Nandhakumar J. & Jones M. 1997, 'Too Close for Comfort? Distance and Engagement in Interpretive Information Systems Research', *Information Systems Journal*, 7, pp. 109 - 131.

Nandhakumar, J & Jones, M.2001 'Accounting for Time: Managing time in project-based teamworking', *Accounting, Organizations and Society*, 26(3), pp. 193-214.

Nandhakumar J. & Jones M. 2002, 'Development Gain? Participant Observation in Interpretive Management Information Systems Research', *Qualitative Research*, 2, pp. 323 - 341.

Nandhakumar J., Rossi M. & Talvinen J. 2005, 'The Dynamics of Contextual Forces of ERP Implementation', *The Journal of Strategic Information Systems*, 14, pp. 221-242.

Newell S., Tansley C. & Huang J. 2004, 'Social Capital and Knowledge Integration in an ERP Project Team: the Importance of Bridging and Bonding', *British Journal of Management*, 15, p. S43-S57.

Orlikowski W.J. 2002, 'Knowing in Practice: Enacting a Collective Capability in Distributed Organizing', *Organization Science*, 13, pp. 249-273.

Orlikowski, W. J. 2007, 'Sociomaterial Practices: Exploring Technology at Work', *Organization Studies*, 28, pp. 1435-1448.

Orlikowski B. & Baroudi J.J. 2002, 'Studying Information Technology in Organizations: Research Approaches and Assumptions.', In *Qualitative Research in Information Systems*. Myers M.D. & Avison D. (Eds.). 2002. Sage, London, pp. 51 - 78.

Orlikowski W.J. & Yates J. 2002, 'It's About Time: Temporal Structuring in Organizations', *Organization Science*, 13, pp. 684-700.

Packendorff J. 1995, 'Inquiring Into the Temporary Organization: New Directions for Project Management Research', *Scandinavian Journal of Management*, 11, pp. 319-333.

Papadimitriou K. & Pellegrin C. 2007, 'Dynamics of a Project Through Intermediary Objects of Design (IODs): a Sensemaking Perspective', *International Journal of Project Management*, 25, pp. 437-445.

Pare G., Bourdeau S., Marsan J., Nach H.& Shuraïda S. 2008, 'Re-Examining the Causal Structure of Information Technology Impact Research', *European Journal of Information Systems*, 17, pp. 403-416.

Pennypacker J.S. & Grant K.P. 2003, 'Project Management Maturity: an Industry Benchmark', *Project Management Journal*, 34(1), pp. 4-11.

Pettigrew A.M. 1997, 'What Is Processual Analysis', *Scandinavian Journal of Management*, 13, pp. 337 - 348.

PMI 2008a, *Organizational Project Management Maturity Model (OPM3) - Second Edition*, Project Management Institute, Newtown Square, Pennsylvania.

PMI 2008b, *A Guide to the Project Management Body of Knowledge Fourth Edition*, Project Management Institute, Newtown Square, Pennsylvania

PMI 2009, 'Project Management Institute: Who We Are and What We Do', retrieved from www.pmi.org on September 27th 2010.

Polanyi, M. 1967, *The tacit dimension*, Routledge & Kegan Paul, London.

Pollack J. 2007, 'The Changing Paradigms of Project Management', *International Journal of Project Management*, 25, pp. 266-274.

Pollack J. 2009, 'Multimethodology in Series and Parallel: Strategic Planning Using Hard and Soft OR', *Journal of the Operational Research Society*, 60, pp. 156-167.

Poole M.S. 2009, 'Response to Jones and Karsten, Giddens's Structuration Theory and IS Research', *MIS Quarterly*, 33(3), pp. 583 – 587.

Pozzenbon, M. & Pinsonneault, A. 2005, 'Challenges in Conducting Empirical Work Using Structuration Theory', *Organization Studies*, 26, pp. 1353 – 1376.

Reich B.H. & Wee S.Y. 2006, 'Searching for Knowledge in the PMBOK Guide', *Project Management Journal*, 37, pp. 11-26.

Remington K. & Pollack J. 2007, *Tools for Complex Projects*, Gower Publishing Limited, Aldershot, UK.

Riach K. 2009, 'Exploring Participant-Centred Reflexivity in the Research Interview', *Sociology*, 43, pp. 356 - 370.

Richter A. & Niewiem S. 2009, 'Knowledge Transfer Across Permeable Boundaries: an Empirical Study of Clients' Decisions to Involve Management Consultants', *Scandinavian Journal of Management*, 25, pp. 275 - 288.

Rosen M. 1991, 'Coming to terms with the field: Understanding and Doing Organizational Ethnography', *Journal of Management Studies*, 28,1, pp. 1 - 24

Rowan, J. & Cooper, M. 1999, *The Plural Self; Multiplicity in Everyday Life*, Sage Publications Limited, London.

Sahay S. & Walsham G. 1997, 'Social Structure and Managerial Agency in India', *Organization Studies*, 18, pp. 415-444.

Sahlin-Andersson 2002, 'Project Management as Boundary Work', In *Beyond Project Management: New Perspectives on the Temporary-Permanent Dilemma*. Sahlin-Andersson K. & Söderholm A. (Eds.), Copenhagen Business School Press, Copenhagen, pp. 241–261.

Santos F.M. & Eisenhardt K.M. 2005, 'Organizational Boundaries and Theories of Organization', *Organization Science*, 16(5), pp. 491 - 508.

Sauer C. & Reich B.H. 2009, 'Rethinking IT Project Management: Evidence of a New Mindset and Its Implications', *International Journal of Project Management*, 27, pp. 182-193.

Scarbrough, H., Swan, J., Laurent, S., Bresnen, M., Edelman, L. & Newell, S. 2004, 'Project-based learning and the role of learning boundaries', *Organization Studies*, 25, pp. 1579-1600.

Schatzki, T. R. 1997, 'Practices and actions: A Wittgensteinian critique of Bourdieu and Giddens', *Philosophy of the Social Sciences*, 27, pp. 228 – 308.

Sense, A.J. 2007, 'Structuring the Project Environment for Learning', *International Journal of Project Management*, 25, pp. 405-412.

Sewell Jr, W. H. 1992, 'A Theory of Structure: Duality, Agency, and Transformation', *American Journal of Sociology*, 98(1), pp. 1 - 29.

Schön D. 1983, *The Reflective Practitioner; How Professionals Think in Action*, Temple-Smith, London.

Shenhar A.J. & Dvir D. 2004, 'Project Management Evolution: Past History and Future Research Directions', *Proceedings of the PMI research conference*, 11- 14 July, London

Shenhar A.J. & Dvir D. 2007, 'Project Management Research - the Challenge and Opportunity', *Project Management Journal*, 38, pp. 93-99.

Silverman D. 1998, 'Qualitative Research: Meanings or Practices?', *Information Systems Journal*, 8, pp. 3 - 20.

Smith J.K. & Deemer D.K. 2003, 'The Problem of Criteria in the Age of Relativism.', In *Collecting and Interpreting Qualitative Materials*. Denzin N.K. & Lincoln Y.S. (Eds.). 2003. Sage, London, pp. 427 – 457.

Söderlund J. 2004a, 'On the Broadening Scope of the Research on Projects: a Review and a Model for Analysis', *International Journal of Project Management*, 22, pp. 655-667.

Söderlund J. 2004b, 'Building Theories of Project Management: Past Research, Questions for the Future', *International Journal of Project Management*, 22, p. 183 - 191.

Stake R.E. 2005, 'Qualitative Case Studies', In *The Sage Handbook of Qualitative Research*. Denzin N.K. & Lincoln Y.S. (Eds.), Sage, London, 2005. pp. 443 - 466.

Standish Group (1995), *Chaos report paper*, Retrieved April 26th, 2008, from <http://www.standishgroup.com/>

Stones, R. 1991, 'Strategic Context Analysis: A New Research Strategy For Structuration Theory', *Sociology*, 25, pp. 673-695.

Stones, R. 2005, *Structuration theory*, Palgrave Macmillan, Basingstoke.

- Sturdy A., Clark T., Fincham R. & Handley K. 2009, 'Between Innovation and Legitimation Boundaries and Knowledge Flow in Management Consultancy', *Organization*, 16(5), pp. 627 - 653.
- Swan J.A., Scarbrough H. & Robertson M. 2002, 'The Construction of 'Communities of Practice' in the Management of Innovation', *Management Learning*, 33(4), pp. 477 - 496.
- Sydow J. & Staber U. 2002, 'The Institutional Embeddedness of Project Networks: the Case of Content Production in German Television', *Regional Studies*, 36, pp. 215-227.
- Thomas D.R. 2003, 'A General Inductive Approach to Qualitative Data Analysis', School of Population Health, University of Auckland, Auckland.
- Turner R.J. 2004, 'Five Necessary Conditions for Project Success: Editorial', *International Journal of Project Management*, 22, pp. 349 - 350.
- Urli B. & Urli D. 2000, 'Project Management in North America, Stability of the Concepts', *Project Management Journal*, 31, p. 33.
- Van Donk, D.K & Molloy, E. 2008, 'From organising as projects to projects as organisations', *International Journal of Project Management* 26, pp. 129–137
- Van Fleet, Davod D. & Griffin, Ricky W. (2006), "Dysfunctional organization culture: The role of leadership in motivating dysfunctional work behaviors", *Journal of Managerial Psychology*, Vol. 21 Iss: 8 pp. 698 – 708

- Van Maanen J. 1979, 'Reclaiming Qualitative Methods for Organizational Research',
Administrative Science Quarterly, 24, pp. 520 - 526.
- Walsham G. 1995, 'Interpretive Case-Studies in IS Research - Nature and Method', European
Journal of Information Systems, 4, pp. 74-81.
- Wateridge J. 1998, 'How Can IS/IT Projects Be Measured for Success?', International Journal of
Project Management, 16, p. 59.
- Weick K.E. 2002, 'Essai: Real-Time Reflexivity: Prods to Reflection', Organization Studies,
23, pp. 893-898.
- Weick K.E. 2007, 'The Generative Properties of Richness', Academy of Management Journal, 50,
pp. 14-19.
- Wertheimer M. 1945, Productive Thinking, Harper & Brothers, London.
- Whitty S. J. 2005, 'A memetic paradigm of project management', International Journal of Project
Management, 23, pp. 575 – 583
- Whitty S.J. & Maylor H. 2009, 'And Then Came Complex Project Management (Revised)',
International Journal of Project Management, 27, pp. 304-310.
- Whitty, S. J & Schultz M.F 2006, 'The_PM_BOK_CODE', The Proceedings of 20th IPMA
World Congress on Project Management, Volume 1, page 466 – 472

Wideman R.M. 1995, 'Criteria for a Project-Management Body of Knowledge', *International Journal of Project Management*, 13, pp. 71-75.

Wilson M. & Howcroft D. 2002, 'Re-conceptualising failure: social shaping meets IS research', *European Journal of Information Systems*, 11, pp. 236–250

Winter M. 2006, 'Problem Structuring in Project Management: an Application of Soft Systems Methodology (SSM)', *Journal of the Operational Research Society*, 57, pp. 802-812.

Winter, M., Smith, C., Cooke-Davies, T. & Cicmil, S. 2006a, 'The importance of processes in Rethinking Project Management: The story of a UK Government-funded research network', *International Journal of Project Management*, 24, pp. 650-662.

Winter M., Smith C., Morris P. & Cicmil S. 2006b, 'Directions for Future Research in Project Management: the Main Findings of a UK Government-Funded Research Network', *International Journal of Project Management*, 24, pp. 638-649.

Wirth I. & Tryloff D.E. 1995, 'Preliminary Comparison of Six Efforts to Document the Project-Management Body of Knowledge', *International Journal of Project Management*, 13, pp. 109-118.

Wirth I. 1996, 'How Generic and How Industry -- Specific Is the Project Management Profession?', *International Journal of Project Management*, 14, pp. 7-11.

Xia W. & Lee G. 2004, 'The Ability of Information Systems Development Project Teams to Respond to Business and Technology Changes: a Study of Flexibility Measures', *Communications of the ACM*, 47, pp. 68 - 74.

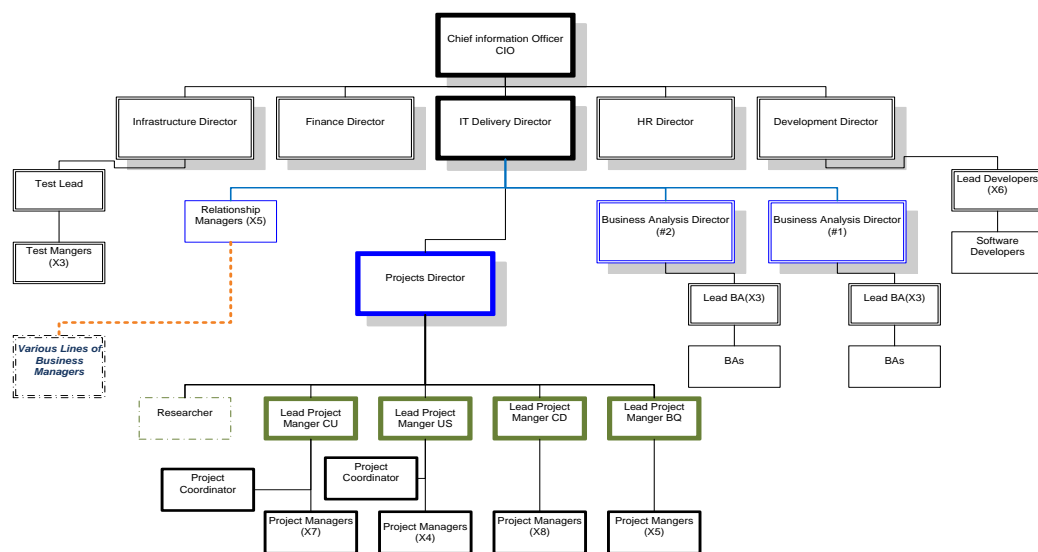
Yin R.K. 2003, Case Study Research: Design and Methods, 3rd Edition, Sage, Thousand Oaks, California.

Appendix I

Organizational Structure and Actors in the world of the IT

Project Managers

A brief outline of the organizational actors that populate the project managers' world is given below with a short description of their relationship to the project management process, as they existed at the beginning of the case study.



Organizational Structure of the IT Department at field study commencement

Chief Information officer (CIO)

The CIO had overall responsibility for the IT department and a budget of approximately \$100 million per year. He had recently been assigned to the local department with the remit to transform the performance of IT and to direct the IT organization through the strategically planned consolidation and standardization activities.

The IT Delivery Director

The IT delivery director had responsibility for each of the project management, business analysis and relationship management departments and reported directly to the CIO. He typically sat on the steering committee of major programs and projects. He had recently transferred from business operations to IT.

The Projects Director

The projects director has overall responsibility for management of all the projects undertaken by the department and for the ongoing and strategic availability of a project manager resource pool. She sat on most of the senior steering committees and has overall control of the project management department, comprising thirty project management staff, twenty-four of whom were located locally. She sets the strategic goals, including performance targets for the department and has final say over issues to do with recruitment, pay, promotion, allocation and discipline of project managers. The projects director had sixteen years' experience within the department.

Lead Project Managers

The lead project managers were responsible for the management of teams of project managers and reported directly to the projects director. There were four lead project managers in all, each with a team of between five and eight project managers. These teams were organized along lines that covered the organization's IT systems, such as back end customer, front end customer, internal and investment systems – an organizing principle common to all the professional teams within the IT department. This organizing structure was a vestige of the department history when it was organized along software development lines and populated mostly by software developers.

The lead project managers were responsible for the allocation of specific project managers to projects, the performance management of the project managers and the development of project manager capability through recruitment and professional development. All the lead project managers also had project management responsibility and typically ran the larger more complex projects. Three of the lead project managers had been with the IT department for 5 years or more. One of these lead project managers was located a thousand miles away in a satellite location. The fourth lead project manager had recently transferred from the defunct operations department where she had acted as a team manager.

Project Managers

Project managers were responsible for the day to day management of projects allocated to them by the lead project managers. There were three grades of project manager, Senior, Technical and Junior. The more senior project managers (including technical project managers) typically carried a complex project case load, usually managing up to three projects concurrently. The junior project managers typically carried a project case load of one medium or two small projects.

The basis on which project size and complexity was decided is discussed further below, however at the commencement of the field research the lead project managers judged project complexity and size based on conversations with the relationship managers (see below), with very mixed results.

The project managers requested project team members from the various disciplinary team leads (Testing, Development and Business Analysis) and had no direct managerial control over these project team members.

Project managers were assigned to teams that reported to lead project managers. Performance targets were negotiated on a twice yearly basis with their managers. There was typically little interaction between project managers in different teams despite their co-location in the same building, if on different floors.

The twenty four person local project management staff comprised six transfers from operations with no project management experience, two junior project managers with limited experience, eight mid-level project managers and five senior project managers and three lead project managers (EM 12).

Relationship Management

The relationship management team, of whom there were five, acted as the interface between business and IT on a program by program and project by project basis. Their involvement was concentrated primarily at the project initiation phase and continued to a lesser extent throughout the project.

Relationship managers were responsible for the management of the various internally allocated budgets from business to IT and to the negotiation with business on project priorities, timing and costs. They were organized on a business line basis and reported directly to the IT delivery director.

Business Analysts

Business analysts were organized in teams reporting to lead business analysts in much the same way as in the project management department. The lead business analysts reported to the business analysis directors who assumed control of the department. Resource allocation to projects was conducted by the lead business analysts in consultation with the requesting project manager. All senior staff members had been with the IT department for at least 5 years or more. The business analyst director reported to the IT delivery director.

Development

Development staff was organized by teams reporting to lead developers. The lead developers reported to the development director. The lead developers had the additional responsibility of allocating local and remote development resource for projects, with a target of 40% utilization of overseas/remote resource on a quarterly basis. The development director had recently been appointed from a European IT department where he had overseen the transformation of software development practice. All other senior staff members had been with the IT department for at least 5 years or more. The development director reported directly to the CIO.

The position of the development director on a higher structural level than that of the other directors suggested the importance of the development team and the greater access to power available to the lead developers than to either the business analysts or the project managers.

IT Testing

IT testing staff was organized by teams reporting to lead testers. The lead testers reported to the infrastructure director, who in turn reported to the CIO. The lead testers had the additional responsibility of allocating local and remote development resource for projects

with a target of 40% utilization of overseas/remote resource on a quarterly basis. The IT testing team was responsible for the functional testing of all locally produced or customized software. All senior staff members had been with the IT department for at least 5 years or more.

Business Testing

The business testing team was responsible for the user acceptance testing of the locally produced or customized software. They had previously been located in the recently disbanded operations department and were now to be found within the diverse business units throughout the organization. All senior staff members had been with their respective departments for at least 5 years or more.

Appendix II

Initial Findings from conversations with PMs as communicated to the projects director and the lead project managers in Email 10

1. The adoption of a “waterfall” approach as the standard PM approach does not necessarily fit the circumstances of requirement instability or shortfall in requirement specificity and/or IT solution instability or specificity - this can lead to reduced control of projects and hence to a lessened likelihood of managed success
2. The absence of quality criteria from a business perspective at the outset of the project (including performance expectations) can lead to design and development being undertaken without these quality aspects being considered as essential to product build - this lack of quality assurance can lead to increases defects , rework and quality control cycles - this again reduces the PM's ability to manage the project to success and inevitably leads to quality shortfalls, cost overruns and time pressure.
3. Estimation of task effort pre-TOR seems to take place in the absence of project management mechanisms for the calculation of effort, duration and critical path. The inherent risk in estimation does not seem to be understood clearly and therefore the customer expectation may be inappropriately set and the project inadvertently placed at time and cost risk
4. There are some great opportunities for coaching and mentoring of junior PMs, The clarity of the process is seen as very helpful - so they know what to do, next we need to help them know how to do it. They are open to and hungry for learning and want to be successful - let's discuss PM 'Clinics', coaching and mentoring and any other mechanisms that will allow us to up-skill the teams and progress successful projects while doing so - the UK model of local champions is a good start place for discussion
5. There are culturally entrenched way of doing things both within and around the PM practice and process - these are likely to be a challenge in implementing a more disciplined approach to managing of successful projects - we could discuss this and possible strategies for success when we next meet
6. The lead PM role or roles could usefully be discussed - so far I have identified three roles, not including Release management, these are: Project Manager, Programme Manager and Manager of Project Managers - let's discuss the team structure and how the support required for both project managers and projects can best be configured.
(EM10)

As delivered to the Project Managers on August 6th 2008:

The absence of business quality criteria at the outset of the project can lead to design and development challenges and product quality deficiencies.

The absence of structured estimation can lead to inherent schedule and Budget risk.

There are some great opportunities for developing the capability of the project management community.

The adoption of a 'waterfall' approach as the standard PM approach does not necessarily fit;

- The circumstances of requirement instability

- Shortfalls in requirements details

- IT solution instability.

There are culturally entrenched ways of delivering projects: there is likely to be a challenge implementing a more disciplined approach to management of successful projects, which may lead to challenges moving to a more disciplined approach.

Appendix III

Project Categorization Tables

Size	Head Count Months	Duration	Number of Development Teams	Category Code
Small	0 – 36	1 – 6 months	1 -2	S
Medium	37 – 108	3 – 12 months	2 – 3	M
Large	109 – 240	9+ months	3 – 5	L
Extra Large	240+	12+ months	5+	X

Description	Points scored
High profile and/or regulatory	2
Multiple business units involved	1
International involvement	1
Designated Flagship project	1
New technology in use	2
Infrastructure component associated with project	1
High Level Monetary impact (> \$5 million)	1

Project Manager to project Allocation matrix guidance

Role Grade	Project Types - S	Project Types – M	Project Types – L	Project Types – X	Project Loading
Junior Project Manager	S0 -3	M0 -2			2 projects
Project Manager	S2 - 5	M1 - 5	L0 -5	X0 -3	2 projects
Senior Project Manager	S5 – 8	M5 – 8	L5 – 7	X0 - 6	2 projects
Lead Project Manager	S8 - 9	M8 -9	L7 – 9	X6 – 9	1 project

Appendix IV

Knowledge Areas	Project Management Process Groups				
	Initiating	Planning	Executing	Monitoring and Controlling	Closing
Project Integration Management	Develop Project Charter	Develop Project Management Plan	Direct and Manage Project Execution	<u>Monitor and Control Project Work &</u> <u>Perform Integrated Change Control</u>	Close Project or Phase
Project Scope Management		Collect requirements & Define Scope & <u>Create WBS</u>		<u>Verify Scope & Control Scope</u>	
Project Time Management		Define Activities Sequence Activities <u>Estimate Activity Resources</u> <u>Estimate Activity Durations</u> <u>Develop Schedule</u>		<u>Control Schedule</u>	
Project Cost Management		<u>Estimate Costs</u> <u>Determine Budget</u>		<u>Control Costs</u>	
Project Quality Management		Plan Quality	Perform Quality Assurance	Perform Quality Control	
Project Human Resource Management		Develop Human Resource Plan	Acquire Project Team Develop Project Team Manage Project Team		
Project Communications Management	Identify Stakeholders	Plan Communications	Distribute Information Manager Stakeholder Expectations	<u>Report Performance</u>	
Project Risk Management		<u>Plan Risk Management</u> <u>Identify Risks</u> <u>Perform Qualitative and Quantitative Risk Analysis</u> <u>Plan Risk Responses</u>		<u>Monitor and Control Risks</u>	
Project Procurement Management		Plan Procurements	Conduct Procurements	Administer Procurements	Close Procurements

Knowledge Areas and Processes cross mapped, adapted from PMI 2008, page 43

Appendix V

Commentary on the PIDs reviewed

1. **Executive Summary** - In most cases the overview element is missing. In those cases where it is present there is a reasonable effort made to write a meaningful 'value' statement that will resonate with the anticipated document audience (i.e. the Approvers)
 1. Summary Project Budget - The Summary Project Budget portion lacks consistency across the documents with financial data being calculated using differing rates and in various 'denominations' such as Man-Month, Head-Count-Month, Head-Count-Days, Dollars
 2. Key Project Milestones – these almost exclusively refer to the document production completion dates and do not mention key project phases or deliverables
2. **Project History** – This was generally a cut and paste from the earlier initial requirements key document
3. **Goals and Benefits** – There was an absence of a clear articulation of business purpose and benefit in conducting the projects. There was an absence of meaningful business success measures in all documents.
4. **Scope** – In most cases the scope statement was a copy and paste from earlier business analyst produced documents and failed to include the IT solution elements of the project scope
5. **Target Platform** – Other than a tick box indicating the level at which the IT solution would be built (new infrastructure, new system, new application, modified infrastructure, etc.), no further information such as platform and application name was mentioned in the documents.
6. **Constraints, Dependencies & Assumptions** – The classifications and articulations of constraints, dependencies and assumptions were confused and in many cases included risks in place of constraints and dependencies.
7. **Acceptance Criteria** - A majority of the Project initiation Documents cite document sign off as acceptance criteria giving the impression that the project's main focus is on the delivery of key documents (this is further emphasized in the almost exclusive use of documents as deliverables later on in the Project Initiation Documents)
8. **Project Approach** - An almost default cut and paste of waterfall approach that defies the logic of earlier project statements as to project complexity in some instances. The impression from most of the Project initiation Documents is that the only approach considered (if considered at all) is the waterfall approach.
9. **Project Specification** - Almost all the Project Initiation Documents used this section to list the project documentation that would be produced, in some, certain key documents were missed. There is no mention of what the project will deliver - the solution that meets the business needs.
10. **Deliverable Contribution Matrix** - Inconsistent use of this matrix across the documents, in some instances absent in others consigned to an appendix. There is an undue focus, as mentioned earlier, on standard project document production.

11. **IT Terms of Engagement** - Varying degrees of consistency and detail in the documents, with a wide variety of financial units being used (such as Man Months, Dollars, Head Count Days etc.) and with rates varying in some cases considerably from the agreed amount per head count month.
12. **Project Organization** - Almost exclusively a list that is hard to read with a 'cast of hundreds'. PM as steering chair in some Project initiation documents.
13. **Reporting** - Insufficient clarity as to the project specific communication mechanisms in the documents reviewed.
14. **Escalation procedures** - An inconsistent approach to escalation up the functional chain of command was presented.
15. **Risk Assessment** - As mentioned previously, various interpretations of risk presented across the documents, most of which are inconsistent with each other. The definition of risk as a future based occurrence that might impact project objectives does not seem to be clearly understood by the project managers.
16. **Overall Recommendation:** Clearer, more succinct and meaningful writing that builds upon project specific disciplines of scope management (through WBS), schedule definition (through CPA,CCA) and Budget management might be used. A more considered approach to project risk should be taken and above all an understanding of the business imperative for doing the project should be articulated.

Adapted extract from Email to Project Managers, September 2008 (Email 40)

Appendix VI

Project Management Subject Matter Experts

The SME's have undertaken to develop expertise in their given areas and to share that expertise with the project management community through holding workshops, giving brown bag talks, posting hints and tips on the project web portal and acting as the 'go-to' person for any colleague who has a query related to their SME area.

The subject areas chosen by the SMEs have and will continue to maintain a direct focus on

1. Project management practice
2. The organizational and industrial context of *company-name*

<u>SME Areas</u>	<u>SME personnel (left blank intentionally)</u>
-------------------------	--

Effort Estimation	
-------------------	--

Costing/Budgeting and Baselines	
---------------------------------	--

Project Scheduling	
--------------------	--

Project Scope management	
--------------------------	--

Portfolio management	
----------------------	--

Project and Programme Initiation Documents	
--	--

Project and Programme structuring	
-----------------------------------	--

Project Quality	
-----------------	--

Project Management Information Systems	
--	--

Project managing Agile development	
------------------------------------	--

The soft skills of the project manager	
--	--