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Who is the Change Manager?

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WHO IS THE CHANGE MANAGER?

By

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Abstract

There are endless possibilities for how to go about changing organisations, and there are just as many people who can, or may think they can, initiate, promote and implement organisational changes. Most literature to do with organisational change deals with the 'how', i.e., how is organisational change achieved? This research study looks at the 'who', i.e., who manages organisational change projects and what competencies they need to manage them effectively. Additionally, the study researches the factors contributing to the requirement for organisational changes that both influence and are influenced by the project. The questions being asked in this study are:

1. What do Change Managers do and what are their competencies on an organisational change project that is different from what Project Managers and Program Managers do and what their competencies are?
2. What are the organisational factors that influence decisions about how a change project should be managed?

Three case studies of organisational project change were studied in three different organisations. The three organisations were a telecommunication organisation, a bank and a university. Interviews were conducted with various project members as well as affected staff to address the research questions. The interviews were then analysed using grounded theory with the support of NVivo software for analysing data.

The major findings of this study are that there is a requirement for an individual to manage changes on organisational change projects. Whether this is the Program/Project Managers or a dedicated Change Manager depends on two main elements. The first is organisational factors such as culture and leadership. The second element is the degree of behavioural change required such as degree of resistance to the change, or the extent of changes to jobs. Organisational factors can also assist projects in achieving their goals, if the culture and leadership is supportive of the project. However, it is unlikely that these factors will eliminate the requirement for change management activities.

This thesis is submitted to Bond University in fulfilment of the requirement for the Degree of Doctor of Philosophy.

This thesis represents my own work and contains no material which has been previously submitted for a degree or diploma at this University or any other institution, except where due acknowledgement is made.

Signature:..   Date: ....

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Table of Contents

Tables and Figures

Figures:

Preface

For a consistent understanding of this thesis, it is necessary to agree on certain conventions at the outset:

- The word 'program', will be spelt 'program' rather than 'programme'. This is to avoid confusion and minimise variations.

- This research study aims to distinguish between any role with the primary focus of influencing change, and the role of a Project/Program Manager. Examples of roles with primary focus of influencing change are Change Managers (a role which will be further explained), Consultants and Organisational Development Practitioners. All roles which have an organisational behaviour background will be referred to as Change Managers and will be compared with Project Managers and Program Managers. Normally these change management roles would emerge from consultancies, Organisational Development and Human Resources.

- A *project* is the achievement of a specific objective that involves a series of activities and tasks which consume resources. It has a set specification for completion, having definite start and end dates.

- *Organisational change* projects are projects which change the way individuals in the organisation behave and the way the organisation is managed.

- A *program* is another way of implementing organisational changes. Programs are a group of interdependent projects that together achieve one or more strategic business objectives to maximise the value of their collective benefits.

1   Introduction

Organisational changes are increasingly being managed as projects and there is a growing adoption of the use of project management techniques to manage organisational changes. So it is not surprising that this includes a growing number of Project Managers who manage organisational changes. As organisational change is a discipline that has grown from the Organisational Development field (Vaill,1989), this association between organisational change and project management raises questions, concerns and interest for both fields of practice. Some of the concerns relate to whether Project Managers have the competencies and skills required to manage organisational changes. This raises further questions as to what competencies are required and what activities need to be undertaken to manage organisational changes effectively and whether this is influenced or modified by contextual factors.

This research study was motivated by an interest in the differences in roles of Project Managers and Change Managers following ten years working as a 'Change Manager' with a background and qualifications in Organisational Development. Specifically this researcher was interested in finding out the circumstances in which an organisational change project would require the competencies and activities associated with Project Management to manage organisational change projects, and in which cases it would require those of a practitioner with an Organisational Development background.

As a result of this interest, a primary aim of this research is to address the emerging and very practical debate about choice of managers of change projects and understand the differences between project practitioners and change practitioners in terms of their competencies and the differences in what they do in practice. To understand the role of the individual managing change, a secondary aim of this research is to understand the contextual factors such as organisational culture, structure, leadership, size, products, customers, and competitors that might influence the way in which the change needs to be managed and therefore the competencies and skills required.

This study therefore researches the following questions:

1. What do Change Managers do and what are their competencies on an organisational change project that is different from what Project Managers and Program Managers do?
2. What are the organisational factors that influence decisions about how a change project should be managed?

1.1 The Need for Change Experts

The need for competencies in management of changes is highlighted by evidence of high failure rate of organisational change projects. In a survey of 134 project professionals from all project sectors across the world only 44% of change projects came close to achieving their goals (*KPMG*, 2003). An implication of this degree of failure is that companies do not realise their commercial or financial ambitions and can therefore lose significant revenue.

Change Management is the discipline of proactively managing and implementing the changes that people experience within an organisation. A person responsible for change can be called a Change Manager. This is an individual responsible for managing the people side of the project's change component, i.e. ensuring people are aware of the changes and know what to expect and what they need to do differently. One of the findings of the survey conducted by *KPMG* (2003) was that when a change project is managed by a change expert or a team of change experts, it stands a greater chance of achieving its goals (*KPMG*, 2003).

Information Technology (IT) is an organisational department responsible for the technical systems used by the organisation. Organisational change failure rate is prominent in the IT field (Jepson, 2006; Diefenbach, 2007). Jepson (2006) reported a failure rate of around 70% of all change projects initiated. Supporting this notion is a study conducted by Diefenbach (2007) suggesting that public sector change initiatives fail more often than not. Companies wanting to implement new IT systems using organisational change projects which require individuals to change the way they do their jobs need to think carefully about how to introduce the new system into the organisation and to its users (Young, 2005, Anonymous, 2006). There are specific projects that deal with the implementation of IT systems. Those projects can be considered IT change projects. A study of IT change projects suggests that they

should use a 'change management' approach to implementing IT changes, i.e. ensuring that the people side of the changes are being looked after as well as the technological changes (Jepson, 2006, Anonymous 2006).

A 2005 study by the management firm Prosci emphasised the need for a change management approach. Of 411 companies investigated, 55% of participants said they used a structured change management methodology, up from 34% in a study, and findings suggested that structured change management is the second most important contributor to increased project success (Pappas, 2006; Balogun and Hope-Hailey, 2008)

According to French and Bell (1984), it is for organisations to have fully transformed themselves to attain the organisational change they originally set out to achieve. The authors conclude that change is more difficult to achieve than most managers realise. There are several reasons behind the lack of evidence of successful organisational change. Some of the reasons found in literature for these failures are described below.

1. Regardless of the type of change − whether IT change, framework change, policy change, cultural change, strategic change etc − organisational change requires people in their organisation to do their everyday job differently. This leads to a behavioural change, and behavioural changes require certain interventions such as education, regular engagements, consultation, facilitation and more (Anonymous, 2006). Chief Executive Officers have also realised that change cannot be achieved merely by ordering people to do so (Fitzgerald, 1988).

2. A body of literature, as well as practical examples, describes the limitations in a manager's ability to plan, implement and influence changes (Strait, 2006; Smid, Hout and Bruger, 2006; Kavanagh and Ashkanasy, 2006; McCleland, 2005; Waldersee, Griffiths and Lai, 2003). The individual or group responsible for implementing the change can come from a variety of industries and organisational areas. It is likely that if the individual or team responsible for the change has come from a technical background or even a project management background, they would have technical skills and project management skills, but not necessarily the skills to implement changes (Pellegrinelli, 2002).

3. A third reason for the scarcity of examples for positive organisational transformations is that organisations are attempting to change themselves through

projects and are using project management techniques to do this, which is not necessarily conducive to achieving organisational change (Partington, 1996; Pellegrinelli, 1997; Pellegrinelli, 2002; Pellegrinelli, and Young, 2003; Pellegrinelli and Partington, 2006; Pellegrinelli, Partington, Hemingway, Mohdzain, Stenning and Shah, 2007).

There is a large body of evidence which suggests that managing any organisational change and achieving successful organisational changes in any industry is difficult. Kanter, Stein and Jick (1992), suggest that managing change is one of the most troubling and challenging tasks for organisations today. It requires managers with no experience in managing change to develop skills. These types of skills are not necessarily learnt and managers may not have experienced them in their technical environment. Unlike technical skills, the development of these skills will require increased self awareness, sensitivity and interpersonal capacity, which are difficult to train and develop, especially at an adult age (Pellegrinelli, 2002).

1.2   Managing Change

Partington (1996) finds that the requirements of an organisational change project are very different to the requirements of any other type of project. These have specific demands in both content and organisational context and therefore the management practices that are called for are different. Failure of organisational change projects is often associated with poor management of human factors (Buchanan and Boddy, 1992; Pellegrinelli, 2002; Todnem, 2005; Luo, Hilty, Worley and Yager, 2006; Anonymous, 2006; Maguire and Redman, 2007).

Although change cannot happen with only one person trying to implement it, clearly there is a need for an individual or a group of experts to lead this effort. This person, or group, can come from very different worlds and have different or even opposite experiences. Some authors suggest that this person, or group, should come from the Project and/or Program Management profession (Kliem and Ludin, 1992; Dinsmore, 1993; Obeng, 1994; Meredith and Mantel, 1995; Turner, Grude and Thurloway, 1996; Pellegrinelli, 1997; Kerzner, 1998; Frame, 1999; Pappas, 2006; Thiry, 2006; Leybourne, 2006). Turner, Grude & Thurloway (1996) published a book entitled *The*

Project Manager as Change Agent: Leadership, influence and negotiation which describes the work of the Project Manager as responsible for change.

Human Resources and Organisational Development are departments within the organisation responsible for improving the competencies and performance of individuals and groups in the organisation. There are several authors who claim that the required skills for managing organisational change belong to Human Resources or Organisational Development practitioners (Vaill, 1989; Kanter, Stein and Jick, 1992; Cummings and Worley, 1993; Connor and Lake, 1994; Doppler and Lauterburg, 1996; French and Bell 1999; Caluwe' and Vermaak, 2003). In most literature reviews, when a manager of organisational change is mentioned, this professional role has multiple names and can originate from various fields.

All these practices, i.e. Project/Program Management, Change Management and Organisational Development, create a tension in both literature and in practice as to who should be responsible for managing organisational changes. Considering these are three different roles, there is also tension regarding how an individual would perform their role successfully, i.e. the competencies that are required and the activities performed. Above and beyond the different viewpoints regarding who is best to manage organisational changes, there are also large differences in the definitions of the roles that are considered to be appropriate for managing change. The roles cited in the literature as responsible for managing change, i.e. the Project Manager's role, a Program Manager's role and what is known as the 'Change Manager', have a variety of descriptions as well as competencies associated with them. This is not surprising considering the extent of the application of both projects and organisational changes and the different professional and academic perspectives that support them. Both projects and organisational changes are applicable across all industries as well as having influence on almost all professions. In each industry and profession, projects and organisational changes mean different things, depending on the requirements and the evolution of the profession in that particular industry/ profession. Therefore, given the variation of terms used to describe the roles, the differences in what each role does, where each role fits within the organisation and how the roles relate to each other etc., differences in perceptions can only be expected (Turner, Grude and Thurloway, 1996; Pellegrinelli, 1997; Kerzner, 1998; Frame,

1999; Carnall, 2003; Luecke, 2003; Nelson, 2003; Caluwe' and Vermaak, 2003; Burnes, 2004; Pettinger, 2004; Pappas, 2006; Todnem, 2005; Meyer and Stensaker, 2006; Pappas, 2006; Thiry, 2006; Leybourne, 2006; Balogun and Hope-Haily, 2008).

1.3   Project and Program Managers as Change Managers

It is not surprising that Project and Program Managers can be considered managers of change and that various authors have referred to Project and Program Managers as managers of change (Einsiedel, 1987; Kliem and Ludin, 1992; Dinsmore, 1993; Obeng, 1994; Meredith and Mantel, 1995; Turner, Grude and Thurloway, 1996; Pellegrinelli, 1997; Kerzner, 1998; Frame, 1999; Pappas, 2006; Thiry, 2006; Leybourne, 2006). According to Crawford (1997, 2001, 2005) as well as Pellegrinelli and Partington, (2006), the Project and Program Manager titles have been used in different organisations and different industries in a wide range of ways. The wide application of the Project Manager's role to so many different ways of doing business is, according to Pellegrinelli and Partington, (2006), a direct result of the success the role has enjoyed over the past two decades.

Crawford (1997, 2001, 2005) suggests that there is a gap in literature regarding the clear definitions of Project Management roles. Crawford (2001) also found gaps in the definitions of how the Project Manager would operate compared to how any other project team member would operate on a given project. Pellegrinelli, Partington and Young (2003) found the same in relation to the Program Managers' role. Therefore it is not surprising that Project/Program Managers are also expected to be able to manage change.

1.4   The Change Manager

In practice, the role of the 'Change Manager' has emerged from a different discipline to that of the Project and Program Managers. The role is responsible for the management of change with a focus on the human side of the change. This is an emerging role in recent years in practice and is responsible for the management of any type of organisational change. When searching for the role of a 'Change Manager' in popular job search websites, there is regularly a minimum of two advertisements requiring a 'Change Manager'. This has been the case since the beginning of the new

millennium (www.seek.com.au www.monster.com.au www.mycareer.com.au all accessed 1 November, 2007).

Within academia, however, the role of the 'Change Manager' has not been popular; there are very few journal articles that discuss the role and fewer studies. The field of Change Management, as opposed to the role, is highly developed with a significant amount of literature dealing with how to manage change. However, the papers discussing this field, and various studies and books dealing with it do not always suggest which role is responsible for this work.

Additionally, there has not been the same development of associations and industry recognition for the role of the Change Manager as there have been for the role of the Project and Program Manager. Although there is a considerable amount of change management literature, it does not deal with a change management role. The academic field and literature are slowly catching up to the workforce and professional practice in relation to this emerging role (Pellegrinelli, 2007).

There is incremental research and analysis of the 'Change Managers' role'. Specifically, this relates to the individual's professional and educational background and the competencies required to be considered competent in the role of a 'Change Manager' (Paton and McCalman, 2000; Kotter and Cohen, 2002; Pellegrinelli, 2007). The Project Management publication by the OGC (Office of Government Commerce (OGC)2007) called 'Managing Successful Programmes' suggests that there is a need for what they consider 'Business Change Manager' on large programs, however, according to the authors of this publication, this role is responsible for the delivering the benefits of the change as opposed to the change itself.

There are some Change related journals, these are:
- The *Journal of Organisational Change Management* which is an Emerald publication, has existed since 1994 and produced 20 volumes but does not have Change Managers listed in it's audience. This journal is not tied to any particular industry body and it states that its audiences are the following groups:

- Academics and libraries
- Consultants
- General managers
- Government agencies
- Management and organisation development professionals
- Personnel and training specialists.

- The *Journal of Change Management* (Taylor & Francis) which is quarterly and has so far published 9 volumes. This journal does not list Change Managers as their audience;

- The *International Journal of Strategic Change Management*, which is an Inderscience publication and has had one volume to date. It's listed audience also does not include any mention of Change Managers. The listed audiences are the following groups:

  - Corporate heads of firms
  - Senior general managers
  - Managing directors
  - Board directors
  - Academics and researchers in the field both in universities and business schools
  - Information technology directors and managers
  - Quality managers and directors
  - Human resource directors
  - Libraries and information centres serving the needs of the above

As shown, there is little mention of Change Managers in the academic field. However, there is significant requirement for Change Managers in practice. There is therefore a gap in the definition of the role and this gap requires dealing with and overcoming in order to compare the role of the Change Manager to that of the Project and Program Manager. The following will begin describing the role and section 3 will analyse the literature to further develop the definition of the Change Manager's role.

1.5   Who is the Change Manager?

If there is a role called 'Change Manager', and this individual is responsible for the management of change, as the title suggests, how does this role interact with the Project and Program Managers' role, considering that in practice they are so often being nominated to manage change? Where are the boundaries between the roles and how does one know when there is a requirement for a Project/Program Manager and when the role calls for a Change Manager or both?

This study will not focus on how to achieve organisational change. Most of the literature to do with Change Management deals with the 'how', i.e. how is organisational change achieved, what are the techniques required to implement changes, what are the best processes and methods (Lewin, 1947; Burke and Horenstien, 1972; Ansoff, 1979; Kliem and Ludin, 1992; Buchanan and Boddy, 1992; Dinsmore, 1993; Cummings and Worley, 1993; Burke, 1994; Connor and Lake, 1994; Meredith and Mantel, 1995; Turner, Grude and Thurloway, 1996; Doppler and Lauterburg, 1996; Kerzner, 1998; Frame, 1999; French and Bell 1999; Paton and McCalman, 2000; Rieley and Clarkson, 2001; Carnall, 2003; Luecke, 2003; Nelson, 2003; Caluwe' and Vermaak, 2003; Burnes, 2004; Pettinger, 2004; Pappas, 2006; Todnem, 2005; Meyer and Stensaker, 2006; Balogun and Hope-Hailey, 2008; to name but a few). This is a study about the person managing the change and why a particular individual with a certain set of competencies would be asked to do so.

There are endless possibilities as to how to go about making changes, and there are just as many people who can, or may think they can, initiate and implement change. This research study will look at the 'who', i.e. who manages organisational changes and to what degree that work is required based on the organisational factors.

The two research questions being asked are:

1. What do Change Managers do and what are their competencies on an organisational change project that is different from what Project Managers and Program Managers do and what are their competencies?
2. What are the organisational factors that influence decisions about how a change project should be managed?

The role of managing change

Behavioural change

Factors
What are components contributing to change?

Competency: profession, role, industry body

Proj. Mgt.
Project Mgrs   Change Mgt.
Change Mgrs   Prog. Mgt.
Program Mgrs

Organisational Development   HR   General Mgt.

Degree/ type of change

Evolution of the roles

Thesis Model:
Who is the Change Manager?
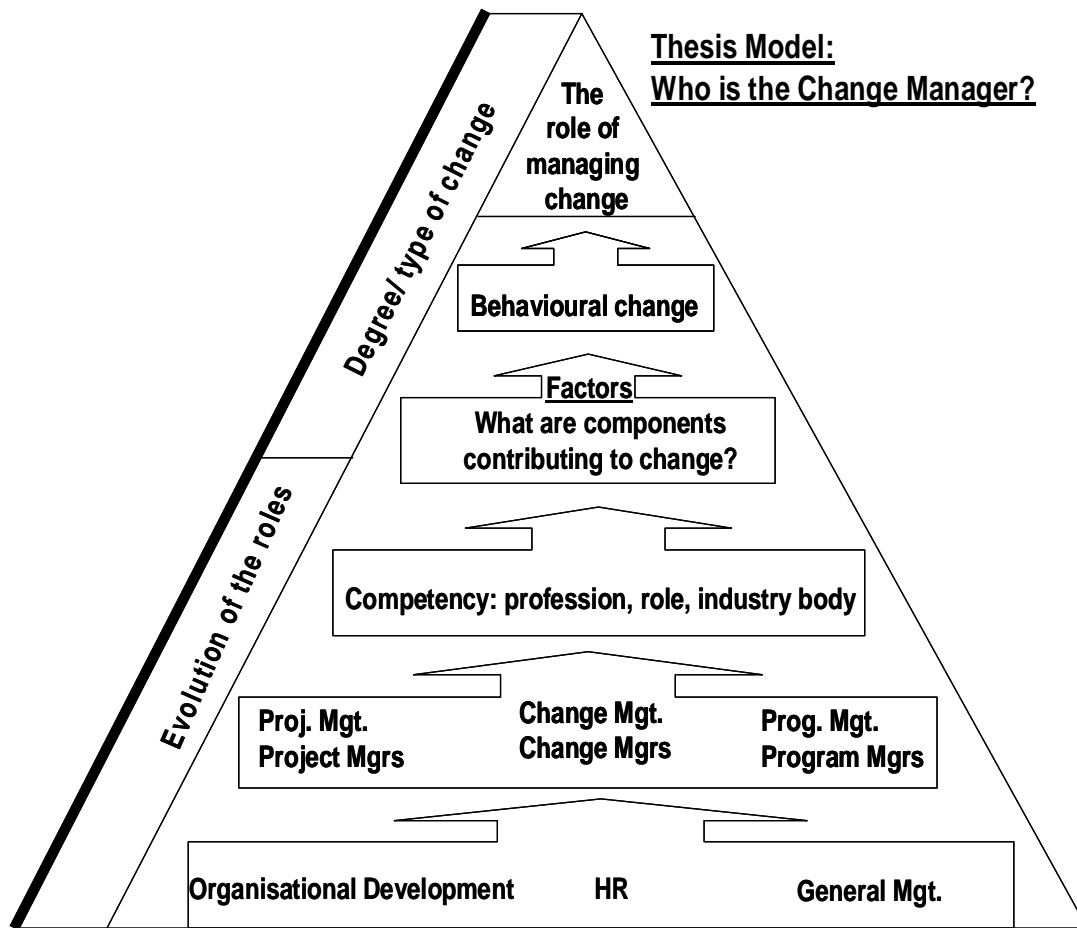
Figure A: Literature review structure

As shown in figure A, the literature review traces the evolution of general organisational practices, such as Organisational Development, HR and General Management into the requirements for projects, project management, programs and change disciplines. The underlying theme is the evolution of professions through competencies, professional bodies and an analysis of the roles involved in Project, Program and Change Management. Next, factors that influence decisions about how organisational changes are managed and which assist in determining who is best to manage the change are analysed and discussed. Factors are organisational filters which will be seen as determining the type of change being discussed and the degree of behavioural change required to be implemented. Finally, the literature review discusses organisational and behavioural change and the competencies required to manage these aspects of change.

This research study looks at three roles the Project Manager role, the Program Manager role and Change Manager role and analyse what they do and how relevant their work is to achieving organisational change. This analysis is done in two ways. The first is an analysis of literature and the competencies that are found in literature for Project/Program Managers compared to those found for roles that are considered Change Managers.

The second investigation is qualitative research relying on grounded theory and semi-structured interviews. Three organisations are analysed − a telecommunications organisation, a bank and a university. The analysis of these organisations focuses on an IT change project which took place in each of the organisations, and which has been successfully completed. In each change project the manager of the change is either a Change Manager, a Project/Program Manager or both. The three IT projects from the three organisations are compared for their management of the change component to observe the differences in the way Project/Program Managers manage change compared to Change Managers. The information about the change projects is provided by conducting semi-structured interviews with project staff members and affected staff. The interview data is analysed using grounded theory using qualitative analysis software called 'NVivo' which assists in coding and categorising data as well as generating observations. The findings in this study point to greater similarities between literature and the case studies in the Project Practitioners competencies compared to Change Practitioners. Additionally it was found that factors such as leadership and type of culture can influence the outcome of the change project and are influenced by them

The aim of this analysis is to define the borders between the roles of Project/Program Manager and the role of a Change Manager. The study looks at the various factors that may assist in determining the suitability of each role to the management of the change. These factors can act as filters for influencing certain activities rather than being the activities themselves; for example there are organisational factors that influence activities such as team work, leadership and organisational structure. These factors can be seen as filters that can be used to understand and manage change in

terms of both the impact of the project on the organisation and of the organisation on the project.

The contribution to knowledge is in identifying the competencies of each role as well as in defining the role boundaries of those three roles − Project Management, Program Management and Change Management − nominated to manage organisational change. The application of this to theory and practice are as follows:

- *Theoretical contribution:* At present the theoretical understanding underpinning these similar roles is being developed in separate literatures. This research aims to bring insights and assist in drawing together these largely dispersed fields. Additionally, as there is little to no research published on the role of the Change Manager, this study will investigate this role in practice and provide knowledge to support a theoretical understanding of this role.

- *Practical contribution:* This will allow managers wanting to implement organisation change the opportunity to have an understanding of the behavioural change component involved in their project. It will assist managers in deciding which individual they want managing their change. They will be able to determine the competencies needed in these individuals and they will be able to base this decision on the factors that are driving change in the organisation and are influencing the way the project will need to operate.

1.6   Structure of this thesis

Following this introduction, Chapter 2 presents the review of relevant literature, discussing the evolution of a profession, and indicating how Project, Program and Change Management professions, disciplines and roles have evolved. Competencies expected in these roles, as presented in the literature, including standards, are presented. In Chapter 3 the results of the literature review relating to competencies of Project, Program and Change Managers are analysed to identify differences and similarities. Chapter 4 provides a description of the research design and methodology utilised to address the research questions. Chapter 5 introduces and discusses in detail the three case studies used and the results of the research.. Chapter 6 presents the analysis of the case study findings and suggests explanations for these findings as well as comparing the findings of the case studies with the literature analysis. This comparison shows the difference in both literature as well as practice between project

practitioners and change practitioners.   Chapter 7 summarises the study and, based on the results, suggests two models to assist decision making. The first is a process for identifying the change element in a change project and the stage in which to involve a change manager. The second model is a matrix that helps leaders of change projects decide whom they would need to hire to manage the change element of their projects, a Project Manager, a Change Manager or both. The contribution to knowledge is identified and recommendations for further research presented.

2 Literature Review

The following literature review aims to define the constructs that underlie the research questions. In the literature review studies, papers and other resources that define the competencies that Project/ Program Managers possess and also those of Organisational Development professionals/ implementers of change, Change Managers are reviewed. This allows a greater understanding of the Project/Program and Change Management roles in organisational change projects and an understanding of the differences in what these roles contribute to organisational change projects.

The initial discussion establishes what a profession is and how professions evolve. The evolution of the different professions is the basis for an understanding of the evolution of Project, Program and Change Managers roles. Once the evolution of the roles has been defined, the discussion turns to the analysis of the literature to identify what competencies are expected to have and what they are expected to do in these three roles.

2.1 Evolution of a Profession

A profession is an occupation, vocation or career where specialized knowledge of a subject, field, or science is applied. Professions have played a critical role in the development of society and the organisation of work since pre-industrial times. The earliest professions are generally accepted to be the high status groups representing divinity, medicine and law. In early years of the industrial revolution, new professions were forming to build upon the growing specialist knowledge areas of chemistry, engineering and accountancy, amongst others. These embryonic professions formed professional organisations, as did the professions of civil, railway and mining engineering by the early nineteenth century.

The development and organisation of a professional body to govern professions appears to be primarily an Anglo-American phenomenon, having less significance to other developed economies. However, in recent years this has changed significantly and increasingly more economies are adopting institutional approaches for governing, supporting, educating and developing the networks of professions and professional activity (Child, Fores, Glover and Lawrence 1983; Friedson, 1994; Swailes, 2003).

Swailes (2003) identified three general clusters of professions that have been identified in literature. The first is the independent and liberal professions which include doctors, lawyers and architects. These are organised such that they are uniformly answerable to a professional body such as the General Medical Council in the event of malpractice or misconduct. Their knowledge base is universally applicable and entry to the profession is carefully regulated. The independent practice partnership typifies the organisational form in which independent and liberal professionals carry out their work.

The second group comprises accountants and research development scientists, amongst others, who constitute a class of knowledge workers who depend upon a highly structured knowledge base and who rely upon membership of an appropriate professional body in order to gain status and to enable successful job mobility. Membership of a professional body is important for knowledge workers as expulsion from the professional body would make it difficult for an individual to hold a senior position in the field.

The third professional group, which is the group discussed in this study, is organisational professions. This group includes general managers and administrators as well as all other professions which grew in response to an organisational need to improve and sustain itself. The knowledge of this group is localised and political, in contrast to the systematic and highly structured knowledge base used by the independent and liberal profession groups. While professional bodies, such as the Institute of Management, exist for this group of professions, membership of these bodies is not a requirement to practice in the profession and the professional body would generally not be involved in regulating a member in the event of malpractice. In the case of management, most managers are not members of any professional body (Churchman,1970; Child, Fores, Glover and Lawrence, 1983; Friedson, 1994; Swailes, 2003,). As professions develop, grow and change, so do the particular roles held by the profession just as in the case of Program and Project Managers, as is described later.

There are many drivers that are responsible separately or together for creating a need, developing that need, growing or changing a certain profession. Various mentions of reasons for the development, evolution and growth of professions have been found in journal articles, mainly relating to a change in a specific role or profession. These sources include the following reasons for the development of professions and roles:

1. Re-conceptualisation of the profession − the need to change the *raison d'etre* of a certain role because the management need for the activities of the role no longer exist. An example of this is the re-conceptualisation of Personnel Managers into Human Resources Managers. The change in the profession is not merely in the name. The concept of the role changes from a technical to a relationship based role (Likely, 2005).

2. Changing demands of internal and external clients − when clients unanimously change their requirement, it calls for a change in the role. For example, Property Managers have had to change their skill set from someone who merely manages a property to someone who operates an asset and manages a business. These days their skills would need to include a combination of communication, technical and financial abilities due to the new demands of both residents and tenants (Little, 2006).

3. Emergence of similar or cross territory roles − roles which cross function with other roles develop a new requirement for a role; for example, the role of the accountant is becoming a thing of the past. Due to the e-commerce revolution, information systems and IT professions are 'invading' the accountant's territory and accountants need to re-establish themselves under a new title or improve their capability in order to survive the rapid changes (Cotton, 2001).

4. External compliance requirement − there are increasing requirements by external governance bodies of industry to ensure that organisations comply with certain standards that protect clients as well as society. This can present a prime opportunity for certain professions to expand their roles. For example, Risk Managers can provide strategic risk management solutions to upper management in response to the *Sarbanes−Oxley Act 2002*, which changes the profession from being purely operational to a counselling and strategic one (Lenckus, 2006).

All of the factors noted above have influenced the development of Project/Program and Change Manager's roles. It is therefore critical to first understand how a

profession evolves and then describe the specific evolution of the three professions being discussed and analysed. The following will describe these three professions, and their evolution, their professional associations (if any), how they have changed and the functional overlaps they experience as part of an organisational change project.

2.2   Evolution of 'Project'

In Stretton's (1994 parts 1,2 and 3) review of modern project management, he talks about the evolution of projects and Project Managers from the 1950s until mid-1990s. According to Stretton (1994 parts 1,2 and 3) the developments that had occurred between these decades are significant and observable. In the 1960s, projects were seen mainly as techniques for executing planning, scheduling and controlling of work functions. In the 1970s, project management began to be applied in a variety of industries, and additional management techniques were added to the practice − such as earned value, assignment matrices, risk management etc. This was accompanied by a greater shift towards project management being recognized as a full time profession. In the 1980s and 1990s Project Managers became more responsible for the entire lifecycle of the project. It has become important for Project Managers who wish to be considered competent to possess Project Management certifications and registrations and project management began to be recognised as a tool to implement organisational change.

Today's reality is that Project Managers are in charge of managing many aspects of the project. They are the ones with the main responsibility for the successful execution of the project. They serve as the bridge between all parties, enabling communication between senior management, the client and the project team. Project Managers hold the main responsibility for planning, organising, controlling and leading the project (Posner, 1987; Kliem and Ludin, 1992; Pettersen, 1991; Harrison, 1998). They are also considered responsible for the planning and implementation of change. They are held responsible for achieving any project-related change, from technical to cultural (Turner, Grude and Thurloway, 1996; Dulewicz and Higgs, 2005; Turner and Muller, 2006).

Almost every book and article related to project management contains a definition of what constitutes a project and sets it apart from other types of work carried out by an organisation. The following are some common project definitions.

1. *'A temporary endeavour undertaken to create a unique product or service. Temporary means that every project has a definite beginning and a definite end. Unique means that the product or service is different in some distinguishing way from all similar products or services'* (PMI Standards Committee, 2000, p.4)

2. A project is '*the achievement of a specific objective, which involves a series of activities and tasks which consume resources. It has to be completed within a set specification, having definite start and end dates.*' (Munns and Bjeirmi, 1996, p. 81)

3. '*An organisation of people dedicated to a specific purpose or objective. Projects generally involve large, expensive, unique or high risk undertakings which have to be completed by a certain date for a certain amount of money, which some expected level of performance. At a minimum, all projects need to have well defined objectives and sufficient client resources to carry out all the required tasks.*' (Tuman, 1983, p. 17)

4. A project contains the following characteristics, according to Pellegrinelli (1997):

▪ a process for delivering a specific outcome

▪ will have a fixed duration

▪ has set objectives

▪ involves the management of a single delivery

▪ focused on delivery of an asset of change.

All work classified as project work, therefore, usually possesses the following elements:

▪ fixed start date and pre-planned end date

▪ a unique goal or a few unique goals

▪ a series of activities which are usually interrelated

▪ a defined amount of resources available to achieve the goals.

Defining what constitutes a project assists in governing the work that is done in projects. Institutions have grown from the Project Management discipline in order to develop, grow and research the Project Management profession. Amongst them are:

- The Project Management Institute (www.pmi.org accessed 1 November 2007), which presents itself as: *'Vital and forward thinking – focused on the needs of project management professionals worldwide; that's the Project Management Institute of today. We've long been acknowledged as a pioneer in the field and now our membership represents a truly global community with more than 200,000 professionals, representing 125 countries. PMI professionals come from virtually every major industry including, aerospace, automotive, business management, construction, engineering, financial services, information technology, pharmaceuticals, healthcare, and telecommunications'*. PMI claims to be "*the world's leading not-for-profit association for the project management profession*" with the aim of "*making project management indispensible for business results*". (http://www.pmi.org/WhoWeAre/Pages/Default.aspx Project Management Institute, 2007. Accessed 19 January 2008. PMI is also the body behind the most used and cited Project Management publication, i.e. the *PMBoK® Guide*— Project Management Body of Knowledge (2004)).

- International Project Management Association (IPMA) (2006), which is described as: *'... a non-profit, Swiss registered organisation, with a Secretarial office based in the United Kingdom. Its function is to be the prime promoter of project management internationally, through its membership network of national project management associations around the world. Additionally it has many individual members, people and companies, as well as co-operative agreements with related organisations world-wide, to give it a truly world-wide influence.'*

- The Global Alliance for Project Performance Standards (www.globalpmstandards.org accessed 19 January 2008) whose purpose it is to: *'...develop agreed frameworks as a basis for review, development, and recognition of local standards that will facilitate mutual recognition and transferability of project management qualifications. It is intended that the framework and associated standards be freely available for use by businesses, academic institutions, professional associations, and government standards and qualifications bodies globally.'*

- Association of Project Management (APM) (2006), which has a mission statement: *'To develop and promote the professional disciplines of project and program management for the public benefit. APM is the largest independent professional body of its kind in Europe. We have over 15,000 individual and 400*

corporate members throughout the UK and abroad. Our aim is to develop and promote project management across all sectors of industry and beyond. At the heart of APM is the APM Body of Knowledge; fifty-two knowledge areas required to manage any successful project. We promote the use of the APM Body of Knowledge through qualifications, accredited training, research, publications and events. APM Members are skilled and experienced professionals recognised in the UK and throughout the world via International Project Management Association (IPMA); APM is the UK member of the IPMA'.

Projects can represent themselves in a variety of types. Project types influence the strength and nature of project success. According to Turner and Muller, (2006) there are various project attributes which define the project type. Some of these attributes include:

Application area - Engineering and construction, IT, business

Complexity - High, medium, low

Life cycle stage - Feasibility, design, execution, close out

Strategic importance - Mandatory, repositioning, renewal

The Project Management profession has developed to the point where Project Management degrees are awarded in universities around the world. In the past, Project Management was a subject one could study during a degree course; these days there are postgraduate degrees dedicated to the Project Management profession as well as few undergraduate degrees. Some universities will require certain prerequisites, depending on who certifies the degree. Individuals undertaking a Project Management postgraduate degree can come from practically any field with any type of undergraduate degree and are usually Project Management practitioners seeking to develop themselves. (See university websites. This example is found in Western Carolina University: www.cess.wcu.edu/cobmpm/ accessed 19 January 2008).

The following section will review the role of the Project Manager and will examine what the role is responsible for and some common beliefs about what should be done in the role. This will assist in comparing this role with the Change Manager role and develop an understanding of the part a Project Manager plays in managing the change aspect of a project.

2.3 Evolution of 'Project Manager'

The role of the Project Manager on a certain project is a subject for debate in today's literature. The views on what areas the Project Manager is responsible for vary. The following is a sample of some of those views.

- *'Projects are managed from a matrix organisation and project managers have no functional control or authority over the project team members, and consequently over the work being done on the project'* (Taylor, 1998, p.11).

- *'It is the responsibility of the Project Manager to manage the project throughout its entire lifecycle. The Project Manager's goal is to conclude the final stage of the project lifecycle with a project that is perceived as successful by both the implementation team and the project clients. Project Managers control and monitor the work required to achieve this end. This includes defining the work to be done, allocating resources to the work, planning the work schedule, monitoring work progress against the schedule, monitoring the project quality, adjusting the schedule as required, managing the project team, managing the project budget and managing communications within the team, and between the team and key stakeholders'* (Munns and Bjeirmi, 1996, p. 82).

- *'Project Manager is the person who is accountable for getting the project completed'* (Obeng, 1994, p. 223).

- *'The Project Manager has single point responsibility for a project's success'* (Pellegrinelli, 1997).

From the above it is clear that the Project Manager has a strong involvement within the project. It is unclear, however, what level of responsibility and authority the Project Manager has over the project, or whether or not he or she is in charge of the change component of the project.

Some authors believe that the skills typically required for the implementation of change are those held by a Project Manager. Turner, Grude & Thurloway,(1996), in their book, *The Project Manager as Change Agent,* provide Project Managers with what they believe to be tools to manage organisational changes and see the Project Manager as the key person in an organisational change effort. According to Turner, Grude & Thurloway, (1996), as well as Turner and Muller (2006), and Dulewicz and

Higgs (2005), the Project Manager is responsible for a certain change effort from the time when they are told what the change is about and its necessity.

Obeng (1994) agrees with the above notion and says that Project Managers are seen as the best professionals suited to manage change and their responsibility is the same as it would be for any other project. According to Obeng (1994) the main difference between any other project and a change project is that their client is internal to the organisation rather than an external one. Kuruppaurachchi, Mandal and Smith (2001) talk about Project Managers as the leaders of change. They apply all the nine *PMBoK® Guide* (2004) elements, as they are normally used, and refine them to create a change management strategy, used by a Project Manager. Kim and Wilemon (2002) echo this and add that the Project Managers are not only responsible for implementing changes, but also for providing a psychologically safe environment to the team, sheltering them from what the authors call the 'fuzzy front end', created by organisational changes.

Lacroix (2001) is one author in the pursuit of a tenth element in the *PMBoK® Guide* (2004). He suggests that there needs to be an element dealing with the implementation of change. The authors claim that as Project Managers are implementers of change, this element must be part of the Project Management practitioners' guide. According to Nah, Lau and Kuang (2001), it is the responsibility of anyone managing a project to also address the cultural change issues. This includes training, communication process design and more.

Pellegrinelli (Pellegrinelli, 1997; Pellegrinelli, 2002; Pellegrinelli, Partington and Young, 2003; Pellegrinelli and Partington 2006; Pellegrinelli, Partington, Hemingway, Mohdzain, Shah and Stenning, 2007) and Partington (Partington, 1996; Partington, 2000; Partington, Pellegrinelli, and Young, 2004) have contributed a significant body of work to the question of a Project Manager's ability to bring about organisational change. According to them, the tasks of introducing and managing changes in organisations belong to the Program Manager. Project Management, according to the authors, evolves into Program Management and Program Managers are usually Project Managers who have been promoted. The authors suggest that as programs are used to establish a bridge between projects and the strategic goals of an

organisation, they move into the traditional domain of strategic change management and organisational development. Performing such a role, according to the authors, demands high levels of competence, astuteness and sensitivity. It also demands a *fundamentally different* approach to the candid, direct and rational style valued in competent Project Managers. The authors also suggest that these traits are difficult to obtain and if one does not possess them, they are likely to take a long and confrontational time to achieve.

As it appears that Program Management has emerged as a key player in the change management field (Pellegrinelli, 1997; Pellegrinelli, 2002; Pellegrinelli, Partington and Young, 2003; Pellegrinelli and Partington 2006; Pellegrinelli, Partington, Hemingway, Mohdzain, Shah and Stenning, 2007), and it is therefore necessary to define what a program is and what the responsibilities of Program Managers are, especially in relation to change initiatives.

2.4   Evolution of 'Program'

Program Management is a relatively new discipline which has developed over the last 15 years. This discipline may be seen as a mix between Change Management and Project Management. '*Program Management is discussed in literature as a group of interdependent projects that together achieve one or more strategic business objectives to maximise the value of their collective benefits. Program Management focuses on managing the big picture and the interdependencies between programs and projects to achieve broad business change objectives*' (Moore, 2000). Programs are subject to influences and developments from the organisation internally and from forces external to the organisation and they are the organisational responses to both internal and external environments. Whereas project management in its traditional form focuses on the definition, planning and execution of specific objectives, program management provides a bridge between projects and the organisation's strategy (Pellegrinelli, 2002). Programs set the boundaries within which projects and Project Managers operate, coalesce themes and intentions, and translate them into concrete objectives, finally achieving the desired strategic and/or synergistic benefit (Pellegrinelli, 2002). The OGC publication 'Managing Successful Programmes (Office of Government Commerce (OGC)2007), refers in detail to the role Programs have in implementing change. In particular, this publication suggests that there is a

role in programs for a Change Manager and that a Change Manager's role is ensuring benefits are achieved in a program. Additionally, this publication suggests that the organisational cultural component needs to be addressed as part of the implementation of the change.

Both the APMBoK (APM, 2006) and OGC's Skills Framework (Office of Government Commerce (OGC), 2004) mention programs as having a Change Management component, i.e. both publications suggest that programs have a requirement to address the change aspect of the program as part of the programs responsibilities. However, similar to Managing Successful Programmes (Office of Government Commerce (OGC), 2007), both publications refer to the change aspect of the program from a project practice point of view rather than an Organisational Development perspective. This can be viewed in further detail in Appendix B – Program Management Competencies where change related competencies from these publications are listed.

In today's reality, programs are considered the best way of introducing and implementing rapid, complex and enterprise-wide changes necessary for obtaining improved organisational performance and vitality. This raises a question about Program Managers' ability to manage change. Do Program Managers have the required Organisational Development background to deal with the people side of their program's change? The following describes the evolution of Program Managers and the difference between Program Managers and Project Managers in being able to manage change.

2.5   Evolution of 'Program Managers'

The role of the Program Manager can also be seen as an implementer of change. Some simplify the Program Managers' role by suggesting that the Program Manager is the single point of accountability for overall program management across multiple interdependent projects and must ensure that the program is on time, within budget and meets client requirements (Moore, 2000; Thiry, 1999). The same authors suggest that programs require a high degree of cross-functional integration within the organisation. This integration includes communication and coordination efforts which are often

substantial and complex. The Program Manager manages the relationship between processes, people and technology (Moore, 2000; Thiry, 1999).

According to Moore (2000) and Thiry (1999), the role of the Program Manager holds the following responsibilities:

- Ensures that benefits are achieved and are linked to the strategic business plan objectives.
- Ensures that the program adheres to the program contract.
- Ensures that the program revenue and costs are controlled.
- Leads cross project planning as well as dependency and conflict resolution.
- Monitors progress to key program milestones.
- Resolves issues that cannot be resolved at the project level.
- Escalates issues to the program steering committee that cannot be resolved at the program level.
- Mitigates risks and escalates obstacles requiring program steering committee attention.
- Allocates or reallocates resources within a program.
- Represents the program on the program steering committee.
- Ensures appropriate management of the day to day activities of the program office.
- Provides periodic status to the program steering committee.
- Identifies external influences and communicates with other programs as appropriate (Moore, 2000; Thiry, 1999).

Program Managers, who are essentially Change Managers according to Pellegrinelli (Pellegrinelli, 1997; Pellegrinelli, 2002; Pellegrinelli, Partington and Young, 2003; Pellegrinelli and Partington 2006; Pellegrinelli, Partington, Hemingway, Mohdzain, Shah and Stenning, 2007), need to raise their game significantly to address the cultural, political and organisational challenges of spearheading major transformation programs. They need to learn skills and capabilities beyond those of a regular project in order to drive change. According to Balogun and Hope-Hailey (2008), Program Managers need to develop analytical, judgmental and implementation skills as well as their ability to handle complexity, together with increased sensitivity and self awareness. They need to be able to assess and deal with power and culture in

organisations, which is on par with scoping changes and leveraging internal capabilities.

According to the above Program Manager activities, one can argue that the role of the Program Manager is the exact reflection of the Project Manager (see Evolution of Project Manager, Section 2.3) with some aspects of the knowledge, skills and characteristics needed to implement change.

The numerous papers written and studies conducted by Pellegrinelli (Pellegrinelli, 1997; Pellegrinelli, 2002; Pellegrinelli, Partington and Young, 2003; Pellegrinelli and Partington 2006; Pellegrinelli, Partington, Hemingway, Mohdzain, Shah and Stenning, 2007) and Partington (Partington, 1996, Partington 2000, Partington, Pellegrinelli, and Young, 2004) suggest important insights into both what program management means and the role of the Program Manager. The following is a summary of some of the key points found in the variety of their work:

- The phenomenon known as Program Management is more complex and diverse than indicated by prevailing, predominantly normative literature.

- Program Management is the vehicle used today to implement organisational changes.

- Program Managers are Project Managers that have been promoted.

- In most cases Program Managers lack Organisational Development skills to be able to deal with the requirements of organisational changes (i.e. focusing on business and people issues rather than technical solutions, creating a strong team environment, communicating with confidence at all levels, understanding the nature and differences of cultures and how they interact in organisations and finally being competent facilitators).

- There are two profiles which can differentiate successful Program Managers from the unsuccessful ones. These are what the authors call 'High Order and Low Order informants'. The difference between the two is mainly in their cognition and the way they work − i.e. the way they view their work and the way they view and deal with the people around them as well as their ability to work in chaotic, complex and unstable organisational environments to successfully bring about the required change.

If, as most traditional literature suggests, the role of the Program Manager is generally considered to be an extension of the Project Managers' role, at a higher level and a greater degree of responsibility, then the way Program Managers' would perform their role would not be very different to a Project Manager. It is questionable whether Program Managers are indeed Project Managers at a higher level. Partington (2004) certainly challenge that particular view.

Partington, Pellegrinelli and Young (2004) suggest that managers have found that promoting Project Managers to become Program Managers has proven unreliable. Program Management seems to require a greater degree of Organisational Development capabilities. The authors also highlight some important issues with the current definition of the Program Managers role. These issues include:

1. An extensive difference exists between programs, which make it difficult to pin down the specific definition of the role.
2. Once analysed, program management seems too similar to general management with leadership qualities which would apply in any general management role.
3. The more senior the manager, the greater the distance from the actual tasks where mistakes occur; therefore success or failure of the role is harder to gauge (Partington, Pellegrinelli and Young, 2004).

Based on the above, it can be concluded that the role of the Program Manager is no better defined than that of a Project Manager. What is known and agreed upon by most articles discussing the role of the Program Manager is that this individual is in charge of implementing organisational change and must possess 'change management' skills to do so. The expectation of the Program Manager to be able to implement change is echoed by the OCG, Managing Successful Programmes, (Office of Government Commerce (OGC), 2007). This publication suggests that Program Managers must have leadership skills to manage change and be able to deal with complexity and ambiguity. Nevertheless, this publication acknowledges the need for a 'Business Change Manager', however, the role of the Change Manager in this publication is very similar to the role of a Project Manager. This is further explained in the Literature Analysis section, called "what does the Change Manager do?"

There are still outstanding issues or questions that are raised from the above review. These issues include: what are the factors that create a necessity for organisational and behavioural change? Who is best to manage organisational changes? What is the role of the Change Manager? What are the Project and Program Managers' roles in introducing and managing organisational changes? All these questions are dealt with in the following sections. However, before dealing with these particular questions, there is a need to define some more of the constructs used to describe change, the first of which is organisational change and the factors that create the requirement for this change, followed by a description of the Change Managers' role and then the nature of Organisational Change Projects.

2.6   Evolution of 'Organisational Change'

For a greater understanding of what organisational change means, the following is a review of some contemporary literature dealing with the definition of organisational change. These definitions reflect what each of the authors considers as being inextricable elements in organisational change.

Kanter's (1992) prominent interpretation of change shows the most influential actors as the ones determining the direction. This change involves the crystallisation of new action possibilities (new policies, behaviours, patterns, methodologies, products or market ideas) based on reconceptualized patterns in the organisation. The architecture of change is to make more productive actions possible. This is through the design and construction of new patterns, or the re-conceptualisation of old ones.

In contrast, French and Bell (1984) look to a growth-oriented approach, which almost implies that the purpose resides in the process of the change. They suggest that organisational change is a top-management supported, long-range effort to improve an organisation's problem solving and renewal process. This is through a more effective and collaborative diagnosis and management of organisational culture. A special emphasis is placed here on the formal work team, temporary team and inter-group culture, with assistance of a consultant facilitator and the use of theory and technology of applied behavioural science, including action research.

Bennis (1993) concludes that organisational change is a conscious, deliberate and collaborative effort to improve the operation of a system (whether it is a self system, a social system, or a cultural system) through the utilisation of scientific knowledge.

Vilst (1993) writes that organisational change consists of goal oriented and pre-planned actions, the final result of which can be clearly formulated in advance.

Lippit, Watson and Westley (1958) suggest that organisational change is a purposeful decision to effect improvements in a personality system or a social system, which is achieved with the help of professional guidance.

The similarities across the different definitions provide a general idea of what organisational change is. It can be categorised into six elements, which are consistent across the definitions (Lippit, Watson and Westley, 1958):

- Outcome (goals, results, direction, improvement, renewal)
- History (cause, need, motive, context)
- Actors (roles, parties, social dimensions)
- Phases (steps, sequences, order, activities)
- Communication (interaction, cultural aspects, sense making)
- Steering (monitoring, directing, orchestrating, guiding, managing, keeping one's awareness).

An organisation's direction, structure and capabilities need to be able to serve the ever-changing needs of external and internal customers (Moran and Brightman, 2001). Change is an ever-present feature of organisational life, both at an operational and strategic level (Burnes, 2004). Organisational changes are often caused by various deregulations, rapid pace of technological innovations, growing knowledge of the workforce and shifting demographical trends, to name a few (Graetz, 2000). Organisational changes are triggered by internal and/or external factors and come in all shapes, forms and sizes, affecting all organisations in all industries (Carnall, 2003; Luecke, 2003; Burnes, 2004; Balogun and Hope-Hailey, 2008). Any change that occurs in an organisation which influences how the organisation operates is therefore considered an organisational change.

As discussed earlier, all changes to organisations require a certain degree of change to the behaviour of the people working in the organisation. This change is classified as behavioural change and affects any individual who needs to do something differently as a result of a project or change being implemented into the organisation. One of the most common organisational changes comes in the form of an IT systems change. There are numerous examples of organisational-wide changes which were the result of an introduction of a new IT system. An implementation of an IT system can dramatically change the way an organisation works, the behaviours of staff in the organisation and the organisational structure. In most cases, regardless of what the change is, there will be a component of a change requiring specific change management techniques in order to introduce the system properly to users and ensure a successful implementation (Luo, Hilty, Worley and Yager, 2006; Bellinger, 2006; Jepson, 2006; Anonymous, 2006; Maguire and Redman, 2007).

2.7 Organisational Factors: Factors Contributing to the Requirement for Organisational Change

Before organisational change is implemented, factors exist that create the need for this change. These factors include anything in the organisation that contributes to the project's requirement for an organisational and behavioural change. Literature provides very little coverage of how projects are able to influence and be influenced by organisational factors (Morrison, Brown and Smit, 2006; Pellegrinelli, 2007). Organisational factors drive the requirement for change in two ways.

The first way is by influencing the project requirements, e.g. if there is resistance to the project changes, the project would need to establish a strategy to deal with this resistance. In that way resistance factors influence the projects' activity.

The second way is by being influenced by the project requirements, e.g. when the change project calls for the implementation of a system which requires a change to certain factors, such as management structure. In that way the project influences organisational factors. In the discussion of who manages change, it is critical to understand the requirement for change. This would lead to an understanding of when a Project Manager can manage the change component of a change project and when the project can use the expertise of a Change Manager.

There are many possible factors that can contribute to the project's requirement for implementing change. These factors can include:

- requirements of the project itself, e.g. requirements for a certain type of culture to support the project
- the organisational structure
- the organisational culture and leadership
- the customers of the organisation
- the industry
- the competition
- the country or countries the organisation is in
- the technology used in the organisation
- the organisational size
- strategy
- the organisations readiness for change
- the organisations capacity
- the organisations diversity

(Deal and Kennedy, 1982; Schein, 1992; Trice and Beyer, 1993; Waldersee, Griffiths and Lai, 2003; Morrison, Brown and Smit, 2006; Pugh, Hickson, Hinings and Turner, 1969; Blau, 1970, Woodward, 1965; Chandler, 1962; Dunphy and Stace, 1992; Zimmerer and Yasin 1998; Pellegrinelli, 2007).

Pellegrinelli (2007) is one author who has dealt with the organisational context, known here as organisational factors, considering their influence on a projects' success as well as how Project Managers deal with these factors. He states that projects and programs may have a particular role in shaping the organisational factors, aligning and embedding the project or program work to fit with the organisational needs. Not only do projects have an influence on the organisational factors, but there is significant influence of organisational factors on the project success. The relationship works both ways. Pellegrinelli (2007) states that the more a project or program seeks to have a profound and wide reaching influence on the organisation, the greater the importance of dealing with the organisational factors and their influence on the project success. He suggests that it is rare to find a project which actively takes advantage of the organisational factors for its purpose or utilises these

factors to achieve success. His findings show that most Project Managers are intuitively aware of the influence of these factors and how important they are to the success of the project. This, according to Pellegrinelli, is not enough to adapt the factors to the requirement of the project and Project Managers are rarely systematic or proactive about dealing with the factors as part of their projects (Pellegrinelli, 2007).

There is also the view that these factors cannot be dealt with purely on a project basis. According to Burns and Stalker (1961) certain large and hierarchical organisations are limited in their ability to change. They are capable of introducing certain types of changes, such as changes to the structure of an organisation, but are poor at making behavioural changes. Some of the reasons for this phenomenon are that large organisations are often formalised and bureaucratic, having structural and process characteristics that render them less capable of change (Hitt, Keats and DeMarie, 1998). One of the reasons these organisations work towards these fixed type of structures is to achieve stability. Considering behavioural change is so difficult to achieve (Pellegrinelli, 2007), it is not surprising that they would fail to adapt to an unstable environment and even less surprising that they often fail to change their people's behaviours.

One of the most critical factors for projects is culture (Morrison, Brown and Smit, 2006). There is evidence in the literature of the factors that create a necessity for behavioural change (Waldersee, Griffiths and Lai, 2003). According to Morrison, Brown and Smit, (2006) as well as Pellegrinelli, (2007) the Project Management literature has taken a superficial view of culture to date and has not dealt with the significance of its influence on a project's success or failure. Morrison, Brown and Smit (2006) suggest 12 dimensions that together construct the organisational culture. The authors say that whether or not behavioural change is required as part of the project depends on the fit between these 12 dimensions, known here as factors, and the project's goals. Similar to Morrison Brown and Smit's (2006) work, this research investigates factors that were found to influence the goals of the projects being investigated. Emergent factors that are specifically found in the three case studies investigated are discussed further and reviewed in Section 7, Data Analysis and Emergent Themes. This analysis assists in answering the second research question of this study:

2. What are the factors that determine the degree of behavioural change required in a Change Project?

Based on the above it is clear that there is a need for the management of change in organisations and within projects, with the need growing significantly over the past couple of decades. A new and emerging role to provide for this need is the role of a Change Manager. This role is not clearly defined in literature, however, it has been prominent and in wide use in practice. The following section reviews what is known about the Change Manager in literature as well as what defines this role in practice.

2.8   Evolution of 'Change Manager'

There is a shortage of definitions in literature that explain the role of the Change Manager. A search of *Business Source Premier* (which is part of Ebsco Megafile) from the Bond University online library revealed only ten articles in the literature which directly mention a role called 'Change Manager'. The following are some quotations and some conflicting ideas on what constitutes a Change Manager.

In the 15th century, Machiavelli wrote:
'Nothing is more difficult to take on, more precarious to lead, or less certain of success than introducing new things, because the person introducing them makes an enemy of those who fared well under the old situation and those that might fare well under the new situation do not defend it zealously' (Machiavelli, in Inglese, 1995).

He looked at a change process as one that is purely political. From this notion, a Change Manager is an organisational politician − someone with the influence and strength of character to make people respond. It is implied that this person is chiefly responsible for 'creating a storm without making any waves' (Caluwe and Vermaak, 2003).

As the body of literature that deals with the impact and implementation of change expands, so do the various points of view and experiences with the phenomenon. The roles that are being compared in this study are:
▪ Change Manager: an individual who grew from the Organisational Development field

- Project Manager: an individual who may have technical skills in a certain field, and who, as part of their experience has the responsibility for management and coordination of projects

- Program Manager: A Program Manager is an individual who manages programs. Often a Project Manager who, according to the literature above, is most likely to be promoted to this position, but may come from a general management background.

Organisational Development Practitioner and Behaviourists as Change Manager

Organisational Development practitioners are responsible for improving the knowledge and skills of the organisations, individuals and teams and therefore the performance of the organisation as a whole. Organisational Development practitioners have always paid close attention to the cultural, attitudinal and behavioural changes inherent in realizing any significant corporate transformation (Vaill 1989). Interventions aimed at changing cultural norms, improving team and individual capabilities and facilitating communication and learning throughout the organisation are common within Organisational Development assignments. Methods and approaches used in the organisational development practice include facilitation, mediation and relationship building (Wolff, 1995).

Some authors imply that it is the organisational development consultant who is typically in charge of implementing change initiatives. In these cases, the changes being managed and the responsibility of the Change Manager are within the realms of organisational development, with an emphasis on the behavioural aspect of managing change. Behavioural change encompasses any change to what people are doing in the workplace. Whether this includes change efforts such as an implementation of a certain system is a matter for debate.

Most of the prominent authors dealing with the topic of Change Management emerged from the Organisational Development field (Lewin, 1947; Beer, 1980; Vaill, 1989; Beer and Walton, 1987; Cummings and Worley, 1993; Burke 1994; Kanter, 1983, 1992, 1995; French and Bell, 1999; Koter and Cohen, 2002; Smith, 2005). Examples supporting the view that people influencing organisational change need to come from an Organisational Development background come from authors such as

Cummings and Worley (1993) and Beer (1980). They suggest that change cannot be achieved unless the change to people's behaviour is dealt with. According to the authors, psychological knowledge must be applied to achieve behavioural change. This is echoed by a research study conducted by Smollan (2006) where he states that when people are faced with changes to some aspect of their working lives, they respond to these changes psychologically. According to him, behavioural responses are outcomes of cognitive and emotional reactions which respond to various contexts surrounding them such as the organisation, the Change Manager and the change itself.

The work of French and Bell (1999) provides another example of writings about Change Managers coming from an organisational development background. These authors start from organisational development and say that the bottom line of all organisational development efforts is the introduction and implementation of change in organisations. They also note that any change, whether it involves organisational culture, process, structure or system, should be dealt with by using organisational development methods. Sminia and Nisterlrooij (2006) conducted a study which found that organisational changes are successful with a 'bottom up' organisational development approach. Additional support for the requirement of Change Managers to come from organisational development background and to have an understanding of behavioural aspects of organisational dynamics can be found in other papers and studies including Zaugg and Thom (2003) and Anonymous (2005). Zaugg and Thom (2003) go so far as to say that organisations need to decrease the amount of changes they are imposing on their staff and that the only way to positively introduce changes is by using organisational development competencies.

Wood (1998) claims that the person responsible for influencing change must be able to influence the psychology of the people involved. According to him, most change efforts fail due to the lack of emphasis on the ability of the manager to deal with people problems. These types of problems are ambiguous, fuzzy and cannot be planned, therefore require 'out of the box' innovative thinking and problem solving capabilities, usually held by professional behaviourists or psychologists (Wood, 1998).

Based on the above, one can summarise that a Change Manager is an individual who has been brought up in the field of organisational development and who performs the role with great emphasis on the behavioural aspect of managing change, i.e. the psychology of people going through change and what support they need to deal with their emotional reactions.

Other Roles Considered as Change Managers

Cluwe' and Vermaak (2003) are among the few authors who have dedicated a significant piece of writing and review to answering the question of who the Change Manager is. According to them, there are seven actors involved in the process of change, none of whom necessarily come from the world of project or organisational-development. The focus of this study is not the team running the organisational change, but rather the one individual that Cluwe' and Vermaak refer to as the 'orchestrator'.

The orchestrator in Cluwe' and Vermaak (2003) is the person with the closest resemblance to what is defined in this study as the 'Change Manager'. The orchestrator does not necessarily have to come from within the organisation. He/she has the responsibility of safeguarding the progress towards the planned ambition. This person sets up the change, from as early as possible, and sees it through to completion, monitoring and stimulating its implementation. According to Cluwe' and Vermaak, (2003) this person, who is the focal point of responsibility for the change, is no one in particular. He or she can come from within the organisation; they can be an external consultant, a Project Manager or an organisational development specialist. They have a prescription for what it is that this person needs to know and what skills and characteristics they need to posses. However, they also claim that no single profession fits this role. Ottaway (1979) supports this notion and also splits the role into a team of people in charge, to some degree or another, of the implementation of change. Ottaway (1979) starts his book by declaring that '*everyone is a change agent to some degree in their life*' (p. xi). Change Managers, according to him, are those people inside or outside the organisation who are interested in changing certain behaviours in the organisation and who provide technical, specialised or consulting assistance in the management of the change effort.

The Change Manager in Practice

The role of the 'Change Manager' has been to some degree established in practice, with the existence of the role in most large organisations as well as establishment of institutions and degrees to govern and educate people in the role. In practice, the Change Manager role can be found in well known and established Australian organisations such as AMP, Commonwealth Bank, Westpac, RailCorp, Telstra and Coles to name a few. There are also well known and prestigious degrees which educate individuals and provide them with the theoretical skills to become Change Managers. These include the Change Management Certificates from both the AGSM (Australian Graduate School of Management) and the MGSM (Macquarie Graduate School of Management). The following are some examples of the skills these certificates cover:

- Understand the main frameworks that describe personal and organisational change.
- Identify the role you play in initiating and facilitating change.
- Analyse effective and ineffective change interventions.
- Choose appropriate strategies to facilitate personal and organisational change.
- Team building.
- Communication.
- Networking.
- Conflict resolution.
- Negotiation.
- Process skills.
- Implement change.
- Study and reflect on outcomes.
- Design new interventions.
- Continually assess the effectiveness of your actions .

http://www2.agsm.edu.au/agsm/web.nsf/Content/Future-Students-GCCM-CourseDescriptions-ListAll (accessed 15 November, 2007),

http://www.mgsm.edu.au/wps/wcm/connect/Internet/Root/about/ accessed 15 January, 2009).

As mentioned previously, there are three journals dedicated to the topic of Change Management; however, when reviewing the stated list of audience members none of them mention Change Managers.

Unlike Project Management, Change Management does not have established industry bodies or governance organisations. Some preliminary steps have been taken by industry practitioners to establish a body which governs, grows, develops and educates Change Managers and these have led to the founding of the 'Change Management Institute' (CMI). This institute was established in 2006 and ultimately has a similar intention to that of the project management professional organisations. The CMI has established a web site in 2007 (http://www.change-management-institute.com/ accessed 1 August 2008) and in 2008 the CMI developed a list of Change Management competencies which are detailed in the literature analysis section, 3.3.

The field of Change Management generally and the Change Manager role in particular, is less mature than the field of Project Management. Although there are some qualifications available, there is little industry support for Change Managers compared to the industry support that Project Managers enjoy. As mentioned, there are very few Change Management associations, very little mention of Change Managers in literature and there are hardly any studies discussing the role of the Change Manager.

To summarise, Change Managers are those individuals who see themselves as facilitating organisational changes, regardless of the type of change. Based on the above, as well as the practical examples, Change Managers differentiate themselves from Project Managers by focusing on the behavioural aspect of the organisational change. Just as Program Managers are mostly from the field of Project Management, Change Managers tend to grow from HR and organisational development fields. In these fields they would support the business in making strategic people decisions as well as train and educate staff in new skills needed for the changing requirements of various roles.

The following section describes what an organisational change project looks like and show the cross functionality of Project, Program and Change Management skills needed to manage these projects.

2.9   Organisational Change as a Project

Projects can represent themselves in a variety of types. Project types influence the strength and nature of project success. According to Turner and Muller, (2006) there are various project attributes which define the project type. These relate to the size and complexity of a project. Some of these attributes include:

Application area - Engineering and construction, IT, business

Complexity - High, medium, low

Life cycle stage - Feasibility, design, execution, close out

Strategic importance - Mandatory, repositioning, renewal

The focus in this study is on projects/programs specifically dealing with organisational change, or changes specifically being managed as projects. The relevant attributes to these types of projects are that they are highly complex, IT implementations. There is little change on small projects and therefore this study does not deal with projects that are not large and which do not influence the organisation significantly.

Partington (1996) sees a potential for fruitful new directions for project management practices, which focus on managing organisational changes as projects. According to Partington (1996) there is an increase in managing organisational changes as projects and the growing adoption of the use of project management techniques to manage organisational changes. This has lead to the birth of new project management requirements. This requirement is also known by various authors as Program Management ((Partington, 1996; Partington, 2000; Partington, Pellegrinelli, and Young, 2004; Pellegrinelli, 1997; Pellegrinelli, 2002; Pellegrinelli, Partington and Young, 2003; Pellegrinelli and Partington 2006; Pellegrinelli, Partington, Hemingway, Mohdzain, Shah and Stenning, 2007).

Organisational change projects are internal projects. These are projects run by the organisation for itself (Obeng, 1994). The main outcome is a change in the way the

organisation does its business. The stakeholders are internal. They are the clients of the project, who have to live with the outcome of the project. The Project Manager who delivers the changes does so in his or her own organisation, which makes the project internally driven. The organisation responsible for the delivery of the project is the Project Managers' organisation. The stakeholders responsible for delivery and the core team are also in the same organisation, so they are also internally delivered. According to Obeng, (1994), projects have been used to manage changes for many years. He claims that managing change as you would manage an organisation through a typical structure is almost impossible. The only way to stay ahead is to try to break down the change you need to carry out into parcels or chunks, just like you would do with a typical project. Projects are therefore the most effective way of managing change according to this author.

Pellegrinelli, in his various publications, support this notion (Pellegrinelli, 1997; Pellegrinelli, 2002; Pellegrinelli, Partington and Young, 2003; Pellegrinelli and Partington 2006; Pellegrinelli, Partington, Hemingway, Mohdzain, Shah and Stenning, 2007). According to the authors the economic volatility and technological revolution in IT and communications continues unabated, and all these changes are and must be managed as programs taking on responsibility for mission critical initiatives.

It is difficult to describe change management functions in isolation from main activities of a project. Boundaries between project phases and project management functions are blurred. A pragmatic approach to change management should consider success and failure factors, implementation, knowledge of managers and project implementation methodologies (Kuruppaurachchi, Mandal and Smith, 2001).

There has been some discussion and debate regarding Change Management from a project and program point of view (Turner, 1993; Partington, 1996; Pellegrinelli, 1997; Thiry, 1999; Partington, 2000; Pellegrinelli, 2002; Pellegrinelli, Partington and Young, 2003; Pellegrinelli and Partington 2006; Partington, Pellegrinelli, and Young, 2004; Turner and Muller, 2006; Pellegrinelli, Partington, Hemingway, Mohdzain, Shah and Stenning, 2007). However, there has not been much mention of the role of projects from a change management perspective and debated from the change

management point of view (Morisson, Brown and Smit, 2006). This study addresses the cross disciplinary aspects of project and change management. The above discussion summarises the evolution of the Project, Program and Change Management professions and roles, and raises questions about the boundaries between these roles in organisational projects. To advance further, a better definition for what these roles do is required; this will be explained in terms of 'competency' and 'competence', which are discussed in the following section.

2.10 Definitions of Competence

It is necessary to first determine what Project Managers and Change Managers do in their roles. In order to assess what it is that the two roles do, develop some tools for this assessment are developed. The aim is to be able to look at both roles and compare them, using the literature and research findings, the similarities and differences between these two roles and how they are executed as a basis for analysis. To do this the term 'competency' is defined and refined to fit with the type of analysis carried out in this thesis.

There are differences between the definitions of 'competency' and 'competence' and this needs to be clarified. The following are definitions of the two:

Competency: According to Woodruffe (1992) 'competency' covers anything that would affect the way a certain incumbent would perform on the job. For the sake of this study, competency will hereby be used to refer to any component or aspect of the overall concept or construct (Crawford, 2001).

Competence: In accordance with the above definition, the term 'competence' is used to describe the overall concept or construct (Crawford, 2001). An example for this would be having leadership competence, which would include active listening as a competency.

It is possible to determine what an individual would do on the job if they were considered to be competent. According to Gonczi, Hager and Athanasou (1993) competence can be inferred from attributes such as knowledge, skills and personal

characteristics or from demonstrated performance of work at a pre-defined and acceptable standard.

Frame (1999), the former Director of the Project Management Institutes' certification program, provides a holistic view of what competence is and what it means to be competent. According to various authors (Frame 1999; McClelland, 1973; Heywood and Gonczi, 1992; Robotham and Jubb, 1996), there are dramatic differences in people's ability to carry out a task. In today's challenging world these differences can determine whether an organisation stays in business or not. Being able to do the job competently is important at both individual and team level. In Frame's (1999) view there are competencies that need to be well defined and appropriate to the job at hand.

Crawford (2005), in looking at project management competence, found little correlation between knowledge and use of practices assessed against accepted project management standards, and perceived performance on the job. According to Crawford (2001, 2005) there are two types of competency approaches in general use, namely Competency Model and Competency Standards approaches. These approaches are described below.

(1) The Competency Model Approach

McClelland (1961, 1971, 1973) at the beginning of the 1970s developed what is hereby referred to as the Competency Model approach. It was further developed and reported upon by Boyatzis (1982). The model asserts that five competency characteristics differentiate effective performers from ineffective ones. These five competency characteristics are the following based on (Spencer and Spencer, 1993):

Two core characteristics: knowledge (qualifications) and skills (ability to perform)
Three core personality characteristics: motives, traits and self concept.

The knowledge and skills can be assessed and developed whereas the motives, traits and self concepts are inherent in an individual's personality, and are difficult to assess or develop (Crawford, 2005).

(2) The Competency Standards Approach

While the Competency Model, which is an attribute-based approach, suggests that identifiable personal attributes will translate into competent performance, the Competency Standards approach assumes that competence can be inferred from demonstrated performance at a pre-defined acceptable standard (Gonczi, Hager and Athanasou, 1993).

This approach brings with it a new set of definitions including:
Units and elements of competency: describing what is done in the workplace, profession or role.
Performance criteria: describing the required standard of performance
Range indicators: describing the context of performance.

According to this approach, *competence* can be inferred by demonstrable performance in accordance with occupational, professional and organisational competency standards. This would be based on the industry 'Lead Bodies', such as Innovation and Business Skills Australia (IBSA- www.ibsa.org.au- accessed 1 July, 2007) which is responsible for the Australian National Competency Standards for Project Management. These Lead Bodies would represent the interests of the employers and employees in the relevant industrial, occupational or professional sector.

This approach is particularly attractive for people who demonstrate the ability to do the job but have not acquired the appropriate professional qualifications.

Although the Competency Standard approach is newer and has strong support in literature (Crawford, 2001; 2005), for the sake of this study the comparison between Project Managers and Change Managers is be based on the Competency Model approach. To use the Competency Standards approach requires the existence of competency standards for the role. Although there are well developed competency standards for project management (IBSA- www.ibsa.org.au- accessed 1 July, 2007, South African Qualifications Authority, 2001; ECITB, 2002, GAPPS, 2007 – www.globalpmstandards.org – accessed 19 January 2008) there are no equivalent competency standards for Change Managers. A further reason for following the

Competency Model approach is field of organisational change and the preponderance of this approach in the change management literature.

Conclusion of Literature Review

As described above, there is very little support for the role of the Change Manager from an industry perspective. This role is assumed to be carried out by Program and Project Managers and although there is a discipline named "Change Management" the role of the Change Manager is unclear. This research aims to gain a better understanding of the separation of duties between the Project and Program Managers and the Change Manager as well as understand what organisational factors drive the need for these two roles. The competency approach described above has guided the following section which is an analysis of the literature concerning what Project, Program and Change Managers do. The purpose of this literature analysis is to provide a basis on which the three roles can be compared with a view towards providing answers to the two research questions:

1. What do Change Managers do and what are their competencies on an organisational change project that is different from what Project Managers and Program Managers do and what are their competencies?

2. What are the organisational factors that influence decisions about how a change project should be managed?

3   Literature Analysis

The previous section was a general review of literature which described the evolution of the Project, Program and Change Management roles to date. The following section analyses specific literature which details Project, Program and Change Management competencies. Lists of competencies found in literature form clusters for these three roles. Based on the competency framework described in Chapter 2.10, the three roles are analysed in detail and the clusters developed here are then compared across the three roles. The comparison of the roles also assists in identifying the change specific competencies consistently found for each role. The change specific competencies in each role allow an understanding of the extent of Change Management specific competencies indicates preparedness to manage change. The comparison also allows a discussion about the differences in these roles when managing change as well as addressing the primary aim of this study which is to identify when one would require a Project Manager and when there would be a requirement for a Change Manager for the management of project related change.

3.1   What Does the Project Manager Do?

The view of *what it is that the Project Manager does* has gone through significant evolution in the past 20 years. For instance, in the mid-1980s some Managing Directors insisted that Project Managers did not need to know or manage the project budget. They expected Project Managers to inherit an established project and only manage the technical side of the project (Turner, Grude and Thurloway,1996).

The role of the Project Manager consists of many aspects and has been researched, analysed, defined and reviewed in a multitude of publications, industries and cultures. Crawford (2001) has reviewed studies conducted on project management competence leading up to 2000 and summarized the most frequent competencies found in research studies (see Appendix D). In her study, Crawford (2001) grouped similar factors of project management competence and then ranked them according to the number of times they were mentioned across the 13 studies that were analysed. Factors receiving the least number of mentions were grouped with factors that were most similar, and which received a high number of mentions in literature.

In this research study, a further analysis was conducted building on Crawford's (2001) work. An analysis of Project Manager, Program Manager and Change Managers' competencies were carried out in a similar way to the work done by Crawford (2001). The analysis itself can be found in Appendices A, B and C.

Research and standards relating to project management skills and competence beyond those in Crawfords (2001) research study were added in this literature analysis. The publications that were added beyond those in Crawfords (2001) included: Jiang, Klein and Balloun, 1996; Briner, Hastings and Geddes, 1996; Taylor, 1998; Jiang, Klein and Margulis, 1998; El-Sabaa, 2001; Cheng, Dainty, and Moore, 2005, International Project Management Association (ICB), 2006, Office of Government Commerce (OGC) – (Managing Successful Programmes), 2007, APM (APMBoK), 2006, GAPPS, 2007. This was done until eventually achieving a manageable number of meaningful clusters of competencies.

The competencies from the additional references were added to the competencies from Crawford (2001) and the original list was re-categorised and/or re-ordered. A new list of competencies was then developed for Project Managers' competencies. The following (Table 1) is a list of 22 competencies which provide a summary of those most frequently mentioned in the literature. These are competencies considered appropriate for Project Managers to possess in order to perform the role effectively. Note that there are many other competencies that are mentioned but those included in Table 1 are those that are most frequently mentioned in the research and standards analysed. Table 1 outlines the competencies that best describe what it is that Project Managers do according to research and standards. The table is ordered in an alignment to Crawfords (2001) list, see Appendix D. The details of this analysis can be found in appendix A.

What Project Managers do : from a literature review	
1.	Leadership
2.	Planning risk
3.	Planning cost
4.	Planning time
5.	Planning scope and quality
6.	Monitoring and controlling cost
7.	Monitoring and controlling risk
8.	Monitoring and controlling scope and quality
9.	Monitoring and controlling time
10.	Team development
11.	Communication
12.	Stakeholder management
13.	Governance
14.	Organisation structure
15.	Project definition
16.	Administration, project reporting and documentation
17.	Decision making and problem solving
18.	Team selection
19.	Technical performance
20.	Change control
21.	Contract management
22.	Closing

Table 1: What Project Managers do, added to Crawford (2001) from literature
Source: Briner, Hastings and Geddes (1996); Jiang, Klein and Balloun (1996); Jiang, Klein and Margulis (1998); Taylor (1998); El-Saaba, (2001); PMI, PMBoK (2004), International Project Management Association (IPMA) (2006); APM (2006); GAPPS (2007); OCG Skills Framework (2004);

The main differences between this and Crawford's list (2001), as a result of including additional sources, were the exclusion of strategic direction; the inclusion of change control, contract management, governance and the grouping together of administration, project reporting and documentation. These changes are a result of the frequencies of mention found in the additional references. In these references the

excluded competencies were not found frequently enough to justify maintaining and the included competencies were found in frequency of four or more mentions.

3.2 What Does the Program Manager Do?

The literature is not as comprehensive on the role of the Program Manager as it is for the Project Manager. However, Pellegrinelli (2002) quotes an attempt made by a consulting organisation called 'Syscon' to identify Program Management competencies, linked to complex projects and programs (Pellegrinelli, 2002). Additionally, the APMBoK (APM, 2006) and OGC (2004) list Program Manager that were also added into the analysis and a final list of Program Manager skills was developed. The same analysis approach was used as for the Project Manager competencies descried above and Table 2 outlines the 15 competencies that were identified from these publications as being required by Program Managers. The detailed analysis can be found in Appendix B, Program Management Competencies.

What Program Managers do	
1.	Leadership
2.	Planning
3.	Stakeholder management
4.	Communication
5.	Risk and issues management
6.	Resources management
7.	Governance management
8.	Progress monitoring
9.	Team development
10.	Resource management
11.	Quality management
12.	Commercial
13.	Cultural/ environmental consideration
14.	Project management office consideration
15	Benefits management

Table 2: What Program Managers do

Source: Pellegrinelli, 2002, Thiry (1999); Moore (2000); APM (2006); OGC Skills Framework (OGC, 2002, 2004); OGC (Managing Successful Programmes) (2007)

3.3 What Does the Change Manager Do?

A similar analysis to that conducted by Crawford (2001) was conducted for the Change Managers' role. All competencies researched and mentioned by key

contributors to change management literature were analysed and the ones that were most frequently found were clustered together, with a minimum of four mentions. This resulted in a list of the most frequently mentioned change management competencies.

The following Table 3 is a summary of the categories of competencies that are expected of a Change Manager. The detailed analysis can be found in Appendix C, Change Management Competencies.

	What Change Managers do
1.	Leadership
2.	Analysis and assessment
3.	Stakeholder management
4.	Initiative and self management
5.	Creative and challenging
6.	Facilitation and presentation
7.	Team development
8.	Process design
9.	Communication
10.	Learning and development
11.	Action orientation
12.	Decision making and problem solving
13.	Cross cultural skills
14.	Strategic thinking
15.	Influencing skills
16.	Coaching skills
17.	Project management skills

Table 3: What Change Managers do

Source: Kanter, 1983, 1992; Cummings and Worely, 1993; Blair and Meadows, 1996; Doppler and Lauterburg, 1996; Carnall,2003; French and Bell,1999; Paton and McCalman, 2000; Kotter and Cohen,2002; Caluwe and Vermaak, 2003; OGC, 2002, 2004 (Skills Framework); Change Management Institute, 2008 (Practitioner Competencies).

3.4 Bringing the Three Together: The Change Management Competencies of the Project/ Program Manager

There is ample literature that talks about the role of the leader of the organisational change, what it is that this person does and what competencies he/she needs to possess. However, there is no agreement on who this person is. From the above literature, it is clear that there are some differences in the focus of the Project/Program and the Change Manager's role.

To describe this further, Table 4 (below) shows the list of areas in which Project and Program Managers need to be competent compared to those required for Change Managers.

	What Project Managers do	What Program Managers do	What Change Managers do
1.	Leadership	Leadership	Leadership
2.	Planning risk	Planning	Planning/ Project management skills
3.	Planning cost		
4.	Planning time		
5.	Planning scope and quality	Quality management	
6.	Monitoring and controlling cost	Progress monitoring	
7.	Monitoring and controlling risk	Risk and issues management	
8.	Monitoring and controlling scope and quality		
9.	Monitoring and controlling time		
10.	Team development	Team development	Team development
11.	Communication	Communication	Communication
12.	Stakeholder management	Stakeholder management	Stakeholder management
13.	Governance	Governance management	
14.	Organisation structure	Project management office consideration	
15.	Project definition		Analysis and assessment
16.	Administration, project reporting and documentation		
17.	Decision making and problem solving		Decision making and problem solving
18.	Team selection	Resource management	
19.	Technical performance		
20.	Change control		
21.	Contract management	Commercial	
22.	Closing		
23.		Cultural/ environmental consideration	Cross cultural skills
24.		Benefits management	
25.			Initiative and self management
26.			Creativity and challenge
27.			Facilitation and presentation
28.			Process design
29.			Learning and development
30			Action orientation
31.			Strategic thinking
32.			Influencing skills
			Coaching skills

Table 4: Project Manager, Program Manager and Change Management competence

It can be seen that the roles of the Project and Program Managers are similar in their competencies and the role of the Change Manager has some competencies that are not mentioned in either Project or Program Management roles, for example, coaching, learning and development, influencing skills and process design. It is surprising that decision making and problem solving are not showing for Program Manager as they would be required in this role – this may be a matter of the source used. The following summarises these tables and provides a clearer understanding of the competencies for Project and Program Managers that relate to the role of managing change.

Summary

The following Table 5 shows the similar and different competencies of Project and Program Managers compared to Change Managers', as they appear in literature.

What Project Managers do	What Program Managers do	What Change Managers do
Similar competencies		
Leadership	Leadership	Leadership
Team development/ Team selection	Team development/ Resource management	Team development
Stakeholder management	Stakeholder management	Stakeholder management
Communication	Communication	Communication
	Cultural consideration	Cross cultural skills
Decision making and problem solving		Decision making and problem solving
Planning: cost, time, risk, quality, scope, quality	Planning	Planning/ Project management skills
Governance	Governance management	
Contract management	Commercial	
Monitoring and controlling: cost, time, risk, quality, scope	Risk and issues management, scope management, progress monitoring, quality management	
Different competencies		
Organisational structure	Project management office	Analysis and assessment
Project definition	Benefits management	Creative and challenging
Administration, project reporting and documentation		Initiative and self management
Transition		Coaching skills
Change control		Facilitation and presentation

Closing		Process design
		Learning and development
		Action orientation
		Strategic thinking
		Influencing skills

Table 5: Project Manager, Program Manager and Change Management competence - Summary

Table 5 provides a summary of the competencies Project, Program and Change Managers have in common and those competencies that differentiate them. The assumption is that a Project Manager and a Program Manager are capable of leading organisational changes. It would therefore be expected that a significant amount of what the literature defines as 'change management competencies' would repeat itself in the list of what literature defines as 'project and program management competencies'. There is a greater overlap between Project and Program Management competencies than the overlap of Project or Program Management competencies with the Change Management competencies. Nevertheless, there are some overlaps in the competencies of the Project and Program Managers and those of the Change Managers. The following Table 6 outlines those.

Change Management competency of the Project Manager
Leadership
Planning
Team development
Stakeholder management of client
Communication
Decision making and problem solving

Table 6: Change Management competency of the Project Manager

Table 6 demonstrates that out of the 22 most frequently mentioned project management competencies, six competencies are similar to the list of 18 change management competencies. If Project Managers are in charge of managing organisational changes, it would be reasonable to expect that they should possess more of the frequently mentioned competencies proven to be necessary for managers with the focus of influencing change. There are also some similarities between a Program Manager's Change Management competencies. This is demonstrated in Table 7.

Change Management competence of the Program Manager
Leadership
Team development
Planning
Stakeholder management
Communication
Cultural consideration

Table 7: Change Management competence of the Program Manager

Six competencies of the 15 Program Manager's competencies have been identified as similar to those of the Change Managers' competencies.

In Turner, Grude and Thurloway's (1996) book, *The Project Manager as a Change Agent*, as well as in Turner and Muller (2006) the authors define the scope of the Project Manager's role. According to these authors, the modern view of project management is that it is the management of change. There is, therefore, a gap that needs to be bridged between the perception that both Change Managers and Project Managers can manage organisational changes effectively and the expectation of their competence in these roles.

In Pellegrinelli (2006), there is a discussion of the pitfalls associated with Program Managers managing organisational changes using a Project Management approach. Some of the pitfalls identified are:

▪ *Resemblance pitfall:* This pitfall is about Program Managers managing organisational changes like project managers and focusing too strongly on internal factors as well as micro managing the Project Managers reporting to them; thus they subtract value rather than add any.

▪ *Definition pitfall:* Project Managers would tend to have a desire to see a baseline so that they can control the work, and not allow for the fluidity and changing nature of a change project. This is relevant in a stable and knowable environment, however, change projects are usually not stable and knowable environments. There are many lost opportunities to improve and succeed in forcing the 'frozen' plan on this kind of a project.

▪ *Delineation pitfall:* Projects usually have very strong delineations and demarcations. This is useful when the work is detailed and specific. With the fluid

and flexible requirements of programs, and the multiple stakeholders as well as the many unknowns, strong demarcations create an 'us and them' mentality. This means that the program will require more resources to develop relationships, integration and absorption of the program deliverables into the organisation.

- *Decomposition pitfall:* Due to the common view that programs are a group of projects, usually the business cases for programs are the sum of the project's business cases. These normally will not have in them a sound economic basis for analysing the effects of overruns, alternative scenarios or variations to scope of the overall program. Programs may therefore lose their integrity and be disconnected from the overarching strategic purpose as well as not be able to add the enterprise wide perspective.

- *Can-do pitfall:* Project management tends to place a heavy significance on risk management and avoiding adverse events. At a program level, new risks and issues are constantly emerging. If these are the focus of the program manager, and the possibility of failure is not truly embraced, ways of rendering the organisation less vulnerable in case of failure may not be put in place. Decisions to stop programs or radically change their scope and outcomes may be delayed, wasting resources and making remedial action more difficult.

- *Enterprise-wide pitfall:* Project Managers tend to prefer the coordinated initiatives and perceive the promotion of local priorities and interests as well as unresolved opinions as hindering the initiative and generally unhelpful. Political agendas, indecisions and reversal of policies go in contrast with the program's direction of creating order. This may stifle responsiveness and experimentation. Portfolio planning and control frameworks are ill advised defences against the rising tide of economic change and turbulence.

Based on these many pitfalls, it is clear that there is a problem with having Project Managers, who were promoted into the role of Program Managers, run organisational change projects.

Pellegrinelli (2006) continues by suggesting that the project management application has extended beyond its traditional domains and the success of the project management discipline has reinforced a subtle perception that it is universally applicable in all planned changes. The author continues to suggest that the pitfalls,

stated above, are the reasons project management has been so successful and are rooted in its traditions. The project management application is not necessarily a fitting approach for programs which have a goal of achieving complex changes in organisations. The author goes further and suggests that this takes a big toll on organisations in lost advantages as well as on individuals in increased stress and dissatisfaction.

3.5   The Project/ Program Manager and the Change Manager as Implementers of Change

It has been established that Project Managers, Program Managers and Change Managers are referred to in the literature as drivers of organisational change. Establishing that one does a better job in implementing change than the other is a tall order. This relies on the measurements of change and what is a successful organisational change project, which is a topic that requires much further investigation and is beyond the scope of this study.

However, the construct that can be researched and analysed is what these three roles do. Along with the competencies of each role on an organisational change project, this analysis may provide an answer to the main question being asked in this research study:

1. What do Change Managers do and what are their competencies on an organisational change project that is different from what Project Managers and Program Managers do and what their competencies are?

To support the response to the first research question, another question needs to be asked regarding the conditions in which one would hire a Change Manager to manage change as opposed to a Project/Program Manager and vice versa. This is the second question of this research, which is:

2. What are the organisational factors that influence decisions about how a change project should be managed?

Furthermore, it may be found that the Project Managers, Program Managers and Change Managers have different objectives. The Project Manager may be driven mainly by ensuring that people use a certain new product or tool, which the Project

Manager is trying to implement. The Change Manager may be mainly concerned with a behavioural change, which is not necessarily quantifiable and measurable. This differentiation may lead to the understanding of the main differences in the roles in their ability to implement change.

Organisations wanting to implement change usually have an idea of what it is that they eventually want to achieve (Kotter and Cohen, 2002). If the goal is to achieve general usage of a certain system or product, then communicating the change and managing it with a plan may suffice. In this case, a Project Manager may be able to implement the change without the assistance of a Change Manager. In cases where the goal is to achieve behavioural change, there is a need to use a skilled person with the ability to analyse behaviours and influence them. An individual wanting to achieve a change in his/her life may go to see a therapist or a psychologist. Would an organisation, consisting of many individuals, wanting to achieve behavioural change do the same?

The scenario where degree of system usage is a single construct to achieving implementation goals takes us back to Taylor's (1911) Scientific Management theory. It was his view that all work is quantifiable and observable and therefore there is no need for any further consideration of the behavioural aspects of executing the role. We know today that this theory is not always applicable and that people differ greatly from machines (Turner and Keegan, 1998). It is therefore possible that in a case where usage is the only organisational change required, after the first, second and third changes, where new products are introduced, the organisation becomes weary, uninterested and uncooperative. This will eventually require a behavioural change. These cases call for a person skilled and experienced at influencing behaviours and managing organisational changes.

Whereas all this may be true, there is evidence to suggest that organisational changes need to be managed as projects (Zimmerer and Yasin 1998; French and Bell, 1999; Paton and McCalman, 2000; Cluwe' and Vermaak, 2003; Pellegrinelli 2002; Smith, 2005). There is a beginning to any change being implemented and a predetermined end date that is worked towards. It is planned and is geared towards delivering a certain, unique outcome. It is therefore beneficial to manage the change as a project.

In this instance, organisational change projects require projects to follow a set of processes similar to those laid out in the *PMBoK® Guide* (2004).

It can be deduced from the literature that Project Managers, Program Managers and Change Managers require different competencies to do different things on change projects. It is however not a topic that has been addressed directly. It is further implied that there are organisational factors which have substantial influence on the outcome of the project and in some cases these factors are required to be influenced by the project. The focus of this study is therefore an attempt to answer specific questions stemming from these ideas.

The following is a description of research designed to gain insight into what Project Managers and Program Managers do on organisational change projects. It outlines the differences between the roles as well as identifying organisational 'factors' that determine the change required in a Change Project.

4   Methodology

4.1   Rationale for Qualitative Design

Qualitative research is one that cannot be mathematically or statistically processed or interpreted. Qualitative research is an approach rather than a particular set of techniques and its appropriateness derives from the nature of the social phenomena being explored (Morgan and Smirchich, 1980). All approaches to social science are based on interrelated sets of assumptions regarding ontology, human nature and epistemology (Burrell and Morgan, 1979). Qualitative methodologies are becoming increasingly used. The increasing trend in management research is to add multi-dimensional insights into management research problems. If the ultimate aim is to gain a better knowledge of the world, then one must do so with an understanding or recognition of the complexities and ambiguity that exist in every organisation (Mangan, Lalwani and Gardner, 2004).

In this current study the analysis is one that is carried out for the purpose of discovering concepts and/or a relationships using raw data and then organising it into a theoretical explanatory scheme. Data in this study consists of interviews and documents (Strauss and Corbin, 1998).

Qualitative research designs such as ethnography, phenomenology and grounded theory are increasingly used to describe elements of what people do in their jobs or influencing factors on a particular phenomenon. In some research fields there is a clear preference for quantitative rather than qualitative methods. According to Lacity and Janson (1994), there are two main reasons for a focus on quantitative methods rather than the qualitative ones. The first is, when compared to statistical data analysis methods, qualitative data analysis methods can appear vague to one who does not understand the rationale of qualitative study. The second is, while quantitative methodology establishes very clear and objective foundations and procedures, qualitative methodology follows the researcher's intuition and reflection in a much more subjective fashion.

Though researchers inclining towards quantitative analysis make important arguments for their inclinations, there are many merits to using qualitative analysis in general, and particularly in this study.

General reasons for using qualitative analysis: Data and variables as artefacts are created by researchers or practitioners to assist them in the process of observing the world. Most, if not all, such observations are initially qualitative in nature. Particular communities of people create categories of the objects in the world on the basis of qualitative characteristics. These categories of objects are rich in meaning and to reduce the ambiguity that may arise from such richness of information, different groups of people produce measurement artefacts to quantify their observations. Scientists recognize that measurement can be carried out by the use of numbers, measures and ratio scales. However, in the process of eliminating ambiguity, the observer also loses valuable meaning and insights into the researched world (Luna-Reyes and Andersen, 2003).

Any investigation, whether qualitative or quantitative, is influenced by world views and the underlying assumptions of the researcher. The researcher may neglect or ignore some things while including others. No picture is complete or the only point of view. Therefore, both qualitative and quantitative measurements are imperfect and it is important to recognize that in every social system it is possible to identify characteristics that are multi-dimensional in nature, in which case the observer needs to create proxies or constructs that he/she believes are correlated with characteristics that he/she is trying to observe. The difficulties associated with these measurements introduce a certain 'softness' in the variables used in the social and managerial sciences (Luna-Reyes and Andersen, 2003).

Specific reasons for using qualitative analysis in this study: One reason for using qualitative research in this study is the nature of the research. The study is asking questions which attempt to define the relationship between two disciplines and develop a theory about how they relate, what people are doing and what are the various aspects contributing to the requirement for behavioural change. The study attempts to understand the intricate nature of a workplace relationship. This field of interest and the study questions, although potentially having some quantifiable

aspects, would lose richness, interesting perspectives and insights, had a positivist approach been taken. There is no single answer to a socially constructed world and the world is not black and white. Qualitative measures allow for interpretation of people's motivation and perspectives. This type of research lends itself best to a qualitative method of data analysis as it is not hard coded, is multi dimensional in its nature and allows a degree of ambiguity and uncertainty (Strauss and Corbin, 1998).

An additional reason for using qualitative research in this study is the unclear relationship, and articulation in literature, between the two disciplines of project/program and change management. The use of qualitative research allows exploration of the differences in depth and provides enhanced conceptual understanding of the disciplines, how they relate to each other and how they relate to an organisational change project (Strauss and Corbin, 1998).

In this qualitative research, rigor is maintained by grounding analysis in data. The creativity manifests itself in the ability to aptly ask stimulating questions, name categories, make comparisons and extract innovative, integrated and realistic ideas from masses of unorganised raw data. No procedure was followed dogmatically, but rather employed to provide a general frame of reference to the organisation and analysis of the data that was produced (Strauss and Corbin, 1998). The following section explains the merits of grounded theory and how it lends itself to this study.

4.2   Grounded theory and coding techniques

Research data was interpreted using grounded theory techniques (Strauss 1989). The methodology for grounded theory dates back to 1967 through the seminal work *The Discovery of Grounded Theory*, by Glasser and Strauss (Glasser and Strauss, 1967). Grounded theory is a phenomenological methodology which was originally applied in the medical field, but has become popular amongst sociologists and is becoming increasingly popular in business studies (Mangan, Lalwani and Gardner, 2004). Grounded theory looks at specific cases and examines outcomes to see which conditions they all have in common, thereby revealing necessary causes. This is based on John Stuart Mills' (1843) method of differences, which is essentially the use of natural experimental design.

The basic idea of the grounded theory approach is to read (and re-read) a textual database (in this case these are interview notes and work documents). From this text researchers 'discover' or label variables, called categories, concepts and properties, and understand their interrelationships. Grounded theory assumes that change is a constant feature of social life and that the directions of these changes need to be understood. Therefore concepts, theories and models were developed based on the findings. Social interactions and processes are at the centre of this theory and the researcher, in grounded theory, is an instrument for developing the ideas and providing the analysis that explains it.

Partington (2000) looks at the positives and negatives of using grounded theory in research. He suggests that data interpretation that is based on grounded theory achieves its goal of being theoretically sound as well as useful in its application for managers. Partington (2000) says that there is a great need for this type of data analysis. The need stems from researchers' tendency to move too quickly towards statistical analysis before putting more effort into building new theories from empirical data. The real issues that are revealed through the analysis are therefore often ignored or artfully avoided, according to Partington (2000). However, although grounded theory methods provide an opportunity to deal with issues more deeply, it is easy for researchers to get lost in the interpretation of data. The interpretation is a researcher's struggle to neatly codify any information that is brought forward in the most objective way possible, as well as to focus on the important parts of the information and categorise properly (Strauss 1989; Strauss and Corbin, 1990).

Grounded theory's main objective resides in 'linking', i.e. linking two separate concepts to generate meaningful theories. Since linking two separate disciplines is at the heart of this research as well as developing a cross disciplinary theory, grounded theory speaks to the same goal of drawing relationships among factors for this research.

4.3   Coding: Open Coding and Axial Coding

Categories are the general constructs that are found in the data relevant to the research questions. Subcategories are their building blocks, or the similar activities which can

be grouped together to form the category. These are also referred to in the analytical part of this study as properties (for categories) and dimensions (for subcategories).

In the grounded theory approach there are two stages to coding data. The first is open coding and the second is what Strauss and Corbin (1998) call axial coding. In the first coding stage, text data are collected from various sources such as interviews and relevant documentation and the dynamic and fluid process of coding is applied to analyse the data. This coding process is also known as 'open coding'. Open coding is the analytic process through which concepts are identified and their categories and subcategories discovered in data (Strauss and Corbin, 1998). Open coding assists in the unravelling of the answers using the interview data. The aim is to produce concepts that fit the data. This requires unrestricted scrutiny of the responses to the interviews, line-by-line or even word-by-word. This is done until eventually a relationship is revealed and becomes obvious. This forces the researcher to fracture and break the data apart analytically and eventually leads directly to grounded conceptualisation. The process as it stands yields both verification and qualification of the research questions and the intent is to convince readers/audience that nothing of great importance was missed. In this research, NVivo software is used (see Section 4.9, NVivo for qualitative research) and in the NVivo software, the open coding technique takes place in the 'free nodes' area. This will be explained in detail in Section 4.9.

The second stage of coding is what Strauss and Corbin (1998) call 'axial coding'. This is the process of relating categories to their subcategories. Subcategories imply more powerful explanation of coding because they answer the questions such as when, where, who, how, and with what consequence. Using the data accumulated in this research, integration and codification of information becomes increasingly more tight and obvious as the information is revealed and analysed. In the NVivo software, the axial coding technique takes place in the 'tree nodes' area. This will be explained in detail in Section 4.9, Nvivo for qualitative research.

Beyond the open and axial coding, the interviews and the subsequent analysis of data was based on Partingtons's (2000) methods of interviewing and of interpreting data. The model is based on three steps which included:

1. understanding what the initial environmental stimulus was by way of determining the legitimacy of the project to the research topic and investigating its background, set up, success factors and relevant incumbents

2. translating people's cognitive processes in their understanding of their environment, through interviews and using relevant work documents to support the information provided in the interviews

3. understanding and interpreting the specific action taken based on the first two steps using the coding system. The codes themselves are presented in Section 4.9, NVivo in Qualitative Research, to allow for the replication of the coding process used in this study.

The following section will further assist in allowing the replication of data by detailing the specific respondents, i.e. organisations used, the incumbents chosen to be interviewed and the reasons for making the specific decisions about the sample. This will be followed by a detailed explanation of the interviews themselves and how they were held as well as details about the process of analysing the data.

4.4   Method of Data Collection

The Choice of Respondents

The choice of respondents is categorised into three major groups: the first is the choice of organisation, the second is the choice of change project within the organisation and the third is the choice of project Change Managers—whether they are Project Managers or Change Managers. Some groups were chosen based on their similarity in one aspect, i.e. they had to sustain similar criteria to be chosen for this research − for example, all organisations had to be of a certain size, and a difference in another aspect, e.g. the three organisations chosen were from different industries. The following will detail the criteria set for each one of these groups followed by the reasoning behind choosing these criteria, whether for similarity or difference.

Organisation

Three case studies taken from three different organisations were chosen for analysis in this research study. The three case studies are three organisational change projects, with each organisation different from the other in product, purpose and nature.

In order to control as many factors as possible in the chosen projects, and to increase the validity of the findings, all organisations were chosen based on a set of criteria. The criteria which all organisations match are:

- *Organisational size:* All three organisations are large iconic Australian organisations ranging in size from 10,000 to 32,000 employees.
- *Type of organisation:* Organisations vary in product and type and the organisations were chosen based on their match into the criteria of government, private sector and financial sector.

The three organisations from which the organisational change projects have been selected are:

1. a large telecommunications company with 9,000 employees
2. a bank with 12,000 employees (before a merger which grew it to 30,000)
3. a public university with 10,000 employees.

The following table 8 provides information about each of the three organisations, their management structures and the departments that were analysed:

	Telecommunications	Bank	University
Number of people in the organisation	10,000	30,000 (the area was a recent merge into the organisation and was previously 12,000 people)	10,000
Management structure, number of layers in the area of implementation	5 layers of management	5 layers of management	3 layers of management
Number of managers impacted	80 managers	60 managers	40 managers
Department of implementation	IT	Wealth Management and Mature products	Finance, Payroll and HR

Table 8: Description of case study organisations

The organisations were found and agreed to participate in the study through the researcher's personal networks. It is important to note that the interviewees were asked to participate by each Project Sponsor, and were told that the research study investigates both the Project/Program Manager and the Change Manager's roles.

Each organisation had to pass rigorous criteria to fit into the sample for this study and their suitability was assessed in terms of the organisation itself as well as the change project that was researched and the manager of that project. These specific criteria of organisation, project and project management are explained in the following paragraphs.

Organisational Change Projects

To have as much control as possible over the type of change project, its influence and its measurability, the change projects were also chosen based on a set of criteria. These criteria are:

- *Type of change:* All change projects are an implementation of an organisational wide IT system. These are the most common changes found in organisations today.

- *Number of influenced staff:* Each organisational change has been implemented for a minimum of 1000 people and a maximum of 3000 people within the organisation.

- *Project expenditure:* cost for implementing each of these major technological implementations ranges from $5 million up to $20 million.

- The change has already taken place, the project has been completed and the results of the change have been measured or can be estimated. Any other project changes take place as part of post implementation or continuous improvement.

- The change projects have been chosen on the basis that there was successful implementation as perceived by the sponsor.

More information about each organisational change project is provided in the data analysis of this study.

Study Subjects

As discussed in the literature review, this study looks at three organisational change roles seen as responsible for managing organisational change, these are: Project Manager, Program Manager and Change Manager. Interviewees referred

interchangeably to roles as either 'Project Manager' or 'Program Manager'; there was no consistency of terminology distinguishing between the use of Project Manager and Program Manager within case studies. Therefore, to ensure consistency when the role of Program Manager/Project Manager is discussed in the following study, it will be referred to as 'Project Manager'. In all change projects/ case studies the endeavours can be categorized as either projects or programs, depending on which theory is applied and whose perspective is taken.

The study looks at the phenomenon from multiple viewpoints. As explained in the literature review, there is no consistency in the use of Program Management and Project Management and their related roles. Therefore, in this study certain roles were selected for interview in each organisation. These roles are:

1. the leader/s of the change project, whether that is the Project Manager, the Change Manager or both
2. the sponsor of the change project
3. three employees influenced by the organisational change
4. a project team member.

See Figure B for an illustration of organisational interviewees.

The three roles that have not been discussed in detail in the literature review part of this study, but are being either interviewed or discussed are the Project Sponsors, the affected staff and the project champions. The following describes these roles as they are depicted in literature and as they relate to the three case studies being analysed.

Project Sponsor: The Project Sponsor is the individual in charge of initiating the need for the project in the organisation, supplying the project with its resources and taking the greatest risk on the project (Crawford, 2001; Helm and Remington, 2005). Helm and Remington, (2005) analysed the Project Sponsor's role and agreed that while the Project Manager is important to the project's success, this role is equally critical. The Project Sponsors in this study are senior executives within the three organisations.

In the Telecommunications organisation the Sponsor is the IT General Manager, in the Bank the Sponsor is the Wealth Management Executive General Manager and in

the University the Sponsor is the Vice President of organisational support, HR, IT, Marketing and Communications. In all three case studies, the Sponsors oversee the project, without getting involved in the day-to-day management. They ensure the project is on track and provide the required resources to the project. The sponsors are also responsible for clearing any difficult political pathways for the project team. The sponsors' views are important to incorporate in the analysis of the case studies, as they would have a strong view of what it was that both the Project Manager and Change Manager did on the project as well as having a high-level view of the organisational factors inhibiting or accelerating the progress of the project.

Affected staff: Cluwe' and Vermak (2003) assist in explaining the idea of an 'influenced employee'. According to them, these are people who are at the receiving end of the change and would need to perform differently, in one way or another, once the change is introduced. In this study these individuals will be known as 'affected staff'. All affected staff in this study were either team leaders or non managerial staff from the three organisations.

Champions: According to Cunningham (2006), champions offer the highest form of discretionary behaviour which is considered highly effective for dealing with change. Without champions of the change, the likelihood of successful change would diminish (Cunningham, 2006). Given the desirability of championing behaviour for organisations, it is not surprising that part of Change Management practices include the development of champion schemes, which was the case in two of the three case studies being analysed, the university case study and the bank case study. The champions in these two case studies are people who were recruited to the project from parts of the organisation who were affected by the change. They were recruited to become focal points for the project in their areas, and are of relatively the same level within the organisations, i.e. either non-management staff or leaders of customer service teams.

Three case studies were examined in this study. Each case study relates to a particular organisation. Case studies were chosen as having a different role as the leader of the change project. The following is a break down of the specific organisations, and the roles within each organisation which lead the change project:

- In the large bank the Change Manager lead the implementation of the organisational change project. The Change Manager had an IT Project Manager working alongside her; however she was the focal point for the change and the IT Project Manager did not manage the whole Change Project, just the IT component. It is unlikely to find an IT implementation lead solely by a Change Manager. In practice, Change Managers usually deal with the behavioural side of the organisational change projects and are not usually placed in charge of managing the IT component alone. However, in this case, there was no Project Manager responsible for overlooking the whole change, as was the case in the other two case studies.

- In the second organisation, the large Telecommunications organisation, the Project Manager was leading the implementation, with no Change Manager.

- The third organisation, the public university, had both the Change Manager and the Project Manager jointly leading the implementation. Although formally the Change Manager reported to the Project Manager, the relationship was such that the two had very different roles and worked alongside each other and the reporting structure served as a formality.

The reason for selecting cases with both Project and Change Managers managing the change is to try and answer the questions of this study with as many options as possible i.e. how does a Project Manager deal with behavioural change on a change project, compared to how a Change Manager deals with behavioural change on a change project; what were the main concerns on projects with the particular managers. Behavioural change is at the centre of the research topic and the various ways these incumbents deal with behavioural change assists in shedding light on these questions.
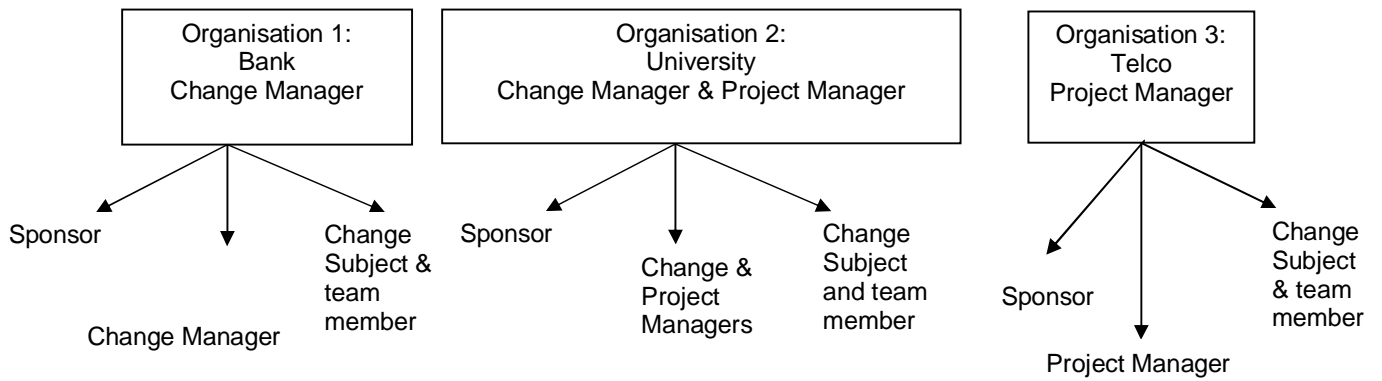
Figure B: Participant structure

The reasons for selecting all other interviewees was to gain various perspectives and viewpoints from the different people involved and influenced by the project on the way the management of the behavioural change on the project took place, relating to the managers chosen to lead the change. Interviewing those staff affected by the project change would shed the most light on how well the behavioural change was dealt with, considering it is their behaviour that ultimately needed to change. Therefore a sample of three influenced staff from each project was taken. The reason for not sampling more than three influenced staff members was to keep balance with the rest of the interviewees and not lose the perspective that they provided. Additionally, at the third interview the questioning reached absorption. One could question an endless amount of influenced staff, however, the scope of this study was limited to three due to the information provided, which was rich and detailed in each interview and the absorption reached at the third affected staff interview.

The number of case studies and interviewees in the sample can be legitimately questioned. However, there are no precise guides to the number of cases that are required as part of a qualitative investigation. The literature recommending the use of case studies rarely specifies how many cases should be used. This decision is left to the researcher (Romano, 1989).

According to McCracken (1998) a sample of 20 interviewees, spread across three case studies is sufficient for a study of this nature. The requirements for obtaining the case studies/ organisational change projects for this study included elements which made it challenging to find additional case studies. These elements included:

- obtaining access and agreement from senior management to confidential and competitive information

- taking approximately two hours from senior managers to discuss this information including a Vice President, an Executive General Manager and a General Manager (all working in large organisations)

- taking time to discuss this with their staff and most importantly having the research controls required in this study.

The option of using more case studies would mean increasing the broadness of this study. This would include questionable feasibility for collecting data, based on the above, as well as significantly greater time spent on translating and analysing the data. Therefore an increased number of case studies would have made this study far less controllable. Essentially it is the quality of data collected which is most important and then the number of case studies or interviewees that were researched. The validity, meaningfulness and insights generated from qualitative inquiry have more to do with the information-richness of the cases selected and the observational/analytical capabilities of the researcher than with sample size.

Summary of Sample: Controls

There are three types of controls in this study:

- *Organisational:* the similar type of size and the varying sectors types of the three organisations.

- *Type of change project:* type of change required to be implemented, stage of project, and project expenditure.

- *Managers of Change Project:* projects being managed by either a Change Manager, a Project Manager or both.

There are two reasons for selecting these criteria. The first is to achieve control of the outputs of this study and to be able to draw conclusions from the comparisons. The control of contextual variables allows the comparison between the projects to be as relevant as possible. This relevancy relates to the ability to draw common findings from goals the projects need to achieve (Silverman 2001). This control allows the comparison of similar worlds and the drawing of conclusions based on common behaviours in those worlds. The second reason is to allow a degree of generalisability

and replicability of the research method, as described in the chapter '*Validity and Reliability − Verification of Data*'.

The second factor controlled is the types of organisations, in particular ensuring they are different from one another in product and type. This ensures that the study is not biased to only one type of organisation. The study could have focused on one type of organisation, for example financial organisations. Had this been the case, the possibility of generalisation would be real for that particular type of organisation. The purpose of this study is to explore factors leading to the requirement for organisational behavioural change on organisational change projects, as well as gain various perspective on three specific roles. The three different organisations were therefore chosen to explore a variety of organisational contextual factors and allow generalisability across change projects rather than for a specific type of organisation.

Finally, controlling the manager of the project change, i.e. whether it is managed by the Project/Program Manager, the Change Manager or both, means that comparisons can be made concerning the operation and effect of the roles − specifically, the way the Project and Change Managers do their jobs and manage change.

One can argue that the difference in types of organisations and differences in the manager of the change raise a question: to which of those differences would the researcher attribute any variations in responses? There is no contradiction in having different organisations and different managers of the project change. Each difference, whether it is an organisational difference or the management of the project change, answers a different set of questions. Differences in organisations look at the organisational culture and the 'factors' which create the need for a behavioural change, as well as the degree of behavioural change. Differences in the management of change focus on questions relating to the way Project/Program Managers and Change Managers perform their roles, the outputs of their roles and how they would address behavioural requirements.

The following section goes into more detail about the interviews themselves, how they were conducted and the questions asked.

4.5   Interviews

In depth interviews were conducted with incumbents in their offices in Sydney, Australia. Interviews were qualitative and semi-structured in nature. Interviews lasted between 40 minutes to two hours, depending on the interviewee's cooperation and way of communicating. Some interviewees were not talkative and did not have much to say about the process of the project. Other interviewees were very detailed and provided great insight into the occurrences and activities of the project. All interviews were tape recorded and the researcher supported the recording by taking full notes throughout the interview. The sponsor of each project provided overall permission for the interviews to be conducted and recorded, signing an organisational consent form. Each individual interviewee signed a personal consent form to allow the interview and the recording of it (Ethics application number: 2005-001A, UTS.) See Appendix F.

Semi-structured interviews, derived from the literature review were developed for the purpose of this study. Four types of interview protocols were developed, and all interviews were similar with slight differences. The four interview protocols developed were for the following groups:

1. An interview protocol for the change project sponsor
2. An interview protocol for the change project change subject
3. An interview protocol for the team member
4. An interview protocol for the Change Manager or Project Manager.

Each interview protocol provided a slightly different viewpoint and the reason for conducting slightly different interviews was to capture the unique viewpoint that each interviewee can provide. For example, the Project and Change Managers as well as the Sponsors were asked to provide more information on the background of the project and project information, beyond the regular interview questions such as the project milestones, the deliverables, project expenditure etc. Another example is that influenced staff were asked how they were influenced by the change and what they were required to do differently. These differences in questions are due to the unique nature of the particular incumbents' point of view on the project.

The following are all questions used to guide interviewees with explanations on why and how the specific questions were chosen, and how they added valuable information to assist in answering the research questions.

Demographic questions to all subjects

- Age
- What is the title of your role in the organisation?
- What is your educational background?
- What are your previous working experiences?

All interviewees were asked to provide the demographic information above to allow analysis of findings relevant to their educational background or work experience. For example, in the interviews with influenced staff this can determine patterns for why there would be differences in their expectations, i.e. if one group has significantly different educational background and work experience than the other. The same idea applies for age and organisational role, and the same reason for asking these questions applies for all other classes of interviewees.

Interview questions

All interviewees were asked some common questions such as 'What did the Project and Change Managers do on the project?' This was useful for seeing all interviewees' points of view on the Project and Change Managers' role and determining to what degree each of them had anything to do with the actual implementation of behavioural change. All interviewees were also asked to explain their role in the organisation during the change. This was to gain an understanding of their relationship with the project.

Two other common questions to all interviewees were to describe the change and what could have been done differently. The description of the change brought up opportunities to reveal the process of implementation and find out who did what and at what points behavioural changes were addressed. Finding out what could have been done differently helped to gain an understanding of any issues that were raised during the project which could have made them feel positively disposed to the implementation. This pointed to where there were gaps in the way the project was

implemented, specifically, what these gaps were and how relevant they are to the particular incumbent managing the behavioural change, whether that is the Change or Project Manager.

Interview guide number one: Project sponsors

1. Was the change managed by a Project Manager, a Change Manager or by both a Project Manager and a Change Manager?
2. What is your role in the organisation?
3. How does your role relate to the Project Manager/ Change Manager?
4. Why were you chosen to be the sponsor?
5. What did you expect to achieve from the change?
6. Why did you choose a Project Manager/ Change Manager/ Project Manager and Change Manager to manage this project?
7. Do you have a position description/ role description/ outline of the tasks that will need to be taken by the manager of this change?
8. Describe what the Project Manager/ Change Manager/ Project Manager and Change Manager do on a daily basis as part of this project?
9. Describe the deliverables that you received from the Project Manager/ Change Manager/ Project Manager and Change Manager? (Supporting documents requested.)
10. How successful was the change?
11. What could have been done differently?

Project Sponsors were asked to explain the reasons for choosing a Project Manager, Change Manager or both to run the project as it was their decision to make and this may provide insight into the nature of the change and its behavioural component. The Project Sponsors were asked to provide input into the organisational background, as they had insight into the 'why' and the 'how' of the project. They were also asked for an in-depth description of their involvement in the project. This provided an understanding of their interests, whether they wanted and understood the requirement for behavioural change and their ability to personally influence the behavioural change.

Interview guide number two: Change subjects/ affected staff

1. What is your role in the organisation?

2. What did you expect to gain from the change?

3. Were your expected gains achieved?

4. How were you affected by the change?

5. What did the Change Manager/ Project Manager (or both) do?

6. Describe the change?

7. What could have been done differently?

The main purpose for developing the interview questions with the change subjects was to reveal what they went through during the change, and how they felt about the way the change was implemented. Specifically, they showed what behaviours the subjects needed to change as a result of the change project and how the Project/Program Manager and Change Manager achieved these changed behaviours.

Interview guide number three: Project team member

1. What is your role in the organisation?

2. Describe what you did on a daily basis as part of this project?

3. Describe your deliverables (supporting documents)?

4. Describe the change?

5. What did the Change Manager/ Project Manager (or both) do?

6. What could have been done differently?

The contribution of project team members was mainly in providing a different perspective on the project and the Project and Change Managers' roles.

Interview guide number four: Project Manager and Change Manager

1. What was the purpose of the project?

2. Describe the major milestones?

3. How long did the project run for?

4. How many people did the project impact?

5. How many people were on the project?

6. What roles did you have on the project?

7. What is your role in the organisation?

8. Why were you chosen to manage the change?
9. How were you appointed to the role?
10. At what point did you assume the role?
11. Do you have a position description/ role description/ outline of the tasks that will need to you undertook?
12. Describe what you did on a daily basis as part of this project?
13. Describe your deliverables (supporting documents)
14. What could have been done differently?

The Project and Change Managers are the focal points of this research. Each interview conducted with these incumbents lasted approximately two hours and included questions about the background of the project. The Project and Change Managers were also asked to describe why they were chosen to manage the changes. They were also asked at what point they became the managers of the organisational change project. These two questions were posed to gain insight into how important it was for the sponsor that these incumbents were fully involved with the project outcome. All other questions asked of these two roles were common across the other interviews. These questions provided insight into the work they had performed to implement the behavioural change, what they did as part of their role and to what degree behavioural change was required of change subjects.

In this study, open ended questions which generated conversations were asked. These were essential in making distinctions and comparisons and for thinking about possible concepts, and their relationships. The original generative question is based on the author's insights that sparked interest in an aspect of the particular phenomenon discussed. The challenge of this researcher was to study the phenomenon in detail and develop questioning that would lead to a discovery in relation to the particular roles. Questions were therefore developed to assist in the unravelling of the roles as the researcher categorises and codifies them (Strauss 1989, Strauss and Corbin, 1990).

The researcher spent time with each of the participants and interviewed them based on the appropriate interview protocol until the questions had all been answered. The researcher taped each conversation as well as taking notes during the interview.

Once the interviews were complete, if there were outstanding items within the interviews or where there were inconsistencies between responses, there was a request to see documents that provide proof one way or the other and solve the discrepancy, for example if the change subject says that there was no project plan and the Change Manager says that there was.

Some key elements in interviewing were required to achieve responses that are as objective as possible. The following are some of the general rules of thumb that were followed with each of the interviews (Denzin and Lincoln, 1998):

- An examination of anticipated responses was conducted for each interview using a pilot sample to ensure the questions could be answered adequately and that no other questions were required.
- The explanations to interviewees about the questions they were be asked were short and predetermined and were the same for each interview.
- The sequence of questions was always the same and so was the wording, for similar interviews.
- No more than one person was interviewed at a time.
- Questions were not explained, only repeated.
- No answers were suggested to interviewees nor were opinions on answers provided.
- The interviewer was aware of the respondent's professional and educational background and gender, and recorded them.
- The interviewer attempted to prevent the interviewee from providing socially desirable responses.
- The interviewer attempted to be as modest and empathetic as possible in order to build rapport, and in order to truly learn about the topic that was being investigated.
- The interviewer treated all interviewees as equals, regardless of their title, age, gender or educational background.

4.6   Ethics

Because the objects of inquiry in interviewing are human beings, extreme care was taken to avoid any harm to them. Ethical concerns revolved around the following topics (Denzin and Lincoln, 1998):

- A consent form was signed by all interviewees prior to the interview after they had been carefully informed about the research.
- Informed consent to have the interview recorded on tape.
- Right to privacy which protects the identity of the interviewers.
- Protection from harm: protecting interviewees from any physical, emotional or any other kind of harm.
- The interviewer did not have any personal relationship with the any of the people that were interviewed.

Additionally, all interviews gained meaningful insights into people's world, rather than treating interviewees as subjects or numbers, which need to be manipulated. Methods did not, therefore, dictate the interview's image of the human beings being interviewed. Common sense and moral responsibility played a strong part in obtaining responses and understanding interviewers' points of view. (Refer to Ethics application number: 2005-001A, UTS – Appendix F).

4.7   Validity and Reliability: Verification of Data

The validity and reliability of qualitative study can generate significant discussion. In qualitative studies, terms such as 'validity' and 'reliability' are not as easily proven as in statistical research design. This is mainly because the purpose of this type of study is rooted in the researcher's subjective interpretation of investigation of human subjects. This does not mean the analysis is necessarily biased from their subjective opinions because the researchers use systematic analytical approaches to induce the theories. However, as research methodologies still rely heavily on requiring validity and reliability, it is important to address how to increase the objectiveness of qualitative research from its subjectivity.

Internal Validity

Merriam (1998) defined 'internal validity' as dealing with the question of how one's finding matches reality. It is the question about whether what is studied and found is what is really happening and whether what investigators are observing is what they think they are measuring. Merriam (1998) suggested six strategies to strengthen internal validity on qualitative research, of which the following four were used in this study:

- *Triangulation:* Multiple investigators, multiple sources of data or multiple methods to confirm the emerging findings. This study presents multiple viewpoints on the specific phenomenon discussed. The study also provides multiple documentation from each case study to support the evidence found in the various points of view.

- *Member checks:* Subjects or respondents were asked whether the results are plausible, and were sent the findings to confirm their understanding and perceptions. All Project and/or Change Managers were asked to review their interviews along with the project background to confirm the findings. This was done before the interviews with all other project staff.

- *Participatory modes of research:* Some subjects or respondents were asked to input comments on research from conceptualising the study to writing up the findings. The Project and/or Change Managers were involved in the description of the case studies.

- *Researchers' biases:* Researchers assumptions, theoretical orientation and biases were clearly addressed. This was done in the following *'Reliability'* section where the researchers' bias was clearly presented. In the literature review, there was an attempt to balance the view of the two disciplines. In the interviews, all interviewees were treated similarly and responses were recorded paying close attention to potential biases and diminishing those as much as possible. For example, when interviewees discussed an interesting point, the researcher ensured that follow up questions were asked in a neutral way, which did not support or encourage a particular side of the argument being presented in this study.

Reliability

Reliability considers the extent of the replicability of research findings. This has been problematic because no one can expect to replicate human behaviour exactly. Additionally, projects are unique in their properties, management, organisational nature etc. It is argued that because there may be many interpretations of what is observed in qualitative research, there is no need to establish a traditional sense of reliability (Merriam, 1988). Therefore, it is wiser to use terms such as 'dependability' or 'consistency' of the results from the data rather than 'reliability' (Lincoln and Guba, 1985).

It is also critical to state that the researcher is originally from the field of behavioural science, has a Masters degree in Organisational Psychology, worked in the field of organisational development and has been a Change Manager for over 8 years and therefore has a bias towards the Change Management field. However, to enable the balance between the two disciplines and to avoid researcher bias, this research has been conducted in the Project Management department of the University of Technology, Sydney, and subsequently Bond University, Australia and was supervised by a Professor of Project Management, who maintained the integrity and balance of the study. The researcher herself is aware of her bias and aimed to minimize that as much as possible. The research attempts to provide a balanced viewpoint of the two disciplines and to define the interactions between the two.

Three techniques to ensure that the results of the findings are dependable and consistent were used in this study (Merriam, 1988):

- *The investigator's position:* There are several areas for which the investigator should explain the assumptions and theories that were developed, these are − his or her position towards the groups being studied, the basis for selecting informants, and a description of them and the social context from which data were collected (Goetz and LeCompte, 1984). All these are addressed in the procedural part of this study.

- *Audit trail:* To allow an audit trail, the investigator should indicate the following fields − how data was collected, how categories were derived and how decisions were made throughout the inquiry. Again, this is explained in the procedural part of this study.

All subjects and analysis methods in this study are discussed in detail and it is the aim of this researcher that no piece of information is missed.

External Validity

Merriam (1998) defined external validity as concerned with the extent to which findings of one study can be applied to other situations. External validity (or generalisation) in qualitative case study research is always questioned based upon its reliance on data from single case studies. Traditionally researchers hold the view that:

1. It is impossible to generalise from a single case study, therefore it is a limitation of the study or method.

2. External validity can be strengthened by using standard sampling procedures.

In this study, the design is based on grounded theory and coding which is in contrast to the notion of external validity as there have been no sampling procedures applied or measured. However, there is strong support for using grounded theory as a qualitative approach and for its ability to generate generalisabililty (Merriam, 1988; Strauss and Corbin, 1990; Partington, 2000).

Merriam (1998) discussed four different views where 'generalisation' is reframed to reflect the assumptions underlying qualitative studies:

- *Working hypothesis* (Cronbach, 1975): This view proposes working hypotheses to substitute the traditional generalisations in social science research. He argued that we should reverse our priorities instead of making generalisation the ruling consideration in our research. His first task is to describe and interpret the effect anew in each locale as the researcher goes from situation to situation. Perhaps taking into account factors unique to that locale or series of events, when we give proper weight to local conditions, any generalisation becomes a working hypothesis and not a conclusion.

- *Not for abstract universals but for concrete universals* (Erickson, 1986): Erickson suggested that the goal of interpretive research is not knowledge generalisation. He stated that the search is not for abstract universals arrived at by statistical generalisations from a sample to a population but for concrete universals arrived at by studying a specific case in great detail and then comparing it with other cases studied in equal detail.

- *Naturalistic generalisation* (Stake, 1978): to explain ones experience, people seek for patterns around them, to enable them to find similarities in the new context and by sensing the natural co-variations of happenings.

- *Reader or user generalisation* (Walker, 1980; Wilson, 1979): Wilson discussed that the results of a study are applicable to other situations, as determined by the people in those situations. Walker stated 'It is the reader who has to ask what is there in this study that I can apply to my own situation and what clearly does not

apply?' Wilson mentions that this situation is because generalisability is ultimately related to what the reader is trying to learn from the case study.

4.8 Summary of Validity and Reliability

The three case studies observed and researched have been unique in their roll out and implementations, i.e. these particular organisational change projects are unlikely to ever take place again in the same format. These change projects have been studied with detailed investigation because of the importance of reducing confusion, ambiguity and uncertainty across these two very distinct but similar fields—i.e. Project and Change Management. This is especially necessary considering the growing use of change management strategies to implement IT systems through organisational change projects.

Qualitative research methodologies provide very rich description of a phenomenon. The researcher in this study has used grounded theory to answer the fundamental question of how these roles − Program/Project Manager and Change Manager − are applied in practice while building working theories and describing a process for the involvement of these roles in managing change.

The following section further details the process of grounded theory as it was applied in the coding of the data using an electronic coding system.

4.9 NVivo in Qualitative Research

As this research focuses on IT implementation, it seems only fitting that technology be employed in this research. A software package, QSR NVivo was utilized in conducting this qualitative study. Qualitative analysis software has become accepted in many of the social science disciplines (Fielding and Lee, 1991). It is the intent of this researcher that this study serves as an additional positive example of the possibilities that qualitative computing has to offer. Screen shots from the work undertaken with NVivo can be found in Appendix E of this study. The following is an overview of NVivo and its processes and capabilities.

NVivo provides a range of tools for handling rich data records and information about them, for browsing and enriching text, coding it visually by creating a visual model or

by categorising, annotating and gaining accessed data records accurately and swiftly. NVivo also has tools for recording and linking ideas in many ways, and for searching and exploring patterns of data and ideas. It offers many ways of connecting the parts of a project, integrating reflection and recorded data. The reason for choosing the NVivo software was that it helps to manage and synthesise ideas and offers a range of tools for pursuing new understandings and theories about the data and for constructing and testing answers to research questions.

In using NVivo, the process undertaken by this researcher was first to set up a project in the system, called 'Who is the Change Manager'. Four parts of the NVivo systems were used. The following paragraph describes each of the four parts and how they were used.

The first part of the system that was used is a repository of documents through which the researcher imported documents into NVivo. These documents include all interview data, which were split into the three organisations and then further split into each respondents interview protocol. Additional documents loaded onto this repository were all the accumulated project documents, including all project plans, the job descriptions of the Project Managers and the Change Managers, communication plans (if available), project briefs and business cases.

The second part of the system used is classified in NVivo as 'nodes'. This is where the coding and categorising work takes place and where NVivo saves the categories and their codes. Nodes in NVivo represent any category, concept, person, abstract idea or any other element that may matter in the project. There are two types of nodes: the first is free nodes and the second is tree nodes. The following describes the two processes of coding for free nodes and tree nodes.

Free node is an area in the NVivo system which allows coding and categorising similar to brain storming. Codes are given to words and sentences in an unorganised way; themes emerging from the data are being coded as the data is read and analysed. Once that process is complete, similar codes are bunched together and turned into categories. In this study the codes were first identified by going over each of the interview protocols and highlighting interesting, repetitive or unusual/ unexpected

themes. Each and every sentence in the interview data was coded. Some sentences were coded with more than one code. The interviews were read and analysed several times and the codes were changed and re-adjusted until finally no more changes seemed necessary. This repetition was because in the first reading of the data the codes were being developed and data that was read initially would not have been coded with codes that emerged at the end of the reading. Finally, when all the codes were determined, these were bunched into categories of similar themes. This whole process was done in the free nodes area of the NVivo system.

The next step in this process was organising all the categories in a way that provided insight about the data. This is similar to a sense-making process. This process took place in the tree nodes area of the NVivo system. To begin with, all the categories were split into two groups. Group A consisted of all categories of codes which simply answered the interview questions. Group B was all other categories of codes. Group B was then further split into general themes found and into the concepts that have already been developed in the theoretical model for this study (see the introduction section, '*Figure A: Literature review structure*' for a graphical description of the way the theory was traced). The following are the elements which make up the theoretical model of this study and examples of some of the categories of codes that were placed in them:

- *Behavioural and cultural change:* Examples for categories of codes here are 'nature of the change', 'stress', 'communication', 'stakeholder expectations' etc.
- *Change management codes:* Categories of codes here are change management specific such as 'communication', 'training', 'selling the change', 'engagement' etc.
- *Change program and project manager*: Anything to do with the two disciplines themselves such as 'PM and CM role', 'project issues', 'change management' etc.
- *Factors:* What is the requirement for organisational change experts? Examples are 'nature of change', 'nature of organisation', 'culture', 'resistance', 'organisation structure' etc.
- *Organisational background*: Anything that describes the organisation, and does not fit under any other node, such as 'customers', 'ongoing development', 'number of staff influenced' etc.

- *Project and Program management*: Anything to do specifically with this discipline, for example: 'project expenditure', 'roll out schedule', 'IT issues', 'project issues' etc.

After inserting all the categories of codes, data was further analysed so that relevant degree of attention was given to themes, i.e. the number of codes in each category was counted as well as the number of categories within each of the theoretical model elements (listed above) and within any emergent theme. If only one or very few codes and categories were found, it meant that the theme was trivial. If there were too many references, sub themes were developed from these nodes or shades of the overall meaning.

The third NVivo system used for the purpose of this study was the links and annotations. For each of the interviews, the researcher identified meaningful observations that would shed light on the theoretical research questions. The researchers' observations were written along with the statements in the interviews which generated the observation. Also highlighted were the person or people who provided the input for the observation.

The fourth NVivo system for data analysis is queries. NVivo allows the running of various types of queries on the data available, for example, word frequency queries, queries of sentences and sentence structure etc. This was used for observations made so that numerical support is provided for observations wherever possible.

Throughout the process of coding, categorisation, observing relationships and conditionalities being verified with actual cases in the data, a more accurate explanation of the phenomenon under study began to formulate. The software aided in the referencing and cross referencing of data and concepts, which allowed for a richer understanding and interpretation of the data based on patterns that crystallised.

Finally, after coding in free nodes and tree nodes and identifying observations all external documents provided by the interviewees were used to support or modify any observations made and add any additional observations relevant to the study questions.

5   Data Analysis and Emergent Themes

Three organisational change projects were studied in this research project. The organisational change projects are referred to as case studies. This section is an analysis of the themes that emerged from the 20 in-depth interviews conducted as part of the three case studies. First, a background for each case study is provided. The second part includes discussion of the findings from the interviews and presents suggestions and possible reasons for the findings as well as quotes from the interviews to support the direction of the findings. To assist in reading this section, the following is a flow chart that describes the layout of this section:
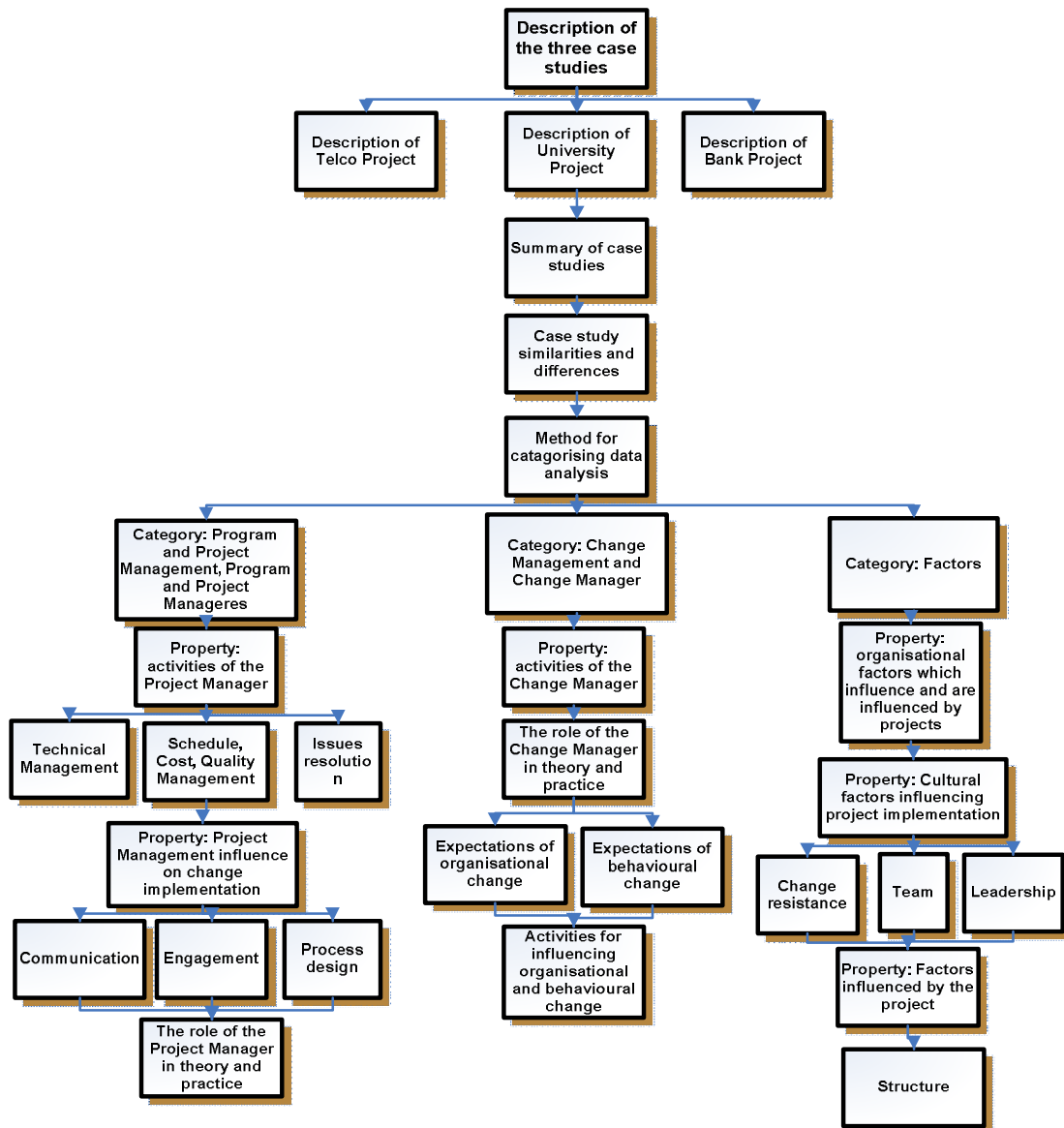
Figure C: Structure of Data Analysis and Emergent Themes section

5.1   Change Project Background

This section describes the three case studies and their background. Each case study is described based on their project background, project objectives and project benefits as well as what staff in the organisation needed to do differently, i.e. what was the change to their daily activity, and the number of influenced staff. These project elements provide sufficient background to enable an understanding of the project and the amount of change that affected staff experienced. This information is summarised both from the interviews as well as the documentation provided by the interviewees.

Initially each case study is described separately and then the three case studies are discussed together, comparing their similarities and differences. In order to maintain the confidentiality that was agreed upon when these interviews were conducted, and consent forms signed, the interviewees, the organisations and the vendors' names are not be disclosed. Instead each interviewee is named according to their role on the project, e.g. Project Sponsor, affected staff etc. Each organisation is named according to their industry, i.e. the large telecommunication organisation is named 'Telco', the large bank is named 'Bank' and the public university is named 'University'. The vendors is named 'vendor' for each case study.

Large Telco

The focus of the Telco project was to migrate five datacentres, which were used for the Telco's IT data storage, into two datacentres. Additionally, the project aimed to decrease the involvement of the current vendor contract with the organisation. The vendor manages and owns two of these datacentres and the Telco wanted to decrease this ownership, whilst maintaining some of this vendor's management of the datacentre tapes. As a result of this change there were significant changes to roles, responsibilities, processes and policies.

Project background

The Telco's IT was managed in five data centre locations across Sydney. These data centres have evolved over time to accommodate IT systems growth and include two data centres which are owned by the vendor.

The Telco has taken the opportunity to evaluate and recommend consolidation of the number of data centres from five to two, together with implementing a hybrid sourcing model (both in-sourced and outsourced) to operate the data centres. This was done in response to the vendor agreement being due for renewal in June 2005, and faced with a critical capacity issue with the existing data centres. Facilities were also required to be re-evaluated and revamp to meet the coming business growth.

The activities which were planned to be undertaken included:
- Vacating the two vendor managed datacentres by December 2005.
- Consolidating several servers, storages and backup devices.
- Operating the upgraded data centres under an in-source/outsource hybrid sourcing model with the vendor.

Project objectives

The objectives of the Telco project were:
- To exit from vendor owned datacentres and bring the ownership of the data centres internally.
- To reduce operational costs with the new sourcing model.
- To source skilled resources who can manage the new data centres.
- To engage the vendor to manage the tape backup operations at the Telco datacentres.
- To transition to the future mode of operation.

Benefits

The following are the organisational benefits which were expected from the delivery of this project:
- A reduction in the ongoing operational costs.
- Achievement of in-sourced strategic technical services model.
- A provision of the ability to perform additional operational services.
- Consolidation of existing problem management systems.
- Reduction of handoffs and escalations.
- Reduction of cost and improved response time from the project activities.
- Movement to a strategic direction of shared infrastructure services for backup and storage.

Change required to staff behaviour

The main changes to the way staff would do their work in the Telco would be in using a different platform to store and retrieve database information. There are also key roles that were required to change and take on new tasks such as:

- New roles and responsibilities developed for Unix System Administrators and Database Administrators.

- The projects used to be both technical-application and infrastructure base. The change would dictate a split between the technical-application and the infrastructure work with a Project Manager for infrastructure and one for application. The functions would split between two positions.

- Before the change the IT Project Managers would supervise the project and receive feedback from the vendor on the work. Today the Project Managers manage the work itself − both the system administration work and the database work.

- In the past the vendor provided the backups for servers, tapes and computer room operations. After the change, these roles would split into three groups that do this work − the initial vendor in addition to a different vendor who does the data centre operations with the server administrators managing the backup.

- Database administrators and designers would be centralised under one group.

- Procurement of equipment would move to be centralised under one group.

Number of staff directly influenced: 500.

Large Bank

Project background

An overall program has been launched in a certain business unit which looks after the wealth management section of the Bank. For the purpose of this study, this area is called Area X. The program that was launched deals with quality, efficiency and service transformation. This program aims to improve customer service, support the retention activities, reduce business and compliance risk, consolidate systems and processes and improve efficiency and productivity.

This program initially stemmed from a review of the two workflow systems that were being used in two different locations, both of which are part of Area X. Area X is working in an environment where cost containment is a priority, whilst maintaining or enhancing customer service, to defend approximately $25bn with associate revenue flows. The recommendations of a review, which took place prior to the initiation of the program, were to migrate the users from Area X to an upgraded version of the vendor workflow system for the two locations, to facilitate strategic alignment between the two locations and to consolidate the number of workflow systems being used into one. The workflow replacement project forms part of the overall migration project. Additionally, a number of opportunities to improve productivity and customer services were identified. The business changes associated with the replacement of the workflow systems are the primary focus of the project.

Project objectives

The following are the business objectives for the workflow replacement project:

- Prepare the Administrative processing environment for the implementation of the upgraded workflow system.
- With Vendor assistance, consolidate the number of workflow systems in business Area X.
- Provide an Imaging and Workflow Service which is compliant, at both the hardware and software level, with the standard operating environment within Area X.
- Cessation of Area X's reliance on proprietary systems.
- Provide an image storage structure compliant to the Bank standard.
- Network Security to comply with the Bank standard.

Benefits

- Improve customer service.
- Improve productivity in the administration processing areas, thereby reducing the high cost of processing.
- Provide Area X with the appropriate management information system to improve the effective running of the business.
- Reduce ongoing workflow support and maintenance cost.
- Ensure that the workflow system meets compliance requirements.

- Provide an opportunity for broader reporting.
- Allow process improvements.

Change required to staff behaviour

- *System:* Main system changes included a migration from one system to another, and a change in the system usability. The new system was a move to a different generation of usage as well as an improved look and feel and involved moving from a non-Graphical User interface (GUI) to a GUI version. All affected staff needed to learn how to use the new system.

- *Business rules:* In the past, the priority for a task in the administration team was the item that was last received. The change that was introduced was a move from latest item to a priority of oldest item. This meant that people had to look at their work differently. Key Performance Indicator (KPI) number initially dropped because people were working much slower to ensure all the delayed work was picked up rather than all new tasks coming in. Staff had never had an information system to rely on and to run the business, and they could now easily manage information.

- *Cultural change:* There was a cultural change for the team in Area X. The cultural change was a move to more of a customer-focused culture. The new KPIs for turn around times which customer service staff needed to achieve were supportive of a greater customer focus. In the past, once a task was placed in the customer service queue, the Service Level Agreement (SLA) clock was set to zero, i.e. there was no rush for the customer service staff to deal with the task and they had a couple of days to achieve the results of the task. The change to KPIs was that the SLA clock stops when an item is diarised, i.e. placed in the diary to be dealt with on another day, which means that admin staff must deal with the task straight away otherwise their KPIs drop because the clock does not give them these two extra days to complete the task.

Number of staff influenced: 700

Public University

Project background

The University determined a need to replace their current primary Finance and Human Resources Applications. These applications had been in place at the University for approximately ten years.

Some of the key drivers for the replacement of the existing applications were:

- Implementation of Finance Systems that support accrual accounting.

- Implementation of Integrated Finance and Human Resource Applications from a single supplier.

- Taking advantage of new technologies such as Self Service and Workflow for deployment of select Procurement and Human Resources functions and approvals.

The Finance and Human Resource Systems Replacement Program was initiated by the University to select and implement new Finance, Procurement and Human Resources applications.

A Vendor was selected as preferred supplier by the University in 2002. Following this, Vendor consulting undertook an Implementation Planning Study (IPS) jointly with University.

Project objectives

The Human Resources System replacement Program had the following objectives:

- Provide a solution that supports the University's strategic objectives and mission.
- Provide new Finance and Human Resource systems that are flexible enough to meet the University's current and future requirements.
- Provide an integrated and seamless solution to the Finance and Human Resources system.
- Initiate and encourage a self-service focus on systems approach at the University (i.e. staff can access their own information online).
- Centralise the storage of information so that a common set of information is used.
- Provide access to current, correct and meaningful information at the fingertips of the University's managers.
- Provide the University with full monthly accrual accounting capability.
- Capture data at the point of creation.

Benefits

The financials and procurement business processes were expected to deliver significant benefit to the University over their existing applications. Some of these are:

- Integration of Purchasing and Finance functions (all purchasing processes undertaken in vendor purchasing).

- Elimination of duplication of functions and associated processing errors.

- Approval at request to purchase (via online requisition) rather than after the purchase.

- Facilitation of matching of Purchase Order, Receipt and Invoice.

- Reduced Invoice volume due to Purchase Order consolidation.

- Eliminate delays in recording GST liability.

- Improve foreign currency processing.

- Online employee expense entry and approval, credit card reconciliation, handling of advance payments.

- Fixed assets available online (rather than spreadsheet), and integrated with General Ledger and Projects.

- Handling of leased assets and expensed assets.

- Multiple segmented account definition.

- Journal approvals.

- Enhanced reporting.

- Less paper and more automated processing in all processes.

The primary benefits for the 'People to Paycheck' process (i.e. staff being able to access their data online) are self-service functions, e.g. for leave applications, payslips, incident reporting, recruitment.

Change required to staff behaviour

- *System:* All impacted staff had to learn a new system; the old one had been in place for 9−10 years so people were very used to it. Significant learning was required around new system navigation.

- *Business processes:* There were significant changes in terms of the work flow of the information, chart of accounts. Some online processes were required − credit card reconciliation was a big part of the change. For the end users, changes were around I-procurement and I-expenses and reporting.

Specific process changes included:

- *Reporting:* The Accounting to Financial Reports process impacted the Accounts Receivable and Invoicing processes.

- *The Procure to Pay process:* Significant organisational impact in terms of process change and user impact; the Procure to Pay process impacts a large number of users.

- *The People to Paycheck process:* This process also has significant impacts. It now deploys a number of new manual processes for employees and managers through self-service.

Number of staff influenced: Approximately 400

Summary of Case Studies

Table 9 represents the main characteristics of the three projects as described above.

	Large Telco	Large Bank	Public University
Manager/s of the Project Change	Project (Program) Manager	Change Manager	Project (Program) Manager and Change Manager
Main objectives	Consolidation of data centres from five to two and in-sourcing the management of the data centres. Decrease the contract with the vendor and bring the current outsourced skills internally.	Upgrade and consolidation of two workflow systems into one. Implementation of the new workflow system to two of the Banks areas.	Implementation of a new financial system which consolidates all HR, Finance and Payroll transactions. System allows accrual accounting and integration of the Finance and Human Resources applications. Provide new finance systems that are flexible. Initiate a self service focus for University system users.
Expected benefits	Reduction of cost. In-source strategic operational and technical services	Improved customer service, improved productivity and reduction of maintenance cost.	Reduction of time and effort involved in processing financial and payroll information.
Behavioural and organisational change	Changes to staff roles, some additional roles brought in house and other roles changed. Use of new technical applications Added responsibility to Project Managers, procurement group and some technical roles.	Change to the system for both Bank areas. Change to business rules which impact a change to customer service. Changes to the performance indicators for staff.	Change of operating system for all Financial and Human Resources staff. Including fundamental change to the way information is managed and understood.
Affected staff	500 staff directly affected	700 staff directly affected	400 staff directly affected

Table 9: Main characteristics of the case study projects

Similarities and Differences between the Case Studies

A discussion about the similarities and differences between the case studies is required. This is to emphasise the reasons behind choosing these particular case

studies and to demonstrate where comparisons are possible and where they are not. It is also important to analyse the three case studies overall and suggest some constants that allows a following discussion when analysing the codes and discussing the observations.

Similarities

There are many intentional similarities between the case studies which are consistent with the rationale for selection. Initially there were the similarities that helped in deciding to study these case studies, i.e. three large programs affecting the work done in the organisation, in three large organisations. Beyond these similarities, there were some emergent similarities as the case studies were investigated. The following discussion details these similarities and explains the reasoning behind concluding that a particular characteristic of the case studies is similar. These similarities include:

- The three case studies were organisational change projects; all three studies were managed as projects and implemented changes into the organisation. These changes influenced what people do on their jobs, i.e. the way they perform their role.

- The Project Sponsors were the managers responsible for the areas in which the implementations took place.

- All three studies included a degree of behavioural change, meaning impacted/ affected staff had to change their behaviour according to the new way of working which was dictated by the project.

- In all three case studies the implementation indirectly impacted all staff in the organisation in one way or another; however, only a certain business unit was impacted in their requirement to perform differently and change the way they performed their daily job.

- All case studies included an IT implementation that was driven by an internal project team and was partially influenced by an external vendor. All case studies were managed by either a Project Manager or a Change Manager. The external influence of the vendor either provided the IT solution or, in the Telco case, was part of a renegotiation of terms and conditions to eventually decrease their involvement in the organisation. In all three cases, influenced staff raised complaints against the effectiveness and usefulness of the vendor in properly supporting the organisational change project.

- In all three case studies, the project started off with a pilot which tested the organisation's ability to handle the particular type of change. In all three cases there was significant project work still left after the project completed its implementation and this work turned into 'business as usual' and ongoing development.

- All three cases had very similar purposes and expected similar benefits. All three were concerned with consolidation of IT systems and all three saw the consolidation of their IT system as improving efficiency for the organisation.

- All three projects expected to reduce reliance on external vendors. The Bank, was trying to rely on fewer vendors; the large Telco wanted to decrease the level of involvement the vendor had in the business and bring the vendor capability internally; and finally, the University wanted to decrease the reliance it had on their vendor because of the aging system it had been using.

- All three case studies were expecting to achieve financial benefits as a result of the implementation. The University did not have a savings amount agreed upon; however they were interested in a benefit which included mainly using fewer resources to handle more transactions, which was expected to translate into a financial benefit.

Differences

There are also many differences between the three case studies. There are some obvious differences or differences that were already discussed in the Methodology section of this study. The obvious differences are that the organisations are different, the people perform different roles, the IT systems are different etc. These obvious differences are not discussed further here. The only differences that are mentioned are those that have implications for interpretation of the data gathered. Some of these differences include:

- The IT system implementation in the large Telco was different from the two other IT system implementations. The purpose of the IT implementation in the large Telco was to bring internally a capability that was being managed by an external vendor, i.e. in-source the Telco's datacentres, which were outsourced to the vendor. The two other projects, University and Bank, were concerned with implementing a new system to a group of users and consolidating several systems into one. In general the difference between the Telco and the two others,

University and Bank, was that the Telco was changing IT hardware and the Bank and the University were changing IT software.

- In both the Bank and the University there was an IT Project Manager assigned to deal specifically with the IT component in addition to the Project/Program Manager. In the Bank this person was part of the implementation and management team of the project and reported to the Change Manager. In the University project, this person was assigned to the project from the vendor and was not part of the project team. In the large Telco, as this is an organisation with mainly IT trained individuals, and as the implementation was in the IT department, there was no requirement for a dedicated IT Project Manager and most team members were IT experts.

- Although it was stated that all projects had issues with their vendor management, it is important to state that only in the Telco case study did all interviewees admit to having major issues with the vendor. A possible explanation for this is that the Telco was aiming at reducing the vendor's contract with the Telco, thus the vendor did not cooperate in the roll-out of the project and indeed made the project more difficult to implement.

- In the Bank, the manager of the change project was a Change Manager. This Change Manager was contracted to the Bank from a consulting company, i.e. all other managers were internal to the organisation, whereas the manager of the change in the Bank was under a contract through a consulting company.

- The Change Manager for the University had to stop her work towards the end of the project as she left for maternity leave. There was another Change Manager who completed the Change Management job on the project. This second Change Manager was not interviewed as the Project Manager did not attribute any of the Change Management progress to her and she was not available for interviewing.

- Additionally, the University Project Manager was not the Project Manager from the first day of the project. She was involved in the project in a different capacity and only assumed the role two months after the project had begun. This was because the initial Project Manager had moved on.

Table 10 summarises the similarities and the differences between the projects as presented above.

	Large Telco	Large Bank	Public University
Similarities − the characteristics of the three projects which are similar	Organisational change projects, implementing internal change, influencing the way people do their jobs.		
	All Project Sponsors were responsible for the area of implementation.		
	A degree of behavioural change needed in all projects.		
	Implementation of change only affected a specific business unit directly, and all other organisational staff indirectly.		
	IT implementation managed internally, and influenced by an external vendor. In all three cases the vendors' usefulness in achieving the change was questioned.		
	All projects began with a pilot of the implementation.		
	All cases seem to have had similar purposes and expected similar benefits.		
Differences	**Large Telco**	**Large Bank**	**Public University**
IT implementation type	Implementation of hardware.	Implementation of software.	Implementation of software.
Engagement of IT Project Manager	No dedicated IT Project Manager.	Dedicated internal IT Project Manager in addition to the Project/ Program Manager.	Dedicated internal IT Project Manager in addition to the Project/ Program Manager.
Level of dissatisfaction from vendor performance	Greatest amount of vendor issues because of the requirement for vendor to decrease contract terms.	Less vendor issues.	Less vendor issues.
Origination of Project/Change Manager	Internally	In sourced from a consulting company.	Internally
Timing Project/Change Manager assumed/completed the role on the project	From start to end of project.	From start to end of project.	Project Manager: assumed the Project Management role a couple of months into the project. Change Manager: Finished a couple of months before the end of the project.

Table 10: Similarities and differences of case study projects

These differences and similarities have been discussed here to allow a more flowing discussion of the findings. There are more differences and similarities which have not been mentioned at this point. This is in some cases because they are too detailed to discuss at this point and it is more sensible to discuss them whilst explaining the finding; or they can be seen as an interpretation of the case studies rather than a statement of factual differences or similarities.

The data analysis describes the results of the study research in detail. The following section describes how the data analysis is interpreted and sectioned.

5.2   Data Analysis Categorisation

The following analysis is split into three: categories, properties and dimensions (Behairy, 2003).

The Categories: These are the 'tree nodes' discussed in the methodology section of this study under the heading 'NVivo in qualitative research' Section 4.9. They are based on the literature review structure found in the literature review figure A and described throughout the literature review. The categories allow a structured way of analysing the case study data based on the existing theory. The categories include all the observations made in the case study and are further split into properties and dimensions.

The Properties: These are subcategories within the theoretical categories. They help focus the discussion and allow for the shades of meaning in the primary categories.

The Dimensions These are the actual codes or observations. They are the actual themes found and being discussed.

5.3   Category: Project and Program Management, Project and Program Manager

This part of the analysis discusses the discipline of Program Management and Project Management as well as the role of the Program and Project Managers in practice. The discussion relates to the theoretical discussion regarding Project and Program Management in the Literature Review of this study. Specifically, this section

discusses how Project and Program Management and their respective roles relate to organisational change and how the two disciplines and roles can be seen as contributing to the achievement of organisational change.

There were two major themes emerging from the initial analysis of the data which are important to clarify up front. The first is the difficulty in separating the discipline from the roles in the information given throughout the interviews. That is, the Program and Project Management discipline was not seen as separate from the Program and Project Manager's role. Consequently, although this is separated in the literature review, the two are described in data analysis as one. The discipline (Project/Program/Change Management) and the role (Project/Program/Change Managers) do not have separate identities and are not mutually exclusive in any way that was apparent in the case studies.

The second emerging theme relates to the way Project and Program Management and Managers are defined in practice. All three organisations used the words 'project' and 'program' interchangeably. The use of the word 'project' during all interviews was greater than the use of the word 'program', although according to the sponsors, all three activities were programs. No pattern was found for when a particular interviewee used the word 'project' or 'program'. Across all three organisations most interviewees used the words 'program' and 'project' interchangeably in their interview to describe the same activity. When analysing the formal documents for all three case studies, i.e. project plans, business cases etc., there was greater consistency and differentiation in the use of the terms; however, both words were still often used to describe the same activity.

To provide numeric support for this, throughout the interviews the words 'project/s' were used overall 250 times whereas the words 'program/s' were used overall 14 times. In the external documents, specifically the Project Plans, which were provided by interviewees as support for the interviews, the words 'project/s' were used overall 700 times and the words 'program/s' were used overall 460 times. It would appear that regardless of the activity, it is easier or more comfortable for these interviewees to use the term 'project' than 'program'.

There is an additional possible explanation, which is the one found in the literature review in this study which states that the phenomenon known as Program Management is complex and diverse and is not merely a grouping of projects (Partington, 1996; Pellegrinelli, 1997; Partington, 2000; Partington, Pellegrinelli, and Young, 2004; Pellegrinelli, 2002; Pellegrinelli, Partington and Young, 2003; Pellegrinelli and Partington 2006; Pellegrinelli, Partington, Hemingway, Mohdzain, Shah and Stenning, 2007). This proposition may provide support to suggest that some individuals, when using the term 'program management' are unsure whether they are using it correctly. It may also be the case that certain organisations are simply used to the term 'project' and therefore do not tend to use the term 'program' as often, regardless of the nature and the definition of the activity.

The above suggests that it is not practical to distinguish between Program and Project Management for the purpose of this thesis. The distinction is not a primary purpose of this study; however it is considered relevant to discuss how the two influence organisational changes. It has been established in the Literature Review part of this study that both Project Management and Program Management see themselves as supporting or influencing organisational change, with organisation change being the raison-d'etre for Program Management (Kliem and Ludin, 1992; Dinsmore, 1993; Obeng, 1994; Meredith and Mantel, 1995; Turner, Grude and Thurloway, 1996; Partington, 1996; Pellegrinelli, 1997; Partington, 2000; Pellegrinelli, Partington and Young, 2003; Partington, Pellegrinelli, and Young, 2004; Pappas, 2006; Thiry, 2006; Leybourne, 2006; Pellegrinelli and Partington 2006; Pellegrinelli, Partington, Hemingway, Mohdzain, Shah and Stenning, 2006). Throughout the interviews and the supporting documents 'projects' and 'programs' are used interchangeably, and the two are not clearly stated as one or the other in the interviews. Therefore to ensure consistency in the analysis of the interviews, all case study activities are known here as 'projects'.

As for the role of the Program or Project Manager, as identified in the interviews, the following describes the relevant findings based on the case studies. In the large Telco it was more common for the manager of the change to be called 'Program Manager'; more interviewees referred to the manager as a Program Manager. Nevertheless, some of the interviewees still called the role Project Manager. The large Bank did not have

a Program Manager managing the change, but a Change Manager; however the IT Project Manager was referred to as 'Program Manager' by the Change Manager who led the overall project change, and he himself considered his role 'Program Manager'. In the public University all interviewees classified activities and roles as 'projects'; there was no mention of 'program' or Program Management during the interviews. However, in the formal documentation, the manager of the project was called a Program Manager and the documents were inconsistent in calling the activity a 'program' or a 'project'.

The following section begins the analysis of the work undertaken by the Project and Change Managers on the three case studies. This includes an analysis of their roles as well as a comparison with the competency lists presented in the literature review. Additionally, a description is suggested for the Change Management aspects undertaken by both the Project and Change Managers in each of their roles. There is also an analysis of the behavioural changes that were required in the case studies as well as description of the organisational factors that created the requirement for the behavioural changes.

Property: Activities of the Project Manager

Some of the activities that were discussed with the interviewees undertaken by the Project Manager in the two organisations, i.e. the large Telco and the University, were similar and can be expected to be found in other Project Management roles. The large Bank also had a Project Manager; however he was dedicated entirely to the IT component of the project and therefore the tasks he undertook are only discussed briefly with the main focus of the conversation on the University's and Telco's Project Managers. The following is a summary of these activities, with supportive quotes from the interviews. Analysis suggests three major dimensions for the role of Project Manager:

1. *Technical dimension*: i.e. everything to do with the IT component of the project, what did the Project Managers get involved with on the IT technical side of the project.

2. *Project Management dimension*: i.e. everything to do with schedule, cost and quality.

3.   *Issues resolutions dimension*: What type of issues were the projects faced with and how did the Project Manager deal with these issues?

After dealing with these dimensions, the discussion moves to the property of how the Project Managers deal with the human side of the project, i.e. the Change Management component? Any activities that the Project Managers undertook to increase the participation, commitment or change to staff according to the project requirements are analysed.

The following sections also looks at what was done differently between projects, suggest possible explanation for the difference, and discuss the findings in literature to assist in determining whether these activities can be generalised across Project Managers. Following this analysis, there is an analysis of the Change Managers' role broken into more specific change components and compared with the findings in literature of the competencies of the Change Manager.

The following sections details the Project Managers' management of the overall project. This includes what the Project Managers did on the three identified project dimensions: technical management, schedule/ cost/ quality dimension and issues resolution. These project dimensions were derived from the text analysis of interviews in which the work of the Project Managers was discussed as well as the code categories developed.

Dimension: Technical management

The two Project Managers from the University and Telco, who headed the projects came from different backgrounds of experience and education, yet both arrived at the management of the project from a technical, IT background rather than pure project management experience. The large Telco Project Manager came from an IT Project Management background with experience as a Project and Program Manager. He also has a Bachelors degree in Science and Mathematics. The public University Project Manager worked for the IT department in the University where she was promoted and became a Project Manager. She also has a degree in Science and an MBA. Both managers worked in IT before managing IT projects.

To determine what is important for Project Managers to be able to do on organisational change projects, there is a need to analyse the focus of their roles. The focus for both managers was not the management of the IT component, but the management of the project components. The two performed few tasks that were IT focused and only two examples were found for these and they are from two affected staff interviewees:

- University, affected staff: '*We did a huge evaluation of the systems prior to deciding on the system. The Project Manager started that and it worked well*'.
- Large Telco, affected staff: '*The key activities [performed by the PM] were Data Centre consolidation from 5 to 2 to reduce cost. Beef up facilities of the main data centre − oversees these tasks, transition and remainder of relocation*'.

Here the tasks that are quoted as being done by the Project Manager are:

- System assessment
- Strategic decisions
- Cost reduction
- Preparation of work environment ('beef up facilities')
- Overseeing the performance of tasks.

The discussion in this dimension is about the Project Managers' work from a technical, in this case IT, perspective. It is unknown if an individual heading this kind of project performing these types of tasks can be seen as competent had they not had IT experience to support the decisions they made or recommended regarding the system. That being said, the Bank had a Change Manager heading their implementation who did not have an IT background and both the Bank and the University had IT Project Managers supporting the implementation of the IT system.

According to the analysis conducted in the literature review, when analysing the Project and Program Managers' role, there is a mention of a requirement for IT skills in the Project Managers' list of competencies, whilst some authors' main investigation is of the IT Project Manager (Jiang, Klein and Balloun, 1996; Briner, Hastings and Geddes, 1996; Jiang, Klein and Margulis, 1998; Taylor, 1998; El-Sabaa, 2001). It is also important to note that IT issues were consistently raised in almost every interview conducted in the University and Bank projects, and less IT related issues

were raised in the Telco project, where most issues were regarding the vendor relationship and Change Management. (This is discussed in more detail in the 'issues resolution' dimension). Perhaps it would have improved the project delivery had the IT issues been dealt with better in the University and Bank projects, similarly to the way they were dealt with in the Telco project. Or possibly the Telco project interviewees were more concerned with other issues which is why they did not talk as much about the IT issues.

Dimension: Schedule/ Cost/ Quality Management

The two Project Managers for the Telco and the University did perform significantly more Project Management tasks, as part of their roles, than the Change Manager responsible for the Bank project. The following are some examples that support this.

University:

- Affected staff: '*PM organized high level activities, resources, people and budget, broke down roles into small components of task and assigned responsibility and managed meeting tasks, determined where more resources were needed, how to get back on track and reported to the board. Mainly looked at budget, resources, timeline and conflict resolution*'

- Sponsor: '*PM kept broad brief, schedules, financials, managed a team, recruitment and lots of dimensions, managed all the other PM's, did business reporting and kept everyone on track, saw project budget and transactions and migrated from project to operational, finalized the resourcing of positions and kept all stakeholders calm*'

Telco:

- Team member: '*[the PM] Oversees budget, involved in issues management, steering issues on day to day activities in assigned teams, did the progress update, coordination of tasks*'

- Sponsor: '*PM tracks project progress − deliverables, reports on these interfaces with the different streams. Does the issues resolution, communicates and prepare weekly reports. Runs steering committee teams, organizes presentations for the committees and for the CEO and CFO, prepares capital requests − funding for project, represents the project at my management team meetings 3 times a week,*

tracks KPIs, tracks the project finance, handles the key recruitment, and reporting back to sponsors'.

The tasks quoted as being performed by the Project Manager here are:

- Planning − preparation of capital requests (i.e. budget)
- Resources, people, budget
- Scope management
- Roles and responsibility assignment
- Task management
- Coordination and management of meetings
- Board and business reporting
- Issues resolution
- Schedule management
- Recruitment and team management
- Communication − organises presentations, represents the project at meetings reports to sponsors
- Project definition
- Project closing − migration from project to operational
- Stakeholder management and management of other teams with interfaces to the project.

Project Management tasks as indicated above were mentioned in all interviews conducted across all three case studies, i.e. approximately 20 mentions. Each of these mentions was elaborate compared to the two non-elaborate IT management mentions. These findings question the requirement for an individual managing projects or programs to have IT skills or experience, considering that most of the tasks they perform are not IT related. This would be especially so in cases where there is an assigned individual who looks after the IT component of the project. An example for this is in the Bank case study where the manager of the project was a Change Manager who had no technical background.

In the Literature Review, there are identified competencies for Project and Program Managers that were summarised from various journals and publications. Technical savvy is mentioned in the Project Manager's list and is not found in Program

Management articles (Jiang, Klein and Balloun, 1996; Briner, Hastings and Geddes, 1996; Jiang, Klein and Margulis, 1998; Taylor, 1998; El-Sabaa, 2001; Pellegrinelli, 2002).

As for the Change Manager who managed the project in the large Bank, the project specific activities performed by her are those that are consistently in both Project and Change Management literature. Although she performed most of the coordination and issues resolution side of the project tasks as well as reporting and sign off, there was no indication of budget management, Board representation, monitoring, controlling or scope management. These were present at the University and the Telco projects. Most of the work that the Bank Change Manager performed as the head of the project was to do with stakeholder engagement, communication and training. This was the focus of her role and to support that, the following are some examples:

- Bank, affected staff: *'Change Manager was working on getting users coordinated and ensuring that the functions of system were embedded into the teams. Change Manager made sure administrative work is done, training, general implementation of the system into teams would happen, communication, where project was up to, staff awareness meetings every fortnight'.*

- Bank, Change Manager describing what she did: '*Setting up the teams, recruiting and coaching people, reviewing and signing off deliverables communications written, reviewed the communication plan, most of the implementation of communication was performed by me. Communication plan included stakeholder groups and how to communicate to them, what they need to know at a high level'.*

- Bank, Sponsor: '*CM worked with managers expectations of the reports and had strong interaction with stakeholders, the committee members and the end users. CM had to build relationships with all these groups'.*

The only mention of the Change Manager as performing Project Management tasks was in the interview with the Sponsor. In this interview he says:

- Bank, Sponsor: *'The Change Manager was responsible for tracking deliverables and implementing those into the business − managing budget and bringing process and structural change. The Change Manager looked at the look and feel of the report to fit it to the business needs and to the new structures that we were*

working towards. The Change Manager worked with management to show how they can change the business'.

- Whether Project Management activities were performed by the Change Manager or not is unknown. There were no mentions of these activities in any of the other Bank interviews or stated by the Change Manager herself. The question of whether or not a Change Manager performs Project Management tasks on projects is still not clear. More discussion on this topic can be found in the Change Management and Change Manager part of this analysis.

Dimension: Issues resolution

This dimension deals with the way the Project Manager handled issues and the type of issues that emerged as part of their management. Discussion of the issues that were raised in each interview points to the activities that were perceived as not being dealt with throughout the project implementation. Specifically, issues discussed here are those that emerged as common themes from the three case studies. Interpretations of these common themes are suggested in the following analysis.

There were various issues that had to be dealt with in all three projects. IT and vendor issues were consistent throughout all three case studies. In all cases there were major disruptions to the progress of the project due to the system not working as it should or as expected and vendors not living up to their obligations and/or the expectations project members had from them. Both types of issues provided some insights into the Project Managers' use of project and change management disciplines through emergent themes.

In both the large Bank and the public University, IT specific issues were discussed in almost every interview conducted with affected staff. To demonstrate the significance of this finding, when coding the interviews, there were more codes found for IT issues than any other Nvivo codes. (See Methodology for further explanation.) Some examples of the IT issues that were raised in these two case studies are:

- Bank, affected staff: '*The main issues we have been having are with system outages because the system is not robust. There are approximately 89 hundred hours of outages which [is like] 100 hours of unproductive time. We need to*

develop backlogs to overcome the outages. The teams are [now] picking up items often [when the] agreed SLA (Service Level Agreement) has passed. We are not looking at the costs spent on overtime due to system outages and the temps we hire to get on top of the work. There is a peak in volumes coming out of an outage and that peak creates all sorts of issues'

▪ University, affected staff: '*There were still lots of manual activities after, reporting was still very weak and the interactions with the General Ledger. There was still system customization to be done for payment of academics so we had to pay them manually until June 05*'.

In the large Telco, however, there were very few IT issues raised.

In the Telco organisation there were two consistent issues that affected staff complained about.

1. The first major issue was to do with lack of general change management on the project, i.e. issues to do with communication, training, role confusion and lack of processes.

2. The second major issue was regarding the vendor and their participation and contribution to the project.

The following provides examples from the Telco case studies for these two consistent issues. Some examples for the change management specific issues include:

▪ Telco, affected staff: '*The increased workload that wasn't planned for − we didn't know who to contact now for the various data centre services, we had a new series of processes that were established redefining and recreating and learning the processes as well as changing the documents increased our workload*'.

▪ Telco, affected staff: '*The affect was a list of projects no knowledge of how big, how hard they were or how many people were required for them*'.

▪ Telco, affected staff: '*If the communications to all of IT and any other customers was ahead of time [we] could have significantly improved the project and our position, explaining the disengagement and how we would pick up the work*'.

▪ Telco, affected staff: '*6−8 weeks prior to disengaging, none of the customers knew what was happening, they just knew that something was about to happen. This was mainly what could have been done differently. There may be clean up*

work which will be costly that will need to happen because of this lack of communication'.

Some examples for the vendor specific issues that were raised by the Telco's affected staff were:

- Telco, affected staff: '[There was a] *great deal of pain in the exit from vendor. Vendor slid on their services and provided a lot of pushback towards this change. There were problems with the vendor contract and we came to a gentlemen's agreement as the contract came to an end they didn't want to do things for us. From a relocation perspective and hardware, we have vendor datacentres and this affects on us. We are now discovering how horrible things are and how they weren't backed up properly'.*

- Telco, affect staff: '*Monitoring tools − outsourced back to vendor − that was mis-managed − didn't seem to be consistent in the story of when an outage was going to happen. Date of discovery and transition date was limiting. It was very ad hoc. There was too much ownership by vendor of their Intellectual Property which meant that we had to fight for it. Vendor made it more difficult for us to get information. This knowledge base is vital to how you construct support and this is due to a poor contract written with vendor for us to try and argue, we wouldn't have met our transition date and we accepted the pain so that we could meet the schedule. It could have ended very poorly'.*

Although vendor issues were mentioned in the two other case studies, the Bank and the University, IT issues were mentioned far more times in these case studies than vendor issues. Vendor issues were not as consistent across all interviews with the Bank and the University as they were with the large Telco. Additionally, the vendor issues mentioned with the large Telco were relationship specific, i.e. the affected staff complained mainly about how the vendor treated them. With the Bank and the University, the vendor issues were to do with the vendor's ability to contribute. Examples from the Bank and the University case studies of these types of vendor issues (i.e. vendor's ability to contribute rather than the relationship with the vendor) include:

- University, affected staff: '*It was a new system to Australia so the vendors expertise weren't as good which was hard for us'*

- University affected staff: *'Vendor support was lacking once we went live'*.
- Bank, affected staff: '*We were supposed to get a better, more robust system, this doesn't seem to have been the case. [Vendor] sold the system to us as a better system and a more compatible system with XP and we were told that the previous system will no longer be supported*'

There are some possible explanations for these two major issues in Telco, i.e. vendor issues and change management issues. These explanations may shed a possible light on the difference between the activities of a Change Manager compared to a Project Manager and the two disciplines. One explanation is that because there was a lack of Change Management and no Change Manager working on the project in the large Telco, both the Change Management activities and the vendor relationship suffered and became the main issues for affected staff. There is research evidence that the Change Management discipline focuses on relationships and achieving objectives through building trust and communicating (Lippit, Watson and Westley, 1958; French and Bell, 1984; Caluwe and Vermaak, 2003; Smith, 2005). It is possible that the difference in the issues between the Telco and the other two organisations, i.e. Bank and University can be attributed to the Telco not having a Change Manager, or an incumbent focusing on stakeholder engagement. Although it has been stated various times in many publications that Program Managers and Project Managers (in this case they are referred to as Project Managers) are responsible for communicating to stakeholders, engaging and training on new project components (Kliem and Ludin, 1992; Dinsmore, 1993; Obeng, 1994; Meredith and Mantel, 1995; Turner, Grude and Thurloway,1996; Kerzner, 1998; Frame, 1999; Pappas, 2006; Thiry, 2006; Leybourne, 2006; Pellegrinelli, 1997), this does not seem to be the case in the project represented here. Had there been a Change Manager, or a project member in charge of these types of activities in the Telco project, affected staff may have received greater preparation for the change, been involved in communications and received training for their new roles and had processes developed to enable a smooth transition to the new organisation. Additionally, the relationship with the vendor may not have been so painful had there been more work focused on developing the relationship with the vendor and ensuring the vendor was not disengaged by the whole process.

There is literature support to suggest that vendor issues are a major difficulty for organisations requiring external support and that these need to be handled with care

113

and attention. According to Teague (2007a, and 2007b) Clements, Dean and Cohen (2007), and Redondo and Cambra Fierro (2007) in today's market, vendors are a necessary requirement in organisations seeking to remain competitive and achieve a degree of differentiation. Significant effort must therefore be put into the development and nurturing of the relationship with external vendors to achieve the desired goals from the vendors, yet these relationships are not always handled properly. According to Redondo and Cambra Fierro (2007), in many cases the organisation obtaining the service, or the client, is focused merely on reduction of cost and does not consider the rewards that can be found in developing a relationship with the vendor representatives. The authors suggest various strategies and tools for improving and developing relationships with vendors. As examples of these tools, the authors mention communication, and collaborative and cooperative relationship building as well as behavioural aspects.

These literature findings suggest further support for the need for an internal person who understands the process of developing relationships to focus on the relationship with the vendor and ensure the vendor is part of the team working towards the project change goals. Having this type of focus in a project minimizes the risk of a possible disgruntled vendor with ill feelings towards the project making it more difficult for the project to achieve its goals, as noted by the Telco project team members.

The following property deals with this in more detail and investigates the Project Managers' activities in implementing changes as part of the management of the three projects.

Property: Project Management Influence on Implementing Change: Engagement, Communication, Process Design and Training

This section compares the Change Management specific work that was undertaken by the two Project Managers: the Project Manager from the Telco, who operated without a Change Manager and the Project Manager from the University who operated with a Change Manager. Observations were also made about the Change Manager who headed the Bank's project. The dimensions that are discussed are based on the emerging codes from the analysis, and they are engagement, communication, process design and training. These four Change Management related dimensions were found

in all three case studies, as opposed to themes that emerged only in the two case studies with the Change Managers, which are discussed as part of the Change Managers' role.

'Engagement' is slightly different to 'communication'. When the interviewees of the study describe a 'communication', they talk about a specific message that is sent out to staff. When they describe 'engagement', the activity includes obtaining commitment from the people impacted by the project. This is also supported in literature by Woodruffe, (2006). Examples of engagements which were mentioned in the interviews include facilitation of workshops, fortnightly meetings with project 'champions' etc. These are described further in the following analysis, specifically in the discussion about the activities undertaken by the Change Manager.

All three case studies mentioned staff engagements, communications (on project progress as well as what is being implemented), process development and training for staff to be able to perform the changes to their jobs. The three cases differed in how they treated this requirement: specifically, there was more evidence of engagement, communication, process development and training in the two case studies with the Change Manager than in the case study with no Change Manager. The following is a discussion of these differences, why they were so and how this assists in finding out more about the role of the Project Manager as an implementer of change.

Dimension: Engagement

The term 'engagement' is often used in organisations to describe a way of obtaining feedback from stakeholders and keeping them interested and committed to the organisational cause (Woodruffe, 2006). An example of the use of 'engagement' is described in Pellegrinelli (2007) noting that internal stakeholders should be treated in projects as collaborators with intimate knowledge of the details. To achieve successful change, these internal stakeholders' views are considered valuable and their inputs desirable. The stakeholders are also seen as holding ultimate responsibility for making the changes to behaviours, routines and processes happen as opposed to treating them as merely recipients of the projects' changes.

In all three case studies analysed, there were mentions of the requirement for engagements, and what has been done or what has not been done to engage staff. The Bank and the University case studies provided most evidence that engagements took place. There were no positive mentions of engagements taking place in the Telco, and some interviewees suggested that this was missing from the project. In the University and Bank, engagements came in the form of workshops and information sessions. Workshops or information sessions were not stated to have been held in the large Telco.

The following are some examples of engagements from all three case studies:

- University, Change Manager: *'The implementation part was through workshops with the business − I worked for finance and the business and ran one hour sessions which looked at targeting as many people as possible – to discuss how to manage the business impact I did this with Finance and HR and worked on issues resolution and identifying what to do when we have an issue, who would be the focal point for coordination of issues − anything to do with BU relationship management'.*

- University, affected staff: *'CRP (conference room pilot) sessions, demonstration sessions − the vendor team showed the core team a demonstration of what we came up with, tried to get ideas from users as well as do a sell job'*

- Bank, Affected staff (and Champion): *'We had fortnightly meetings [with the Change Manager] where all champions attended (there were four champions), and talked about issues with the system and made sure they are resolved. The champion would collate the issues [with their respective teams] and brought them up in the meetings.*

- Bank, affected staff: *'[Change Manager] was very responsive. Issues were fixed when we raised them with her. She always came back with a response'.*

- Telco, affected staff: *'I don't know, decision was made and we had to do whatever it takes. We weren't even engaged yet and the decision was made'.*

These differences show that on the two projects that employed a Change Manager (the University and the Bank) there was more work around engaging people and giving them an opportunity to be a part of the project than there was in the Telco. Nevertheless, the information sessions in the University were unsuccessful according

to the Change Manager and an affected staff member. They were poorly attended and did not seem to make a difference for the implementation.

- University, affected staff: '*In these information sessions the turnout was poor, people were too busy. These were organised by the Change Manager.*'

Although the workshops did not receive high recognition, there were no complaints from affected staff about not being engaged or not being given the opportunity to hear about the changes the University was about to embark on. This was not the case for the Telco, where there were numerous complaints about the lack of engagement, communication, processes and training. There was also no mention of the Project Managers in the Bank or the University undertaking any engagement, communication, process design or training tasks. These are always mentioned as being performed by the Change Manager.

Dimension: Communication

Hoogervorst, Flier and Koopman, (2004) says that communication can be seen as a tool to engage people or as a mechanism to transfer a certain message. In this current study, communication is seen as a 'one-way' message delivery technique. The reason for separating engagement from communication was to differentiate the one-way delivery of message-activities, which are focused at providing information, from the ones that are more face to face and have the purpose of gaining feedback and obtaining commitment.

Communications were mentioned in all three case study organisations. There were multiple mentions of how communication and training took place in the two organisations with the Change Managers, the University and the Bank, and although there were mentions that the Project Manager from the Telco did communicate, there were also complaints about the lack of communications and training in the Telco. The following are some example quotes from affected staff in the Telco:

- Telco, affected staff: '*Communication could have been improved. Not sure there was a communications plan − from a PM (Project Management) perspective this should have been the first step.*'

- Telco, affected staff: '*Process and communication could have been done better. All technical aspects were covered well. From day one I knew that process and communication would be neglected so I am not surprised.*'

As evidenced here, there seem to have been deficiencies in the communication efforts for the Telco project. The communication that took place in the Telco organisation was mainly communication to management and management team meetings:

- Telco, affected staff: '[The Project Manager] *runs steering committee teams, organizes presentations for the committees and for the CEO and CFO, prepares capital requests- funding for project, represents the project at my management team meetings three times a week.*'

In reviewing the Telco project documentation, specifically the risk register, the first item on the list was the risk of not having a communication plan. This risk was categorised as very high and the mitigation was that it was being developed. A communication plan was not available or found for this research despite requests.

There were communication plans available for the two other organisations, the Bank and the University, as well as communication activities. The following are some supporting quotes:

- Bank, Change Manager*: 'When we went to implementation planning we had a communication plan for each release, this formed a major part of the overall communication; I regularly communicated with the champions and they provided support and feedback to the project team. Champions also communicated to their business areas, which made the communication more valid coming from the champions rather than us.*'
- University, affected staff: '*[The Change Manager] dealt with the communication and managing expectations.*'

In both these case studies, the communication is undertaken by the Change Manager with no mention of the Project Manager handling any of the communication aspects of the project.

Although the list of tasks generated for the Project Managers (Table 11) states that the Project Managers did take part in communication activities, these did not seem to be targeted at affected staff, but mainly at senior managers.

Dimension: Process Design

Designing of processes was treated similarly to engagement and communication on the three projects. That is, there were mentions of processes being designed or provided to staff for the Bank and the University, and an indication of a lack of processes for the Telco. Some quotes from the Bank and the University are:

- Bank, affected staff: '*Since the meetings we did some upgrades, for each upgrade we had workshops and sent emails; we all received procedure folders for workflow and we corresponded back and forth for issues.*'

- University, affected staff: '*Next we had to define processes, had to go back to itemize and record workflows and how charts of accounts were set up*'.

- University, Change Manager: '*[I worked on] the process component, the BA (Business Analysts) fitted in there.*'

These were the comments from the Bank and University affected staff and Change Manager relating to the processes they received or developed as part of the project.

The following is a comment about processes in the Telco:

- Telco, affected staff: '*There was not enough process in place that needed to be, people know it's changing but don't know what it's changing to. People were left with more questions than answers*'.

These examples indicate the process work that was undertaken in the Bank and the University and the lack thereof in the Telco.

Dimension: Training

Training was treated similarly to engagement, process design and communication on the three projects. There were mentions of training taking place for the Bank and the University, and an indication of a lack of training for the Telco. Some quotes from the Bank and the University that affected staff had for the training they received as part of the project are:

- Bank, affected staff: '*The implementation was really good, training was excellent, had high user acceptance through training which was a successful aspect of the whole implementation.*'

- University, affected staff: '*The training was to provide us with an understanding of the system and how we can use it best.*'

- University, affected staff: '*Before going live, key people were trained and you had to do training if you used the system.*'

The following are the comments about training in the Telco:
- Telco, affected staff: '*Would have been good had there been more information and education work done up front so that there were no surprises along the way*'.
- Telco, affected staff: '*Found the change very stressful − had to recruit 13−18 people, train them and get them up to speed in a few weeks so none of the projects fail.*'

Interviews with the affected Telco staff suggest that they needed to take responsibility for training new staff because no training was offered as part of the roll out.

These findings do not necessarily mean that training was well handled by the Change Managers at the University or the Bank. One affected Bank staff is quoted as saying:
- Bank, affected staff: '*Also, with training, the other staff were still confused and they were only put on one session. We needed more training*'.

The training may have been insufficient and/or confusing. When discussing what could have been done differently on the project with other Bank project team members, specifically, the IT Project Manager, he is quoted as saying that:
- Bank, IT Project Manager: '*Training [was an issue because it] went for too long because of the multiple releases.*'

Although training was provided in the Bank project, it seems that it was flawed and could have been done in a better way; whether this is because of the IT systems and the requirement for multiple releases or simply a lack of forward planning, is unknown.

Finally, there are very few comments made by interviewees to support activities of change undertaken by the Project Managers, whether they had a Change Manager working alongside them or not, and more specifically, in changing behaviours through the project. The following are quotes providing examples for Project Managers not getting involved in Change Management activities. First and second comments from affected staff suggest that the University Project Manager did not do enough to engage staff and ensure staff were on board with the project changes:

- University, affected staff: '*The Project Manager didn't understand [the] complexity of payroll and had the mentality that 'near enough is good enough', wasn't something we could accept − salaries are 60% of University budget. [She] Also seemed not to worry about the General Ledger and would have wanted a more flexible deadline to work to.*'

- University, affected staff: '*We kept hearing management say that our requests weren't in the budget. If we could have done what we wanted, we could have achieved a saving.*'

In the two case studies where Project Managers headed the changes, there is evidence indicating a lack of change management activities undertaken by them. There is ample evidence to support the lack of communication, training activities and engagement activities in the Telco case study, and some to support the Project Manager not performing those in the University case study. This discussion focused on the Project Managers activities and what was done by them to promote change in the project they worked on.

The Role of the Project Manager in Theory and Practice

Table 11 lists all Project and Program Management competencies that were most frequently found in the literature review of this study and were presented in tables 6 and 7. The table looks at the combination of the Project and Program Management competencies, and by translation compares them to the Project and Program Management activities that were found in the case study investigation of this study. The first part presents competencies found in the literature that were also found in the case study investigation. The second part presents those activities found in the case study investigation that do not find support in literature.

It is important to note that two of the competencies mentioned were not compared to the case study activities as they are qualities rather than activities. These are leadership and cultural consideration. In order to establish whether the head of the project possessed these competencies, behavioural event interviews would be required, and these were not performed in this instance where the focus was on tasks rather than personal qualities. It was assumed that leadership would be prevalent in a

successful project which is why that quality is listed as having found frequent support, whereas, it is unknown whether cultural considerations took place.

Project and Program Management competencies from literature that found frequent support in the case studies	
Literature competencies	**Case study activities**
Leadership	
Planning (cost, time, scope, risk, quality)	Planning resource, people, budget, schedule, risk
Monitoring and controlling (cost, time, scope, risk, quality), progress monitoring	Managing resource, people, budget, schedule, risk
Team development/ team selection	Team management
Communication, administration, project reporting and documentation	Communicating—organises presentations, represents the project team meetings and reports to sponsors
Stakeholder management of client, parent and other organisations	Stakeholder management and management of teams with interface to the project
Governance and organisational structure	Team development
Project definition	Project definition
Decision making and problem solving Project definition	Issues resolution
Contract/ commercial management Administration	Vendor management
Closing	Project closing from project to operational
Project and Program Management competencies that were not found in the case study	**Project and Program Management activities that were not found in literature**
Technical performance	System assessment
Change control	Preparation of work environment
Benefits management	Strategic decisions
Project Management office consideration	
Cultural consideration	

Table 11: Project and Program Management activities from the case studies that found frequent support in the literature review and those that did not find support from both case studies and literature.

According to this comparison, most of the competencies that were found in the literature were echoed by the interviewees of this case study as having been undertaken by the Project Managers. Management of meetings and reporting to Board and business may be translated as part of the communication, although this is different

from the type of communication that is undertaken by the Change Manager, details of which are covered in the following section – 5.4 Change Management and Change Manager. The competencies that were found in literature but did not translate to activities are: leadership, technical performance, change control, benefits management, project office consideration and cultural consideration. As suggested, leadership, cultural consideration were not analysed in the interview text. The activities that were found in the case studies but did not find frequent mentioning in literature were system assessment, strategic decisions and preparation of work environment. Both strategic decisions and system assessment were found in literature, however, they were not found as frequently as the other competencies. As for work preparation, this was not found as a competency either Project or Program Managers require.

The analysis of the work the Project Manager does sets up the comparison discussion between the Project Managers' work and that of a Change Manager in order to gain insight on who it is that manages change on a project. Having analysed the work that the Project and Program Managers performed on the change projects and what, of this work, were change specific tasks, the following section assess the work that has been done by the Change Managers in the Bank and University projects. This is undertaken in order to then compare the activities and analyse how much of the Project and Program Managers work is Change Management related.

5.4   Category: Change Management and Change Manager

This part of the analysis looks specifically at the Change Management work that has taken place in the three case studies. It investigates the Change Manager's role and the activities that the Change Managers undertook as part of their work in the Bank and the University. It also looks at some dimensions of the role and discipline and compare the activities across the three case studies. In doing so, this part provides comparison of a few factors between the case studies. These factors include:

- What was missing or existed in the case study which did not have a Change Manager, (i.e. the large Telco) and was unique to both case studies which did have a Change Manager?

- What were the specific differences between these two case studies that cannot be attributed to having a Change Manager; and thus may be attributed to the organisation, industry or culture?

Property: Activities of the Change Manager

Some of the activities that were discussed with the interviewees undertaken by the Change Manager in the two organisations, i.e. the Bank and the University, were similar and can be expected to be found in other Change Management roles. The following list presents a summary of these activities, with supportive quotes from the interviews.

The following list also includes what was done differently and suggests possible explanations for why these were different, as well as providing literature support to assist in determining whether these activities are to be expected from other Change Managers. Following, there is further analysis to determine how these contribute to organisational and behavioural change.

Similar activities of the Bank and the University Change Managers included:
Assessment of impact:
- University, Change Manager: *'I made sure the first thing I did was meet all the key people in the university and came up with a priority list, who was impacted and when.'*
- Bank, Sponsor: '*CM had to understand the business and know how the change will affect a certain area at a certain time.'*

Change management planning:
- Bank, Change Manager and Sponsor: *'[I wrote] the change management plan into the implementation plan. This was in great detail'. 'The CM did a lot of planning initially, confirming objectives through lifecycle.'*
- University, Change Manager and affected staff: *'Developed a change plan − model − process component –BA (Business Analyst) fitted in there'; 'The Change Manager planned when things need to be told to people outside the project.'*

Senior management presentations and facilitation:
- Bank, affected staff*: 'The Change Manager also had a team manager meeting.'*

- University, Change Manager: '*We had to educate the Senior Leadership Team on finance and what financial decisions are managed*'.

Communicating and managing stakeholders and their expectations:

- Bank, affected staff: '*We knew what was coming down the track*'. '*Communication, where project was up to, staff awareness meetings every fortnight, this is prior to the system being used.*'

- University, Change Manager and affected staff: '*Chance to vent and understand what they are going through. I was able to give my view of what's important. People felt that they would be included*'. '*Dealt with the Board and with the communication and managing expectations.*'

Relationship Management:

- University, Change Management: '[I was involved in] *anything to do with Business Unit relationship management.*

- Bank, Sponsor: *'[Change Manager] had strong interaction with stakeholders, the committee members and the end users. CM had to build relationships with all these groups.*

Setting up champion schemes:

- Bank, affected staff*: [with the Change Manager] we had fortnightly meetings where all champions attended (there were four champions).*

- University, Sponsor: '*[Change Manager] went through a process of identifying champions*'

Changing behaviours and organisational culture to achieve the goals:

- Bank, IT Project Management: *[The Change Manager] ran the business side, and the cultural change.*

- University, Change Manager: '*They needed someone to help with the development of the people side of the change',* and: '*Behaviours are hand in hand with this change and [they needed to] focus on these now*'

Involvement in the process analysis work:

- Bank, Change Manager: '*The Products are complex and it was easier to train on process than it is on product*'

- University, Change Manager: '*Change plan − mode − process componen − BA fitted in there*'. '*Technical side − documentation, working closely with the analysts getting them to do the documentation*'

Training and education to affected staff:

- Bank, affected staff: '*[CM ensured] training, general implementation of the system into teams would happen*'.

- University, Change Manager and affected staff: '*Started financial training readiness*',, '*Organised for staff to be trained*'

Coordination of work and meetings:

- Bank, affected staff: '*Change Manager was working on getting users coordinated and ensuring that the functions of system were embedded into the teams*'

- University, Change Manager: '*Coordinate meetings with the project finance and HR to review progress*'.

Different activities of the University and the Bank Change Managers include:

Preparation of users:

- Bank, affected staff: '*Items such as user access, ID, password, were all ready to go, which was good from a user point of view and this was the work of the CM did this*'

Represent the change:

- Bank, IT Project Manager: '*[The Sponsor wanted the Change Manager] to be the face of the change*'.

Political diffusion:

- University, affected staff: '*Took some of the political burden off our shoulders, did procedures*'.

Organisational structure:

- Bank, Change Manager: '*I also worked out the organisational restructure issues*'.

Selling the need for change:

- Bank, Sponsor: '*CM also argued the need for change, challenged people to accept that things can be done differently*'.

- At the University there was no mention of work undertaken to sell the change, however, when asked what she would have liked to see done differently, the project Sponsor suggested that she would like to see more work done to sell the change up front. The University Project Sponsor is quoted as saying: '*Leading more forums and not leaving all of it to the Change Manager. I would emphasise the change management piece much more. Have a lot more flag meetings with the*

Change Manager so we were ahead of things earlier could have done that much more, grounding earlier and supported the process better'.

Coaching and challenging:

▪ Bank, Sponsor: '*confronting managers who are afraid of having the difficult discussions with their team members about poor performance'.*

Resolving issues:

▪ Bank, affected staff: '*[The Change Manager] would handle the issues; we mainly worked through [the Change Manager]'.*

The Role of the Change Manager in Theory and Practice

The list above represents what the Change Managers in the Bank and the University did as part of their Change Management work on the projects. In order to compare literature with practice, the comparison is between the list of Change Management competencies derived from literature, and the activities closest to these competencies found in practice. Although the literature discusses competencies and in the case studies the discussion is about activities, there are some clear overlaps. It is again important to note that some competencies were not analysed as they would require behavioural based interviewing and that was outside the scope of this study. In this instance these would be leadership, and perhaps action orientation. This is not to suggest that these were not displayed or mentioned, only that they were not analysed. Table 12 shows the competencies, as found in the literature review and their corresponding activities as identified in the case studies based on research analysis.

Change Management activities from the case studies that found frequent support in the literature review	
Literature competencies	**Case study activities**
Leadership	
Analysis and assessment	Impact analysis
Stakeholder management	Communicating and managing stakeholders and their expectations
Initiative and self management	
Creative and challenging Coaching	Coaching and challenging (only found in one case study)
Facilitation and presentation	Selling the change (only found in one case study)
Team development	Champion schemes
Process design	Involvement in process analysis work
Communication	Communicating and managing stakeholders and their expectations
Planning/ project management skills	Change Management planning
Action orientation	
Decision making and problem solving	Issues resolution (only found in one case study)
Learning and development	Training and education to affected staff
Cross cultural skills	Changing behaviours and organisational culture to achieve the goals
Change Management activities from the case studies that did not find frequent support in the literature review	
Activities that were found across the Bank and the University	**Activities that were found only in the Bank or the University**
Coordination of work meetings	Preparation of users
	Organisational structure
	Political diffusion

Table 12: Change Management activities from the case studies that found frequent support in the literature review

The differences between the competencies identified in literature and the activities that represent these competencies in practice are not significant. There is only one activity that was found across the case studies and that were not found in the literature. From the activities that were performed by the Change Managers of the Bank and the University, the single activity that was missing from literature was 'coordination of work meetings'.

The competencies that were found in literature but were missing from the activities derived from the interview discussions were also few. These are: 'leadership', 'initiative and self management' and 'action orientation'. These are competencies that are not easily translated to activities; however, it is doubtful that a Change Manager (or a Project and Program Manager) can perform the activities discussed throughout the interviews successfully without having competencies such as leadership, initiative, being self managed and being action-orientated.

Finally, the activities that were only found in one organisation, and were found to be frequently stated in the literature review are 'selling the change', 'coaching and challenging' and 'resolving issues'. There can be various reasons for this. Perhaps it was not highlighted during the interviews as one of the tasks that the Change Manager of that particular organisation was performing. Perhaps those activities were not the Change Manager's strengths, or perhaps they were simply not as necessary on the particular project they were missing from as they were in the context in which they were identified.

The above review discusses what competencies Change Managers are expected to have and how they perform with these competencies in practice. The Change Management discipline has the purpose of implementing behavioural change (Beer, 1980; Cummings and Worley, 1993; Waldersee, Griffiths and Lai, 2003; Smollan, 2006). The following section is therefore an analysis of how the Change Managers' work assisted or hindered the achievement of organisational and behavioural change through the competencies and activities found in both literature and practice.

Dimension: Expectations of Organisational Change

The dimension discussed here is the specific work that was undertaken to achieve organisational change, i.e. a change to the way the organisation functions generally. After discussing the organisational changes, the discussion will turn to behavioural changes. The two types of change can be seen as similar; a change to the organisation is normally part of a behavioural change or vice versa. However, there are differences. Wezel and Helmhout (2006) conducted a study where they discuss these differences and suggest that the organisational change influences the organisational dynamics,

whereas behavioural change is to do with individual performance, which ultimately affects organisational performance. The way the two are differentiated in this discussion is by addressing organisational change as a change which is across the board and influences areas of the organisation that have nothing to do with the project. In contrast, a behavioural change is a change which affects the individuals directly impacted by the project.

The organisational change dimension attempts to draw links between the interviewee's feedback about requirements for organisational change and the tasks undertaken to achieve them. There were some mentions from interviewees regarding the need for a change to the organisation which they were expecting to see as a result of the project implementation. The following are some quotes supporting that and an explanation of these quotes.

- Bank, Change Manager: '*The business rules were changed and this creates a certain cultural change to a more customer-focused culture.*'

The Bank Change Manager is explaining that the culture was expected to be changed as a result of the project. The expectation was that the organisation would become more customer focused.

- University, Sponsor: '*We have skills for the new system. We moved to accrual accounting and we have vastly improved financial reporting. We know how we are going against budget and we understand how we perform to budget at all university levels and we can report to external bodies, thanks to more accurate data and improved reporting.*'

The University Sponsor is quoted as saying that she sees changes to the organisation as a result of the project including changes to financial reporting, tracking and improved skills to perform data analysis on the system.

- Telco, affected staff: '*[We needed to] raise the skill set to be able to migrate the whole support mechanism that supports the new roles.*'

The affected staff member is seeing how the change to the systems and the migration to the new data centres improve the skills of people in the organisation because these changes require new skills to support them.

Dimension: Expectations of Behavioural Change

The dimension discussed here is the specific work that was undertaken by the Change Managers to achieve behavioural change. There was an expectation, from the three projects and from various project members/ participants, that the project would deliver a change in the behaviour of people in the organisation. The following are quotes from each of the three organisations where an expectation of a behavioural change was expressed as well as an explanation of this expectation and if the expectation was dealt with, how was that done.

- Bank, IT Project Manager: '*When [the new system] started we were introducing performance, productivity, measurement improvements. The Change Manager was managing these improvements, which would blend into the work practices'*.

Here the expectation was that the system would deliver performance, productivity and measurement improvements. This would require a change to management and staff behaviour, which as stated, was managed by the Change Manager.

- University, Change Manager: '*We had to educate the Senior Leadership Team on finance and what financial decisions are managed. People within the faculty didn't have the support to do this − had to bring a mass of leaders up to speed. There was resentment and change exhaustion.'*

Here the Change Manager is quoted as saying that the Senior Leadership Team were not aware of the type of decisions they could make in relying on the system, and their decision-making process had to be changed. She is also quoted as saying that this was a difficult task to perform as they were not interested in making this change.

- Bank, Sponsor*: 'We wanted to be able to implement a structural change to the two businesses, i.e. move people from one of our work areas to the other so that people would cross train each other and so that the mistakes that are being learnt currently do not keep getting learnt with every new staff member. We wanted to change the two systems first to allow us to be more mobile and be able to move people from one place to another. The system change allows us more flexibility in the structure.'*

The Bank Project Sponsor is saying that the system was a vehicle for implementing a structural change which would eventuate in a behavioural change, i.e. people would cross train each other and be more comfortable moving from one site to the other.

- Telco, affected staff: '*I expected to be more efficient and have stronger relationships with our own people.'*

One of the Telco's affected staff is quoted as saying that he wanted to see relationships improve as a result of the project implementation. There was no mention of this benefit or even this type of benefit anywhere in the project documentation, yet this affected staff member thought that this type of behavioural change would be affected by the project.

In summary, all three projects had members and affected staff who thought it was reasonable to expect an organisational and a behavioural change from the implementation of the project. The Telco had the least of those types of expectations. There can be a few reasons for this is. Perhaps they did not perceive that there were cultural issues requiring change, and perhaps they did not see their project as achieving organisational and behavioural benefits. This is further discussed in the 'Factors' category of this analysis.

The following section attempts to answer what was done to achieve these organisational and behavioural changes on each of the projects and whether or not the Change Manager had an influence on these changes.

Dimension: Activities for influencing organisational and behavioural change
Communication aims ultimately to affect the behaviour of those receiving the communication (Hoogervorst, Flier and Koopman, 2004). There is ample evidence to prove that engagement, communication, training, stakeholder expectation setting and process designs affect changes to behaviours and to the organisation (Armenakis, Fredenberger, Cherones, Feild, Giles and Holley, 1995; Hoogervosrst, 2004; Single, 2005). Most of the activities found as being undertaken by Change Managers on the two projects were aligned with the activities found in literature which affect behavioural change (Armenakis, Fredenberger, Cherones, Feild, Giles and Holley, 1995; Single, 2005). Most, if not all these behaviours were found to be missing from the project that did not have a Change Manager and from the activities that were undertaken by the two Project Managers.

The following are some quotes which specifically tie the activities undertaken by the Change Manager with the above organisational and behavioural changes. After each quote, there is an explanation of that activity. The reason for separating the

requirement and expectation for organisational and behavioural changes from the activities that were undertaken to achieve them was that these did not directly influence each other. That is, some requirements for organisational and behavioural changes were not mentioned and only the activities to achieve them were mentioned and vice versa.

- University, Change Manager: '*I helped them facilitate the decision around the priority and also gave them a chance to vent and understand what they are going through. I was able to give my view of what's important. People felt that they would be included, and external people felt that the changes were business and commercial changes rather than financial changes.*'

- The University Change Manager is quoted as explaining how she changed people's points of view, and consequently their behaviours towards the project and their participation. She did this by listening to their frustrations initially and then changing their points of view regarding the overall project and how it influences them.

- Bank, Sponsor*: 'This project had a greater involvement from the business [than the project which attempted to achieve the same outcome before but failed] and we asked IT to provide us with options, which forced us to a position where we couldn't just not do anything. There was more of a drive from the business this time around.*'

The Bank Project Sponsor is explaining how the business was consulted and engaged and how the business was asked to provide feedback on the IT alternatives which they prefer. The University Sponsor compares this current project to a previous project she was involved with, that had the same goal but did not succeed. The University did not end up changing because the business was not adequately engaged by the project. The Bank Project Sponsor does not attribute these activities to anyone in particular; however, interviews with other staff members quote them as saying that the Change Manager ran consultation workshops, which is the work that the Bank Project Sponsor is referring to.

- Bank, affected staff: '*Items such as user access, ID, password, were all ready to go, which was good from a user point of view and this was the work of the Change Manager.*'

An affected staff member is explaining how the organisational change was achieved in a smooth way. He attributes this to the Change Manager organising all accesses for staff to be able to commence with the new system immediately.

- Bank, affected staff: *'Change Manager was very responsive. Issues were fixed when we raised them with her. She always came back with a response.'*

Affected staff is quoted as saying that once issues were raised, the Change Manager immediately worked to fix them in order to avoid complications to the change. This assisted in achieving the organisational change by making sure nothing gets in the way of the change.

- University, Sponsor: *'This is not a mature environment for change so the [Change Manager] role was very challenging. Needed to sit back and see that this is a major change, big element of cultural change, all [the stakeholders] involved had to behave like a Change Managers and take part in all the conversation along the way.'*

- University, Change Manager: *'I made sure the first thing I did was meet all the key people in the university and came up with a priority list, who was impacted and when. I then showed them the list and proved that their goals are unsustainable in terms of what they are trying to achieve and all the different elements of the change. I raised awareness by showing the impact of the change. This was used as a feed into the strategic planning process.'*

The University Change Manager worked on prioritising the tasks that the project team and the managers were looking to achieve from the project. She then assisted them in understanding the limitations to their goals and ensured the changes they were working towards were also part of the overall strategic planning work. Ensuring that the project and its tasks are part of strategic planning helps make the organisational and behavioural changes sustainable.

- University Sponsor: *'We chose to roll out slowly to HR once the core system was in. In moving the roll out of functions we spread it out because people were swamped with changes and their acceptance was slow. The slowness of the release also gave us audit control.'*

Finally, the University Project Sponsor says that one of the ways in which she thought organisational change was achieved was through a slow roll out of the system. According to her this encouraged user acceptance because it allowed people to adjust

to changes rather than be bombarded by them. This is an activity that is probably attributed to the Project Manager, however, that was not clearly stated.

The following table summarises the specific change management activities of the Change Manager and the change management activities of the Project Manager on the change projects. The table lists all the change management activities and compares the similar project management activities. It then lists any activities undertaken by the Change Manager that were not found in the case study for Project Managers. The change management activities listed are restricted to those that appeared in both the organisations that had a Change Manager.

Change Management case study activities	Project Management case study activities
Similar activities	
Communicating and managing stakeholders and their expectations	Communicating – organises presentations, represents the project at team meetings and reports to sponsors
Stakeholder management	Stakeholder management and management of teams with interface to the project
Change Management planning	Planning
Different activities	
Changing behaviours and organisational culture to achieve the goals	
Preparation of users	
Organisational structure	
Political diffusion	
Impact analysis	
Selling the change	
Champion schemes	
Involvement in process analysis work	
Training and education to affected staff	

Table 13: Similar and different Change Management specific activities undertaken by Project and Change Managers in the case studies

Out of the change management activities considered as undertaken by the Change Managers in both case studies, only three activities were undertaken by the Project Managers in the case studies. Clearly more change specific activities were undertaken by the Change Manager on the change projects. This is not surprising considering the

Change Manager had a full time role to implement change whereas the Project Manager was implementing change whilst managing the project.

This analysis shows the activities that were specifically undertaken to achieve and progress the change to both the behaviours of people influenced by the project and the organisation. The next category deals with the organisational factors that influence the requirement for change. There are certain factors that create a greater or lesser requirement for people to change their behaviours in the organisation in order to achieve the change project goals. This is discussed in the following section.

5.5   Category: Factors

Property: Organisational Factors Influenced and Influencing the Project

Organisational factors are factors which exist in the organisation and are external to the project. Examples for organisational factors are the organisation's structure, size, project capabilities, customers, leadership, competition, culture, team work, change readiness, etc. Organisational factors both influence and are influenced by the project. Examples of the way factors influence the project are: if leadership is supportive of the project change then it is easier for the project to implement it; however, if change readiness in the organisation is low and there is resistance to change, then the project has a harder time achieving its goals. Examples of the way factors are influenced by the project are: if the project is implementing a system which influences the requirement for a certain role in the organisation, this may change organisational factors such as size and structure; if the project is increasing the organisations production capability, this influences factors such as products, customers and competition.

The main discussion in the interviews was in relation to factors that influence the project, in particular those seen as cultural factors. The one factor that was mentioned as being influenced by the project was the organisational structure. This is further explained as part of the next two properties.

Property: Cultural Factors Influencing Project Implementation

An organisation is a large mechanism that operates beyond the project itself and has multiple characteristics that influence the success of projects regardless of how well

the change or behavioural component of the project is handled (Morrison, Brown and Smit, 2006). The organisational culture has a major influence on how well a project will do (Morrison, Brown and Smit, 2006). Schein (1992) describes organisational culture as a pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and integral integration. Trice and Beyer (1993) have also connected culture with environment, seeing organisational culture as a collective response to uncertainty and chaos. According to Deal and Kennedy (1982), culture is a comprehensive and multidimensional subject and is seen as a system of informal guidelines. The OGC publication 'Managing Successful Programmes (Office of Government Commerce (OGC)2007), refers in detail to the role Programs have in implementing change. This publication suggests that the organisational cultural component needs to be addressed as part of the implementation of the change. According to Morrison, Brown and Smit (2006) a few elements must be considered in organisations to determine how supportive they would be of projects being successful and achieving their ultimate goals. Some of these elements include: motivation, structure, integration, leadership, competency, strategic direction, team, people orientation and more. The authors suggest that these items all fall under what they consider to be the organisational culture.

The following analysis reviews factors that influence the project, creating a need for behavioural change under 'culture' − in particular, these are: team, change resistance and leadership. Factors are not always cultural. There can be factors which are not cultural such as the type of organisation, the size of the organisation, the type of project etc. Because these have been accounted for in the methodology as well as the description of the projects in the beginning of the data analysis section, they are not discussed further in this section. Only cultural factors are discussed. In particular, the cultural factors that are reviewed are the organisation's change resistance, the organisational structure, the team aspects and leadership, which were consistent themes emerging from the interviews and relating to what Morrison, Brown and Smit (2006) consider to be part of culture. All these are addressed based on the input given in interviews regarding these aspects, accompanied with quotes. All quotes are analysed with potential explanation and reasoning. The first cultural aspect analysed is the change resistance.

Dimension: Change Resistance:

- Researchers of culture tend to view cultures as stabilising forces within organisations and use the concept of culture to explain resistance to change. Resistance to change, according to these authors, arises from threats to traditional norms and ways of doing things (Senge, 1997). There were various mentions of staff resistance to change throughout the interviews. These were mainly apparent in the Bank and the University projects where almost every interviewee discussed issues affecting the project because of people's resistance to the change the project brought about in the organisation. The following outlines these referrals and analyses them.

- Bank, Sponsor: *'[The negative influence on staff was] resistance to change, extra work in implementing the system, disturbance to day-to-day work; they were worried about the additional accountabilities.'*

- Bank, IT Project Manager: *'IT people resisted the system more due to the fact that it was a greater change for them. Also, they saw it as a take over [they had to change] workflow, personality reporting etc. [and] they wanted to be different.'*

- University Change Manager: *'The stakeholders weren't engaged enough in making the project successful and it wasn't working as a team.'*

- University, Sponsor: *'If people's preparedness to engage was reasonable it would have been easier, but there is a strong passive resistance in the University so people agree as they sit around the table, then they leave and do nothing.'* Another quote from the same interviewee regarding change resistance: *'If we were more mature we could have gotten more. Partly because of this project we understood more about the change and what we can do and need to do as part of the changes.'*

- University, affected staff: *'These [sessions] were organized by the Change Manager − the university people don't volunteer/ participate, it's a cultural thing. There were multiple sessions on various campuses − but only a small number of people showed up.'*

It would seem that there were significant issues around resistance to change in both the Bank and the University compared to the Telco, where no resistance to the change was mentioned in any of the interviews. The only mention that may be attributed to

change resistance as part of the Telco project is made by the Telco Sponsor, where he suggests that people were unhappy with the change because they needed to take ownership over their new responsibilities.

- Telco, Sponsor: '*The negative influence people are experiencing as a result of the project is that they can no longer blame the vendor and they need to work longer hours.*'

This is the only mention that can be attributed to change resistance. Although the Telco Project Sponsor does not mention any behaviour that accompanies this negative experience, from what he says one can assume that there was somewhat of a 'blame' mentality that the project had to change. It is unknown whether there was definite resistance to this change or not.

One would expect the Telco project to have greater change resistance than the two other projects, as the Telco project is a greater undertaking, involves more changes to roles and structures and is not merely a change to the way a certain system works. This is supported by literature finding suggesting that project success is shown to decline as the level of personal and environmental threat perceived by staff increases (Gray, 2001). It is additionally expected that there would be great resistance to the project considering the lack of change management practices in the Telco project. The fact that resistance to change in the Telco project was hardly mentioned may be attributed to the overall culture in the Telco. According to Alas and Vadi (2006), commitment to the organisation, which can be a result of the organisational culture, decreases change resistance. In the 'team' aspect there is some evidence of this culture, and this is further discussed in the following section.

Dimension: Team:
- The type of team dynamics that the organisation produces is also a symptom of its culture and its ability to achieve project goals (Morrison, Brown and Smit, 2006). The following investigates the types of team dynamics in the three case studies, how these dynamics influenced the project and how this influence created a need for behavioural change or how these dynamics reduced that need.
- University, Sponsor*:' One thing to do is move on when things aren't moving and round them up later. You win over those who want to have a part. The ones that don't come on board will eventually when they see the rest joining.*'

The University Project Sponsor is explaining that because not everyone in the organisation was committed to the project and supported it, they had to move forward despite this resistance. The team dynamics in the organisation did not fully support the project, and the project had to rely on teams that did support the project to help push it forward.

▪ University, Change Manager*: 'The stakeholders weren't engaged enough in making the project successful and it wasn't working as a team.'*

The University Change Manager is echoing the University Project Sponsors' view that team environment was lacking in pushing the project forward.

The team dynamics surrounding the Telco project were very different and were highly supportive of the project. The following are some quotes that support this:

▪ Telco, affected staff: *'[There was a] whole of [Telco] team environment and everyone willing to assist'*.

▪ Telco, affected staff: *'The positives − team effort'*.

▪ Telco, affected staff:' *[The project] could have ended very poorly but we had a very professional team which is why it didn't go as badly as it could have'*.

As mentioned under the above 'change resistance' aspect of culture, the overall culture affecting the Telco project was different to the cultures affecting the Bank and the University projects. As seen in the above quotes, in the University the organisation did not work as a team to achieve the project and this slowed the project down and made it more difficult to achieve the change based on the above comments. In the Telco project, it appears as though one aspect which assisted in making the project successful was the team dynamics and the team's ability to pull together and work through their change management issues. These positive team dynamics in the Telco project were mentioned by several affected staff members as the reason for the projects' success.

In the 'issues resolution' part of this data analysis, there were mentions of change management issues such as 'not having processes', 'not being communicated to' and 'not receiving proper training for the change'. One explanation for why these issues did not create change resistance to the project and allowed the project to end successfully is because of the team dynamics that were working in favour of the

Telco project. This, according to interviewees, was the main reason for the project success, and it is also the only apparent explanation for the project not suffering despite these issues not having been addressed. This finds support in Campobasso and Hosking (2004), who say that the decision about who is part of the team can make the difference between success and failure of a project, and very often it can distinguish projects that move rapidly to completion from those that seem to wallow for months or years.

Dimension: Leadership:

According to some of the interviews, leadership also played a part in the overall culture which influenced the way the project was accepted and implemented. Schimmoeller (2007) found that if the organisational leaders are supportive of the project, the project has a greater chance of being accepted by the affected staff. His PhD research also determined that specific types of organisational culture favour particular styles of leadership (Schimmoeller, 2007). Therefore, although leadership is an individual characteristic, it is also consistent throughout a particular culture. Guttman and Longman (2006) conducted a study in which they rated project leaders and found that very few senior leaders understood the importance of their involvement in supporting the project and modelling the behaviours required by the project. Dulewicz, V. (1992), Dulewicz, V. and Higgs, M.J. (2005), Wren and Dulewicz (2005), Young, M. and Dulewicz, V. (2005) have all referred to the importance of leadership in change projects. According to their research certain types of leadership behaviours, specififcally leaders with greater self awareness are more useful in implementing changes. Pellegrinelli (2007) supports this idea and suggests that change fatigue, or readiness to accept changes can be modified by choosing or relying on a fitting leadership style.

The following are some examples for how the organisational leadership supported or hindered the achievement of the three project goals.

- Bank, Sponsor: *'One of the fears we had was that managers would revert back and ignore the information, the information helped identify who were the incompetent managers. These managers tended to continue mismanaging their staff because they weren't acting on the reports, they just did more work themselves to cover for their staffs' lack of performance.'*

- Bank, Sponsor: '[The Change Manager was] *confronting managers who are afraid of having the difficult discussions with their team members about poor performance.'*

The Bank Project Sponsor is quoted here as displaying disappointment in the managers in the Bank, saying that they were not showing leadership and were ignoring information for fear of having to have difficult discussions with their team members about their poor performance. This is another element that impedes achievement of the project goals.

The following are a few quotations from University project members identifying the issues that they had in implementing the project because of poor leadership in the University.

- University, Sponsor*: [Change Manager] spend a lot of time around the difficult people. The Dean would agree to move forward but the faculty didn't move it forward.'*

The Project Sponsor is suggesting that although the dean was supportive of moving forward, his leadership was not enough to make the managers reporting to him support the project and make the changes required for its implementation.

- University, Change Manager: '*had to bring a mass of leaders up to speed. There was resentment and change exhaustion.'*

The Change Manager says that many of the leaders she dealt did not understand the requirements of the project and their role in making the project a success. She also says that the leaders demonstrated resentment and change exhaustion rather than supporting the project and demonstrating supportive behaviour to their teams to encourage them to change.

- University, affected staff: *'Managers don't see it as being their role to encourage staff to participate and don't take on the responsibility [for ensuring the project is implemented].'*

This quote is another example of managers not displaying leadership and demonstrating behaviour which supports the project so that their staff behave in the same way.

These quotes, from the University and the Bank are indicative of the type of leadership that existed within the organisation and that the project had to work with.

In both cases, overall leadership culture was not supportive of the project. The Change Managers as well as the Project Sponsors had to invest project time into convincing leaders to assist in the implementation and in some cases to avoid hindering the project. There was work to help them overcome their fear of change, educate them on the requirements for the project and assist them in having discussions with their staff.

Similar to other cultural aspects, in this aspect too there were no mentions of whether leadership failed or was successful in the Telco project. One can argue that if the team dynamics were as successful and supportive of the project as they were, it is likely that the leadership was also supportive of the project and demonstrated to staff the type of behaviour that is required for the project to be successful. The explanation for the Telco phenomenon finds support in literature. Guttman and Longman (2006) review various projects and conclude that one element that makes projects successful, and teams reach high performance is leadership in the organisation and the way they model the behaviour for those teams. According to the authors, today's project leaders are less directors and more facilitators of team performance. One of the major leadership roles is to keep people focused and help the team set guidelines for decision making and behaviour. The authors also found in their study that very few leaders demonstrate this behaviour (Guttman and Longman, 2006).

Property: Factors being Influenced by the Project

There were very few mentions of organisational factors that were influenced by the project. One such factor was the organisational structure. The following section details the way the organisational structures were influenced by the two of the three case studies.

Dimension: Structure:

If the organisational structure does not support the requirements of the project, its ability to influence the organisation are limited. In these cases, projects are often expected to influence the organisational structure (Cooke-Davies, 1990; Waldersee, Griffiths, Lai, 2003). If a side effect of the project implementation is to change people's jobs, and the structure of the organisation, people are likely to be opposed to

the project and resist its implementation. The following are a few quotes discussing the limitations that the organisational structure had for achieving the projects goals:

- University, Sponsor: *'We set out delegations and business rules so system sent things out on delegations and used it as a core example which showed us what the right approvals were etc. some people felt their roles were threatened but most of them managed to get through'.*

- University, Change Manager: *'Finance was in silos and operated as a separate department; they were in silos and never communicated. The rest of the BUs hated Finance and couldn't do their basic job'.*

In these two interviews with the Change Manager and the Project Sponsor of the University project, they discuss the challenges they came across because of the organisational structure. The Project Sponsor says that as part of the project they emphasized the correct organisational delegations, which made some people feel a threat to their roles. The Change Manager says that a challenge to the project was that the Finance Department operated as a stand alone department, which made it difficult for anyone to deal with them and penetrate into their structure.

- Bank, IT Project Manager: *'We had two very different cultures which didn't work together'.*

- Bank, Change Manager: *'I also worked out the organisational restructure issues'.*

- Bank, Sponsor: *'Change Manager looked at the look and feel of the report to fit it to the business needs and to the new structures that we were working towards. The Change Manager argued the need for change, challenged people to accept that things can be done differently. Part of it was convincing people that it was a good idea and managing people's fear of change'.*

The Bank Project Sponsor, Change Manager and IT Project Manager all point to the project's need to deal with the organisational structure in order to implement this IT project. The IT Project Sponsor is quoted as saying that the structure the project had to deal with created two separate cultures which did not support the implementation of the project. Because of this, the Change Manager was responsible for the organisational restructure and had to invest time into changing the way the organisation was structured in order to implement the project. The Project Sponsor is

suggesting that this restructure had to be argued and that people had fears around the changing structure.

These examples show that both the Bank and the University projects encountered structural issues which influenced their ability to progress with the project. There are no mentions of the Telco project enduring similar constraints. This is curious considering the purpose of the change project was to in source a major capability as well as to change many of the organisational roles and responsibilities. According to interviews with affected staff members it seems that, regardless of the structure, in the Telco project the whole of the organisation pulled together to achieve the project's objectives. Because there were no mentions of any other reasons for the project's success, this suggests once more the power and criticality of the cultural influence on achieving change on change projects.

6 Discussion: Factors and the Role of Managing Change

This is the final part of the analysis and is the result of all the above analyses. This section summarises the ideas and topics brought to light throughout this study and discusses who manages behavioural change, what competencies this role needs and the integration between the Project Management and Change Management disciplines in the management of organisational change projects. The three projects have been analysed for their Project Management and Change Management characteristics. The purpose of the analysis is to develop a model that responds to the research questions relating to the role of managing change and the factors that influence the requirement for change management in a project. Answers to these research questions are also found in the literature and both the literature and the research need to be brought together for the development of this model.

In discussing the role of managing organisational change projects, some themes found in the research analysis and in the literature review emerge and these are summarised in the following section.

6.1 Organisational Factors

This section discusses the findings which answer the research question regarding the organisational factors. Specifically the question is: *What are the factors that determine the change required in a Change Project?*

- Interviewees had expectations of organisational and behavioural change from the project despite the project being an implementation of an IT system. These expectations mean that the projects need to include the necessary interventions to achieve these requirements for change.

- As found and proved by the literature review part of this study, and supported in this research study, any project influencing the way people work in the organisation is an organisational change project and requires a certain amount of change management activities. That is, all Change Projects need a person working on the project to interact with the stakeholders and affected staff, to ensure they are continuously engaged and committed to the project goals.

- Organisational factors have significant influence on the success of an organisational change project. If these influences are not supportive of the change and are not dealt with, the project is less likely to achieve success. The interviews

in this research study provided feedback specifically regarding cultural factors as influencing the requirement for change management activities. However, as discussed in the literature review, there are additional types of factors other than cultural, which may influence this requirement (e.g. organisational size, the organisation's customers, the industry and more).

▪ Not having a change management capacity on the project does not mean that the project will fail. If the factors are supportive of the organisational change, the project may succeed regardless of a Change Manager's presence. According to a study conducted by Alas and Vadi (2006), employee satisfaction and commitment to an organisation in times of organisational change can be improved by having an appropriate organisational culture. These were the findings in the investigation of the Telco organisation where, although the Telco project did not have a Change Manager, or perform change management activities, the project was successful. Nevertheless, the absence of Change Management practices such as employee engagement, communication, training and process design did create issues and constraints for project members, as identified in the interviews with affected staff from the Telco organisation.

6.2   The Role of Managing Change

This section discusses the findings which answer the research question regarding the role of managing change. Specifically that question is: *What do Change Managers do on an organisational change project that is different from what Project and Program Managers do?*

▪ According to the literature review part of this study, both Project Managers and Change Managers can lead organisational change and influence a change in the organisation and in people's behaviours. This did not find support in the Case Study research. According to the case studies investigated, the Project Managers that lead the project changes generally did not get involved in Change Management activities, although they may have had Change Management competencies that were not mentioned because they were not fully investigated, e.g. leadership and cultural awareness.

▪ The role of a Project Manager is expressed in terms of competencies in the literature review, and in the research the role is expressed as activities. The Project Management competencies and activities have been compared and found to be

similar, with few competencies and activities being dissimilar (Table 12). The purpose of collecting this information is to identify the work that Project Managers do and discover what, of that work, is dedicated to changing the organisation and employee behaviour in order to align with the change project's requirements. The findings were that Project Managers had few competencies in literature which are relevant for implementing organisational change, and even fewer activities in the findings from the case studies. This is surprising considering the well-documented importance of changing behaviours as part of projects (Hitt, Keats and DeMarie, 1998; French and Bell, 1999; Waldersee, Griffiths and Lai, 2003; Morrison, Brown and Smit, 2006; Pellegrinelli, 2007). However, it would be even more surprising if, considering the extent of work required of a Project Manager merely running the project, they would have time to invest in managing and changing behaviours to achieve their project or program goals.

- The role of a Change Manager, or the role of a person responsible for implementing change, is expressed in the literature review in terms of competencies and in the research in terms of activities. Change Management competencies and activities have been compared and found to be similar (Table 12). The purpose of collecting this information is to identify the work that Change Managers do and discover what, of that work, is dedicated to changing the organisation and employee behaviour in order to align with the change project's requirements. The competencies in the literature review and activities in the research findings point mainly to work undertaken to either change the organisation or change the organisational culture to fit with the project's change requirements or changing employee behaviours.

- This research study suggests that all change projects require a person to deal with the stakeholders and impacted staff and ensure they are committed and supportive of the project. This person needs to be decided upon up front and have a role on the project.

- The person responsible for the change can be the Project Manager or the project can have a dedicated Change Manager. Change Managers are increasingly common in project organisational changes as cited in the data analysis of this study. In literature, however, they have not been researched or analysed in depth.

- When there was no Change Manager to support the project and the project's requirement for change management, the Project Manager did not focus on Change Management activities. As a result, one of the two most common issues that affected staff had raised during the interviews was the lack of change management − specifically, lack of engagement, communication, process design and training. There were no mentions of these lacking in any of the interviews where there were Change Managers present, whether the Change Management tasks were performed to the satisfaction of affected staff or not. Therefore, if a project does not assign a Change Manager to deal with specific change items, the Project/Program Manager needs to deliberately undertake change management activities as part of his or her role.

Summary of Project/Program and Change Management Competencies and Activities

In this study, both literature and research came together in an analysis of competencies and activities a Project/Program Manager and a Change Manager would possess to successfully implement change on change projects.

In the literature analysis, Project/Program and Change Management competencies were found and compared. This was done to determine what change management competencies do Project/Program have and change competencies do Change Managers have. Initially all competencies of Project/Program and Change Managers were listed, then those that were similar were compared to determine which competencies Project/Program Managers have that are relevant to implementing change. The competencies that were found for Project/Program Managers but not for Change Managers were considered only Project and Program related. The competencies that were found only for Change Managers, but not for Project/Program Managers were considered missing or not needed when Project/Program Managers' implement change. In other words, the type of change that Project/Program Managers implement does not require all change management competencies (See Section 7.1, Figure D − Suggested process model for Project and Change Managers' involvement in organisational change).

To ensure that the minimum requirement of competencies for implementing change on change projects is met, any individual managing project change should have at least all the *similar* competencies held by Project/Program and Change Managers.

Table 14 shows the project/ program and change management competencies that were found in literature across the three roles.

What Project Managers do	What Program Managers do	What Change Managers do
Similar competencies		
Leadership	Leadership	Leadership
Team development/ Team selection	Team development/ Resource management	Team development
Stakeholder management	Stakeholder management	Stakeholder management
Communication	Communication	Communication
	Cultural consideration	Cross cultural skills
Decision making and problem solving		Decision making and problem solving
Planning: cost, time, risk, quality, scope, quality	Planning	Planning/ Project management skills
Governance	Governance management	
Contract management	Commercial	
Monitoring and controlling: cost, time, risk, quality, scope	Risk and issues management, scope management, progress monitoring, quality management	

Table 14: Literature-based Project/Program and Change Management competencies across the three roles

In the research study, project/program and change management activities were analysed through the interview responses from the various project incumbents as well as affected staff members. The analysis produced a list of activities that were undertaken by the Project/Program Managers as part of their project tasks. Out of this list change management activities that they had performed were identified. The analysis also produced a list of change management activities that were undertaken by the Change Managers in their role to implement organisational and behavioural change. The following tables present two separate lists. One represents the Project/Program Manager's activities and the other represents the Change Manager's activities.

	Project Management case study activities
	Change Management related activities of the Project Manager:
1.	Communicating − organises presentations, represents the project at team meetings and reports to sponsors
2.	Stakeholder management and management of teams with interface to the project
3.	Planning
	Project Management related activities of the Project Manager:
4.	Managing resource, people, budget, schedule, risk
5.	Team development
6.	System assessment
7.	Project definition
8.	Issues resolution
9.	Vendor management
10.	Strategic decisions
11.	Issues resolution
12.	Team management, resource management, roles and responsibility assignment
13.	Preparation of work environment
14.	Project closing from project to operational

Table 15: Project/Program Management research based activities

The activities in Table 15 are all the activities undertaken by the Project/Program Managers from the case studies. These activities are split into two parts. The first part consists of Change related activities and the second part is the Project related activities. The Change related activities are those that were found to be performed by Project/Program Managers on the case studies for the implementation of change.

The activities in Table 16 are those undertaken by Change Managers and found consistently in the two cases studies that had Change Managers. These activities have been proven in the analysis of the interviews to be directly linked to achieving the required behavioural and organisational changes. (See Section 5 − Data analysis and emergent themes).

	Change Management Case study activities
1.	Impact analysis
2.	Communicating and managing stakeholders and their expectations
3.	Selling the change
4.	Champion schemes
5.	Involvement in process analysis work
6.	Communicating and managing stakeholders and their expectations
7.	Change Management planning
8.	Training and education to affected staff
9.	Changing behaviours and organisational culture to achieve the goals
10.	Preparation of users
11.	Organisational structure
12.	Political diffusion

Table 16: Change Management research based activities

It can therefore be summarised that in order for one to successfully implement change into organisations, they should possess a minimum of all the competencies listed in Table 14. As for activities required in order to implement change, it is expected that a Project Manager implementing change into an organisation with (or without) a dedicated Change Manager will be able to perform all the activities listed in Table 15. It would also be expected that any individual implementing change as a full time job be able to perform all the activities listed in Table 16, whether this is a Project/Program or Change Manager.

7   Conclusion

This research focuses its investigation on two phenomena relating to organisational change projects. The first is the role and professional background of the individual who manages organisational change projects. The second is the factors contributing to the requirement for organisational change which both influence and are influenced by the project. A primary aim of this research was to address the emerging and very practical debate about choice of managers of change projects and understand the differences between project practitioners and change practitioners in terms of their competencies and the differences in what they do in practice. To understand the role of the individual managing change and competencies they require a secondary aim of this research was to understand the contextual factors such as organisational culture, structure, leadership, size, products, customers, and competitors that might influence the way in which the change needs to be managed. The study was designed to answer the following questions:

1.   What do Change Managers do and what are their competencies on an organisational change project that is different from the competencies of Project Managers and Program Managers and what they do?

2.   What are the organisational factors that influence decisions about how a change project should be managed?

Organisational change projects have become a common way for organizations to respond to their environment and remain competitive by changing the way they operate. However, according to French and Bell (1999), it is difficult to find practical examples of organizations that have fully transformed themselves to attain the organisational change they originally set out to achieve. They conclude that change is more difficult to achieve than most managers realise.

A topic of often impassioned debate in the literature and in practice is the role and professional background of the person best suited to manage change. There are many who believe that this role should be performed by the Project or Program Manager, as they are managing the project and therefore the change the project is introducing (Kliem and Ludin, 1992; Dinsmore, 1993; Obeng, 1994; Meredith and Mantel, 1995; Turner, Grude and Thurloway,1996; Pellegrinelli, 1997; Kerzner, 1998; Frame, 1999; Pappas, 2006; Thiry, 2006; Leybourne, 2006). Turner et. al, (1996) published a book

which describes the Project Manager's role as being responsible for implementing change, positioning "The Project Manager as Change Agent".

The first step in addressing the primary aim of this study, that is, to understand the differences between project practitioners and change practitioners in terms of their competencies and what they do in practice, was to review relevant literature. This provided the basis for a comparative analysis of the competencies expected of Project, Program and Change Managers. Having examined the literature, three case studies of organisational change projects were conducted and analysed to identify what Project, Program and Change Managers do in practice and how this relates to expectations drawn from the literature. The case studies were carefully selected to provide insights into the relative roles and contributions of both Project/Program Managers and Change Managers in the implementation of organisational change. From the case studies, the activities undertaken by Project/Program Managers on the projects were compared with those of the Change Managers.

To address the secondary aim of this research, that is to understand the contextual factors that might influence the way in which the change needs to be managed, contextual factors were investigated in the case studies. A number of contextual factors contribute to a project's requirement for an organisational and behavioural change and the degree of difficulty in its management. Literature provides very little coverage of how projects are able to influence and be influenced by such organisational factors (Morrison, Brown and Smit, 2006; Pellegrinelli, 2007). Organisational factors drive the requirement for change in two ways. The first way is by influencing the project requirements, for instance if there is resistance to the project changes, the project would need to establish a strategy to deal with this resistance. In this way the organisational factors influence the project. On the other hand, the organisation may be influenced by the project requirements, such as when the change project calls for an implementation of a system which requires changes in behaviour or management structures. In the discussion of who manages change, it is critical to understand the nature of the change, and the organisational factors that affect it. This assists in understanding whether a Project or Program Manager has the competencies required to manage the change component of a project and when the project can use the specific expertise of a Change Manager. This study investigates

the context of three case studies. As well as looking at the management of change projects, this investigation considers factors that contribute to improved project implementation as a result of factors.

The three case studies of organisational change projects that were utilised in this research were drawn from three different organisations: a telecommunication organisation (Telco), a bank and a university. All change projects studied were IT implementations. To address the research questions, interviews were conducted with various project members as well as affected staff. The interviews were then analysed using grounded theory supported by NVivo software for analysis of qualitative data.

While the role and competencies of the Project and Program Manager are well established in literature and in standards and supported by professional bodies, the role of the Change Manager is not as developed. The literature analysed in this study which discusses the role of managing and implementing changes suggests that it is performed by professionals from Organisational Development and Human Resources backgrounds. The role is rarely specified in literature in its own right. However, sufficient sources were found to enable an analysis and comparison of activities expected to be carried out by Project, Program and Change Managers. The results of this analysis are summarised in Table 17 (refer to Appendices A, B & C for supporting analysis and data).

	What Project Managers do	What Program Managers do	What Change Managers do
1.	Leadership	Leadership	Leadership
2.	Planning risk	Planning	Planning/ Project management skills
3.	Planning cost		
4.	Planning time		
5.	Planning scope and quality	Quality management	
6.	Monitoring and controlling cost	Progress monitoring	
7.	Monitoring and controlling risk	Risk and issues management	
8.	Monitoring and controlling scope and quality		
9.	Monitoring and controlling time		
10.	Team development	Team development	Team development
11.	Communication	Communication	Communication
12.	Stakeholder management	Stakeholder management	Stakeholder management
13.	Governance	Governance management	
14.	Organisation structure	Project management office consideration	
15.	Project definition		Analysis and assessment
16.	Administration, project reporting and documentation		
17.	Decision making and problem solving		Decision making and problem solving
18.	Team selection	Resource management	
19.	Technical performance		
20.	Change control		
21.	Contract management	Commercial	
22.	Closing	Cultural/ environmental consideration	Cross cultural skills
23.		Benefits management	
24.			Initiative and self management
25.			Creativity and challenge
26.			Facilitation and presentation
27.			Process design
28.			Learning and development
29.			Action orientation
30			Strategic thinking
31.			Influencing skills
32.			Coaching skills

Table 17: Literature-based Project/Program and Change Management competencies across the three roles

According to the literature, the similarities between the competencies and expected activities of Project and Program Managers were greater than between these two roles and that of Change Managers. In fact, when conducting the case studies, it was not possible to sustain a distinction between roles of Project and Program Managers as there is a lack of clarity of the differences between these roles in practice. In analysing the case studies it became necessary to conflate the Project and Program Manager roles.

The case studies focused on the change management related activities of Project / Program Managers and Change Managers and revealed considerable differences between what Project/Program Managers and Change Managers do in practice in relation to change specific activities as summarised in Table 18 below.

Change Managers' change management related activities	Project / Program Managers' change management related activities
Similar activities	
Communicating and managing stakeholders and their expectations	Communicating − organises presentations, represents the project at team meetings and reports to sponsors
Stakeholder management	Stakeholder management and management of teams with interface to the project
Change Management planning	Planning
Different activities	
Changing behaviours and organisational culture to achieve the goals	
Preparation of users	
Organisational structure	
Political diffusion	
Impact analysis	
Selling the change	
Champion schemes	
Involvement in process analysis work	
Training and education to affected staff	

Table 18: Similar and different Change Management activities undertaken by Project and Change Managers in the case studies

Table 18 highlights change specific activities that were found to be undertaken by Project Managers on Change Projects compared to those undertaken by Change

Managers in the case studies. Considering their different activities on the project, there is a need to establish requirements for who should manage the change on a project. According to the findings in this study, whether the individual managing the change is the Program/Project Managers or a dedicated Change Manager is likely to depend on organisational factors and the nature of the change project.

Case study findings suggested that organisational factors can assist or hinder projects in achieving their goals. There are indications from the case studies that culture, leadership, teamwork and organisational structure are particularly important. For instance, in the Telco case study, although there was no Change Manager on the project, the change was successfully achieved and this appears to have been due to culture and leadership that were supportive of the project. As evidence of this, an affected member of staff on the Telco project stated that: *'The project could have ended up very poorly but we had a very professional team which is why it didn't go as badly as it could have'.* Nevertheless, it is unlikely that organisational factors will eliminate the requirement for change management activities. The project could have faced fewer issues than it did in relation to processes, training and communications had specific change management activities been undertaken.

Factors which were shown in the case studies to have influenced the need for specific change management activities were the extent of changes to the way people perform their jobs and therefore the degree of behavioural change required. In the case studies investigated here, Change Managers used project engagements, communication, training and process redesign to influence behavioural change. An example of this is from an affected staff member on the Bank project who said that they knew what was coming down the track, they were given communications, they were told where the project was up to, and they had staff awareness meetings every fortnight.

The following summary presents the findings of this study as a practical process and decision-making matrix to assist managers and project staff in applying the findings in practice.

7.1 Summary: Organisational Factors and the Role of Managing Change

Process for Determining the Change Management Requirements

Figure D represents a process suggested by the findings in this study. It describes the relationship between the components being studied and explains how they work together to arrive at the management of organisational change.
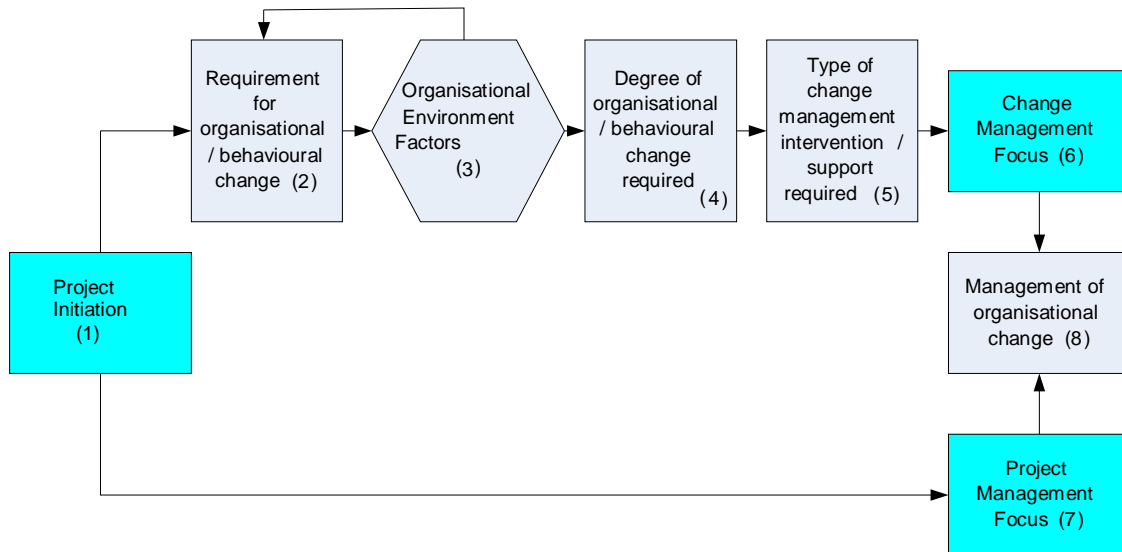

Figure D: Suggested process model for Project and Change Managers' involvement in organisational change

The following provides detail of the steps in this model:

1. The organisation decides that it needs a project based on a technical requirement and the project is initiated.

2. The organisation establishes if there is a need for any organisational or behavioural change. For example, if the project is implementing a system which relies on two departments to communicate with each other, but these departments work in silos, then this would require some organisational behavioural change.

3. An assessment of organisational factors that influence the project is made. Organisational factors interact with projects in two ways. In one way the organisation is influenced by the project, i.e. the project changes organisational factors by implementing organisational and behavioural change to fit with the projects' technical requirements. Based on the example in step two, an assessment is made of what factors it would need to change as a result of the two departments working in silos − for example, these factors can be cultural − in order to

implement the system successfully. In this way the project influences the organisational factors. The second interaction factors have with projects is an influence on the projects themselves. Organisational factors will influence the commitment that the organisation has for achieving these changes or the resistance to the change. For example, if a factor such as team work is strong in the organisation, it is likely that the project will find it easier to implement its deliverables. However, if there is resistance to the project changes then the project will find it much more difficult to implement its deliverables. In this way the factors influence the project.

The continuous loop between steps two and three represents the ongoing relationship between the requirement for organisational and behavioural change and organisational factors. Each time a requirement for organisational and/or behavioural change is raised, the organisational factors need to be assessed, as described in steps two and three.

4. The degree of change required is assessed. To use the same example − is an organisational restructure required? Or does the change merely involve facilitating discussions between the two departments?

5. An assessment is made of specific change management activities or interventions that need to be performed to achieve the desired outcomes. The project must gain support and commitment from all influenced parties of the organisation to perform the agreed changes, taking into account the factors which will negatively influence the execution of these changes.

6. Based on the preceding steps, the role, responsibilities and focus of the projects' change management aspect can be determined. This step determines the work required of the Change Manager.

7. The organisation decides on a Project Manager and on the 'technical' project objectives or deliverables, this is done at the same time all or prior to all the above steps taking places. This step determines the work required of the Project Manager.

8. Finally the project proactively pursues both the implementation of its technical requirements and the organisational changes that will make the technical implementation possible and successful.
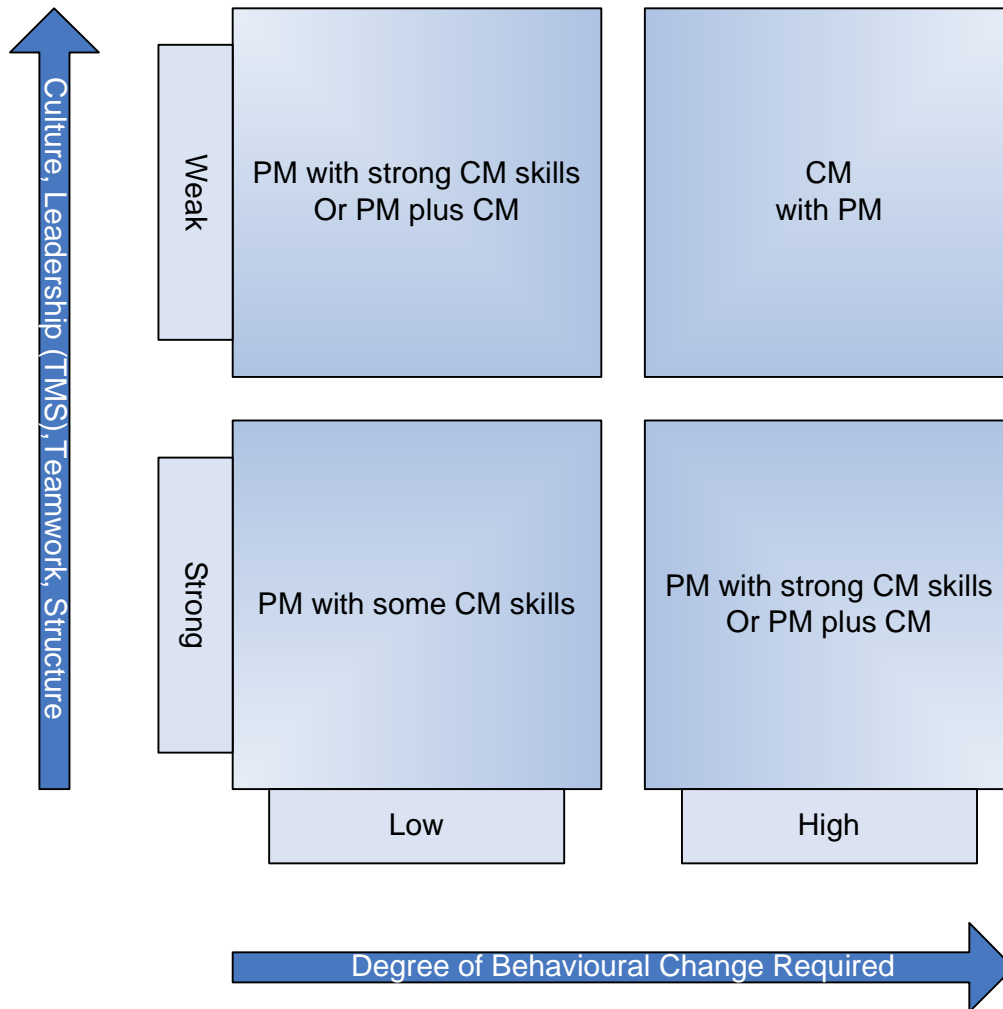
Figure E: Suggested decision matrix for projects' engagements of Project and Change Managers

Based on the results of this research, Figure E is a suggested matrix which assists in making a decision about the circumstances in which to consider appointing a Project Manager, a Change Manager or both to manage a change project. The two decision criteria are the vertical and horizontal axes on the model. These criteria correspond with the two ways organisational factors interact with projects (see step 3 of Figure D). The arrows show that there are two key elements which would influence the employment of a Project Manager or a Change Manager to handle the change. The first element is the degree of behavioural change required by the project, how many of the organisational factors need to be changed and to what extent in order for the

project to be successful, i.e. the influence of the project on organisational factors. The second is the extent to which organisational factors such as culture, leadership, top management support (TMS), teamwork and structure supports the project and its goals, and to what extent these would influence the projects' implementation. That is, it assists in evaluating the positive and negative influence of the organisational factors on the project.

The quadrants on the model (Figure E) indicate the extent to which each role (Project / Program Manager or Change Manager) is utilised or required on an organisational change project according to assessment against the criteria represented on the horizontal and vertical axes discussed above.

1. In the lower left hand quadrant, where there is little behavioural change required, and the organisational culture and leaders are supportive of the change. There is little need for a dedicated Change Manager and it is reasonable to expect that most of the change management tasks can be performed by the Project Manager running the project.

2. In the bottom right hand quadrant, there is a high degree of behavioural change required, and the organisational culture and leaders are supportive of the change. This instance was illustrated by the Telco case study (refer to Chapter 5 of this study). Here the Project Manager may be able to lead the change requirements with the strong support of the leaders and culture in the organisation. As demonstrated in the Telco case study, however, the Project Manager needs to focus on executing the required change management tasks to ensure effective behavioural change. If the Project Manager does not possess any change management competencies, or if the behavioural change is so significant that it requires a full time resource, then a Change Manager would be needed to assist in implementing the change.

3. In the upper left hand quadrant there is a low degree of behavioural change required, but there is only weak support the change. The decision as to whether a Project Manager can manage the change aspects of the project will be dependent on the change competencies of the Project / Program Manager, the importance of the implementation and the implications of weak support or resistance. If the unsupportive culture and leadership create great resistance to the project, then there would be a need for a dedicated Change Manager. The Change Manager

would need to defuse the resistance by performing change management activities such as interacting with stakeholders, selling the change and developing champion schemes (as presented in Section 5.4, *Category: Change Management and Change Manager, Property: Activities of the Change Manager*). If, however, the resistance to the change is not great, the Project Manager may be able to implement the changes him/herself. The Project Manager in this case would need to keep stakeholders regularly up to date with the project as well as be aware of any stakeholder issues that are raised and deal with them and not rely on the organisational culture or leadership to support the project efforts.

4. Finally, the upper right hand quadrant represents a situation where the culture and leadership are unsupportive of the change and there is a great degree of behavioural change required. In this instance, the manager of the change may be a senior manager or member of the corporate executive (as Change Manager) with one or more Project / Program Managers reporting to them. In any case there would be need for full time resource or resources on the project to deal with the change management requirements.

Project / Program Managers and Change Managers all claim the role of implementing change and these claims are to some extent supported by the literature. Change management knowledge and activities are however significantly absent from the majority of the Project Management standards and literature on competencies. In practice, based on the Case Studies, Project Managers do not tend engage in change management activities. The question of where it would be appropriate for a Project Manager to manage change and in what cases a Change Manager should be engaged is therefore important to organisations. As indicated in Figure E there are cases where a Project Manager is sufficient for the management of the change component on an organisational change project. These cases are where the degree of behavioural change is low and there is leadership and cultural support for the implementation of the behavioural and/or cultural change. In these cases, there are some competencies and activities that the Project Manager must be able to demonstrate and perform so that the change aspect of the project is appropriately implemented. These are discussed in the next section. When there is a high level of behavioural and/or organisational changes required by a change project, there is a clear need for an individual to specifically focus on managing the change aspects. As demonstrated by

the case studies, in practice, Project Managers tend not to perform change management activities even if there is no Change Manager on the project. In fact, it may be unreasonable to expect the Project Manager to oversee the project as well as manage the change aspects.

The following section draws on the findings from this research to provide guidance to organisations on what to look for in terms of competencies when selecting managers for change projects, the types of activities that need to be undertaken and what they can reasonably expect Project / Program Managers and Change Managers to do.

A Guide for Project/Program and Change Management Competencies and Activities

In this study, both review of literature and case study research have been utilised to provide a guide to the competencies that would be required and activities that would need to be undertaken by a Project/Program Manager and a Change Manager to successfully implement change on change projects.

As described in Chapter 6 of this research, there are several competencies and activities required by Project/Program Managers for the implementation of change, as well as competencies and activities required by Change Managers (or someone with a full time role of implementing change). The following Table 19 summarises all those competencies and activities that were found through an analysis of literature and from the case studies to be required for successful management of change.

Activities which are a minimum requirement for a Project/Program Manager who is also managing the change aspect of the Project/Program	Competencies which are a minimum requirement for a Project/Program Manager who is also managing the change aspect of the Project/Program
Planning	Planning skills
Team development	Team selection/ team development skills
Communicating − organises presentations, represents the project at team meetings and reports to sponsors	Communication skills
Stakeholder management and management of teams with interface to the project	Stakeholder management skills
	Leadership skills
	Decision making and problem solving
	Cultural awareness / cross cultural skills

Table 19: Minimum competencies and activities required by Project/Program Managers responsible for implementing change

Activities required to be carried out by a Change Manager	Additional competencies required by a Change Manager
Impact analysis	Analysis and assessment
Training and education to affected staff	Learning and development
Political diffusion	Creative and challenging, coaching
Champion schemes	Initiative and self management
Change Management planning	Facilitation and presentation
Communicating and managing stakeholders and their expectations	Action orientation
Involvement in process analysis work	Process design
Communicating and managing stakeholders and their expectations	Team development
Selling the change	Planning/ project management
Changing behaviours and organisational culture to achieve the goals	
Preparation of users	
Organisational structure	

Table 20: Minimum competencies and activities required by Change Managers, or individuals with a full time role of implementing change

Activities which are indicated in Table 19 as a minimum requirement for a Project/Program Manager who is also managing the change aspect of the Project/Program are those that were consistently found across all three case studies. These are activities that *all three Project Managers performe*d in an effort to implement change but they are also only a minimum requirement. **Competencies** indicated as a minimum requirement for a Project/Program Manager who is also managing the change aspect of the Project/Program are those that were found *most frequently* in literature as competencies possessed by Project/ Program Managers who were implementing change (which again are why they are a minimum requirement).

For Change Managers, Table 20 there are additional **competencies** required to implement change. These are the additional competencies found in literature which were specifically required for individuals with the main role of managing change. Finally, **activities** required to be carried out by a Change Manager are those activities that were in the two case studies that had Change Managers working on them.

Although the physical side of the project may be achieved on time, to budget and in scope, the behaviours of people who are impacted by the project may not adjust as quickly. Research shows that behaviours and routines are not easily changed (Pellegrinelli, 2007), and the Case Study activities show that in practice the Project Manager does very little change related work compared to the Change Manager. As shown in the Data Analysis and Emergent Themes section of this study, in organisations where the change element is not managed, there is likelihood for change resistance, which may either fail the project, slow it down or create dissatisfaction amongst impacted staff – which is what was found in the Telco Case Study. Additionally, when there is a change to the way people do their work, there is a need to address the gap between the previous way of working and the new expectations of staff.

Beyond the introduction of new behaviours required of individual staff members, there is the overarching requirement to ensure that the culture is supportive of the project outcomes. One of the most critical factors for project success or failure is the organisational culture (Morrison, Brown and Smit, 2006). According to Morrison, Brown and Smit, (2006) as well as Pellegrinelli, (2007) Project Management does not deal sufficiently with addressing cultural aspects of change projects, has a superficial view of culture and has not dealt with the significance of its influence on a project's success or failure (Morrison, Brown and Smit, 2006). Considering the importance of culture to project success, it is important that a resource is dedicated to plan and implement the most supportive and relevant culture to fit with the project requirements and for the organisation going forward.

As shown in the Case Studies, the process for transitioning staff through a change, requires thorough planning of people related impacts and interventions. These cannot be expected to be undertaken by a Project Manager who may not have the required competencies and is already tasked with planning and implementing the physical and/or technical side of the project.

7.2   Limitations of the Study and Future Research Opportunities

The goal of this study was to investigate the relative roles of Project/Program Managers and Change Managers on organisational change projects and the contextual factors that might affect the change management competencies required, the change activities that need to be undertaken and the most appropriate professional background to manage the process. The specific research questions driving this study were:

1. What do Change Managers do and what are their competencies on an organisational change project that is different from the competencies of Project Managers and Program Managers and what they do?

2. What are the organisational factors that influence decisions about how a change project should be managed?

To address these questions, in addition to literature review and analysis, qualitative research methods were used for collecting and analysing data from interviews with sponsors, project members and affected staff on three organisational change projects. This research provided theoretical and practical understanding of the phenomena. Quantitative research methods such as surveys would have been too restrictive, failing to capture the richness of data from the various interviewees, their concerns throughout the project implementation and their motivations for driving the project towards success. Moreover, it would not have provided the comprehensive reasoning behind the work that the Project and Change Managers perform.

However, utilising the understanding provided by this research, future studies could utilise some a more quantitative approach, such as a survey to test the findings and their generalisability.

The sample for this study is three case studies which represent organisational change projects. The three case studies varied in types of organisations, but not in types of projects; these were IT implementations which were similar across the case studies. It would be worthwhile in future to conduct a similar study that looks at different types of organisational change projects, not just IT implementations. If found to obtain similar results, a study which looks at a different type of organisational change project

may provide substantial evidence to support the findings of this study, i.e. that Project/Program Managers and Change Managers perform different roles and that Project/Program Managers do not usually carry out the activities that Change Managers do to implement change as part of their roles.

The organisational factors that were studied here were specific to those that emerged in the three case studies – namely culture, leadership, teamwork and organisational structure. There are many other factors in organisations that influence or are influenced by organisational change projects. It would be worthwhile investigating organisational factors in greater depth, perhaps investigating each factor separately. A study such as this would contribute greatly to the understanding of how organisational factors influence project performance and how projects can obtain greater success and implement changes by understanding, responding to and utilizing existing factors.

Finally, this study only addressed organisational changes and the interventions to achieve these changes within the case study projects. There may be work that takes place in organisations, pursued actively or merely intuitively, to promote and achieve organisational changes. The organisational changes may be in line with the project's requirements or require the opposite outcome. Additional research may study the relationship between the work done on the project and the work that takes place outside the project. The two can be studied to understand how they achieve the desired organisational change as well as show the requirement from Project/Program and Change Management considering their focus needs to be both within their project and to assist in the overall changes to the organisation.

7.3   Contribution to Knowledge and Practice

This study has implications for both the theory of Project Management and Change Management. From a theoretical perspective, this study brings together two largely disparate fields that operate within the same organisational territory, i.e. the management of change. The two fields are:

1. Project/Program Management

2. Change Management, a field which has evolved from Organisational Development and Human Resources practices.

In practice, there is often competition between Project/Program Manager and Change Managers for the management role on organisational change projects but this study has demonstrated that there is opportunity for a fruitful partnership. From a theoretical perspective, Change Management can be seen as theory rich while the role of the Change Manager is weakly supported in terms of professional formation. The Project / Program Management field is generally considered to be theory poor, while the roles of Project and Program Manager are very well supported by professional bodies, standards and certification processes. This suggests a fruitful opportunity for partnership not only in the management of organisational change projects but also in theoretical and professional development.

A contribution of this study is in testing the claims of Project and Program Managers as implementers of change. According to the findings of this study, and in contradiction to many papers and books written to date on the matter, Project and Program Managers do not necessarily have the required competence to perform the full activities required to promote and implement the changes that they are leading as part of their projects. Although many authors suggest that Project and Program Managers are implementers of change (Kliem and Ludin, 1992; Dinsmore, 1993; Obeng, 1994; Meredith and Mantel, 1995; Turner, Grude and Thurloway, 1996; Pellegrinelli, 1997; Kerzner, 1998; Frame, 1999; Pappas, 2006; Thiry, 2006; Leybourne, 2006), neither the literature nor the case study research indicated that Project / Program Managers are expected to have the same range of change related competencies and conduct the same activities expected of Change Managers. The findings of this research have potential to contribute to standards, curriculum and educational development for Project and Program Managers. They also provide guidance to organisations in identifying the competencies required and activities that need to be undertaken on projects involving varying degrees of organisational change.

A further contribution of this study is to highlight the need for professional formation for the role of Change Manager. This role has significant application in practice, but has been subjected to little scrutiny in terms of research. To date, there are few or no industry bodies representing the role, there are few academic courses designed to cater specifically for the role and there is no agreed governance for how the role is

executed. The widespread and growing application of this role in practice suggests a need for professionalisation.

In a practical sense, as a result of this study, a process model for Project and Change Managers' involvement in organisational change was developed. Additionally, a matrix to assist in decisions about appointment of a Project Manager or Change Manager or both for organisational change projects has been presented. Results support the already well entrenched use of a Change Manager in the management of change and enhance understanding of how the Project/Program Manager and Change Manager relate to one another on Change projects. In recruitment for organisational change projects there needs to be consideration for the management of the change and the person who drives the changes into the organisation beyond the daily tasks of managing the project/program, performed by the Project/Program Managers. The implications of having this additional role are in changes to the way projects are run including their governance, reports, and all other project activities as well as the development of new project activities, which are Change Management specific.

Finally, this research has found that there is influence of organisational factors on the implementation of change projects as well as the requirement for organisational projects to influence these factors. There is very little research on these contextual factors and how they influence projects and how projects can enhance success by recognising and influencing them. This too needs to be brought to light further as the implications of successfully understanding the relationship between organisational factors and organisational change projects can enhance organisational performance significantly.

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Appendices

Appendix A: Project Management Competencies from Literature

Project Management Competencies Frequently Mentioned in Literature and Added to Crawfords 2001 list										
Overall concept	**Taylor, 1998**	**El-Saaba, 2001**	**Jiang, Klein and Balloun, 1996**	**Jiang, Klein and Margulis, 1998**	**Briner, Hastings and Geddes, 1996**	**ICB-IPMA 2006**	**OGC--Skills Framework, 2002, 2004**	**APM BoK, 2006**	**GAPPS, 2007**	**PMBoK, 2004**
Leadership	Leadership skills, sets examples, energetic, sees the big picture, has a vision, delegates, has a positive attitude, challenges the process, enables others to act	Leadership	Feedback capabilities	Interviewing, directing and managing	Manages performance	Leadership, Engagement and motivation		Influencing Leadership		
Planning cost	Cost					Planning cost	Planning and controlling costing	Planning cost	Define cost	Cost estimating cost budgeting, procurement management
Planning time			Clearly defined goals			Time and project phases			Develop and integrate project baseline	
Planning risk						Risk and opportunity		Risk and issues		Planning risk, risk identification, risk analysis , risk response
Planning quality and scope	Organisation skills, planning, goal setting, analyzing	Planning, organizing, strong goal orientation, ability to see the project as a whole,			Manages the lifecycle of the project	Quality plans	Planning and scheduling	Quality	Manage development of the plan for the project	Quality scope definition, scope planning, Plan development plan execution
Monitoring and controlling cost						Finance, cost and finance	Planning and control Financial management			Cost control, procurement management
Monitoring and controlling quality and scope					Manages the project scope	Scope and deliverables	Quality management, assurance requirements management, progress monitoring and control	Progress monitoring	Monitor and evaluate and control project performance evaluate and improve project performance, evaluate in accordance to the plan	Quality management, quality control, activity sequencing, activity duration estimation, schedule development, schedule control, scope management, scope verification
Monitoring and controlling risk							Risk management		Monitor and document risk and risk response	Monitoring, managing risk and controlling

192

Project Management Competencies Frequently Mentioned in Literature and Added to Crawfords 2001 list										
Overall concept	Taylor, 1998	El-Saaba, 2001	Jiang, Klein and Balloun, 1996	Jiang, Klein and Margulis, 1998	Briner, Hastings and Geddes, 1996	ICB-IPMA 2006	OGC--Skills Framework, 2002, 2004	APM BoK, 2006	GAPPS, 2007	PMBoK, 2004
Monitoring and controlling time							Project lifecycle and processes		Manage project progress	Activity sequencing, activity duration estimation, schedule development
Team development	Team building skills, empathy, motivation and fostering a feeling of strong belonging and willingness to commit			Communicating and managing the project team	Manages teamwork	Team work Engagement and motivation Personnel management			Promote effective individual and team performance	Team development
Communication	Communication skills, listening, persuading	Communication: Project Manager is able to listen, persuade, and understand what others mean by their behaviours.	Adequate communication	Communicates with project clients		Communication		Communication	Manage stakeholders communication	Communication planning
Stakeholder management			Stakeholder consultation responsive to client		Manage stakeholders, market and communicate the project	Interested parties	Identify impacts to stakeholders	Stakeholders, manage stakeholder relationships, stakeholder interests are identified and addressed	Facilitate external stakeholder participation stakeholder interests are identified and addressed	
Organisational structure						Project organisation project structure	Organisational structure			Organisational planning
Project definition						Project orientation	Project start up and initiation project definition	Defining the project	Ensure product and project are defined Manage project start up	Initiation activity definition
Administration, project reporting and documentation					Conducts regular audits of documents	Information and documentation	Project management documentation, information management			Information distribution and performance reporting, administrative
Decision making Problem solving						Problem resolution	Issues management			
Team selection						Resources	Roles and responsibilities Resourcing	Team roles Resources		Resource management staff acquisition, source selection

Project Management Competencies Frequently Mentioned in Literature and Added to Crawfords 2001 list										
Overall concept	Taylor, 1998	El-Saaba, 2001	Jiang, Klein and Balloun, 1996	Jiang, Klein and Margulis, 1998	Briner, Hastings and Geddes, 1996	ICB-IPMA 2006	OGC--Skills Framework, 2002, 2004	APM BoK, 2006	GAPPS, 2007	PMBoK, 2004
Governance						Project structures		Project governance	Facilitate external stakeholder participation	Governance
Change control			Control mechanisms	Performing the project control functions		Control and report	Change control	Reactions to change, change control	Ensure changes are monitored and controlled	Overall change control, scope change control
Contract management						Procurement and contract changes	Procurement and contract management	Commercial		Contract administration
Closing						Close out	Project close and handover	Types of closure	Manage project closure	Contract closeout
Technical skills	Technical skills, experience and project knowledge	Special knowledge in the use of tools	Technical proficiency Trouble shooting			Systems, product and technology, technical competence	Software tools			

Table 21: Project Management competencies frequently mentioned in literature and added to Crawfords (2001) list

Project Management Competencies Not Frequently Mentioned in Literature									
Taylor, 1998	El-Saaba, 2001	Jiang, Klein and Balloun, 1996	Jiang, Klein and Margulis, 1998	Briner, Hastings and Geddes, 1996	ICB- IPMA 2006	OGC-- Skills Framework, 2002, 2004	APM BoK, 2006	GAPPS, 2007	PMBoK, 2004
Coping skills Flexibility, creativity, Patience Persistence	Coping skills				Contextual competence Behavioural competence: self control, assertivenes, relaxation, openness, creativity, results orientation, efficiency, consultation, negotiation, reliability, values, ethics	Fit with program	Project, Program Managers		Solicitation planning
					Business, permanent organisation	Project type	PMO consideration	Reflect on practice	
	Ability to visualize the relationship of the project to the industry and the community					Performance management			
						Sales and Marketing Business case management	How policy business drivers and vision evolve into programs	Manage product acceptance, Secure acceptance of the product of the project	
					Health, security, safety		The environment		
						Configuration management	How do I stay in control		
						Role of project support office	Delivery journey issues		
						Post project review Approvals and review	Am I being told all I should be?	Develop project evaluation	
						Business context and business case	Senior owner role, ensures good practices are being followed	Capture and apply learning	
						Transition management	Transition	Manage transition	
					Project Management success		Measure Success	Confirm project success criteria	
					Legal			Ensure the project plan reflects relevant legal requirements	

Table 22: Project Management competencies that were not frequently mentioned in literature

Appendix B: Program Management Competencies from Literature

Program Management Competencies Which Were Frequently Mentioned In Literature					
overall concept	Moore, 2000; Thiry, 1999	Pellegrinelli 2002	APM BoK 2006	OCG skills framework 2002, 2004	OGC Managing Successful Programmes 2007
Planning = 5	Leads cross project planning as well as dependency and issues resolution	Project/ program organisation and management	Planning defining the project	Program planning, planning and scheduling, program definition	Planning and designing the program
Stakeholder management =5	Provides periodic status in steering committee	Understanding clients objectives Managing the client interface	Stakeholders	Stakeholder management	Managing communications with stakeholders
Leadership=4	Represents the program on the program steering committee	Approach and strategy for the project/program	Influencing Leadership Senior owner role ensures good practices are being followed		Being the day to day agent on behalf of senior responsible owner for successful delivery of new capability
Communication= 4	Identifies external influences and communicates with other programs as appropriate		Communication and progress monitoring	Reporting progress to the SRO effective communication	Communication
Risk and issues management= 5	Resolves issues that cannot be resolved at the project level, mitigates risks and escalates obstacles requiring program steering committee attention	Risk management	Risk and issues Delivery issues	Organisational issues, risk management, issues management , initiating activities when issues arise	Rresolving issues initiating corrective action as appropriate, managing risk and any other issues
Resource management and team development =5	Allocates or reallocates resources within the program	People and resource management	Team roles Resources	Adequate resources, roles and responsibilities, managing contracts, performance management	Ensuring maximum allocation of resources and skills within the project dossier, facilitating appointment of individuals to the project delivery teams
Governance =3	Governance and escalates issues to program steering committee that cannot be resolved at the program level		Governance		Defining programs governance framework
Progress monitoring =5	monitors progress to key program milestones, ensures management of the day to day activities of the program office	Scope management	Progress monitoring	Progress monitoring and control	Day to day management of program, proactively monitoring
Quality management=3			Quality	Quality management, assurance	Ensuring the delivery of new products or services from the projects meets program requirements and is to the appropriate quality
Commercial =5	Ensures that program adheres to the program contract, ensures costs and revenues are under control	Commercial awareness	Commercial	Procurement and contract management financial management	Managing third party contribution to the program, managing budget, monitoring expenditure against benefits that are realised as the program progresses
Cultural considerations =3		Cultural awareness	Impact assessment , the environment reactions to change		Culture and change management
Project Management office consideration=3			PMO considerations, project/ program managers	Role of program support office	Developing and maintaining program environment to support each individual project within it, effective coordination of programs and interdependencies
Benefits management =4	Ensures benefits are achieved and are linked to strategic business plan objectives		Benefits	Benefits planning and management	Benefits realisation

Table 23: Program Management competencies that were frequently mentioned in literature

Program Management Competencies Which Were Not Frequently Mentioned In Literature				
Moore, 2000; Thiry, 1999	**Pellegrinelli 2002**	**APM BoK 2006**	**OCG skills framework, 2002, 2004**	**OGC Managing Successful Programmes 2007**
		Review	Reviews	Ensuring architectural coherence within the program via design authority alignment and possible creation
		Change control	Change control	
		Transition	Transition management	
		Project/Program Managers	Audit issues	
		How policy, business drivers and vision evolve into programs	Program lifecycle	
			Program types	
			Designing a project portfolio	
			Business context and business case	
			Information management	
			Requirements management	
			Sales and marketing	
			Software tools	

Table 24: Program Management competencies that were not frequently mentioned in literature

Appendix C: Change Management Competencies from Literature

Change Management Competencies Frequently Mentioned In Literature												
Overall concept and number of articles mentioned	CMI 2008	Blair and Medows, 1996	Caluwe' and Vermaak, 2003	Carnall, 2003	Cummings and Worley, 1993	Doppler and Lauterburg, 1996	French and Bell, 1999	Kanter 1983, 1992	Kotter and Cohen, 2002	OGC, Skills Framework 2002, 2004	Paton and McCalman, 2000	OGC, Managing Successful Programmes 2007
Leadership = 8	Role model	Empowering, motivational, empowering	Motivational			Willing to accept responsibility; courage to take a stand	Empowering		Empowering	Role of senior responsible owner	Ability to manage upwards, downwards and sideway, motivator	
Analysis and assessment = 6	Needs analysis; analytical thinking, evaluation, needs identification, measures effectiveness of comms, change readiness assessment, business readiness assessment	Analytical ; job analysis and design skills; assessment skills, organisational design skill	Analytical	Analytical	Conceptual and analytical ability; questionnaire design and analysis skills; interviewing skills; research interviewing skills, organisational diagnosis skills, unobtrusive measure, job measure		Analytical and assessment skills, organisational structure and design					
Stakeholder management =5	Customer and stakeholder focus; interpersonal skills, networking	Interpersonal skills			Intrapersonal and interpersonal skills, aptitude in speaking client language					Identifying and influencing key stakeholders	Socialises within a network of stakeholders	
Imitative and self management = 4	Personal responsibility, resilience	Energized				Good confidence		Self confidence				
Creative and challenging =6		Creative	Creative; challenges the past, challenges organisational culture	Creative intuition				Thinks creatively ; questions the past, challenges old ideas and beliefs		Impediments to cultural change		
Facilitation and presentation = 8	Workshop and meeting design, professional presence and positive image	Facilitation skills	Facilitation skills; consulting skills	Presentation skills	Presentation skills; process consulting	Consultancy skills	Facilitation skills; consulting skills				Facilitation skills for groups	
Team development = 9	Participatory environment	engaging and inclusive	Team building skills	Team building skills, effective collaborator, inclusive		Team work and team development skills, creates environment of trust and openness, focus on cooperation	Team building skills, collaborative	Collaborator	Team building skills	Identifying and selecting change team		
Process design= 4	Process		Business process redesign, process and procedure development skills		Designing and managing large change processes					Managing the change process monitoring the process		
Communication= 7	Oral communication, written communication, solution design and development--communication strategies	Communication skills	Communication skills		Language and non verbal communication skills	Communication skills, clear self expression			Communication skills		Communication skills	
Learning and development = 4	Adult learning principles, training plan, training solution delivery		Learning and development			Can develop and train on processes	Training and educational skills					

Change Management Competencies Frequently Mentioned In Literature												
Overall concept and number of articles mentioned	CMI 2008	Blair and Medows, 1996	Caluwe' and Vermaak, 2003	Carnall, 2003	Cummings and Worley, 1993	Doppler and Lauterburg, 1996	French and Bell, 1999	Kanter 1983, 1992	Kotter and Cohen, 2002	OGC, Skills Framework 2002, 2004	Paton and McCalman, 2000	OGC, Managing Successful Programmes 2007
Action orientation =7	Builds lasting outcomes	Can translate vision into objectives	Solution driven	Achieving action, can do attitude	Designing and executing intervention	Fulfilment of responsibility, able to function in complex situations	Generates feedback activities	Drives results and success	Can translate vision into actions and deeds		displays strong commitment	
Decision making and problem solving = 6	Decision making skills	Problem solving skills; decision making skills	Decision making skills	Problem solving skills; decision making skills			Problem solving skills	Decision making skills				
Cross cultural skills = 5	Cultural awareness, understanding environment, strategy, culture, process etc.			Cross cultural skills	Cross cultural skills	Intercultural skills				Understanding departmental culture Impediments to cultural change *(also in creative)*		
Strategic thinking = 8	strategic view ; vision development, holistic thinking	Strategic alliance building skills; visionary;, sees the big picture	Visionary	Can translate vision into objectives; visionary		Strategic	Strategic; visionary		Visionary;	Planning the strategic direction, identifying change strategy		
Influencing skills = 10	Encourage learning new skills, relationship building, promotion of change management	Influencing skills; negotiation skills, can build strong alliances	Negotiation skills, knows how to use power and opportunity	Influencing skills; negotiation skills, able to handle opposition, coalition building	Negotiation skills, giving and receiving feedback, political speaking and selling skills	Conflict resolution and negotiation skills	Conflict resolution and negotiation skills, enthusiastic	Develops high trust relationships, manipulates and exploits triggers for change	Can influence and create believe and trust		Influencing skills; negotiation skills	
Coaching skills = 6	Empathy , emotional intelligence		Coaching skills	Listening skills	Counselling and coaching skills; active listening skills, establishes trust and rapport	Good listener, self aware	Coaching and mentoring skills					
Project Management skills = 8	Cost management, risk management, vendor management, review project outcomes, plan, prioritisation and time management, monitor and manage progress	Project management skills	Planning skills	Systematic planning skills		Project management skills				Role of project director and board	Planning skills	Optimising the timing of the release of project deliverables into business operations

Table 25: Change Management competencies that were frequently mentioned in literature

Change Management Competencies Which Were Not Frequently Mentioned In Literature											
CMI 2008	Blair and Medows, 1996	Caluwe' and Vermaak, 2003	Carnall, 2003	Cummings and Worley, 1993	Doppler and Lauterburg, 1996	French and Bell, 1999	Kanter 1983, 1992	Kotter and Cohen, 2002	OGC Skills Framework 2002, 2004	Paton and McCalman, 2000	OGC, Managing Successful Programmes, 2007
Understands principles of change		Auditing skills	Maintaining momentum and effort		Realistic	Realistic	Can dig into details and keep the big picture in mind	Can create short term wins	Scoping and understanding your business	Capable of orchestrating events	Designing the benefits
Business focus			Ability to detect and celebrate small wins		Positive demeanour		Environmental scanning				Assessing progress towards realisation
Organisational capability									Identifying and managing departmental expectations		Achieving measured improvements
Plan development									Understanding the importance of HR issues in change		Monitoring performance
Flexibility											Maintaining the focus on realising beneficial change
Structure											Ensuring development and business ownership of benefits profile and benefit realisation plan
Seeks new change management knowledge											Confirming delivery of expected benefits
seeks new change management skills											Defining the performance metrics that will be monitored to assess the operational health of the organisation
											Monitoring business stability and ongoing capability to cope with the level of change
											Assuring the program board of the delivery of new capability and realisation of benefits
											Advising the program manager whether the work of the program and each project covers the necessary aspects required to deliver the products/outputs and services/ outcomes that will lead to operational benefits
											Confirming the projects that will contribute to realising benefits and achieving outcomes
											Identifying , defining and tracking the benefits and outcomes required of the program

Change Management Competencies Which Were Not Frequently Mentioned In Literature											
CMI 2008	Blair and Medows, 1996	Caluwe' and Vermaak, 2003	Carnall, 2003	Cummings and Worley, 1993	Doppler and Lauterburg, 1996	French and Bell, 1999	Kanter 1983, 1992	Kotter and Cohen, 2002	OGC Skills Framework 2002, 2004	Paton and McCalman, 2000	OGC, Managing Successful Programmes, 2007
											Managing realisation of benefits and ensuring that continued accrual of benefits can be achieved and measured after the program has been completed by identifying and implementing the expected improvements in business operations as projects deliver their products or services into operational use
											Implementing the mechanisms by which benefits can be realised and measured
											Advising the program manager at key points to allow decisions on progress ensuring that business stability is maintained during the transition and the changes are effectively integrated into the business
											Preparing the affected business areas for the transition to new ways of working potentially implementing new business processes
											Initiating business assurance reviews to ensure capabilities are being embedded and established

Table 26: Change Management competencies that were not frequently mentioned in literature

Appendix D: Crawford 2001 Project Management competencies

	All Factors (N=8)	Pre 1995 Factors (N=4)	Post 1995 Factors (N=4)
1	Leadership Planning (Integrative) Team Development	Leadership Planning (Integrative) Strategic Direction Team Development Technical Performance	Leadership Monitoring & Controlling (Integrative) Planning (Integrative) Team Development Communication
2	Communication Technical Performance	Communication Decision Making & Problem Solving Stakeholder Management (Parent Organisation)	Stakeholder Management (Parent Organisation) Technical Performance Organisation Structure Project Definition
3	Organisation Structure Stakeholder Management (Parent Organisation) Strategic Direction	Monitoring & Controlling (Integrative) Monitoring & Controlling (Cost) Monitoring & Controlling (Scope) Monitoring & Controlling (Time) Organisation Structure Stakeholder Management (Client) Team Selection	Administration Stakeholder Management (Client) Stakeholder Management (Other) Decision Making & Problem Solving Monitoring & Controlling (Cost) Planning (Cost) Planning (Time) Strategic Direction
4	Monitoring & Controlling (Integrative)	Administration Monitoring & Controlling (Risk) Planning (Cost) Planning (Time) Project Definition Stakeholder Management (Other)	Team Selection Closing (Integrative) Monitoring & Controlling (Quality) Monitoring & Controlling (Risk) Monitoring & Controlling (Scope)
5	Decision Making & Problem Solving Monitoring & Controlling (Cost) Planning (Time) Project Definition Stakeholder Management (Client)	Closing (Integrative) Monitoring & Controlling (Quality)	Monitoring & Controlling (Time)
6	Administration Monitoring & Controlling (Scope) Planning (Cost) Stakeholder management (Other) Team selection		
7	Monitoring & Controlling (Risk) Monitoring & Controlling (Time)		
8	Closing (integrative) Monitoring & Controlling (Quality)		

Table 27: Crawford 2001 Project Management Competencies frequently found in literature

Appendix E: NVivo Analysis

Nodes in NVivo represent any category, concept, person, abstract idea or any other element that may matter in the project. The following is the screen shot of the list of nodes in NVivo:

The following are the above nodes categorised into the constructs developed in the theoretical structure:


NVivo contains all the interview data collected. The following screen shot shows the repository of interview data in NVivo:
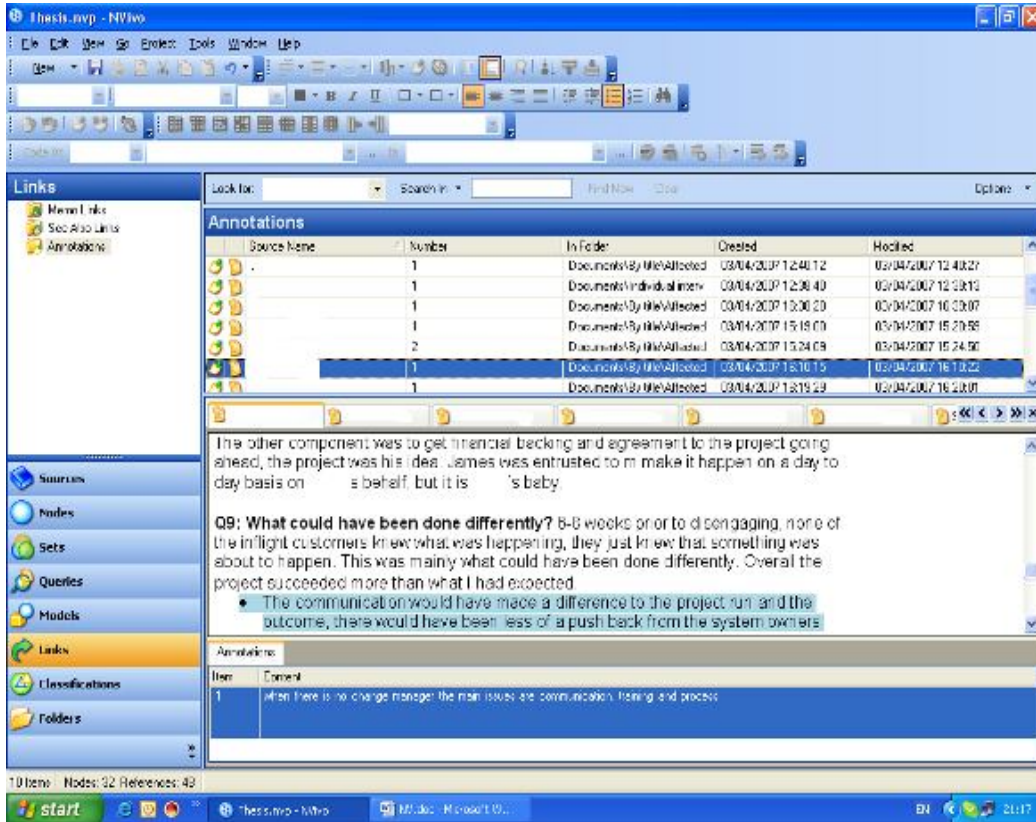
All three case studies were accompanied by additional documentation which supports the information provided throughout the interviews. The following screen shot shows the area in NVivo where those documents are held:
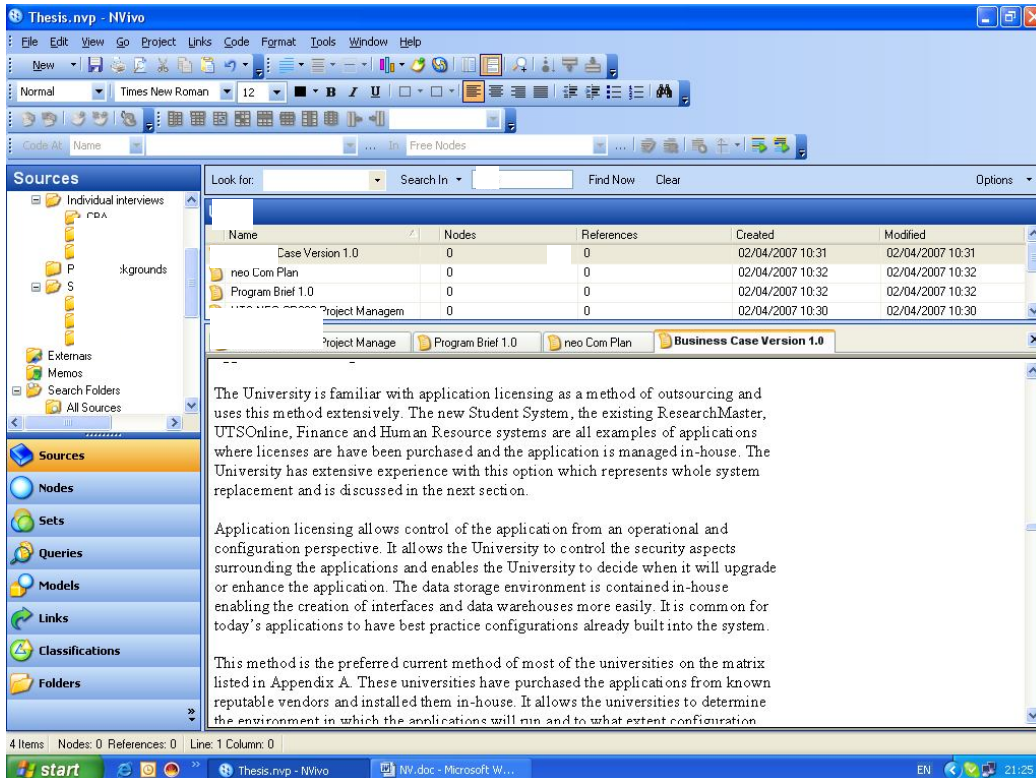
Part of the process in NVivo includes identifying relevant observations (in the annotation tab of the system). The following screen shot shows how annotations are represented:
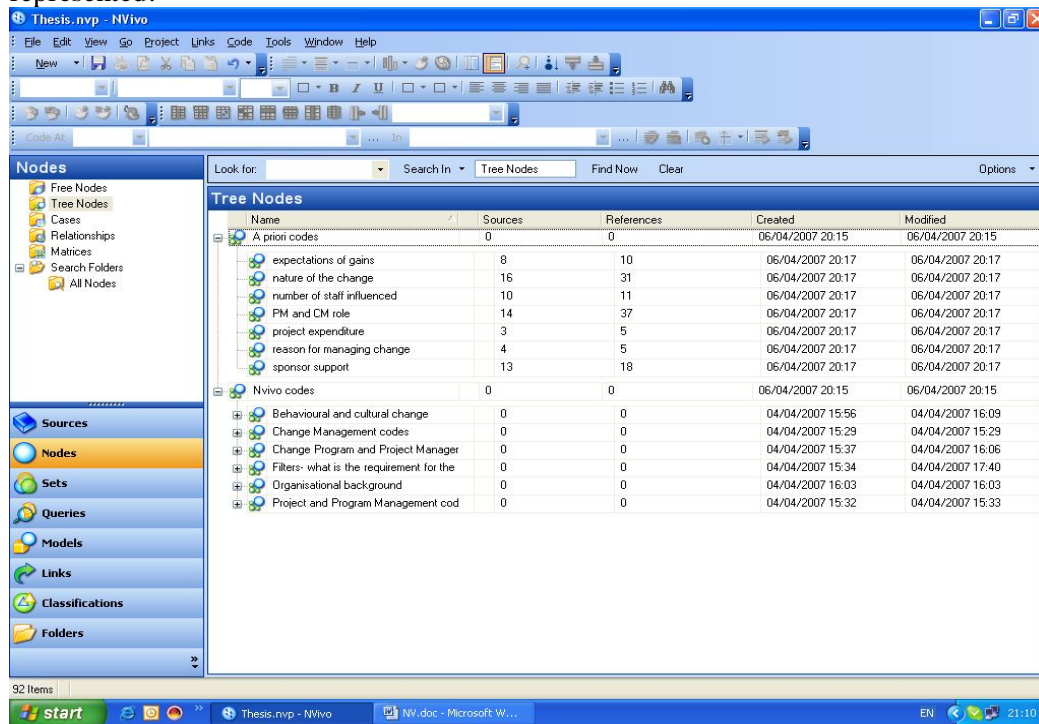
Appendix F: Ethics Clearance

1 March 2005

Dr Lynn Crawford
CB06.05.01
Faculty of Design, Architecture, Building
UNIVERSITY OF TECHNOLOGY, SYDNEY

Dear Lynn,

UTS HREC 2005–001A – CRAWFORD (for NAHMIAS-HASSNER – DPM student) - "Who is the Change Manager"

Thank you for your response to my email dated 16 Nov 2004. Your response satisfactorily addresses the concerns and questions raised by the Committee, and I am pleased to inform you that ethics clearance is now granted.

Your clearance number is UTS HREC 2005 – 001A.

Please note that the ethical conduct of research is an on-going process. The *National Statement on Ethical Conduct in Research Involving Humans* requires us to obtain a report about the progress of the research, and in particular about any changes to the research which may have ethical implications. This report form must be completed at least annually, and at the end of the project (if it takes more than a year). The Ethics Secretariat will contact you when it is time to complete your first report.

I also refer you to the AVCC guidelines relating to the storage of data, which require that data be kept for a minimum of 5 years after publication of research. However, in NSW, longer retention requirements are required for research on human subjects with potential long-term effects, research with long-term environmental effects, or research considered of national or international significance, importance, or controversy. If the data from this research project falls into one of these categories, contact University Records for advice on long-term retention.

If you have any queries about your ethics clearance, or require any amendments to your research in the future, please do not hesitate to contact the Ethics Secretariat at the Research and Commercialisation Office, on 02 9514 9615.

Yours sincerely,

Professor Jane Stein-Parbury
Chairperson, UTS Human Research Ethics Committee

Appendix G: Glossary of Terms

Term	Definition in this study
Affected staff	Individuals who need to do something differently in their day-to-day job as a result of the implementation of the project.
Behavioural change	A change to what people do in their day-to=day job
Category	A heading to a group of similar constructs. also known as 'properties'
CEO	Chief Executive Officer
Champion	An individual who is part of the organisation, but not part of a project's team, and supports the project publicly to their peers.
Change Management	The discipline of proactively managing and implementing the changes that people experience within an organisation.
Change Manager	An individual responsible for managing the people side of the project's change component, i.e. ensuring people are aware of the changes and know what they need to do differently.
Change project	A change within an organisation which is managed in the form of a project.
CM	Change Manager (see above for definition)
Code	A tag on an activity or construct.
Competence	The state or quality of being adequately or well qualified, having the ability to perform a specific role.
Competency	Knowledge, skills, attitudes and behaviours that are causally related to effective and/or superior performance in a job.
Consultancy	An external company hired by the organisation to provide advice on various matters, including organisational change, to the organisation.

Term	Definition in this study
Consultant	An individual external to the company hired by the organisation to provide advice on various matters to the organisation, including organisational change.
Dimensions	Used in this document to refer to Subcategories.
Engagement	A way of obtaining feedback from stakeholders and keeping them interested and committed to the organisational cause.
Filters	Used in this document to refer to organisational factors which influence the management and outcome of a project or program or which require the project/program to influence the organisation in order to achieve its scope.
Free nodes	A system term (system called NVivo, see definition below) used to describe the outputs of open coding.
Human Resources	An organisational department responsible for looking after the interests of the people working within the organisation.
IT	Information Technology—an organisational department responsible for the technical systems used by the organisation.
IT change	A change to the technical systems used by the organisation.
IT project	A project which sets out to achieve a change to IT.
IT Project Manager	The Project Manager within the project responsible only for the IT component of the project.
KPI	Key Performance Indicator.
NVivo	Software system used in this research to analyse the research data.
Open coding	A method of grouping similar constructs.
Organisational change	Any type of change which requires people to do their jobs differently.
Organisational change	Any type of change which is managed as a project, is

Term	Definition in this study
project	implemented into the organisation and requires people within the organisation to do their jobs differently.
Organisational culture	The way people behave as a group and the way they do things within the organisation.
Organisational Development	An organisational department responsible for improving the competencies and performance of individuals and groups in the organisation, also known for implementing changes to the organisation through learning and education.
Organisational factors	Used in this document to mean factors that influence the requirements for organisational changes as well as those that influence the requirements for projects to introduce certain interventions as part of the change implementation.
PM	Project Manager (see below for definition).
Profession	A learned occupation shared by a group of people.
Program	A group of interdependent projects that together achieve one or more strategic business objectives to maximise the value of their collective benefits.
Program Management	The discipline of managing programs. Program Management focuses on managing the big picture and the interdependencies between programs and projects to achieve broad business change objectives.
Program Manager	The individual responsible for managing a program.
Project	The achievement of a specific objective, which involves a series of activities and tasks that consume resources. It has to be completed within a set specification, having definite start and end dates.
Project Management	The discipline of managing projects.
Project Manager	The individual responsible for managing a project.

Term	Definition in this study
Project Sponsor	The individual in charge of initiating the project needed in the organisation, supplying the project with its resources and taking responsibility for the risk on the project.
Properties	Used in this document to refer to Categories.
Role	Describes the work an individual is required to perform under a certain title.
SLA	Service Level Agreement.
Subcategory	A split of a category into a finer group of similar activities or constructs also known as dimensions.
Tree nodes	An NVivo terms used to describe the outputs of axial coding.