

The copyright of this thesis vests in the author. No quotation from it or information derived from it is to be published without full acknowledgement of the source. The thesis is to be used for private study or non-commercial research purposes only.

Published by the University of Cape Town (UCT) in terms of the non-exclusive license granted to UCT by the author.



Exploring the cultural structure of an in-house IT
organisation
A case-study of a South African multi-national

A Masters Thesis
Presented to
The Department of Information Systems
University of Cape Town
In partial fulfilment of the requirements for the
Part-time Masters in Information Systems

By
Eureka Sewchurran
2012

Declaration

I know that plagiarism is wrong. Plagiarism is to use another's work and pretend that it is one's own.

I have used the APA convention for citation and referencing. Each contribution to, and quotation in, this technical report from the work(s) of other people has been attributed, and has been cited and referenced.

This technical report is my own work.

I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.

I acknowledge that copying someone else's assignment or essay, or part of it, is wrong, and declare that this is my own work.

Signature _____ **Date** _____

Eureka Sewchurran

Acknowledgements

Thanks to my supervisor Dr Chigona for his input.

Thank you to my helpful proof-readers. You know who you are.

A big thank you to my Mum & Aunt for their patience and encouragement and making it possible for me to pursue my studies.

To my munchkins Juhi & Yudhav, thank you for being the little darlings who keep me young and alive.

But most of all thank you to my husband Kosheek for his inspiration, support & belief in me. Without his discipline and persistence I would have long given up.

University of Cape Town

Abstract

In the pursuit of organisational excellence IT organisations have adopted and adapted various theories and methodologies from other industries. However the relevance of these practices is questionable especially in the context of SA as a diverse country and emerging economy where human capital needs to be nurtured and cultivated.

Organisational culture has been deemed the glue that binds the organisation hence cannot be discounted in the role it plays in performance and effectiveness of an organisation that is delivering service to the business, especially since IT is a critical enabler of business processes. The constructs of organisational culture has been studied in most industries but there seems to be limited information on how organisational culture is formed and inculcated in information technology companies.

This investigation is exploratory and seeks to gain an insight into the culture of IT organisations by using an SA based IT organisation as a case study. The initial assumptions are that the organisational culture in IT influences the business outcomes and the effectiveness of IT as a service provider to meet business demands. The finding of this investigation confirms the impact and significance of the IT organisational culture and describes how this manifests in the organisations performance.

The findings provide insight to the IT industry of the forms of capital that individuals leverage off to advance their agendas and the strategies at play in this quest for growth.

Table of Contents

1. INTRODUCTION.....	1
1.1 BACKGROUND.....	1
1.2 PURPOSE AND OBJECTIVE OF THIS STUDY.....	4
1.3 PROBLEM STATEMENT	4
1.4 OUTLINE OF THESIS	6
2 LITERATURE REVIEW	8
2.1 INTRODUCTION	8
2.2 THE ORGANISATIONAL CULTURE	12
2.3 GENERAL MANAGEMENT PRACTICES	16
2.3.1 <i>Classical Management Theories and Concepts</i>	16
2.3.2 <i>Modernity and Management</i>	20
2.4 ORGANISATIONAL LEARNING	22
2.5 THE IT ORGANISATION.....	23
2.5.1 <i>The Evolution of the IT Organisation</i>	24
2.5.2 <i>The Role of IT in an Organisation</i>	25
2.6 IT ORGANISATION CULTURE	27
2.7 IT MANAGEMENT	28
2.7.1 <i>The role of the CIO and IT management Team</i>	29
2.7.2 <i>IT Management Frameworks & Best Practices</i>	31
2.8 THE SOUTH AFRICAN CONTEXT.....	35
2.9 SYNTHESIS OF LITERATURE	37
3 RESEARCH FRAMEWORK.....	40
3.1 INTRODUCTION	40

3.2	ONTOLOGY	40
3.1	ACCIAIOLI'S MODEL.....	45
3.2	PROPOSITIONS.....	47
3.3	SUMMARY.....	47
4	RESEARCH METHODOLOGY	49
4.1	INTRODUCTION	49
4.2	FOCAL CONCEPTS	50
4.3	ETHNOGRAPHIC METHODOLOGY	51
4.4	RESEARCHER'S EXPERIENCE AND REFLEXIVITY	52
4.5	TARGET POPULATION AND SAMPLE	53
4.6	DATA COLLECTION TECHNIQUES.....	55
4.6.1	<i>Informal Interviews</i>	55
4.6.2	<i>Discussions</i>	56
4.6.3	<i>Observations</i>	56
4.6.4	<i>Evaluation of Processes and Procedures</i>	57
4.7	TIME FRAME	57
4.8	LIMITATIONS.....	57
4.9	ETHICAL CONSIDERATIONS.....	58
4.9.1	<i>Confidentiality</i>	58
4.9.2	<i>Data Storage</i>	59
4.9.3	<i>Consent</i>	59
4.10	CONCLUSION.....	59
5	OVERVIEW OF THE CASE STUDY.....	60
5.1	INTRODUCTION	60
5.2	OVERVIEW OF RETAIL IN SOUTH AFRICA.....	61

5.3	THE ROLE OF IT IN RETAIL.....	62
5.4	OVERVIEW OF THE IT ORGANISATION INVOLVED IN THIS STUDY.....	63
5.4.1	<i>Organisational Structure</i>	64
5.5	KEY IT CHALLENGES EXPERIENCED.....	67
5.5.1	<i>Buy versus Build</i>	67
5.5.2	<i>Justifying IT spend to the business</i>	69
5.5.3	<i>Strategic Information System, Planning and prioritisation</i>	69
5.5.4	<i>Evaluating service delivery</i>	70
5.5.5	<i>Supporting expansion into Sub-Saharan Africa</i>	70
5.5.6	<i>Retention and Motivation of IT staff</i>	70
5.5.7	<i>Business perception of IT</i>	71
5.6	FIELDS IDENTIFIED	71
5.7	SUMMARY.....	72
6	PHENOMENAL OBSERVATIONS.....	73
6.1	INTRODUCTION	73
6.2	FIELD 1: EVALUATION OF TECHNOLOGY.....	74
6.3	FIELD 2: THE STRATEGIC INFORMATION SYSTEM PLANNING.....	77
6.4	FIELD 3: HUMAN RESOURCE MANAGEMENT.....	79
6.5	FIELD 4: TRANSFORMATION.....	82
6.6	FIELD 5: EXECUTIVE MANAGEMENT (LEADERSHIP)	85
6.7	FIELD 6: SERVICE CENTRICITY VERSUS PROCESS CENTRICITY	87
6.8	FIELD 7: FINANCIAL MODEL	88
6.9	ACTORS	91
6.10	STRATEGIES	94
6.11	FORMS OF CAPITAL.....	98
6.11.1	<i>Technology one supports</i>	98

6.11.2	<i>Influence of line manager</i>	99
6.11.3	<i>Levels of engagement with customer and executives</i>	99
6.11.4	<i>Technical Certifications</i>	100
6.11.5	<i>Forums and meetings</i>	100
6.11.6	<i>Tools of trade</i>	101
6.11.7	<i>Access to Information</i>	101

7 THEORETICAL DESCRIPTION OF THE CULTURE IN AN IT ORGANISATION
..... **103**

7.1	INTRODUCTION	103
7.2	STRATEGIES IN THE EVALUATION AND APPROACH TO NEW TECHNOLOGY	103
7.3	STRATEGIES IN THE STRATEGIC INFORMATION SYSTEMS PLANNING PROCESS	104
7.4	HUMAN RESOURCE MANAGEMENT STRATEGIES	105
7.5	TRANSFORMATION	105
7.6	STRATEGIES IN CUSTOMER AND SERVICE CENTRICITY	106
7.7	STRATEGIES IN THE FINANCIAL MANAGEMENT OF IT	106
7.8	DAY-TO-DAY OPERATIONAL STRATEGIES	106
7.9	SUMMARY	107

8 FINDINGS..... **108**

8.1	INTRODUCTION	108
8.2	BUSINESS & IT ALIGNMENT AND THE IMPACT OF CULTURE ON THIS RELATIONSHIP..	108
8.3	STRATEGIC INFORMATION SYSTEMS PLANNING	109
8.4	AGILITY TO RESPOND TO AND MEET BUSINESS NEEDS	110
8.5	IT SERVICE DELIVERY	110
8.6	OPERATIONAL PRACTICES	111
8.7	IMPACT OF IT CULTURE ON THE FINANCIAL PERFORMANCE OF THE BUSINESS.....	111

8.8 HIERARCHIES (FORMAL AND INFORMAL).....	112
8.9 IT IDENTITY	114
8.10 IMPACT OF CULTURE ON TRANSFORMATION IN THE IT SECTOR AND NATIONAL SKILLS DEVELOPMENT.....	115
8.11 SUMMARY.....	116
9 CONCLUSION	117
9.1 CONTRIBUTION OF THE STUDY	118
9.2 FUTURE RESEARCH	119
10 REFERENCES.....	120
APPENDIX A – PROFILE OF PARTICIPANTS.....	127
APPENDIX B – INTERVIEW PROMPT SHEET.....	130

Table of Figures and Tables

Figure 1: Mind-map of How the Literature Review Unfolds	11
Figure 2: The 8 Metaphors of Organization	12
Figure 3 : Maslow’s Hierarchy of Needs.....	17
Figure 4: Two Factor Theory	19
Figure 5: Kaizen Philosophy.....	20
Figure 6: Positioning IT Frameworks.....	34
Figure 7: Summary model of Bourdieu's Theory of Practice	41
Figure 8: Interpretation of Bourdieu’s Framework	46
Table 1: CIO Strategies.....	29
Table 2: Summary of IT Frameworks	32

Glossary of Abbreviations and Acronyms

BBBEE	Broad-Based Black Economic Employment Equity
BRM	Business Relationship Manager
CAB	Change Advisory board
CCIE	Cisco Certified Internetwork Expert
CEO	Chief Executive Officer
CIO	Chief Information Officer
CMMI	Capability and Maturity Model Integration
COBIT	Control Objectives for Information Related Technology
FICA	Financial Intelligence Centre Act
HDI	Historically Disadvantaged Individuals
ISO	International Organisation for Standardisation
IT	Information Technology
ITIL	Information Technology
KPI	Key Performance Indicators
LAN	Local Area Network
MCSE	Microsoft Certified Systems Engineer
MOF	Microsoft Operations Framework
NCA	National Credit Act
PCI	Payment Card Industry
PDI	Previously Disadvantaged Individual
POPI	Protection of Personal Information
RICA	Regulation of Interception of Communication and Provision of Communication Related Information Act
SA	South Africa(n)
SDM	Service Delivery Manager
SISP	Strategic Information Systems Planning
TQM	Total Quality Management

1. Introduction

The introductory chapter provides context for this study by laying the background, justifying its relevance and outlining the approach adopted. The background paints an outline of the role Information Technology (IT) serves in business and the dependence business has on technology for its overall success. Specifically the overall impact of culture on IT organisations effectiveness is introduced. This background also includes the South African (SA) socio-economic context which is provided to give insight into the challenges facing the SA organisation and the impact on IT organisations and resources. Following from this the objectives of the investigation are articulated.

1.1 Background

IT organisations have evolved in the last 3-4 decades from teams of isolated back office support staff tucked away in the basement to specialised technical teams supporting people, process and technology aligned to critical business functions that are deeply engrained into the fabric of business. In some organisations IT does not exist outside of the core business but rather as roles within the various business sectors which can span cities and even countries. Considering that IT is so fundamental to the overall success of the business, it is important to ensure that IT's effectiveness is sustainable and evolves with the greater organisation. The strength of IT systems rides on the abilities of the people who design, develop and maintain them.

The emphasis on ability of people cannot be underestimated or overshadowed by focus on process. Murer, Bonati and Furrer (2011) capture this quite eloquently when they say that the quality of IT systems is to a great extent defined by two factors: The skills and motivation of people and the culture in which these people work and build their careers. "The culture for a successful managed evolution is

based on long-term thinking, sustainability and trust.” (Murer, Bonati and Furrer, 2011).

The IT industry has encountered many challenges in its quest for efficiency and success. The Standish report details that IT projects have a greater chance of failing than succeeding when measured on cost, time and scope (Schwalbe, 2007). Other IT implementations and initiatives also encounter challenges that lead to their failure. These include the implementation of new systems, adoption of new technology and even the adoption of standards and frameworks to improve operational process and thus efficiency.

Often the prominent cause of failure in these initiatives is related to organisational culture. Culture is generally used as a proxy to highlight the common sense that is specific to the organisation that is not necessarily captured in rules but is a tacit assumption (Schneider, 2000). Culture is the collective term for a group of individual's behaviour, norms, and know-how (Gregory, 1983).

The phenomenon of culture has been extensively researched in organisations because of the widespread realisation that people in an organisation are the means of remaining competitive and profitable. To effectively leverage the innovative and creative abilities of people within organisations significant effort is put into cultivating the right culture instead of rigid hierarchies of control and coordination. A review of the literature shows that there are specific aspects affecting the culture within IT organisations. However, there is little research that attempts to describe or give definition to the processes in place that inculcate a culture specifically conducive to the IT industry. This is despite the many references to culture being a core variable affecting efficiency and effectiveness.

Organisational and corporate culture has been extensively investigated in organisations across regions and industries. There have been many contexts for these investigations and as many dimensions and interpretations of organisational culture. The literature shows that there is little research on organisational culture focused in the IT industry. This industry has undergone many changes over the years. IT departments exist in many flexible forms since being initially conceived as a functional division.

The role of an IT department has always been focused on roles, responsibilities, process and policy. This is perhaps warranted considering that the IT department is still in its infancy in terms of maturity when compared with other organisational departments. The influence of culture however cannot be overestimated because beyond the specified work methods there has to be a background influence to embrace the hearts and minds of the very people who realise business goals to make the work meaningful (Morgan, 1998).

In SA, communities are still battling to overcome the atrocities and degradation resultant of the apartheid system. It has been well documented that national culture has a direct influence on large organisations and industries (Schneider & Meyer, 1991). Thus it can only be surmised that the legacies of the apartheid era still have elements that are alive in organisations that have been slow to transform with the new dispensation. The impact this has had on the professional knowledge workers is especially felt in the IT domain where an on-going skills shortage plagues the industry on an international level (Curtis, 2013). Government has driven transformation in the workplace by monitoring company's' employment statistics to employ individuals from previously disadvantaged communities in an attempt to transform the demographics in business towards a more representative staff compliment. Organisations are being monitored and measured by government in the skills development and headcount of previously disadvantaged individuals (PDI's) (Du Toit, 2012).

IT organisations often cite this skills shortage as the primary reason for not being able to meet their demographically representative quotas. However, this begs the question of whether the organisations historical culture has any influence over their recruitment and skills development of PDI's. If this is the case the culture of an IT organisation in SA will have a direct impact on the transformational progress SA is able to achieve. Similarly the IT organisation is influenced by the transformational initiatives of the country resulting in a dialectic relationship between organisation culture and country transformation.

1.2 Purpose and Objective of this Study

The purpose of this research is to investigate organisational culture in IT organisations with a view to understand the influencing mechanisms at play in influencing behaviour in IT organisations. This study also attempts to identify SA specific factors influencing the IT industry. The investigation will draw on Bourdieu's Theory of Practice (Bourdieu, 1977, 1984, 1989; Bourdieu & Wacquant, 1992; Hanks, 2005; Emirbayer & Johnson, 2008) and will attempt to identify the various forms of capital and fields that exist and exerts influence in IT organisations. Such an explanation constitutes a description of the culture that shapes and influences the leadership and management practice of an IT organisation. There are many other theories that could have provided a cultural description; but Bourdieu's Theory of Practice has been chosen because the researcher wants to shed light on cultural influence at play and this will require a social theory contribution.

1.3 Problem statement

To achieve financial success organisations across the globe have investigated and invested in various initiatives to improve throughput, productivity and define their organisational cultures to enable progress. The organisation's culture has been identified as a key component in the overall success of the organisation (Gordon & DiTomaso, 1992). Companies across industries have been battling to overcome the

cultural divide and to create a unified workforce and thus a stable organisation from a social perspective. “The major problems of our work are not so much technological as they are sociological in nature.” (deMarco, 1999, as cited in Murer et al., 2011 ,pg 187).

Similarly IT organisations have adopted a range of popular methodologies in an attempt to streamline the operational activities. IT Management engage in activities to optimise the service outputs and thus frameworks are employed to enforce a best practice approach for IT delivery to the business (Ogbonna & Harris, 2000; Child & McGrath, 2001; van Solms, 2005; Drucker, 2010).

However, little regard is given to the people-specific facets of the organisation and how individuals impact the culture and vice versa. Despite numerous attempts to define specific cultural models, IT organisations are still plagued by social issues which limit organisational potential and advancement. Another key consideration is that many of these models, frameworks and best practices which are adopted are imported from organisations in first-world countries who do not necessarily share the social dilemmas of neither an emerging economy nor a young democracy still trying to even the employment playing field.

Within the context of organisational culture, IT organisations face the challenge of defining their identity that will in turn emulate the very culture they are trying to establish and perpetuate (Benbasat & Zmud, 2003). The literature indicates that despite the many views on organisational culture, the theories cannot be generalised to the culture of IT organisations without including the issues that persist in the technology sphere. This is evident in the well documented writings that the alignment between business and IT is an on-going challenge for both IT as well as business. For IT to effectively support the business it is imperative that the business priorities resonate with IT; and are reflected in the practices and priorities embodied by IT.

Whilst there are multiple models that can be applied to inculcate an organisational culture that creates a climate conducive for productivity and growth, this does not take cognisance of issues affecting the IT arena specifically nor the SA specific climate. In SA the organisational culture is also influenced by the history and transformation initiatives underway. The SA government has instituted legislation to enforce employment equity (Motsoeneng, 2011). However, despite such initiatives the SA IT industry is hampered by a skills shortage especially in previously disadvantaged groups.

There has been little enquiry in the IT organisations culture through a qualitative, interpretive study. This study sees such insight as crucial for the betterment of IT management. It is reasonable to say that culture is crucial to IT management and it has been illustrated through the lit review that organisation success is intimately intertwined and reliant on the organisation's culture.

This study therefore pursues, as a singular objective, to explore the cultural structure of an IT organisation and the perceived impact it has on the IT organisation success.

1.4 Outline of Thesis

Chapter 2 reviews the literature of the various components touched on in this research. First is an unpacking of the concept of culture and more specifically organisation culture. The chapter then reviews the popular practices generally adopted by management of large organisations regardless of industry. This is followed by an introduction to IT organisations with a discussion on the background of the IT organisation and how it has evolved into its current place of significance. The chapter also includes a section on the function of IT management. The chapter closes by looking into issues pertinent to SA and the relevance to IT organisations.

Chapter 3 introduces the ontology underpinning this study and the research framework adopted as the theoretical lens through which the phenomenon is viewed. Chapter 4 coupled with the chapter on Research Methodology ensures the readers get a concise view of how the investigation was conducted. Chapter 5 explains the case study in detail. There is an overview of the industry and role and contribution of IT. The write-up then specifically hones in on the organisation used for this case study with an overview of the organisation. The key challenges experienced in this context are then articulated with the chapter ending by summarising the fields identified using the theoretical frame work of Theory of Practice.

Chapter 6 delves into the phenomenal observations by discussing in detail each of the fields identified in the previous sections. The actors in the fields, the strategies that are engaged as well as the forms of capital identified are also discussed in this chapter. To bind this back to the theory and initial learning's from the review of the literature, Chapter 7 provides a theoretical explanation of IT culture by discussing the strategies and capital transacted in each game identified.

The section that follows, viz. Chapter 8, discusses the findings of the study and the impact this has on IT business practice. The final chapter concludes the document with discussion including the implications of the study, opportunities for further research and most importantly the contribution this study makes to the body of knowledge on IT organisational studies and practices in South Africa.

2 Literature Review

2.1 Introduction

The point of departure in reviewing the literature for this study was to explore the inter-dependence between the constructs of IT Organisations and the associated resultant culture which is cultivated both intentionally and consequently.

In the quest to un-pack organisational culture in IT organisations, it was important to first understand the general concept of organisational culture before delving into the IT industry specifically. Thus the review of literature starts with exploring the concept of organisational culture and the driving forces influencing it including the impact of management on this culture. To understand culture within organisations it was necessary to review the various schools of thought on what constitutes culture. Initially the concept of social culture is unpacked and following on from that culture in organisations specifically is elaborated upon.

Organisations across industry sectors have been subjects of research which have spanned a wide range of perspectives and disciplines (Murer et al., 2011). These studies seek to understand how operational excellence can be achieved through efforts to reduce costs, risk and increase profits. Studies pertaining to the human paradigm, tends to look at organisations to better understand how to motivate workers and once again achieve optimal productivity (Ogbonna & Harris, 2000). Whilst research in these areas is extensive and on-going for many decades, there has been limited and scarce investigations on how to achieve and sustain such operational and organisational success in the IT industry. This literature review will give some context to the key forces which shape the IT organisation.

One of the most influential forces in an organisation is management. Thus the impact of management on organisations and the culture within the organisations is reviewed through the perspective of the practices adopted by management teams. This discussion on practices that have been adopted by management teams is to give context to how management mould organisational structures and the corresponding behaviour these practices require and result in. The sections on management practices include a review of modernity and management as these have an overarching influence over all forms of general organising including management of IT. The organisations ability to adapt is discussed under Organisational Learning and the relationship between culture and organisational learning is articulated.

The literature review then hones in on the IT industry and the IT organisation specifically with a discussion on the IT organisation and the differentiating factors which make the IT organisation somewhat unique when compared to organisations in general. This is followed by a look at the strategic purpose and orientation of the IT organisation in the context of the business it serves. This is discussed to give insight into the evolution of the IT organisation that has been observed.

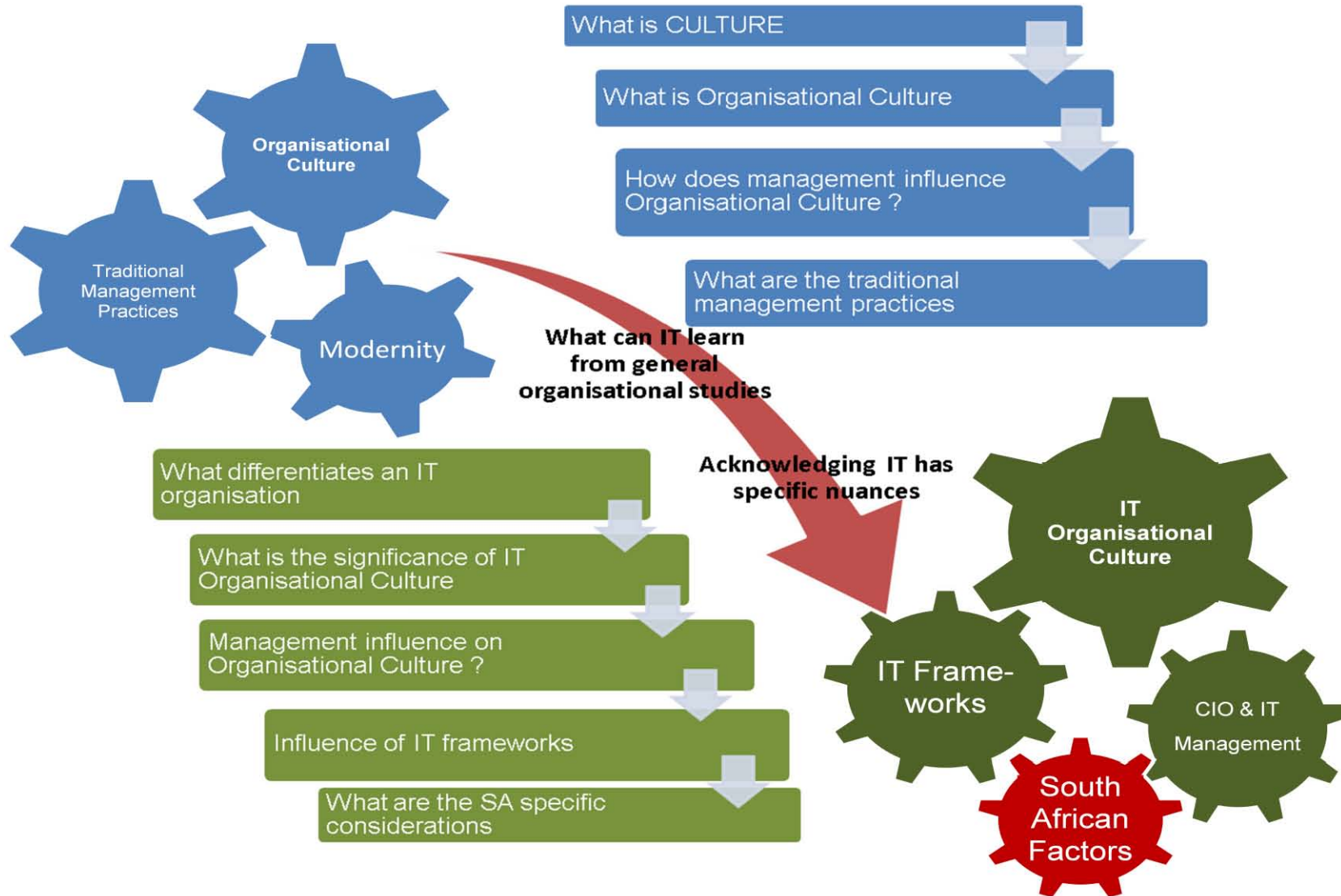
This then leads into a discussion of IT culture and the corresponding role of IT management in defining this culture. The discussion of IT management includes the role of the CIO and the management team in the larger organisation and the formal frameworks they have adopted in their effort to achieving their strategic business objectives. A brief summary of the frameworks are provided to give basic understanding of how each respectively adds value to the management of IT. General IT practices adopted by IT management are then summarised in an effort to understand some of the approaches applied by organisations to streamline their business operations. It is not in the scope of this study to critically evaluate and compare the contribution each of these practices make to the IT organisation or industry.

Without local relevance the essence of this study would be lost as it is important that the influence on local culture and SA specific nuances are factored into the review to give clear context for a study of this nature. Thus the last section looks into SA influence and provides a local grounding and context to the issues impacting the SA IT industry.

The chapter closes with a summary of the literature reviewed in this investigation highlighting the salient points which forms the literary basis upon which this study is built.

University of Cape Town

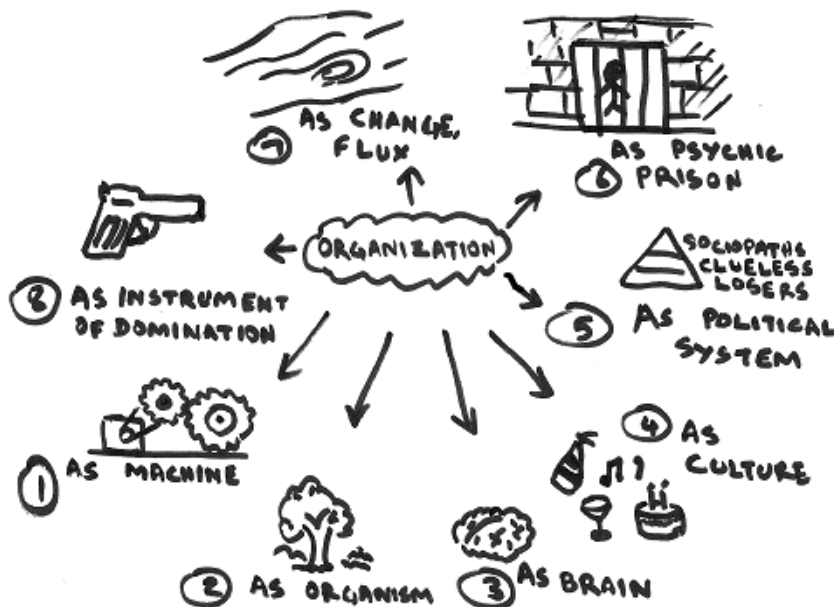
Figure 1: Mind-map of the progression of the Literature Review



2.2 The Organisational Culture

“Company cultures are like country cultures. Never try to change one. Try, instead, to work with what you’ve got.” (Drucker, 1984)

Organisations have been defined metaphorically as living beings and this metaphor is widely used to understand organisational practices (Phillips & Brown, 1993). This is captured in Figure 2: The 8 Metaphors of Organizations (Morgan, 1998) where various metaphors are used to define the facets of an organisation. Morgan implies that the organisation can be equated to a “brain” and even “an organism” and in its own right a culture.



The 8 Metaphors of Organization
From Gareth Morgan's *Images of Organization*

Figure 2: The 8 Metaphors of Organization (Morgan, 1998)

Geertz (as cited by Phillips & Brown, 1993) defines culture as meanings and the way people communicate through symbols that people develop and which evolve through on-going usage. A simple, but similar, definition was offered by Schein (1996) as “the

shared norms, values and assumptions". Hence one can surmise from Schein's definition that in any organisation there are practices, processes and values that the individuals of the organisation share which collectively define the organisational culture.

The study of organisational culture has evolved from investigations of individual subjects and their interactions individualistic to a concept embracing the organisation as a whole (Schein, 1996). Thus organisational or corporate culture is a manifestation of the social environment shared and perpetuated by the organisations members. Morgan (1998) clarifies that an organisation's culture cannot be enforced and is in fact a set of behaviours and practices that evolves through on-going social interaction. Child and McGrath (2001) advocate that one way an organisation can sustain its performance is to ensure that it (as an organisation) is able to learn and adapt quickly. Thus the constituent of an organisation's culture is significant for its overall success and effectiveness and for organisations to be sustainable there has to be a mind-set that permeates throughout the organisation which is receptive to change and a willingness to adapt and learn. Organisations whose culture embodies the key attributes that allow it to change and adapt to accommodate environmental changes are said to "sustain superior financial performance" (Barney, 1986).

This begs the question of who influences the culture and how. Management plays a vital role in the formulation of the organisations culture as they are primarily responsible for the creation of teams (Drucker, 2001). According to Owusu (1999), the vision and style of senior management has a direct influence on the values and practices entrenched in the organisational culture. If management wants to change the attitudes within the firm they need to ensure that there is a single set of goals and objectives and an enabling value set shared by the workforce. The commitment exerted by senior management and the overall political stability of the organisation would impact the day-to-day environment of the company and the ability to remain productive (Weber & Pliskin, 1996). In fact any management initiative needs to be

cognisant of the impact it would have on behaviour and should blend into the organizational culture if it is to be successfully and seamlessly embraced (Schneider, 1988).

All groups of people working towards a single objective need direction and a plan to achieve desired outcomes. Organisations typically define this as their strategy. Organisational strategy provides the company with clearly set objectives and usually also includes tactical frameworks and operational guidelines on how to achieve these objectives. It provides direction to the team required to fulfil these goals (Schwartz & Davis, 1981). Thus the organisations strategy provides the overall framework for the work methods, values, norms and culture adopted by the organisation. Schneider (2000) explains that the organisational strategy provides a point of reference for the organisation's structure and leadership to align thereby ensuring that there is synergy in the management of the organisation.

Giddens (as cited by Chu & Smithson, 2003) argues that an organisation's structure represents the social structures and thus a dimension of the organisational culture. Organisations can adopt a number of different architectures in the way the company is structured. Traditional structures have been dictatorial in style with the higher echelons of management exerting a command & control force over the rest of the organisation (Mendelson, 2000). More recently organisations have moved towards flatter structures which are perceived to provide more contacts between management and the rest of the organisation. Chu and Smithson (2003) articulate that the structure defines an individual's locus of control within the organisation and includes definitions of relationships and boundaries. This is supposed to allow for greater dissemination of information and closer working relationships (Child & McGrath, 2001). This investment in the social aspect of people allows for the organisation to move towards a more socially resilient and robust team formation.

Organisations are perpetually doing daily battle with competition in markets and one of the factors that differentiate organisations from their competition is their ability to respond to change and be innovative. To enable change, an organisation as a whole needs to keep learning and adapting to changes central to its approach to business. Through such a process business is able to influence the behaviour throughout the organisation to ensure that everyone is subscribing to a common set of values and business drivers (Slater & Narver, 1995). An organisation's ability to learn needs to be woven into its very cultural fabric and not just as a mentality that is adopted only when needed (Marquardt, 1996). Thus organisational learning plays a substantive role in defining the culture of the organisation and the manner in which change is addressed.

Tsoukas and Chia (2002) refer to "organisational becoming". They highlight that by virtue of their names, organisations have an inherent need to organise into as stable an environment as possible and thereby reduce any flux which is deemed as a source of risk. Thus organisations seek perpetual stability; and change is seen as affecting this stability. It seems like this reluctance to see change as fait accompli ensures that our lexicon and vocabulary also limit referencing change as an on-going activity but rather as an exceptional activity that goes against the norm of daily operations. This implies that an organisations inherent reaction to change can define the course of events thereafter. This inherent practice and belief is fundamental to its organisational culture make-up.

With technology being pivotal to enabling the operations of an organisation, it is not surprising that technology impacts and influences organisational character (Markus & Robey, 1988). Organisations invest in technology to improve their competitive advantage and operational efficiency (Weber & Pliskin, 1996). The structural model of technology highlights that technology exerts an influence not just on the organisation in terms of how individuals perform their work but also on the organisations social environment (Orlikowski, 1992).

2.3 General Management Practices

Before delving into IT-specific management practices it is necessary to understand the practices that are evangelised at a general management level and the outcomes these frameworks strive to achieve. To achieve this understanding it is necessary to review the classical approach to management that most industries both inherit and adopt due to the pervasive nature of generalised practices. To give the broadest context to this discussion the influence of modernity on business will be discussed first.

2.3.1 Classical Management Theories and Concepts

i. Scientific Management

Frederick Taylor championed the concept of Scientific Management by introducing scientific, mathematical based methods to measure and manage factories through time-motion studies. This was a change from the traditional “rule of thumb” based management style.

The concept of scientific management promotes improvement of organisation productivity through strict management practices. The primary objective of management is to increase efficiency and throughput. The theories were based on studies with shoe makers and brick layers (Taylor, 2003). This approach to organisational management was quickly adopted across manufacturing industries in Europe and America (Drucker, 1999) and was seen as “the silver bullet” to organisational success (Hirschhorn, 1984).

The reality is that this practice was quickly adopted by non-manufacturing companies hoping to achieve the same measure of success. Whilst productivity and throughput are key measures in assessing efficiency in an organisation, there is more to managing IT efficiency in organisations. The efficiency-productivity perspective still permeates organisations today and remains a stumbling block when evaluating the

effectiveness of knowledge workers (Drucker, 1999). Despite alternate schools of thought on how non-manufacturing resources (knowledge workers) should be managed, the influence the school of scientific management exerts on IT organisations can still be seen today and cannot be disregarded.

ii. Maslow's Needs Hierarchy

From a social paradigm, Maslow's studies on what motivates a person resulted in the Needs Hierarchy. This has often been used in business to understand how an individual's motivation can be influenced in context of their social situation. Maslow's needs hierarchy classifies individual needs into progressive states as depicted in Figure 3 : Maslow's Hierarchy of Needs (Poston, 2009) with the most basic human needs represented by the base of the pyramid.

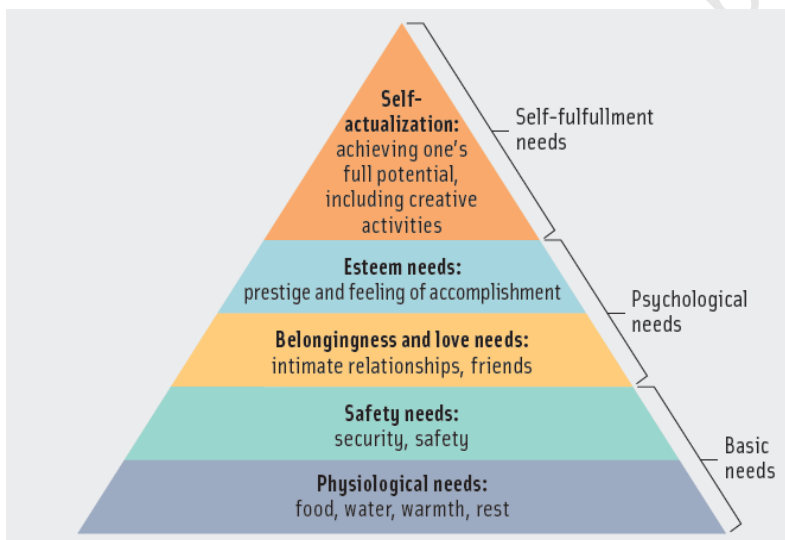


Figure 3 : Maslow's Hierarchy of Needs (Poston, 2009)

Maslow explained that, unless one's basic human needs are satisfied, an individual may not be able to progress to aspirations on other levels of his needs hierarchy. Thus to be able to pursue the objectives at the higher order of the hierarchy the

needs at the lower levels must be met. These needs are seen as motivators towards self-actualisation (Simons, Irwin & Drinnien, 1987).

The relevance of this becomes apparent as the demographic mix of IT resources come from differing socio-economic backgrounds each with varying levels of basic human needs as per Figure 3. There is no evidence in IT management studies indicating that such basic human needs are factored into management practices especially in IT management practices in South Africa. As the SA industry strives towards a more representative staff compliment of indigenous South Africans (Lewis, 2005; Motsoeneng, 2011), IT management need to be cognisant of and sensitive to the mix of socio-economic backgrounds and the associated motivators relevant to each individual. A generalised approach to staff motivation may prove unsuccessful if these differences are not factored in.

iii. Herzberg's Motivation - Hygiene Theory

Herzberg introduced the concept of Hygiene Factors. This refers to those elements in an environment that when present have no direct positive effect but when absent result in degradation in one form or another. The relevance of Herzberg's theory has been tested against IT projects (Marnewick, 2011) which shows that the motivation for higher needs can only arise once the basic needs have materialised. Thus when seeking to mobilise a team it is imperative to take cognisance of the varying degrees of socio-economic advances in a team as the aspirations and drivers that motivate the individual will vary and thus will need to be managed differently.

iv. Schachter's two factor theory of emotion

Schachter coupled Maslow's theories with Herzberg's and defined a 2 factor theory. The 2 factors are the motivators and the hygiene factors. The motivators are those factors which, when present, result in positive outcomes and thus improvements. Hygiene factors as previously defined have a negative impact when absent from the

environment and thus impede or cause a negative outcome by their absence (Sewchurran & Brown, 2011).

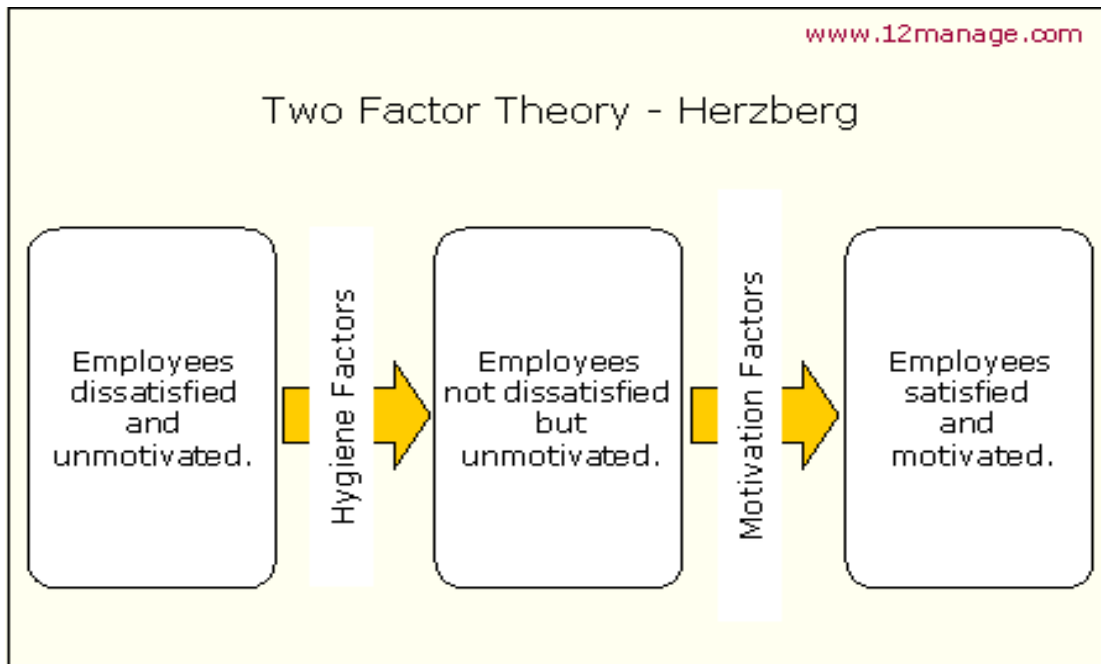


Figure 4: Two Factor Theory

Figure 4 illustrates if one starts with a group of dissatisfied employees, theoretically, by applying a set of hygiene factors to unmotivated employees results in employees who are deemed not dissatisfied but still unmotivated. When a set of motivation factors are applied the net effect is a group of employees who are both satisfied and motivated.

v. *Kaizen - Continuous Improvement*

Kaizen is defined as a Japanese art of continuous improvement (Imai, 1986). Central to the improvement philosophy is the focus on the individual as depicted in the framework below. The approach is people-centric working towards fostering better team work and individual empowerment through “elimination of waste and standardization” (Bhuiyan & Baghel, 2005).

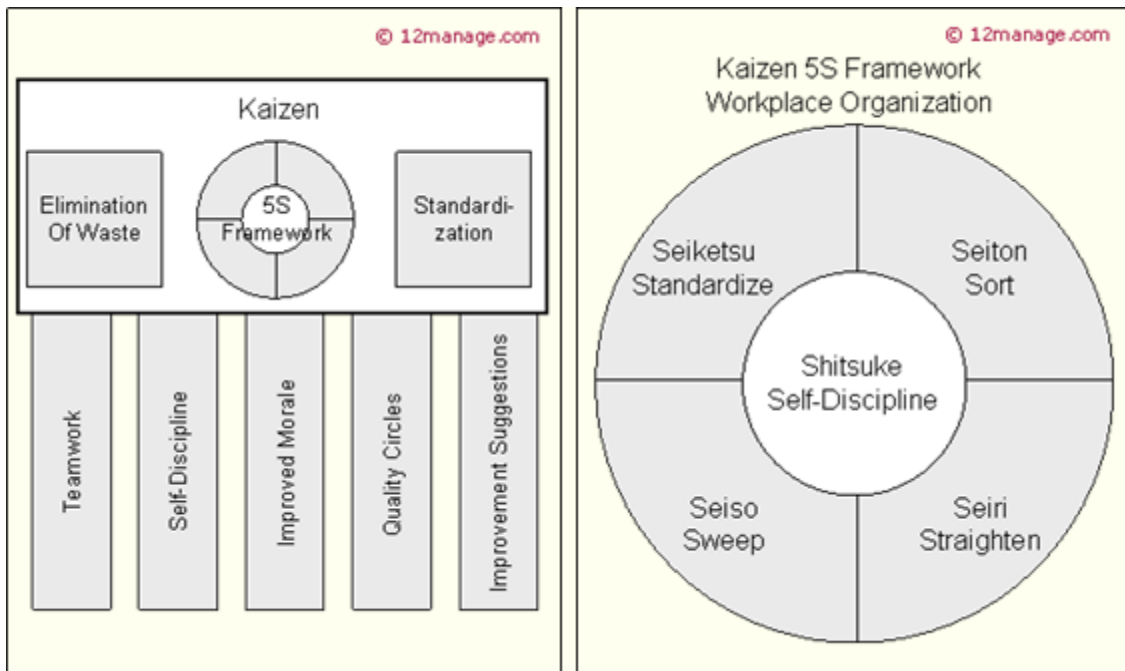


Figure 5: Kaizen Philosophy (12manage.com)

vi. Drucker - organisation innovation

Drucker proposed a concept of Knowledge Worker to represent individuals who were employed for the work that was not traditional manual labour (Drucker, 1999). By differentiating this type of individual the implication is that one cannot manage a knowledge worker with the same measure and metrics as one does in a manual industry like manufacturing or building. Drucker's concept acknowledges the different kinds of workers and he made several comments that the future management challenge will be the productivity of knowledge workers.

2.3.2 Modernity and Management

The concept of Modernity refers to the belief that history and historical influences can be disregarded when assessing the present. The inherent assumption is that the present is not a continuation of the past and can be re-sculpted by applying social forces (Giddens, 1991). As a result the present culture is often disjointed from the past. These influencing vectors could either be positive through improvements or negative through destructive forces.

The lens of Modernity implies that the world is constituted of fragmented units that do not relate or influence each other and hence can be dealt with in isolation (Giddens, 1991). A consequence of this belief system is that by simply applying a set of rules and actions, the behaviours and traditions of the past can be disregarded and a new desired outcome can be attained.

By contrast, the manufacturing industry is focused on throughput and assembly of discreet objects from a set recipe. This entails manufacturing bulk quantities of goods from raw materials in planned numbers and specifications. This has resulted in an industry that is extensively automated industry and has a great reliance on robotics and machinery as the processes and procedures can be standardised and are highly repeatable (Kaplan, 1983). The majority of the work force is made up of blue collar workers who engage in repetitive tasks on a daily basis. In such scenarios management are driven to measure and manage the productivity of these individuals based on throughput or product manufactured as this is the easiest metric to quantify (Siponen, 2006).

The success rate of professionals from other areas like accounting or medical sectors is typically based on their effectiveness rather than their efficiency. The IT sector on the other hand is driven towards steering and sustaining business towards a particular outcome which is usually profitability or availability and stability amongst others and not necessarily volume based through providing business with a bundle of services supporting this business objective. Whilst efficiency and productivity are factors in the overall success of effective information technology management, these are not the exclusive success criteria. The industry is service centric focusing on business solutions and not just computing objects. These solutions include people, process and technology (Reyes, 2011), also known as the work systems (Maglio, Srinivasan, Kreulen and Spohrer, 2006) and hence need to be cognisant of theories and models that drive all three dimensions of the solution and not any one in isolation.

The IT community is relatively young compared to other business sectors and as a result IT management practices are usually derived from tried and tested methods established by other industries. One of the common practices in the IT space is to adopt practices from the industrial and manufacturing areas with the hope that these will result in improved efficiencies and productivity in the IT processes. As a result IT people are often equated to industrial workers and are driven to efficiency instead of effectiveness. Companies such as Toyota are known for the implementation of frameworks like TQM and ISO to ensure good governance and just in time production lines (Delbridge, Turnbull & Wilkinson, 1992) The perception is that these borrowed frameworks and practices are best practice for the desired outcome of efficiency and throughput.

Following on from this it is assumed that by adapting these frameworks' and applying them to the IT industry the outcomes will be similar in nature. This "modernity" type thinking assumes that the IT people are simply going to disregard history and blindly adapt to the prescribed methods without applying themselves in the process simply because it is best practice. The inherent culture and historical background of individuals cannot be disregarded when assessing or attempting to drive a particular culture in the IT organization. This prompts the question of whether IT people can be equated to and managed like mechanised robots for the same desired outcomes.

2.4 Organisational Learning

Organisations are in competition with their contemporaries for market share and one of the factors that differentiate organisations from their competition is their ability to respond to change. To effect change on an on-going basis an organisation as a whole needs to keep learning and adapting its way of business. To institute such an attitude among members of an organisation, organisations try to ensure that everyone is subscribing to a common set of values and business drivers (Slater & Narver, 1995). An organisations ability to learn needs to be woven into its very cultural fabric and not just as a mentality that is adopted only when needed

(Marquardt, 1996). Thus organisational learning plays a substantive role in defining the culture of the organisation and the manner in which change is addressed.

Tsoukas (1993) states that models and theories used to explain organisational culture are really “subjective constructions” from a variety of symbols. Metaphors are a means of expression in organisational beliefs and behaviours. The interpretation of these metaphors remains subjective and if used to communicate thinking and events this version of reality would vary depending on the individual’s world-view and the context of the discussion. Thus the reality is not constrained to just a single version and is conveyed via linguistics. The transfer of knowledge is dependent on individual interpretations and the relevance of the metaphors and analogies to each person in the process. Which begs the question of whether organisations learn or is it the individuals who learn and what constitutes organisational learning (Stacey, 2003).

2.5 The IT Organisation

In the 21st century IT organisations exist in many forms. The first is the traditional in-house IT division that is the primary service provider to the business. This service department is usually a cost centre and is defined relative to the budget of the overall organisation (Schneider, 2000). Another IT model is the IT vendor who is an independent organisation that provides many IT services to a diverse customer base. Many IT organisations have evolved from being in-house through an outsource deal and were taken on by larger IT vendors to support the very business they were previously a part of (Wilcocks & Lacity, 1998). IT organisations are now also not necessarily centralised to a single geographical location. Many IT organisations are dispersed across the globe but continue to function seamlessly as single entities (Gordon & Gordon, 2002). The ability of IT to sustain business despite geographical barriers and time difference ensures that IT remains fundamental to the overall support and growth of information systems in business. Salle (2004) notes that IT is

no longer a service provider but has morphed into a strategic partner to the business.

2.5.1 The Evolution of the IT Organisation

One definition of the primary focus of IT organisations is stated as to provide business value through the delivery of information technology (IT) (Hirschheim, Schwarz & Todd, 2006). There has also been a paradigm shift prompted by a move away from a product focused business to a more service centric approach to IT service delivery (Tan, Cater-Steel, Toleman & Seaniger, 2007). IT organisations struggle through perpetual cycles of restructuring and re-strategizing as they attempt to establish the right balance in response to a complex set of contingencies. It seems that the key is to be “agile.” (Hirschheim et al., 2006).

Through attempts by business to optimise and reduce costs IT has been down-sized, outsourced, and back-sourced (Wilcocks & Lacity, 1998). The concepts and trends of outsourcing, in-sourcing and off-shoring have all played a role in sculpting the culture of IT organisations (Hirschheim & Lacity, 2000). As a consequence of a multitude of external changes, the IT industry seems to always be in this constant state of flux. In response to business demands to improve efficiency and drive down operating costs, IT organisations have had to frequently re-engineer their approach to providing information systems to business (Yaw Owusu, 1999). Early in the new millennium organisations identified the need to standardise their operations to improve operational cost efficiencies (Brown, 2002; Pinsonneault & Kraemer, 2002). At each stage of transformation the organisation gets scarred by the change management process or lack thereof. The impact of these changes does not always guarantee improvement in the overall effectiveness or efficiency of the organisation.

2.5.2 The Role of IT in an Organisation

Information technology plays a disruptive role in business (albeit it positively) and this seems to be tied to the very nature of the technologies influence. Mbeki (1996) captures this innate effect of IT as follows:

“..it will forever change the way we live, work, play & organise societies and ultimately define ourselves” (Mbeki, 1996 as cited in Wheeler, 2003), in reference to the role of information technology.

The organising to deliver IT is thus bound to be affected by the disruptive effects it is likely to have and the readiness that exists at organisational level. Hirschheim et al (2006) state that the constantly changing face of IT has led to IT services being viewed as a commodity by the rest of the business and not an integral part of business which IT truly is when viewed from its role in affecting agility. However, the importance of information technology in an organisation cannot be overstated. IT has been acknowledged as being the “engine that drives” business (Dibbern, Goles, Hirschheim & Jayatilaka, 2004). Hirschheim et al (2003) mention that despite IT being around for almost 50 years IT is still considered an “overhead” in organisations. This would have direct impact on how this area of the business is perceived and received by the rest of the organisation and in turn the identity and culture that persist through the IT division. The role of IT in business has been a key area of concern from a number of perspectives (White, 2004).

Considering IT’s centrality to business improvement and change it is to be expected that it will be perceived as either the enabler or the constraint in improvement efforts of the organisation. Often through these discussions individuals within organisations perpetuate the perception that IT is often a hindrance and source of many business problems; hence the value of technology and the IT team in the organisation is questioned (Hirschheim & Lacity, 2000, p. 101). Testament to the dependence of business on IT is that a failure in critical IT systems that support core business functionality could severely cripple the overall business functioning (Kearns & Lederer, 2004).

Given that IT is an intrinsic enabler of business success it is surprising that the perception of IT having a different set of values from the rest of business (Gefen & Ridings, 2003) still persists. Gefen and Ridings (2003) elaborate that this difference in culture causes a rift between IT and the rest of business. This is evident in the well documented writings that the alignment between business and IT is an on-going challenge for both IT as well as business (Schwartz & Davis, 1981; Sabherwal & Chan, 2001; White, 2004; Luftman, 2005). For IT to support and promote business profitability IT needs to align to business not just in business processes but in the cultural values and behaviours so as to ensure the business objectives are shared and entrenched seamlessly across the two areas.

Unfortunately it is not always possible to quantify the value derived from many information systems. Often this is because this value is not a tangible commodity (Hirschheim et al., 2003) and rewards are reaped over an extended period of time. The time-line over which benefits need to be realised may go well beyond the project life-cycle and there is no follow-up. Human nature dictates that if one is not able to experience benefit from something immediately the overall value of the item is questionable (Schneider, 2000) This is further compounded when the implementation of an information system sometimes imposes inconvenience to the general user community, as is the case with IT projects generally. Thus the whole concept of information systems & technology in the organisation is often seen as a source of problems and frustration with little immediate benefit.

The extent of business dependence on information systems is sometimes only appreciated when a failure in IT results in business having to revert to manual processes. Often this is not even a consideration as most industries are automated and computers are ubiquitous throughout the organisation (Dibbern et al., 2004). Business processes have high levels of automation and the organisation as a whole is reliant on the uptime and availability of these systems (Peppard, 2003). Thus an outage in any part of the system generally means that business users are unable to

continue with their work. Often the problems are not easily resolved and this raises the question of the efficiency of the information systems team. In other instances IT may be perceived positively by most users but this perception can be tarnished by the negative perspective of a single influential user (Hirschheim et al., 2006).

Hence there are certain perceptions and myths of the IT organisation which persist, despite efforts by the IT organisation to neutralise them. These myths give rise to an identity issue associated with being an IT person and is carried by IT professionals as an IT identity (Benbasat & Zmud, 2003).

2.6 IT Organisation Culture

Given IT's wide ranging effects organising the delivery of services is bound to result in a dynamic and complex organisation system. Often there are attempts to explain and deal with this complexity at the level of process and function only. The background that gives significance to these functions and processes is often referred to as the culture; and evades scrutiny. There are few studies that have tried to study IT culture hence the need for this research project being undertaken. Despite the lack of enquiry few disagree on the role of culture and the easy with which it can be effected in the short term with purposeful actions.

In each IT organisation the cultural effect will be a significant factor affecting the success and sustained value creation. There are a number of features and mechanisms of cultural influence which are detailed below.

From one perspective the construct of an identity is derived from or in response to an individual questioning "who I am". Thus when one considers roles and identities within IT, it is important to realise that the IT teams encompass both individuals as well as systems. It is therefore not surprising then that there are cultural differences

between the business and IT, as each is implicitly driven by a different set of objectives and values which in turn creates a barrier (Gefen & Ridings, 2003).

Due to the need for the IT organisation to evolve with technology these teams often find themselves in an on-going state of change with little time to settle down and define their modus operandi. Also due to IT subscribing to different business drivers from the rest of the organisation there is often conflict between how the IT team is perceived by the rest of the business. Is IT truly a part of the overall organisation and does it represent the common values and traditions; or does IT have a different set of values and traditions that are unique to the IT division?

These questions are further compounded if the primary IT service provider is not a division within the company but is in fact an outsource partner. In situations like this the technology team providing the support reside on site with the business but are employed by an independent IT organisation that typically has a wide customer base. In such a scenario there is bound to be conflict between the IT team's loyalties in terms of which business do they embody and represent? These are some of the dilemmas that have given rise to the instability and sensitivity of the IT identity. Considering that this identity collectively produces the IT organisations culture it is important to take cognisance of this in context of the IT organisation (Schneider, 2000).

2.7 IT Management

The discipline of Information Technology is relatively young compared to other areas of the business. However, in its short life span the significance of IT cannot be trivialised. Thus the burden of ensuring IT meets business expectation has resulted in many management styles and tools.

IT management practices traditionally focus on the following key areas as they persist on being amongst the top CIO concerns as shown in Table 1: CIO Strategies :

- IT and Business Alignment
- Service Delivery
- IT configuration management
- Governance
- Financial Management
- Project Management

CIO IT strategies concentrate on eliminating IT and enterprise distortions					
CIO IT strategies	Ranking of IT strategies CIOs selected as one of their top 3 in 2012				
Ranking	2012	2011	2010	2009	2008
Delivering business solutions	1	2	1	3	1
Reducing the cost of IT	2	3	3	2	10
Developing or managing a flexible infrastructure	3	1	8	11	11
Expanding the use of information and analytics	4	7	7	10	9
Improving IT management and governance	5	4	6	4	7
Improving business alignment and relationship	6	10	2	1	2
Implementing mobility solutions	7	18	*	*	*
Consolidating IT operations and resources	8	5	9	9	12
Implementing business process improvements	9	8	4	5	6
Improving IT organization and workforce	10	6	10	8	3
Implementing cloud solutions (SaaS, IaaS, PaaS)	11	9	*	*	*

*Not an option that year

Table 1: CIO Strategies (Gartner, 2012)

An important advance in the management of IT professionals is the realisation that IT people are knowledge workers and decoupling their productivity and motivation from industries like manufacturing (Horibe, 1999).

2.7.1 The role of the CIO and IT management

"The bottom line for leaders is that if they do not become conscious of the cultures in which they are embedded, those cultures will manage them" (Schein, 1996).

White (2004) undertook an extensive study to find out from CIOs what they expected from their IT organisations and from this research he reports that generally CIOs see the IT organisation providing 3 key services.

- i. Firstly, they need to maintain business momentum, that is, to keep the operations and activities of business that depend on IT, up and running for the duration of business and the pace at which business wants to operate.
- ii. Secondly, they see the IT department as crucial in improving business results by playing a role in realising business benefits and putting forward business cases for potential benefits on an on-going basis.
- iii. And lastly, they expect the IT department to provide technology leadership.

From the study by White it is evident that business expects CIOs to spend more resource on newness and thus it is unsettling for CIOs when the focus and budget get disproportionately spent on maintaining business momentum instead of new technologies and functionality demanded by the business.

IT organisational management provide a framework within which their teams are allowed to operate and function (Jong & Hartog, 2007). IT managers face a wide array of issues, which directly impact the overall culture of the teams they manage. Managers sculpt the behaviour of their teams and with this define how teams react in different situations like crisis or how they contend with innovation (Jong & Hartog, 2007). Hirschheim et al (2003) stated that a Chief Information Officer (CIO) who is only technically focused can contribute to the overall failure of IT in an organisation. They further mention that the CIO's leadership style and practice influences the overall IT organisation.

The traditional role of the CIO has evolved and the traditional skill set of the CIO is no longer "sufficient for success going forward" (Allison, 2010). The ever changing

landscape of the IT organisation is demanding management to adapt both personally as well as steer the organisation towards a more dynamic and agile modus operandi. Management who embrace creativity and innovation predispose their teams to being able to evolve in an ever changing environment by providing them with an environment that is conducive to creativity (Jong & Hartog, 2007). Management also has the onerous task of ensuring that individual cultures are aligned to the overall organisations culture (Middleton, 2004).

2.7.2 IT Management Frameworks & Best Practices

“Technology is not about tools, it’s about how man works” (anon, as cited by Drucker, 2010)

IT organisations are often required to work intimately with other organisations and divisions thus exposing it to different interfacing logic. This is perhaps one reason why IT management have focused so heavily on both service and process excellence. Such initiatives tend to evoke the need to adopt standards and best practices or benchmark their practices against that which has been borrowed from related industries. Such efforts have given rise to a number of standards and frameworks aimed to improve IT service delivery and reduce operational costs (Morency, 2005).

Given this context it is not surprising that IT governance remains a key concern for senior management (Simonsson & Johnson, 2006). Many IT firms have adopted various standards and frameworks in an attempt to streamline the operations and improve efficiency (Tan et al., 2007). Amongst these frameworks are: ITIL, CMMI, OPM, COBIT (Galup, Dattero, Quan & Conger, 2007) as summarised in Table 2: Summary of IT Frameworks (adapted from Cater-Steel, Tan & Toleman, 2006).

	ITIL	CobiT	CMMI	ISOxxxx
Focus	IT service management operations	IT governance and control	Software development process improvement	Generic quality management system
Target	IT service providers	All organisations	Software development organisations	All organisations
Documentation	Set of books providing best practice guidelines	Hierarchy of control objectives organised in four domains	Detailed guidelines on process areas, goals and practices	Family of standards providing requirements and guidelines for certification
Process Improvement	An early version of ITIL CMM is available	Weak on Process Improvement as it is essentially a control framework	Framework is devoted to process improvement	ISO 9004 provides high level of guidance for process improvement

Table 2: Summary of IT Frameworks (adapted from Cater-Steel, Tan & Toleman, 2006)

The implementation of such frameworks generally demand a substantial investment of company resource especially capital expenditure and man-hours. Critics of CMMI argue that considering the costs and time of implementation the benefits are difficult to justify (Staples, Niazi, Jeffery, Abrahams, Byatt and Murphy, 2007). However, despite the investment and objective of the exercise, these implementations are not always successful (Zeng, Tian & Tam, 2007). Often such failures are attributed to the social aspects of the organisation which serve as a mannequin to refer to the organisations culture. This culture impacts the way teams within the organisation interact and share responsibility. Because these frameworks tend to be prescriptive and thus provide guidance to an organisation on how it should function at an operational level it tends to invade cultural space within the organisation without

sufficient consideration of the cultural effects that are ever-present in the organisation. An example is ITIL - having been designed in the UK ITIL does not allow for the regional cultural nuances including protocols that are not relevant to the UK or European setting. It is also noted that ITIL does not lend itself towards any IT strategy considerations (Simonsson & Johnson, 2008).

By contrast an argument against COBIT by van Solms (2005) notes that the downside to COBIT is that whilst it specifies 'the what', the framework gives little guidance on how this should be achieved. So a balance needs to be achieved between prescriptive and loosely defined practices which are adaptable to organisation specific contexts.

Another aspect of the organisation culture that impacts the successful implementation of such standards is the politics of the organisation. The implemented frameworks attempt to provide both structure and process to the operation of the organisation and thus change habit and practice. In so doing the very essence of the organisation's culture is amended (Zeng, Tian and Tam, 2007). The adoption of these frameworks affects pre-existing cultural elements. Research also reports that implementations fail because of pre-existing cultural attributes which have not been taken into consideration (Galup et al., 2007).

These frameworks which collectively purport to affect positively governance and efficiency are summarised in Table 2: Summary of IT Frameworks (adapted from Cater-Steel, Tan & Toleman, 2006) All of these come from the developed north and have an air of credibility attached to them. Thus, when improving governance or productivity, the perceived benchmark to strive for are these international best practices. SA organisations strive to adopt such frameworks in the hope that with implementation benefits also start to accrue. This is the case despite the abundant evidence that these frameworks come with a culture that is hierarchical and

bureaucratic. The longitudinal studies that have looked into for example CMMI adoption almost unanimously indicate that culture and change management are central considerations in these implementations.

It has been argued that these frameworks do not provide a complete holistic approach to IT management but rather only support one or another facet of IT. To illustrate this Figure 6: Positioning IT Frameworks (adapted from Salle, 2004) shows alignment of each framework to a facet of IT business.

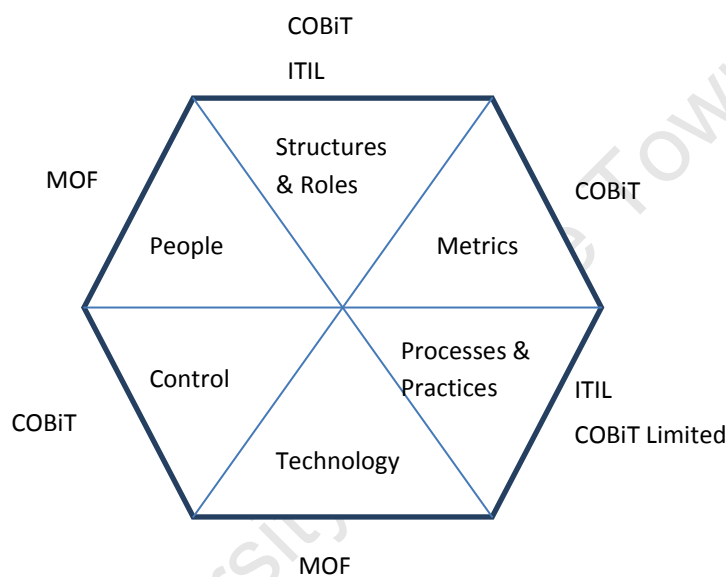


Figure 6: Positioning IT Frameworks (adapted from Salle, 2004)

At a quick glance it is obvious that none of the frameworks represented are all-encompassing with only Microsoft Operation Framework (MOF) claiming to include the “people” aspects of the organisation. Considering the importance placed on people management from the social perspective detailed earlier it is more evident that popular frameworks are focused on streamlining process and throughput as in the early management of manufacturing of yester-year. And yet these frameworks are rapidly adopted across the globe (Brown & Grant, 2005).

However, the international recognition of these best practices gives them a credibility that is hard to question (Iversen & Ngwenyama, 2006). Microsoft purports to have considered the various dimensions of IT via the (MOF) as a mechanism to create services and then maximise critical, core services uptime. The framework is made up of 3 model three models: viz. process, team and risk models focusing on people, process and technology dimensions of IT (Salle, 2004). However even this approach does not factor in culture with its inherent practices and norms as a vector within the framework.

In context of the local IT industry, it is evident that SA organisations feel pressured to blindly adopt these frameworks to be recognised as delivering optimal IT services. There are positives to strive for in the adoption of such frameworks, for example, Cater-Steel et al. (2006) point out that the use of external frameworks “reduces the learning curve for new hires and migrant workers”. The key issue relevant to this thesis is that the frameworks impose an influence on the culture or the application thereof is in turn impacted because of clash with an organisational culture; yet there are so few studies which have tried to give a cultural perspective of an IT organisation.

2.8 The South African Context

The issue of social culture has been an important issue that has been targeted by advocates of political change in SA since before the first democratic elections in 1994 because it was accepted that the apartheid system would continue to manifest as a cultural influence well into the future and one that needs to be changed. Aspects of national culture are hard to affect in the short term and this prompted the first democratic leadership to institute changes for an inclusive national culture. In parallel with new laws to redress the injustices of apartheid, a new constitution was implemented to nurture the cultural diversity that was desired. The relevance of this on organisational culture is captured by Hofstede (1983) who states that a country's national culture will have a direct impact on an organisational culture. Thomas and

Bendixen (2000) confirmed similarities between Hofstede's cultural dimensions and ethnicity in SA. In a country as ethnically and culturally diverse as SA, organisations need to take heed of this diversity when defining the values and norms the organisation must represent without discrimination of any particular social group.

SA companies across industries have been battling to overcome this cultural divide and to create a unified workforce and thus a stable organisation from a social perspective (Alexander, 2002). These issues are amplified in the IT industry as there are specific technical and educational requirements from the knowledge workers that a democracy in its infancy has yet to correct. Lehmann (1995) concurs that the methodologies employed by Western IT organisations may have little if any relevance to third world countries.

One of the problems facing the IT organisation in SA is the skills shortage. Due to the legacy of apartheid there are limited IT skills in the previously disadvantaged sector (Evans, 2006). At the same time organisations are required by law to ensure that their workforce represents the demographics of the country (Motsoeneng, 2011). This proves a challenge as it is not always possible to acquire skilled resources without impacting the overall level of service being delivered by the IT organisation (Shibanda, 2001).

The SA organisation is further challenged by being an emerging economy (Gallivan, 1994) competing in a global market place (Walby, 2000). So whilst SA IT companies attempt to address the legacy of apartheid they still need to remain competitive and strong in the global economy or risk economic failure.

2.9 Synthesis of Literature

A review of the literature on organisations shows that the area of organisational culture has been widely researched especially in first world countries. The phenomenon of organisational culture has been extensively researched with case studies representing different perspectives across various industries (Hofstede, 1983; Geert Hofstede, 1990; Senge, 1990; Schein, 1996; Drucker, 2001). Organisations across a multitude of industries have taken cognisance of their organisational culture as a contributor towards the overall success of the organisation.

The literature on IT organisations however, indicates that IT executives and management have been focused primarily on best practices and the adoption of standards and frameworks which were typically adapted from manufacturing. It is evident that IT management's core objectives have been to optimise and improve throughput and response times. The glaring differences are the lack of attention paid to the organisations culture in the IT environment. IT organisations should theoretically be no different from other business organisations and should resemble the same characteristics as any organisation of knowledge workers. Hence it is concerning that IT management does not pursue organisational culture as one of the critical success factors in ensuring business success. The phenomenon of organisational culture is rarely, if ever mentioned as a significant influence in the overall effectiveness of IT.

Classical management practices derived from manufacturing and industrial sectors remain the driving force in IT management with a view to increase efficiency and productivity. Despite well published and referenced theories by Drucker, Maslow and Herzberg, amongst others, there is little reference to the social aspects of managing knowledge workers in the literature on IT organisational management and culture.

IT as an independent business construct is relatively new when compared to other aspects of business like finance and sales. As such it has been on the receiving end of management practices gleaned from other business areas. Following on from the industrial space IT management has been focused on through-put and optimisation and thus has sought best practice and frameworks to improve efficiency from other business areas like manufacturing. Whilst these practices and models served well to ensure optimisation for example of the manufacturing of discrete objects, the application to managing knowledge workers (Horibe, 1999) has not taken cognisance of the fact that productivity in IT does not entail machinery but rather motivated human beings with a hierarchy of needs (Maslow's Hierarchy) to achieve the desired business outcomes. IT cannot be equated to a production line in all respects. Management of people requires greater attention to the human behavioural and motivational aspects.

The historical background of the SA knowledge worker as well as the socio-economic makeup cannot be discounted when organisations look for methods to improve business operations. This holds especially true as IT organisations move towards greater agility to meet ever changing market demands. IT resources need to be managed with an appreciation of their individuality and cultural background needs to be embraced. Hence best practices and framework that are from a developed north cannot be blindly implemented without due consideration of the subjects it is being imposed upon (Marnewick, 2011).

The literature also shows that there are other conditions which influence organisations in developing countries that research conducted in first world countries does not take cognisance of. Thus there are 2 specific voids present in the literature review. The first is around the lack of attention to the social aspects specifically understanding culture in the management of skilled IT professionals. The second is the relevance of such attention in a democratically young, diverse country like SA where the efforts to transform our societies demand attention to societal diversity and individual needs. Frost (2002) talks of a performance driven culture. This begs

the question of whether SA organisations are merely seeking performance and if this performance should be measured in the same quantitative manner as developed economies.

It is evident that there have been multiple schools of thought on organisations, culture and what motivates individuals. The literature shows that despite extensive research on human needs and aspirations, management practices employed by the Information Technology discipline appears to be grounded in theories and practices adopted from business areas focused on the production of discrete objects, like manufacturing, as management strive to streamline and optimise production and maximise shareholder benefit. There are numerous theories and models giving insight into how an individual's motivation can be driven. Using Maslow's hierarchy of needs as a base reference shows that people have differing aspirations based on their respective socio-economic positions in society.

When this is juxtaposed to the context of the emergent SA democracy and its political history it is obvious that the SA workforce come from diverse backgrounds. Hence applying a standard approach to all and sundry will not achieve the same desired outcome of motivated staff. Hence it is not surprising that recruitment of skilled and motivated IT resources are proving to be an on-going challenge despite policies enforcing transformation.

3 Research Framework

3.1 Introduction

Thus far the thesis has focused on presenting a case for studying culture within IT organisations. Through the review of the literature it is evident that there are many management approaches to managing people. It was also articulated that cultural as well as regional context are key ingredients in an organisation's success. Whilst there are many schools of thought on these concepts, this study will explore an approach to offering descriptions of culture within an IT organisation.

The framework proposed by Pierre Bourdieu will be used for this investigation. Specifically Bourdieu's Theory of Practice is the lens through which this investigation was studied and the chapter unpacks the concepts of Theory of Practice and the relevance to this specific study. The underlying ontology as well as the epistemological assumptions are defined providing context for the discussion that follows. This chapter will focus on how this can be done.

A set of propositions are noted as anticipated outcomes from the use of Bourdieu's Theory of Practice in this. Through the observation of these propositions it is proposed that the cultural mechanisms involved in defining an organisation's culture become more evident. The study will focus on trying to make such empirical observations in the case.

3.2 Ontology

To understand the phenomenon being investigated, that is, organisational it was necessary to use a lens through which culture as a social construct could be understood. Bourdieu's theory of practice has been used in an organisational context previously, so there is some validity in its use to study IT organisations

(Reckwitz, 2002). Hence the ontology used in this research project comes from the discipline of sociology and is often referenced as social construction.

This entails the interaction between structure and agency (Sewell, 1992; Hays, 1994). Structure is generally regarded as those components of society or organisations that solicit certain behaviour in exchange for a range of benefits that agents perceive. An example of this would be project management best practice frameworks like Prince II certification in the Information System project management discipline. Agents on the other hand are individuals or groups of individuals who undertake certain practices because of the influence exerted by the structure (Naidoo, 2004). An example of an agent would be a project manager or IT manager who is obliged to use the best practices in which he is certified.

Specifically, the Theory of Practice by Bourdieu is suggested for use in this research as it has previously been applied to research of knowledge workers and hence has relevance to the investigation of culture in the information systems industry (Naidoo, 2004). The constructs of this theory are defined in Figure 7: Summary model of Bourdieu's Theory of Practice (Schultze & Boland, 2000, p. 193).

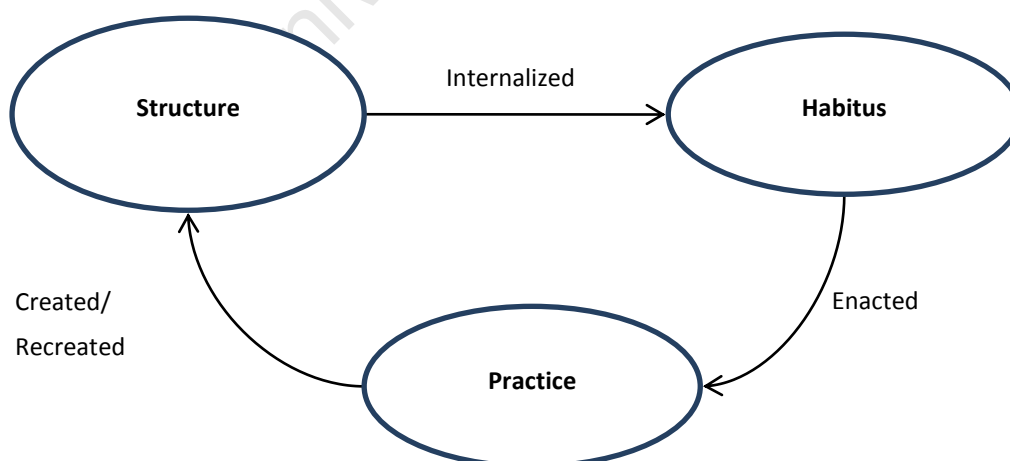


Figure 7: Summary model of Bourdieu's Theory of Practice (Schultze & Boland, 2000, p. 193)

The key concepts in Bourdieu's Theory of Practice include structure, habitus, doxa and practice (Schultze & Boland, 2000). Bourdieu defines the construct of structure as comprising of fields, i.e. structure relates to a field of forces that exert influence (Bourdieu, 1989).

Habitus refers to the orientation of actors in specific fields. It represents the perception individuals have and the tendencies and pre-dispositions that are internalised in their minds and bodies. Habitus acts as a symbolic template for an agent's conduct, thoughts, feelings and judgments (Bourdieu & Wacquant, 1992, p. 126). It is through habitus that socially accepted behaviour is enacted by individuals (Hanks, 2005) and this is how cultural structure becomes entrenched. Hanks (2005) notes that this could include commonly practised means of communication like gestures, manner of speech and other embodied actions (verbal & non-verbal). Bourdieu claims that habitus is a result of the “interaction between individuals and the field” (as cited by Hanks, 2005, p. 72).

According to the Theory of Practice, a **field** is defined as a social organisation which has:

- a) Roles and agent positions and an overall structure that they fit into. In the context of an organisation this would refer to specific job roles, employees and the organisational structure;
- b) Entrenched processes by which actors assume these positions which result in the enactments of embodied dispositions (Hanks, 2005) .

Emirbayer and Johnson (2008) notes that the concept of field is an “indispensable tool” for the investigation of organisational studies. Bourdieu also states that the field has virtual boundaries through the constraints in place which define who can, and who can't, assume positions in the field. In the IT organisational setting this can be

equated to the pre-requisite for developers to be certified in their respective programming language. It is also noted that within any society there are many fields (Hanks, 2005). Thus if one equates an organisation to a form of society, the various departments can be considered fields within the larger organisational field. The relationship between the departments (sub-fields) is referred to as homology as these departments share some form of similarity (Hanks, 2005). The structure of the social field defines the superior and subordinate positions and the overall rank per position.

A key concept that Bourdieu (Bourdieu, 1977) used to clarify the dynamics of the actors within the field and the resultant positions assumed is that of capital. There are various types of capital which Naidoo (2004) refers to as resources in the social field, with each representing a different type of commodity that one can possess which in turn influences the individuals locus of control and position in the field. It is through the acquisition of the various types of capital that individuals are able to command certain social profits and positions of influence. This allows the transfer and transaction of power (Naidoo, 2004).

Unfortunately the concept of capital often brings to mind economic capital, which the financial world, through frequent usage, has adopted and abbreviated to the single word of capital to represent this one type of capital (Emirbayer & Johnson, 2008). However, the use of other types of capital can be likened and better understood by drawing on the concept of economic capital and equated to a form of currency for barter and trade (Emirbayer & Johnson, 2008). In addition to economic capital there are three other basic forms of capital. Symbolic capital refers to the tacit power an actor possesses (Hanks, 2005).

Each type of capital can exist in one of three forms viz. embodied, objectified and institutionalised (Acciaoli, 1981). Embodied culture refers to the dispositions of an

individual (body and mind). Objectified capital exists in the form of artefacts that represents the specific culture of the field. The third form of capital, institutionalised capital, is a formalised intentional means of influencing an outcome, for example education.

According to Bourdieu, field and habitus are reciprocally constitutive, that is, each shapes and is shaped by the other (Bourdieu, 1989). The interaction of habitus and field is manifested by an actor's practices, that is, their repeated and patterned behaviours. Bourdieu emphasizes the relational, generative quality of his theory, in which practices that emerge from the interaction of habitus and field in a given concrete situation tend to reproduce the field (Bourdieu & Wacquant, 1992). Bourdieu describes this theory as having a dominant circular path. In this causal loop of generation and reproduction, actors internalise the structure of a field as habitus (see Fig. 6). Habitus, in turn, generates practices, and practices serve to reproduce and reinforce the structure of the field and thus they share a dialectic relationship.

Practices are the recognisable patterned actions in which both individuals and groups engage. They are not a mechanical reaction to rules, norms or models, but a strategic, yet regulated improvisation responding to the dialectical relationship between a specific situation in a field and habitus (Bourdieu, 1977). These improvisational actions are generated by dynamically combining past experience, the present situation, and the implicit anticipation of the future consequences of these very actions. Being determined by past conditions through habitus, they tend to reproduce the regularities and objective structures of which they are the product (Bourdieu, 1977).

Doxa is a term borrowed from Greek philosophy and used by Bourdieu to define those aspects in a culture which are regarded as obvious and taken for granted (Bourdieu, 2007). It is the implicit law thought to set limits on social behaviour due to

unspoken but widely accepted and understood rules. Doxa exists in all social groups and the organisation is no exception with sublime practices and informal activities that govern behaviour and day to day existence.

Drawing on Bourdieu's Theory of Practice, the study infers from practices undertaken in IT organisations what fields of influence are at play to explain the organisational cultural influences. This would entail identifying the actors, defining the habitus, the games engaged and the various forms of capital involved (Bourdieu, 1984).

3.1 Acciaioli's Model

Acciaioli (1981) notes that “phenomenological knowledge strives to make explicit the truth of primary experience of the social world”. Thus sublime detail that has not been formalized cannot be disregarded when evaluating a given social setting as it is a fundamental part of the day to day existence of the participants in the respective setting.

Theoretical knowledge, by contrast focuses on defining structures based on process and does not take into account the tacit knowledge and experience that the individuals fulfilling the roles contribute towards the overall practice. Bourdieu's Theory of Practice strives to “transcend the objectifying standpoints” of phenomenological knowledge and theoretical knowledge (Acciaioli, 1981). This is achieved by viewing the relationships between objects which are mutually influencing and ever evolving into dialectic relationships that can only be appreciated in the respective context.

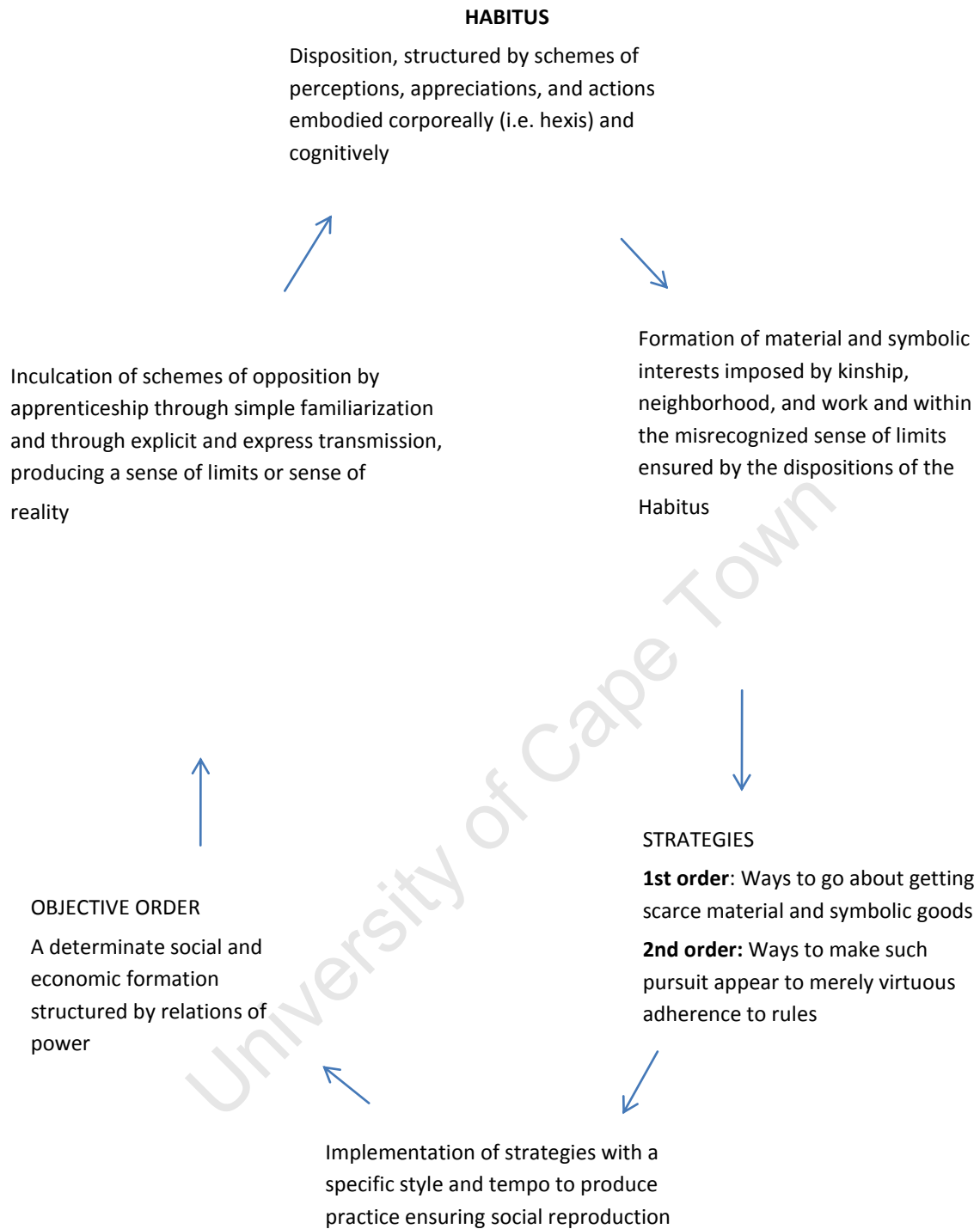


Figure 8: Interpretation of Bourdieu's Framework (Acciaoli, 1981)

3.2 Propositions

It is proposed that through the use of this theory the investigation will yield a phenomenal observation of the cultural mechanisms. Specifically, we will notice distinct fields of interaction that exert influence on the actors causing them to perceive and interpret situations in a particular way and therefore respond based on these environmental conditions.

The second proposition is that the fields of influence are likely to be structured and organised as games where actors are in competition with each other to acquire various forms of capital. It is likely that when actors respond their responses will not always be reflective and rational (habitus – due to conditioning).

Following from this there will be specific forms of capital that will reign supreme in the IT organisation and the actors and participants there-in. The forms of capital will have hierarchy as displayed in Maslow's hierarchy of needs whereby it is proposed that to get to the next level the basic forms of capital need to be acquired before one has the drive to progress to the next level.

Together these observations, in an empirical context, will yield an explanation of the cultural structure. This is how this research project intends exploring the cultural structure of an IT organisation and the perceived impact it has on the IT organisation success.

3.3 Summary

To make the observations about cultural practices in IT organisations more objective and to express them in concepts that the external readers can relate to Bourdieu's Theory of Practice (Bourdieu, 1977) will be used. A theory of the practice or "a feel for the game" will be a resultant outcome from the research process.

Bourdieu's Theory of Practice has been adopted from the social discipline as the lens through which IT organisational culture is going to be analysed. The study will seek to understand how the culture within IT organisations is formed and if there is intentional influence from one dimension towards a particular culture. The investigation will also look at SA specific factors which influence culture in the workplace and the prevalence of these factors and how they are managed across the diversity in IT.

University of Cape Town

4 Research Methodology

4.1 Introduction

This research project is exploratory because the intention is to provide an explanation of organisational cultural influences. This is to be achieved by attempting to conceptually structure and organise the issues that affect organisational culture within an IT organisation. The primary source of empirical data was derived from the in-house IT organisation detailed in Chapter 5 Overview of the Case Study.

Pivotal to the validity and success of this investigation is the methodology and approach used. Chapter 4 discusses the group of individuals from whom the rich qualitative data was derived and explanation of how this data was gathered. To ensure the collection of appropriate qualitative data to support an exploratory study such as this, the data collection techniques employed are explained accordingly.

A key contribution to the study is the researchers own experience and reflexive account of the phenomenon of IT organisation culture. This is explained in detail with theoretical reference to previous studies of a similar nature to provide context for the relevance and value derived from the researcher's contribution.

The chapter then proceeds to clarify how the data gathered was analysed and processed and the ethical considerations taken into account. Finally the key limitations are noted and the confidentiality governing of this study is articulated.

4.2 Focal Concepts

The concepts explored in this study were based on personal experiences of the areas IT management seem most concerned within the SA IT industry. When compared to research by Gartner over the last 5 years (Gartner, 2012) these concepts feature in one form or another amongst the CIO key concerns.

The key concepts that will be explored include:

- Organisational structure
- Role of management
- IT identity
- Individual Influence
- Cost Structure
- Customer Service

These concepts will be investigated by assessing the various fields of influence within the organisation, positions of influence held by the various actors (individuals within the field) and roles, the processes being followed and the values of judgment adopted (Hanks, 2005).

It must be acknowledged that the researcher is herself an active employee in the IT organisation being studied and a number of fields already bear influence onto her. The nature of these fields will emerge as the researcher draws on her past and present experiences during the course of this investigation and considered these using Bourdieu's theoretical lens. This will be done by means of confessional writing (Van Maanen as cited by Schultze, 2000). Confessional writing requires the researcher to provide a self-reflexive account where relevant on the area being investigated. Thus the researcher will keep a journal with entries detailing previous experiences and encounters in organisation A. All documents and emails from

correspondence whilst in the employ of company B will add the reflective data. It is envisaged that this will provide a rich set of data to reflect upon.

4.3 Ethnographic Methodology

The research method of ethnography used for this study borrows from the area of anthropology and is based on first hand involvement in the field being studied (Schultze, 2000). The relevance of an ethnographic study can be drawn from a previous study of knowledge workers who share a common cultural background which in this case is an IT culture (Creswell, 2007). Schultze and Boland (2000) also conducted an ethnographic study on the work practices of knowledge worker. An ethnographical study was conducted in this research project as the researcher has been immersed in the field of study and was actively observing behaviour, language and interaction to gather data relating to the phenomenon being investigated.

Ethnography requires the researcher to approach the research project as an outsider but with considerable insider knowledge. In this researcher's case this is naturally fulfilled by her past experience in the company being studied. Schultze (2000, p. 8) states that ethnographic research relies heavily on the researcher's "unique knowledge and experience". The researcher's extensive experience in the IT field will enrich this study with tacit knowledge and interpretations that may otherwise be lost to a non-participative researcher.

An ethnographic study was used in this research for the evaluation of knowledge workers (Schultze, 2000); and due to the researcher being actively engaged in the field being researched with the subjects, an honest account was provided from first-hand experience and not just related transcripts. The study by Schultze (2000) allowed the researcher to focus on what people did as opposed to what they knew in terms of their knowledge and expertise. Similarly this research on the IT organisational culture is primarily interested in what and how people act and their

respective behaviour that emerges from and influences the culture; as opposed to details on the individual's technical skill and competence.

4.4 Researcher's Experience and Reflexivity

The researcher has worked in the IT industry for the past 20 years in various roles and organisations. These roles have included programmer, systems analyst, project manager, support manager, business relationship manager, and spanned multiple levels on the organisation at an operational, tactical and strategic decision levels. This experience has afforded the researcher, over the years, to observe multiple facets of the IT organisations including practices, norms and behaviours. The researcher's exposure to IT was spent in dedicated in-house IT as well as 12 years in an IT outsource and consulting firm. Hence the contrast in cultures between the 2 types of organisations is referred to in certain scenarios.

One's insight allows the research study to progress from a point of understanding of the environment. This is fully appreciated considering the time frame of the study. Such background and understanding allows the researcher to advance into the study knowing the terminology and way of life in the organisation as "one is already in the midst when one arrives" (Clandinin & Connelly, 2000).

Clandinin and Connelly (2000) further note that metaphors and analogies used in the organisation and industry can be understood within the context used without the risk of misinterpretation. This has also given the researcher a position of privilege to contextualise and understand the concepts and practices as well as a pre-existing appreciation of the terminology and vocabulary of the organisation and industry being studied.

The use of reflexivity has been successfully applied in the study of human behaviour (Lynch, 2000). The relevance of reflexivity in organisational studies has been debated as questions arise over reality, what is real and who is the self (Latour, 1988). Contrary to Clandinin and Connelly (2000), Pels (2000), claims that the researcher does not possess this position of privilege in reflexive research. Cunliffe (2003) however, notes that reflexivity allows the researcher to question and debate the dialectics between researcher and participants. From this it emerged that research is not exclusively about the field of study and the agents in the field but also about the views, understanding and perspectives of the researcher (Cunliffe, 2003). In the application in this study it has resulted in a deeply personal account and journey of the researcher. So phenomenical observations of Bourdieu's theory are emergent rather than a result of a categorising effort at a certain stage in the research.

To facilitate this reflective and reflexive engagement the researcher maintained a journal of encounters and personal interpretations from past and current experiences when assessing various dimensions of the primary organisation. This method of recording and journaling past and on-going experiences has been previously used in the study of knowledge workers (Schultze, 2000) and is therefore relevant and applicable to this investigation of information technologists who constitute a subset of knowledge workers. However, an in-depth discourse on reflexivity falls beyond scope and purpose of this study.

4.5 Target Population and Sample

This study focuses on individuals employed by a large in-house IT organisation. The individuals selected have varying degrees of experience and influence in the organisation who operate at multiple levels of seniority from skilled professionals to middle, senior and executive management. This selection is to support the target concepts as defined in 4.2 Focal Concepts.

The sample population chosen was to ensure that the study provided insight into IT organisations across the board and not limited to just the IT organisation upon which this case study was based. Through various data collection techniques, which are detailed below, data was drawn from individuals, groups and teams across as many areas of the organisation through all tiers of the hierarchy. The individuals were selected from as many functional areas in IT as possible and thus represent various IT skills which span hardware infrastructure, desktop support, Infrastructure (including networks and servers hardware support), application development (multiple platforms - both legacy and new technology), project management, and customer relationship management.

Many of the individuals who participated in the interviews have, in addition to the in-house IT, worked in either outsourced IT or consultancy IT or both thus being in a position to draw on experiences from each of these differing IT business models. This was to try and provide a broad spectrum view of the views within IT.

For the collection and evaluation of live data, the primary focus of the study was an in-house IT organisation which is part of a larger retail organisation based in Cape Town with a multinational footprint across Africa.

The organisation was evaluated from each of the following dimensions:

- Operational
- Tactical
- Strategic

The profile of the participants, their roles and functional areas, gender and level of seniority is tabulated in Appendix A to provide a quick view of the extent and range of representation across the organisation. An outline of the organisation used in this study is detailed in Chapter 5: Overview of the Case Study.

4.6 Data Collection Techniques

The data collection techniques employed needed to ensure that the interpretive study was well supported by rich and reliable qualitative data to provide in-depth insight into the phenomenon being investigated. To ensure this objective was met, qualitative data was gathered by means of interviews, discussions, observations and analysis of organisational policies and practices.

The research focused on interviews and discussions with various individuals employed in the IT industry to garner an understanding of the various perceptions and experiences of the IT organisational cultural phenomenon. The questions posed were open ended and broad allowing discussion of the various issues raised.

The interpretation of what constitutes culture has been widely debated (Hofstede, 1983; Schein, 1996). According to Henri (2006) culture has five elements viz. Artefacts, behaviour patterns, norms, values and finally assumptions. Thus to fully appreciate the culture of an organisation it was necessary to interrogate the above elements from as many facets as possible. To achieve this numerous data collection techniques were utilised for gathering the qualitative data required. This is due to the interpretive nature of the study and the variety of different practices and perspectives used in the evaluation of the phenomenon of organisational culture.

4.6.1 Informal Interviews

Semi-structured interviews were used for the collection of specific individual perspectives (Schultze, 2000). A prompt sheet was to guide the interviews and to ensure that salient points are discussed and critical information gathered. However, these questions were open-ended and may have resulted in further unplanned

discussions. The interviews were unstructured to promote the free flow of information from the respondent. The interviews were adapted based on the type of information that was forthcoming and if further detailed questioning was required. The interviews were recorded where possible to verify the data. The conversations were then transcribed for further validation.

A pilot interview was conducted to gauge the relevance of the questions being posed and to assess the overall approach to the interviews and data collection techniques. The pilot interview involved an individual in middle management who had some strategic influence but was also involved in the day-to-day operational management. This allowed for the questions across all tiers of the organisation to be tested. The pilot was also used to refine the interview questions and techniques. The data gathered during the pilot interview was included in the final report as the information gathered included pertinent information and deemed to be of significant value to the research.

4.6.2 Discussions

Discussion records note both the verbal discussions and any subtle nuances to give the discussions context. These discussions included individuals who were part of the one-on-one interviews. However, whilst the interviews are specifically looking at the individual perspectives of the phenomenon being investigated, these discussions look at team perspectives and allow for debate and the influence of opinions.

4.6.3 Observations

Observed data was recorded with as much detail as possible. Where possible the researcher noted observations of relevance as and when the situation was deemed appropriate.

4.6.4 Evaluation of Processes and Procedures

The contribution and influence of the processes and procedures of the organisations determined from the “lived” perspective of the employees of the organisation. There were no formal reviews of the documentation. It was noted in the way these procedures are implemented and enforced at a practical level.

4.7 Time Frame

The timeframe of this study is cross sectional. The study spanned a period of 4 years with observations and conversations derived from the first 3 years of the research. The findings of this investigation are going to be a “snapshot” of the IT organisation for this period in time. The researcher does not think it is a longitudinal study because there is not attempt to describe an emerging phenomena and its emergence at specific stages, nor is it trying to compare phenomenal observations at specific time horizons. The concept of Longitudinal to the researcher has less to do with time but more to do with describing an emergent observation of some pheonomena.

As per the Theory of Practice and the dialectic relationship between actors and fields of the organisation is in constant evolution (Bourdieu, 1977). Thus an evaluation at a later time will be a study of a different field even if it is the same organisation. A similar investigation at a later stage will provide insight into the evolution of the organisation.

4.8 Limitations

A potential limitation of this research is the subjectivity of the researchers understanding of organisational culture. However, the literature review of such involvement indicates that the benefits justify this subjectivity and in fact add value to the overall study. This raises the question of whether a researcher’s subjectivity is ever totally excluded from any study. When one engages in such a study, one brings

into it prior knowledge and experience. Any bias is perceived to add value to the study through having tacit understanding of the environment and norms of the IT industry. This allowed the researcher the capacity to focus on the actual study without having to first become familiar with the terminology and concepts of IT.

Another limitation is the duration of the study as it was not possible to fully debate and explore all concepts to a detailed level of discussion. This however sets the scene for further investigations and research in each of these areas.

4.9 Ethical Considerations

This study touches on what could be considered the Achilles heel of an organisation – its people and their inherent relationships enacted within the organisation. The honesty of the participants and the practices of the organisation needed to be protected so as to neither compromise the organisation nor the individuals who so willingly contributed to this study. Hence a number of ethical considerations needed to be taken into account in this study to ensure privacy and confidentiality and yet enrich the research with truthful and honest dialogue and contribution suitable for publication to the wider audience.

4.9.1 Confidentiality

The study does not disclose any details of the individuals interviewed or the participating company or companies observed and reflected upon. All data gathered is treated with the strictest confidentiality. The organisations details and the interview transcripts are stored in two separate files. Masking is used to protect the identities of the companies and individuals. All files are password protected to ensure they are secure.

4.9.2 Data Storage

The interview data and researcher diction was digitally recorded and stored in audio files on computer. All interviews were then transcribed into a word processor document file. The journals and reflexive account were also recorded in a document file. These files are password protected. The names and details of the participants interviewed and the company involved are not disclosed in the transcripts or write-up to protect the participating organisations and individuals. This is to ensure confidentiality and protect the companies on their strategic initiatives. The names of the individuals and companies have been masked and only the researcher is privy to this detail.

4.9.3 Consent

Data from casual discussions or formal meetings was documented and added to the data collection. These discussions were with groups of 2 or more individuals in the organisation. Consent for the formal interviews was attained at the beginning of each interview and digitally recorded under consent of the participant. For the informal and ad-hoc discussions the participants confirmed their consent for the discussions to be used as input into the study.

4.10 Conclusion

In summary the approach of this study has been interpretative and exploratory in nature. The researchers experience in the industry is tapped on and together with qualitative data gleaned from interviews, discussions and observations provides the data for analysis and input for this study. The data is stored and managed to ensure confidentiality of the source of data and the subjects under study. There are key considerations that ensure the study is ethical and does not compromise any individual or the organisation.

5 Overview of the Case Study

5.1 Introduction

This chapter provides insight into the case study used in this investigation. To create context some background is provided on the industry vertical in which IT organisation upon which this case study is based.

The role of information technology in the wider business is discussed with clarification of the various business processes IT automates. Attention is then paid to the IT organisation involved in this investigation. An outline of the function of IT includes its approach to delivering technological service to the business.

A section on IT challenges explains some of the on-going challenges IT organisations face in the pursuit of providing a stable solution that fits the business demands. These challenges are based on key issues raised by the participants' in this study through the discussions and interviews.

The overall objective of this research is to investigate the phenomenon of organisational culture in IT organisations in SA. Through this investigation the organisations culture for IT organisations will be described. Across the study the SA specific influence has been keenly sought out. The concepts noted above are then reviewed in context of the SA social, political and economic climate by looking at those factors which influence the organisational culture that are unique to SA and may not be well investigated by international studies or worse still totally disregarded. The SA context is intended to give insight into similar emerging economies or to countries with diverse cultural mix of IT individuals.

To understand the phenomenon the following areas of investigation were identified:

- Mechanisms that nurture and mould the actors who in turn influence the IT organisational culture
- Influencing forces that are specific to the South African IT context

The chapter concludes with a summary the fields identified using Bourdieu's Theory of Practice.

5.2 Overview of Retail in South Africa

SA is positioned as a retail gateway into Africa. With the emergent African economic potential, many foreign brands are testing their product viability and acceptance into Africa via SA retailers. In response consumers in neighbouring states perceive SA to be the port of call for fashion and household commodities and consumers from neighbouring states travel to SA to make their purchases. As case in point is the border town of Ficksburg where there is a high influx of customers who come across from Lesotho to do their shopping in this little SA border town (Respondent 3). Hence SA retailers have to embrace global trends and technologies to support their speed to market in getting product to the right consumer at the right price before their competitors. This drives the overall retail business strategy in SA which is not different to international retailers.

The challenge lies in that fashion and new product are driven by the houses in the northern hemisphere viz. Europe and North America. Thus there is a 6 month lag before the fashion becomes feasible in the south and by then it is no secret and has been widely advertised and publicised. The other challenge is the customer profile in Africa does not match the European customer perfectly and thus demands adjustments to garments.

To achieve all of the above it is imperative that the retailer has access to the right information and the right time to make the most appropriate decision to outwit the competition. Shorter lead times and high stock turn are critical to the financial success of the business. Central to this success is the underlying IT systems providing decision making tools, business intelligence and automation to ensure efficient supply chains from product concept to concluding the sale in store.

5.3 The role of IT in Retail

Most large retail companies in SA have a dedicated IT division to oversee the core IT services rendered to the business. Whilst certain services and roles may be outsourced to external vendors, the in-house IT organisation assumes primary responsibility for the IT systems and infrastructure utilised by the retail and support divisions of the business.

The primary business function is the head office based merchandise planning process. This encompasses the planning, procurement and supply of merchandise to stores and the management of the respective supplier. This could also extend to the upstream business process of product design through to the manufacturing, warehousing and the logistics for the delivery of merchandise to stores.

The other critical business focus is then enabling the sale of merchandise in stores and the customer engagement process. The in-store selling process is the core business of all retailers and all other processes are intended to enable the sale and ensure an efficient customer engagement. Retailers offering credit to customers also require systems to facilitate the management of the credit book and the collection and recovery of this debt.

To support the above business functions a number of support processes are required and these include:

- Finance
- Legal
- Facilities
- Marketing
- Security
- Information Technology

In large retail organisations these could be individual divisions or even separate legal entities providing the service to business.

Whilst these services are shared across the business, IT as a service is ubiquitous across the organisation and provides the underlying fabric in which business is transacted. In fact the role of IT in the retail organisation is arguably the most critical supporting service.

Testament to the perceived high value of IT in the organisation being studied can be seen in the position of the CIO. The CIO is a member of the operating board and reporting directly to the CEO. The CIO is also involved in the steering committees of various group projects which may or may not have technological requirements and has a direct input on business decision making.

5.4 Overview of the IT organisation involved in this study

The IT organisation upon which the case study is based is a multinational retailer with a dedicated IT division responsible for the all-encompassing IT services. This includes project management, physical hardware infrastructure, software application

packages and overall service delivery to the business and management of both in-house resources and external 3rd party outsource partners.

IT is just one of the many service divisions supporting the core retail units. Other service divisions include finance, legal, credit, distribution, manufacturing which also have technology services rendered by the IT division. Further to this IT also provides exclusive technology solutions and support to the service divisions and is often seen as the glue that binds the organisation. As a result IT is involved in discussions that go beyond technology and often gives guidance to non-IT functions as well.

The IT division is responsible for the maintenance of a mix of old legacy systems as well as new leading edge technology. The company has a “buy before build approach to technology solutions which has allowed for the adoption of a wide varying range of technologies. This however also results in individuals needing to be able to embrace multiple versions (which could span years) of a given application suite. Hence the willingness of the technical teams to maintain old systems is crucial to the overall sustainability of the information systems.

5.4.1 Organisational Structure

The structure of the organisation in this study is aligned to business functional areas with each department responsible for a specific business area. Thus regardless of technology the respective team services a specific user community and the systems automating these business functions. Each IT department is then responsible for its specific area of service delivery.

Operational View

At an operational level all activities are managed using ITIL principles. In line with this Service levels and the management thereof drive day-to-day activity throughout the organisation. Unfortunately the 'numbers game' as it is fondly referred to is perceived to be something one can beat by loop holes in the system. The paradox is that ITIL is supposed to drive improved service levels and yet most individuals interviewed seemed to feel that it hampered the overall customer centricity by becoming an administrative function.

Changes are reviewed in a daily Change Advisory Board (CAB) meeting. All significant changes applied to the environment are reviewed by representatives from all areas in the IT division. Also present in the meetings are executive management from each functional area to ensure business interests are protected and risks are mitigated. This meeting also serves as a review of any high priority incidents from the previous day to establish potential risk and remedial activities necessary. The rigour and discipline of this daily morning meeting has become institutionalised. To complement the process a set of weekly and monthly operational reports are produced to illustrate each team's delivery of service to the business.

Tactical Practices

"There is nothing so useless as doing efficiently that which should not be done at all."
(Drucker, nd)

Projects across IT are reviewed weekly and monthly with a detailed report back on the weekly activities. Potential concerns are raised and ample opportunity provided for remedial action to be instituted. Included in this is feedback on escalations raised by the business. It is an on-going struggle to keep business expectation realistic and

deliverables in line with requirements. These review sessions make the process more manageable.

The introduction of the Business Relationship Management (BRM) and Service Delivery Manager (SDM) roles have been a commitment from IT to manage the business professionally and with the same level of regard as an independent IT organisation would a profit based customer. The role of the BRM has often come under fire by the business for the value derived. However in the absence of such a role the business and IT have endured frustration and misaligned objectives. Thus the role of the BRM can be perceived as a hygiene factor as defined by Herzberg in the overall delivery of service to the business.

To ensure a stable environment the management team have adopted various frameworks and principles in an effort towards good governance. These tactics are seen to be theoretically correct but the overall effectiveness and relevance is doubted by many in the organisation.

Strategic Initiatives

The annual budget cycle is complimented by a strategic project planning process. IT engages with business to evaluate potential projects and outcomes requested by the business. A strategic view is taken of the business objectives, both short and long term. These requirements and requests are then evaluated and prioritised. Through this process IT attempts to keep focus on key business milestones and objectives to fulfil their business strategy. A change in approach in the last few years towards a collaborative business discussion has proven to increase the overall effectiveness of the process according to a senior executive in the IT organisation. Projects are evaluated on potential business benefit as well the potential risks associated with the project. Whilst more projects are usually driven in response to a strategic board objective, there is a feeling that personal influence between individuals in the

business with direct relationships with IT managers sometimes promotes the projects that make the final plan.

5.5 Key IT Challenges Experienced

As with any industry, IT in retail faces a number of on-going challenges.

Through the discussions with the participants it was evident that IT face challenges year on year with some of these issues showing no sign of diminishing or going away. Whilst some participants alluded to issues, others explicitly stated some of these as on-going issues that executive management seek resolution to. The reason these issues are of significance is that they consume effort and resource and often prove to be the barrier to the success and effectiveness of IT as perceived by both IT and business.

The key challenges as noted by various role players in IT are noted below as documented as it emerged from the various discussions.

5.5.1 Buy versus Build

Businesses across the world are able to choose from a wide variety and mix of packages and solutions to support each part of their business cycle. There are a multitude of systems designed specifically for retail and software vendors who have international footprints to support retailers across the globe. This array of options means that the choices are not easily made. Nor is the fit always appropriate to every retailer. Thus one of the strategic decisions IT executives in retail are faced with is whether to buy an off the shelf application or build bespoke software to meet the business requirements.

Legislation coupled with local business models in SA do not necessarily allow for a simple implementation of generic systems adopted from the West (Respondent 5). For example rent in SA is calculated based on turnover per store and thus estate software managing this business process needs to factor this in. SA retailers need to comply with numerous legislative and contractual obligations which emerge to govern the country and industry and thus the systems and respective support teams need to be dynamic and agile to adapt to this evolving environment. As the SA government matures and progresses towards protecting information and consumer rights, retailers need to compensate for laws, amongst others, pertaining to:

- The Regulation of Interception of Communications and Provision of Communication-Related Information Act (**RICA**) 2009,
- Financial Intelligence Centre Act, 2001,
- National Credit Act 34 (NCA) , 2005,
- Protection of Personal Information Bill or POPI Act,
- King 3 Report on corporate governance,
- Employment Equity Act,
- Contractual compliance like Payment Card Industry Data Security Standard (PCI DSS) imposed by Payment Card Industry Data Security Standard (PCI DSS).

The success of the organisation in achieving compliance is usually dependant on the automation of checks and controls to enforce the necessary activity which translates into an IT requirement and pressure on IT to reprioritise projects to meet these deadlines.

To fulfil these requirements off-the-shelf products are subjected to endless in-house customisation resulting in a product which no longer resembles the standard build and cannot follow the same upgrade path intended by the vendor,. Hence the build versus buy decision is an on-going quandary to IT.

5.5.2 Justifying IT spend to the business

Business tends to only appreciate that component of the system which they have immediate benefit from. Thus expenditure associated with maintenance and housekeeping of IT systems is often not fully appreciated until “wear and tear” results in failure. The business expects IT to continue working – regardless. Thus motivating the spend for better infrastructure or training requirements proves to be a challenge and is often sacrificed in favour of new functionality with the “bells and whistles”

There is also a lack of appreciation that IT is governed by the same budget constraints as business. “The business often tells us how to spend our money” (Respondent 16). In fact there seems to be a lack of correlation between profit and expense. In my term as a service delivery manager I often had to remind the business that “If they sold more we could spend more”.

5.5.3 Strategic Information System, Planning and prioritisation

The process of strategic information systems and planning (SISP) has been widely documented (Lederer & Sethi, 1988; Galliers, 1991). Given the complexity of retailing in a tough economic climate in an emergent economy, the process by which information technology is evaluated and selected for SA retail is a critical success factor in the Retail IT organisation. This process as well as the output from the process needs to work for both business and IT to be successful.

There needs to be mutual respect for the demands by both parts of the organisation with clear understanding of the overall objectives of each project and the expected benefits. The feeling is that if the process is driven for a personal agenda as opposed to business objectives the respective project is unlikely to succeed. Buy-in from all stakeholders is a necessity.

5.5.4 Evaluating service delivery

Retailers measure the success of their business in monetary terms or statistics that translate into a financial value. Examples of these would be profit, cost of sale, stock turn, trading density.

The result is that in assessing the effectiveness of IT the key performance indicators are aligned to this financial perspective. Whilst this is necessary the perception is that the true value and benefit of IT cannot always be easily reduced to a monetary value. “How do you quantify the benefit of every value added service we provide?” (Respondent 27).

5.5.5 Supporting expansion into Sub-Saharan Africa

As SA retailers expand their footprint into the rest of Africa the role of IT as an enabler becomes a critical success factor. The first aspect of this success lies in the technology and partnerships required to connect these remote sites back to a SA based head office. However the options in this area are growing as technology companies expand their service offering.

The bigger component of this success is the retention of individuals with the experience of expansion and the associated knowledge. The trend amongst retailer seems to be to have people across teams involved in expansion projects whilst still involved in their existing roles and responsibilities. Thus there aren't dedicated teams with core knowledge to quickly mobilise for advancement into new countries. There is a high churn of staff including IT staff in the retail industry and so this raises the next challenge in Retail IT of motivating and retaining IT people.

5.5.6 Retention and Motivation of IT staff

“There is definitely a skills shortage in IT. Finding skilled resources are not easy and recruitment is an on-going challenge” (Respondent 28). The general perception of IT

management seems to be that there is a limited number of competent IT individuals in the job market. This coupled with the Broad Based Black Employment Equity (BBBEE) policies appears to further limit the number of candidates IT management can choose from.

Thus the retention and motivation of the existing staff compliment becomes a necessity. Employment conditions and career growth need to be managed closely as the staff base is a cacophony of individuals from diverse backgrounds and cultural blends.

5.5.7 Business perception of IT

“Some people in the business still refer to us as “Front Desk” or “Operators” in reference to the old mainframe environment of the ‘80’s” (Respondent 24). Whilst IT is an integral part of business the individual users, including very senior and educated people, perpetuate the notion that IT represents a group of nerds in some back office who dress badly and cannot be understood by normal people (Respondent 4). The consequence of this is business lacks appreciation of the role of IT professionals and often trivialise the efforts applied to making what might seem like a simple business process come to life. The IT fraternity does not help their own cause with the adoption of a lexicon fraught with TLA’s (three letter acronyms) and technical jargon.

5.6 Fields Identified

Using the list of challenges noted above as the point of departure the IT organisation is viewed using the lens of Bourdieu’s Theory of Practice to understand the fields, forces and forms of capital being transacted in forming the fabric of IT organisation culture.

The following fields were identified as significantly driving the IT organisation and moulding and nurturing the culture and individuals within it.

1. Evaluation and approach to new technology
2. Strategic Info Systems Planning
 - a. Project prioritisation process
 - b. Project Management
3. Human Resource Management
 - a. Transformation
 - b. IT skills development
 - c. Recruitment
4. Business – It Alignment
 - a. Service Delivery
 - b. Relationship management
5. Functional design of the organisation

Each of these fields is explored in more detail on Chapter 6

5.7 Summary

Chapter 5 provided an outline of the IT organisation which formed the basis for this study. The chapter begins with first reviewing the retail industry in general and the nuances impacting retail in Southern Africa. The role of information technology in retail space is also articulated to give appreciation for the complex engagement with business. There are a number of challenges that the IT organisation faces specifically in supporting a retailer which need to be understood as these challenges drive business process and an approach to IT management which in turn impacts the way IT is perceived both by the business and internally.

To progress into understanding the IT organisational culture, the fields identified through the investigation are articulated and further expanded in the next chapter.

6 Phenomenal Observations

6.1 Introduction

Using the lens of Bourdieu the phenomenon being investigated was observed by identifying the various components at play and understanding the relationships between the components. The structure of the following discussion is defined by the fields identified in the IT organisation. As noted in Chapter 2 a field, as per Bourdieu's Theory of Practice, is defined as a structure with actors and processes (Hanks, 2005) to support or produce a specific outcome. Bourdieu equates a field to a game in which there are players (agents) and strategies. Actors transact and wield various forms of capital to attain strategic advantage over other players

Using this framework, this chapter provides a narrative describing each field and the actors observed through this study, and the forms of capital transacted in the various games at play. It must be stressed at the outset that interaction between field and actors is dialectic – the fields and actors through this interaction evolve over time. Said differently a number of fields were already bearing influence on the researcher and these were influential in what was noticed initially and these were subsequently validated, confirmed or remodelled using the empirical observations from interactions with participants. So think that this analysis emerged out of a coding exercise would be an incorrect world-view to adopt. Moreover to expect the research to give an account of this theorising activity would be beyond the scope of this thesis.

Hence the best explanation of the theorising effort that is possible within the bounds of the study is to say that the fields emerged over the period of investigation and were not blatantly apparent upfront. Through probing, enquiry, discussion and observation the facets of the fields presented themselves allowing the researcher to

become immersed in the influence of the fields and appreciate the various engagements through the logic of the fields.

So in a stricter description of this activity it is plausible to say the fields were derived through inductive and abductive reasoning. There categories emerged not from categorisation but interpretation of the best explanation of sets of activities observed in the case being studied. Agar (1986, as cited by Krefting, 1991) notes that in an ethnographic study “the researcher's background dictates the framework from which he or she will organize, study, and analyze the findings”.

What follows is a narrative of these fields as discovered by the researcher.

6.2 Field 1: Evaluation of Technology

Technology organisations, by their very essence have a great focus on new trends in IT and seek opportunity to adopt tools which are going to enhance the systems environment. An interesting observation has been the contrast of the approach to technology between in-house IT organisations and Outsource organisations.

In organisations with an internal IT division there is shyness for the internal IT to be at the leading edge of technology. The outlook of an organisation to new systems and trends seems be directly influenced by the age of the organisation and the key decision makers.

Organisations with an older management team who are advanced in years, there seem to be a more conservative approach to new trends. The notion of “all these years we’ve been doing it like this, why change now” (Respondent 7) seems to prevail. This conservative approach to technology inhibits the organisation’s ability to keep abreast of business demands, which in turns “slows the business down” (Respondents 1 and 8).

“In times of rapid change, experience could be your worst enemy.” – J. Paul Getty
(nd)

It was evident from the discussions that there was a perception that an organisation with people who have been in the company for many years seem to be more resistant to the adoption of new concepts. It was highlighted that individuals closer to retirement seem to be especially reluctant to “rock the boat” (Respondent 10) and prefer to maintain the status quo. One reality is that the individuals who have been in IT for a long time are the more senior individuals who have a direct influence on the CIO and the business and are thus the key decision makers in terms of the progress in technology. Younger individuals entering the organisation do not want to be limited to supporting old technology and thus don't find such antiquated systems stimulating or in line with their qualifications and consequently don't stay for very long, seeking more employment in organisations with a clear technology roadmap (Respondent 3). The result is slow injection of new habits and thoughts being brought into the organisation (Respondent 10).

Innovation appears to be a casualty of this approach. It is only with young individuals being moved into senior management positions that there is a greater focus on research and development (Respondents 13, 20, 18). However there is an elitist mind-set to who can dabble with new concepts. One needs to prove oneself before one is considered worthy of getting involved “in exciting projects” (Respondent 13). The explanation to business for the cautious, risk averse approach to change is to ensure stability of the systems environment. However it is more a will of power that perpetuates the technical legacy than mere consideration for the environment. As noted “many youngsters are sitting on excellent ideas” (Respondent 5) but don't have the influence to do anything about it. This implies that good ideas are the output of a select few because “it is only expected from certain areas” (Respondent 22). By the same token there is little capacity created outside the domain of the

“innovation team” for individuals to play with new tools and experiment. Innovation is seen as something that a single team should be responsible for.

By contrast outsource organisations find they are the showcase for new technology which they sell onto their customers. Hence, by adopting the latest system there is the understanding that they are investing in the support thereof and thus implying there should be confidence for customer organisations to adopt the same technology path.

There is a power play between the “old guard” who wish to keep technology inert against the a new generation of technologists who are eager to experiment and the team tasked with research who perpetuate the belief that it is a privilege to be innovative and one needs to have earned ones place before you can get involved in new technology. This in turn results in exclusive pockets of excellence. There is a perception that this is endorsed by management, as ideas are “only carried forward depending on who it came from” (Respondent 10).

An organisation’s technology-set is seen to represent the image of the business and perceived to reflect how trendy and progressive a company is (Respondent 19). Image is important to a fashion retailer and it cannot be seen as not keeping up with the times. The business seems to have a demand from IT to adopt the latest and greatest technology but at the same time there is a financial constraint in terms of how much capital expenditure can be released to support this demand and image.

Due to the wide range of business processes supported by an in-house IT division the resources tend to be “spread very thinly” (Respondent 1). To implement significant information systems in one area might imply having to delay a project in another area. Thus it is critical that projects are prioritised in conjunction with the

business. However these systems could translate into financial benefit and the executives are driven to protect their interests in their respective business unit.

Thus there are a number of strategies that play out in the adoption of technology. The first is to protect one's own area and ensure advancement and growth and, not surprisingly, to support this there is a cost benefit justification that translates the business risk and perceived benefits into a monetary representation. However not all benefits are easily equated to a Rand value. In other instances individuals driving for new technology don't necessarily have the experience of corporate politics to adequately represent their requirements. This impacts the overall decision making process.

6.3 Field 2: The Strategic Information System Planning

The Strategic IT Plan is defined as the process an organisation applies to identify the IT systems and solutions required by the business to support business processes (Lederer & Sethi, 1996 as cited by Lederer and Salmela, 1996). From an IT business perspective this process ensures that the business requirements from IT reflect the correct priority for capital expenditure and resource allocation from IT. The process is also necessary to keep the IT strategy aligned to the overall business objectives. There is a lack of theory to support research into strategic information systems planning despite extensive research on the topic (I. Brown, 2010). Strategic information systems planning has remained a key concern for CIO's (Hart, Berkowitz, Ryan & Waspe, 2004; Luftman & McLean, 2004; Luftman, 2005). The strategic information system planning process is pivotal to the IT calendar in the in-house IT organisation (Khan, Nor, Samani & Hakimpoor, 2012). The involvement in the planning process is limited to the management team and their immediate managers. But even within this senior group, the dynamics between teams and individuals ensures that the often decision making process and resultant priorities are neither obvious nor predictable.

A fundamental difference between outsourced IT and in-house development based IT is the process of planning annual projects and the prioritisation of and allocation of resources to these projects.

In external IT organisations the resource expenditure is protected as this is a profit driven financial model where resources used on a project are recharged on to the customer. Hence the customer can opt to enhance his service delivery by paying for more resources or accept the level of service delivered with fewer people. Thus projects which were perceived to provide the best yield were afforded the appropriate funding. In preparation for a new financial year, business units clarified the anticipated revenues streams for the year. This was derived from repeat business and from new business opportunities. Based on this the skills required to support these contracts were assessed and investment was made to ensure skills development and other resource availability. Service levels contracts protected the organisations interests. These legally binding contracts entered into between service provider and customer gave clarity on the terms of service delivery. The details clarified roles and responsibilities, costs, services to be rendered and exclusions to the service delivery, amongst other details. To further protect business interests penalties and rewards clauses allowed for financial gain for either party in the event of performance outside agreed tolerances. Thus the rules of engagement were seldom disputed or not understood. It was common practice for the legal jargon to be summarised in simple language for the respective support teams responsible for service delivery. I had on many occasions been involved in both negotiating contracts with customers and the translation of these contracts for the technical IT teams into support guides or handbooks. Whilst the formats vary between companies the underlying principles remain the same. The primary objective is to ensure that everyone understands what's expected of them.

Thus once the projects are evaluated on the projected revenue and the resources required to manage the project and the viability was most often based on economic

gain. Only in exceptional circumstances were projects undertaken simply for the strategic foothold. Such projects were seen to help position the IT organisation in a particular industry or sector with a view for future expansion. In a nutshell it was all about growing the economic capital. The projects were selected and prioritised on financial reward.

The influence of personal relationships on business decisions was most evident in this process. The social capital enjoyed and shared by a select few allowed for them to exert influence on which projects were deemed of higher priority. The IT planning process was removed from the day-to-day operation of the Outsource organisation.

6.4 Field 3: Human Resource Management

“Our greatest asset is our people..” (Respondent 27)

A group of key themes have been grouped together to make the collective Human Resource. This theme describes the IT organisation from the explicit people dimension. The facets that are discussed include:

- i. Organisation demographics
- ii. Recruitment practices
- iii. Skills Development

A critical factor which seems to influence technology is the overall “age” of the IT organisation. “We’re a very middle aged mind-set” (Respondent 11). This age does not merely refer to the average age of the employees in the in-house IT organisation but to the perceived approach to the business. There was common comment across all respondents’ that individuals who have a long service in the organisation and are senior in rank adopt a conservative approach to systems. This creates an air of a “we’re not young enough” and as a result don’t have an innovative mind-set.

There appears to be a tussle between the older individuals and the younger new-starters who are not necessarily inexperienced, with the older (in age and length of service) people exerting authority of knowledge and organisational experience to outwit anyone trying to implement radical change of direction. There is an obvious fear of new technology. This can be attributed to fear of the unknown as well as risk this poses to new skills that may be required. This can be seen in the team supporting the mainframe applications.

This was deemed a “dying breed” (Respondent 1) as these skills are rare. “Youngsters don’t want to learn COBOL. They would rather get into the exciting languages like .NET” (Respondent 16). Hence there is a shroud of legacy that hangs over this team which alienates them from a social perspective.

When reflecting on how individuals choose a career in IT, those who entered the field in the early 1990s and prior, confessed that IT was an elitist career and “the place to be” (Respondent 24). It was also the industry that was growing and thus individuals might have started in a call centre and moved up from there. However what was obvious is that any status that was associated with being in IT was fast dwindling as people were more technology savvy today. Thus there are more specialised skills that are required with specific certifications and qualifications required to fulfil specific jobs (Respondent 28).

Historically IT was fundamentally development with a number of support functions to make the development environment possible like infrastructure and desktop support. This in turn creates hierarchy within the IT organisation between teams and the roles fulfilled. The career paths which IT people pursue is directly related to this hierarchy with aspirations to the more illustrious jobs. This does not necessarily imply seniority e.g. Senior Management. “its all about the certifications associated with certain

teams” (Respondent19). Network engineers for example want to support wide area networks and not just LAN’s and strive for “CCIE certifications” (Respondent 23). This is common to both in house IT and external consulting firms.

This brings in the role which formal education and training plays in carving the culture of the IT organisation. But career growth is based purely on an individual’s wants and needs. “Management decide on peoples careers” (Respondent 4). It’s all about “how you play your cards” (Respondent 25) and not just about ability which is critical. There is obviously an element of politics with the advancement of certain individuals. This was a common sentiment across most respondents both from in-house IT and as an observation from external IT vendors. A key decider seems to also be where in the IT organisation one started one’s career. “Because I came from desktop support it is assumed I was to progress to servers. No one considers whether I could be a good programmer or network specialist” (Respondent 10). Unfortunately the cost of training prevents individuals from being able to fund the training themselves. So the organisations define how IT people grow and thus the opportunities that will be afforded to them.

This is compounded when permanent employees are compared to contractors. Contractors in the IT industry are perceived to be self-employed and their wellbeing and growth is not the responsibility of the organisation. In both in-house and external IT organisations, contractors are generally excluded from participating in a number of activities which has an impact on their contribution as productive resources. Such activities include team building exercises and year end functions. This serves to ensure that contractors are not seen as part of the organisation yet are expected to deliver with the same passion and dedication on business critical projects. One contractor mentioned that there is greater pressure from organisations to ensure they get the full value from the person because of the cost of an onsite contractor and yet they do not have the comforts which fulltime employees have with career

development. This begs the question of why some IT people resort to being contractors if they do not enjoy the same benefits as fulltime employment.

IT managers are more than ever being incentivised to keep costs down on the one hand and to change the demographic profile of their staff compliment on the other. In the quest to keep costs down, CIOs need to reduce or maintain the head-count but increase the productivity of the existing teams. When demands place pressure on this skill set and further skills are required as an interim measure, contractors are taken on. Thus the cost of contractors is written against project costs and is excluded from the permanent salary costs. This addresses the “IT skills shortage” that is commonly referred to.

6.5 Field 4: Transformation

With regards to the demographic profile of the organisation, SA companies often complain about the “lack of IT skills and an even greater lack of Black IT skills” (Respondent 28). “We don’t have time to train people because business wants results now” (Respondent 5). Also, there is a perception that contractors who are not classified as Historically Disadvantaged Individuals (HDI) are not included in the demographic statistics.

Together these explanations are usually put forth to justify why the demographics of the IT organisation is not representative of the country demographics and why the overall transformation has been slow. One respondent defended the lack of visible transformation by claiming that “there are specific technical areas that are white skilled” (Respondent 5). This respondent further claimed that trying to “force change affects morale of highly skilled developers”. This inherent world view is brought to the organisation not by the industry but by the history of the country. It lends insight into some of the more tacit beliefs which affect how people exercise their influence in the corporate world. This however cannot be said to be limited exclusively to IT. By the

same token this thinking reinforces and perpetuates the notion that certain IT skills are and should always be white and any efforts to change this would impact the morale of existing employees. Do existing management structures perpetuate legacy demographics?

External IT organisations are incentivised to change rapidly as one of the metrics used to evaluate prospective vendors is the demographics of the IT vendor. Thus there are direct economic penalties for IT companies who resist change. In fact external companies invest in grooming HDIs to ensure they portray having a progressive roadmap if they are to remain in business.

In-house IT organisations, by contrast are not in the market to grow their customer base as their clientele is fixed. Reporting on organisational demographics is generally diluted as it is combined with the numbers for the entire group for reporting to the government regulatory bodies. Hence IT specific statistics are not visible in the public domain for comment. Unless the board of these large companies apply pressure to the IT divisions to transform the staff compliment, it seems like this will be a slow process.

Accordingly to Ramphela (2008), black individuals are seen to be “potential” who require further grooming and training and not the “full package deal”. Rarely are black applicants seen to be fully qualified for the positions they apply for. By contrast the ability of white applicants is seldom questioned. “It takes 8 to 10 months to find a person who is almost capable if you want a person of colour. We don’t have this luxury” (Respondent 5). From this the policies and practices regarding recruitment need to be explored further.

“We don’t appoint mascots” (Respondent 8). The standard recruitment process involves a review of an applicant’s credentials followed by a series of interviews. Only once a person has successfully completed these steps are they checked for technical competence and intellectual ability. It is safe to assume that if the person does not meet the critical eye of the interviewer/s he or she will be prevented from proceeding to the next steps. Unfortunately interviews conducted in the business world adopt the social-practices of euro-centric western cultures. These individuals who are not linguistically astute are already at a disadvantage when compared to individuals who are well schooled. Considering the vast majority of South Africans are not given exposure to corporate behaviour it is not surprising that most HDI’s will automatically fail the initial interview stages of recruitment. Thus one has to question if IT organisations are selecting for a cultural fit or technical competence and what the balance is between the two.

To the in-house IT organisation cultural fit was a key determinant in who was hired. “I know of good technical people who did not cut the grade because of failing the psychometric test” (Respondent 19). “We need people who are going to work well with the team – a good cultural fit” (Respondent 18). But if this culture has been reluctant to transform in the last ten years, we are looking for people who are going to “fall into line” with old views which in turn perpetuates a traditional legacy culture.

One of the on-going challenges facing IT organisations is the ability to recruit competent individuals who are historically disadvantaged. The notion of a skills shortage seems to permeate across the IT industry in South Africa and is echoed in all formats of IT organisations regardless of portfolio or geographical location. In an effort to counter the “brain drain” of IT skills from the country the Home Coming Revolution initiated by government attempts to return skilled individuals back to the “motherland”. Ironically, in one department all of the people recruited as part of this drive are predominantly white males. “I don’t think this is what the government had in mind” (Respondent 10). And so the imbalance is perpetuated.

When questioned about the impact employment equity has on the organisational composition, there was consensus amongst the respondents that organisations need to invest in developing individuals entering the market. However there is a feeling amongst most individuals that once these individuals are employed their development is not fast tracked. In fact there seems to be common sentiment, across development, customer services and infrastructure representatives that “the lack of black IT skills” (Respondent 21) is a common excuse for continuing to not employ black IT resources. The other concern raised is that if IT organisations were committed to social transformation, extra effort would be invested in training and upskilling previously disadvantaged individuals especially for middle to senior management.

6.6 Field 5: Executive Management (Leadership)

The role of management extends beyond the obvious role of operational management of resources for financial benefit. Management mould and nurture the organisations cultural fabric in a multitude of ways (Schein, 2010). The most obvious is the way their personal beliefs are asserted. These beliefs and practices over time instil practice which in turn becomes entrenched in an organisation’s habits.

The CIO is notably the most influential in an IT organisation. Being at the helm makes him/her, by default a role model for others to respect and try and emulate. However what was evident was the perception from most respondents that the CIO is detached and not someone most IT people can relate to. This dissociation from the greater staff compliment makes the IT individuals feel as though they are not worthy of a conversation with the CIO. Despite many opportunities to interact it seems like the CIO is only part of the “team at year-end functions”. “If only he would walk the floor and ask people how their day was on the odd occasion” (Respondent 22). “You don’t see much of him. It would make a difference if he was more in touch with people” (Respondent 21). “You just hear that he played golf on our golf day –

but only with other senior people” (Respondent 23). So it is evident that people want to interact more with the CIO. This would have “a positive effect on morale” (Respondent 15).

A CIO who is beyond the reach of his employees reinforces the notion that only a select few are privy to his attention. And thus some individuals regardless of seniority have greater access to the CIO. Unfortunately this rule of contact is not applied consistently. This gives rise to an in-crowd and an ‘out-crowd’. It was apparent in both the in-house and external IT organisations that senior managers interacted socially with individuals who were outside their direct report and junior in rank. Thus some individuals had greater access to management and thus privy to more information.

If an individual was ambitious he/she would strategically ensure they got into the social circles of key management. “It is obvious she wines and dines with Manager1. You can see she is being moved up the organisation quickly even though she has less experience than some of her colleagues. It is very irritating.” (Respondent 1). These individuals also ensure that their immediate circle of work colleagues is aware of the relationships so as to protect themselves. “I went to a party at Manager X’s place this weekend and she was just saying...”. (Respondent 7).

These relationships were once described as “incestuous” by one manager and yet the practice persists (Respondent 12). This management behaviour inculcates a feeling of favouritism where individuals are rewarded for social prowess rather than just business acumen and technical merit.

Thus regardless of the formal organisation structure, an informal social structure exists at a sublime level and plays a pivotal role in the dynamics between teams and

the individuals within these teams. It is evident in day to day interactions that the CIO is more likely to strike up conversations with individuals who are given opportunities to interact with him or her. So whilst the CIO is seen as inaccessible to the masses, a select few forge closer relations with him as a result of social networking. Hence access to key leadership is not restricted to merit. Senior management promote the notion of open door policy but the practice in reality is different. Management are defensive when challenged on the sincerity of the policy. There is little appreciation for the fact that there is no congruency between what is spoken and what is actually practiced. "He seems approachable and says he is open to discussions but he does not even greet in the passage" (Respondent 2).

In reference to values one respondent commented that "management do live it but if they or anyone else don't, you don't get reprimanded for not living it" (Respondent 15). Management also exert influence via the structures that are institutionalised.

On the customer facing front, internal IT organisations are more prone to being perceived as "bulky" development houses with the only perceived value being the applications that are churned out of the software factory.

6.7 Field 6: Service Centricity versus Process Centricity

Pivotal to any business is the customer to whom the product or service is being provided. The role the customer plays in an IT organization is not merely transactional but also influences the product and business model and strategy adopted by the IT company. Not surprisingly this has an influence on the overall day-to-day practices within the IT business. This includes the manner in which skills are defined, hierarchies are created and careers evolve.

The business model of outsource companies drives the sales team to vie for the most lucrative contracts. This could be in the form of a strategic customer whose business would be an accolade to the IT Company and assist in securing further

business in the said business sector Outsource Company will engage in and embrace the resource and technology that is required to secure the business of a customer. The IT teams involved in the service or solution delivery have to adopt a “can do” attitude to ensure the profitability of the company. Thus most business opportunities are considered and the potential financial gains are counted and assessed upfront. Such behaviour is to ensure that everyone understands the need to sweat the assets and appreciate the financial rewards associated with each contract. Individuals are incentivised monetarily for successful contracts. It was common practice for the Sales team to scan the newspaper looking for tender requests and to engage in social relationships to woo prospective decision makers in lucrative customer organisations.

A common thread from the respondents within the internal IT company alluded to the fact that their customer was part of the same organisation and hence was bound to utilise the in-house IT services and did not have the liberty to solicit support from external vendors. “It’s not like they can get the service elsewhere” (Respondent 12). This created the perception that the customer was being held ransom to whatever service was deemed practical. The customer was not able to demand the level of expertise and resource available which had to be spread equitably across the group.

The influence the customer organisation has on the IT organisation cannot be underestimated. This hold especially true of the customer projects an image that is well respected and popular.

6.8 Field 7: Financial Model

In-house IT organisations are generally structured as non-profit generating business units within a group. Whilst the nature of this structure may appear to be simply an accounting practice there are far reaching consequences throughout the IT

organisation in the ways in which the IT identity is cheaper and the way in which IT individuals are perceived by the business.

Whilst organisations may resort to various elaborate charge-back models, it is evident that the lack of visibility of economic value by the business creates impressions of IT being a “black hole of expenditure and time delay” (Bus 1) which the business cannot understand. Gallivan (1994) questions whether IT is capable of having “visible impact” on an organisation’s profitability. He further notes that although the mandate to IT organisations is clear there is not always clarity around the financial contribution an IT organisation makes to a business

There seems to be greater appreciation by the business for IT systems when they are directly liable for the costs. The feedback from the business indicated that it would be easier for “them” to go out to external vendors and procure the required systems sooner but “perhaps for a little more”. In-house IT organisations who are not measured as a profit unit, need to provide systems for individual business units across the group but are constrained by the overall group revenue streams. This understanding of the constraints IT works are clearly understood by executives who have a “group mindset” (Respondent 11). However this understanding does not permeate to the lower ranks in each business unit and unfortunately it does not appear to be managed by the business management either. Thus when users complain about the lack of willingness by in-house IT to react to a lesser priority request, it is up to IT to try and explain how projects are prioritised and the constraints with resource availability. A significant influence is those business units who generate more revenue.

These business units are deemed to be “higher up the pecking order” (Respondent 5). This was certainly true during weekly meeting to evaluate the various systems changes that were raised by the business. The larger companies are allowed

“privilege”. This in turn implies that the IT resources working with the large business units are in turn themselves more powerful.

External IT vendors on the other hand are driven to show bottom line results. Since IT as a service is more generic across vendors, IT companies needed to find value – added service to differentiate them from their rivals to make their service offerings more lucrative. Thus greater emphasis has been placed on managing and measuring the quality of service delivery. This has evolved into a key determinant in whether IT organisations retain customer contracts.

“There seems to be a correlation between service and cost” (Respondent 3). The perception that if you want better service you need to be willing to pay more leads to the misunderstanding that if you don’t make direct payment for the service you cannot expect world class service as there is a “price tag for excellent service delivery” (Respondent10). And by inference in-house IT organisation are unable to deliver this as they are not profit driven.

An unfortunate reality is that more IT costs are not clearly understood by business. “The cost for our data storage is more than 50% of our overall IT costs” (Respondent 23) and yet the business has no understanding of what their data storage usage is.

External IT organisations understand that to remain profitable they need to recover all costs incurred for service delivery. Thus the line managers are measured against key performance indicators that include a financial metric to ensure accountability for both costs incurred as well as income derived. In engagement with the various respondents, it was evident that financial management was a significant KPI in measuring IT management. However a key differentiator was that in-house IT is less profit driven with little intent to generate revenue from supporting the business.

Departments are managed as cost centres with the drivers centred on cost containment. Thus management behaviour is geared towards “making do with what is only necessary regardless of how urgent it is for the business” (Respondent 11).

In addition to this external outsource companies will take on additional resource if required to ensure systems projects are delivered as per the specifications. Internal IT however does not have the flexibility to justify additional spend on headcount without a new revenue stream as the costs per project are not always explicitly recovered from the business not declared in the ‘above the line’ accounting.

6.9 Actors

In the observation of the various fields a number of actors were identified. The obvious were the explicit roles as formally demanded by hierarchy of the organisation. These include:

- CIO
- Executive Managers
- Team managers
- Infrastructure support
- Software Developers
- Hardware Support engineers
- Call Centre agents
- Service delivery or business relationship managers
- Customer Service agents

Each of these roles is defined by the job specification for which formal outputs are documented. Each individual is measured and managed against these key performance indicators as is typical in any modern corporate.

However more critical to the organisation culture observed is the set of implicit actors who exert influence on the environment as part of a strategy for a desired outcome. Each of these actors is explored in greater detail below.

1. Previously Disadvantaged Individuals (PDIs)

These actors represent the face of the New South Africa. At the same time PDIs are weary about their advancement through the organisation and are eager for their growth to be merit based and as recognition of their abilities. Unfortunately the perception is often that due to legislation promoting employment equity, PDIs are moved up the corporate ladder unduly.

2. New recruits

These are the individuals who have newly joined the IT organisation from an external company or straight out of a tertiary institution. They have no understanding of the organisation culture and day to day activities. They may be graduates straight out of tertiary education or individuals with years of experience from other companies. They do however share ignorance of the new organisations day to day behaviour and nuances and protocols.

3. Black management

These are the individuals who are being groomed to move up the hierarchy into more visible executive roles. There seems to be a desire to belong by this new black management. It is apparent that in the quest to be respected by the old guard and the old boys club these individual are reluctant to challenge the status quo and promote the new thinking required in SA IT.

4. Old boys club

The senior male employees who have worked together over the years and risen through the ranks are seen as a tight-knit group. The common understanding is that this group of individuals will protect the members of this group and ensure the common beliefs and ideals are perpetuated regardless of the relevance in the business today. The perception is that due to the historical make up on senior management that these are predominantly white males.

5. *Old guard*

“There is nothing we didn’t try in our day. You young lot just repackage it” (Respondent 20). This group of individuals have been in the organisation for many years and are close to retirement. They have seen through most of the major implementations and are of the belief that there is nothing they haven’t seen in business. From this comes the belief that they know best and hence tend to be the people who most resist change. They show intolerance and impatience with younger staff members.

6. *Social climbers*

“We work side by side and yet she knew about my promotion before even I became aware of it” (Respondent 29). This group of individuals have a close social circle and are seen as the in crowd. The ‘membership’ spans technical areas and teams within IT. However this group also can also include senior management. Thus it is perceived that these individuals have access to information “above their pay grade” (Respondent 21). This influences how other IT individuals interact with them and the level of engagement for fear of reprisal from the senior management who are also close friends.

7. *Purists*

Purists will only embrace a project if the adoption of the technology is as prescribed by the technology house to which they are loyal. They are

knowledgeable about their respective technology but this sometimes constraints their willingness to rise above the respective technology and view other viable and perhaps more relevant options without bias. These actors are also known for (loyal and obliging to) their certifications which is the basis of their qualification and knowledge base. The claim to be an expert is supported by a certification which is usually only valid for a 2-3 year period and thus always a sustainable approach to keeping abreast of technology advancement.

8. Process Managers

This group of individuals are dedicated to dogmatic following of process and procedures. Regardless of the situation they demand all steps in an administrative process to be adhered sometimes at the cost of service delivery. The irony is that most IT processes are geared towards improving service delivery and thus process managers are often polarised from the customer focused technical person whose prime objective is to restore service during an outage.

6.10 Strategies

Through the observation of the phenomenon and through the discussions around each field a number of key strategies were adopted by different actors, each pursuing individual goals. Following is a discussion of each of these strategies.

1. Performance Management

The first strategy which was most prominent is striving to achieve the key performance indicators (KPIs) which each individual is managed against. These KPIs are defined per each role and discussed bi-annually with agreed targets set.

Whilst the exercise is deemed effective the outcomes do not always achieve the desired effect. An example of this is the management of the Service Desk. The role of service desk agents is to receive telephonic calls from end users experiencing IT failures or requests and to log these incidents in a call management system. The agents are also technically skilled and attempt to resolve the problem in the first contact with the user. The key objectives are to restore service as soon as possible and provide the user with a professional and efficient service.

However the metrics used to manage the agents include:

- Talk time.
- Time to answer
- Number of calls resolved

The result is that the agents keep their conversations brief, process high volumes of calls and resolve incidents prematurely. This usually means the users have to log repeat calls for an incident which was not resolved the first time around and prolonged downtime. The overall user experience is poor quality service. So whilst achieving the formal performance metrics, the business objectives are not met.

Similarly across IT individuals are incentivised to meet a set of goals but this does not always translate into meeting a business outcome. These metrics are designed around throughput or output and do not take cognisance of outcomes.

2. Manage through process and procedure

“ITIL prescribes us to log every change and review it in CAB but when there is an emergency we spend more time justifying the change than doing the actual change” (Respondent 17).

A number of individuals seem to make careers around the clerical administration of managing IT process and tasks. In reviewing requests to implement changes one respondent pointed out that the change manager spent more time checking if the field was populated with data rather than confirming that the information is accurate and relevant. Thus it is perceived that ITIL is a set of administrative tasks for which a group of non-technical individuals are custodians and enforce rules which inhibit technological progress.

Similarly in the project management arena it was pointed out that there are so many artefacts required as prescribed by methodologies like PMBOK and Prince2 that project managers and their teams tend to lose sight of the significance of these documents and the role they serve and apply it dogmatically even if it has no relevance in the specific scenario. However this administrative approach once again is said to drive output where project managers churn out these documents at the expense of managing technically challenging projects to successful completion.

3. Maintain the Status Quo

It was noted by a number of respondents that many individuals who fall into the Old Guard category often point out that “the process has worked all these years” and question why amendments or improvements are even necessary. Thus the individuals who are not necessarily old as individuals but have been in the organisation a long time (usually in excess of ten years) are resistant to new methods as they seem to have the belief that the processes and methods instituted by them years earlier are still relevant. An example cited is the SCRUM methodology for development. One individual from development stated that the concept was so revolutionary to certain older development managers that the methodology had to be discarded entirely.

Individuals who adopt the strategy to maintain the status quo consciously or unconsciously enforce old practice using past successes as justification.

Similarly prior instances of technology instability are used to instil fear and doubt and solicit support to prevent changing the norm.

4. Promotion of Transformation

The practice of transformation has been identified as a Field in the section above – Maintain the status quo. However Transformation is also a strategic intent to which individuals across the IT organisations align themselves.

This strategy is in direct conflict with the one above which attempts to maintain the status quo. There are a number of dimensions to transformation. The first and most obvious is the need to transform the staff compliment to reflect the demographics of the country. Whilst this is a national strategy to redress the injustices of apartheid, this translates into a management strategy as well as a Human Resource strategy as this is a legislative requirement which the Department of Trade and Industry tracks and incentivises large organisations to comply with.

At a more sublime level there is a need to transform the thinking across the IT organisation. This seems to be embodied by new individuals joining the IT organisation who recognise the limitations imposed by the traditional approach. Individuals who cannot relate to the traditional approach to IT seem to demand change and are willing to challenge the institution for a more progressive environment. Thus special interest groups (SIG) are formed to facilitate discussion and debate. An example of this is an employment equity forum which is formed to allow for discourse on how to enable demographic change in the organisation. Other such forums are technology related and usually facilitated by the respective technology purists who campaign support and strive to convert others into their realm.

5. The Leading Edge IT Image

A number of respondents pointed out that image is important to young graduates and the organisation they work for forms part of that social image. An organisation that is perceived to be old school and does not embrace trendiness may only be used as a stepping stone for individuals who aspire towards IT organisations with a more progress image.

Images of the Google employee workspace epitomise the ideal IT organisation that most IT people interviewed wished they worked for. The highly publicised high-tech decor coupled with high tech tools have created the notion that this is what IT organisations should look like. This was a common response from most respondents who cite Google as a benchmark. A number of teams and departments within IT create an air of being leading edge and there seems to be correlation between this and the type of technology they work with. The individuals who work on .NET application development seems to be more opinionated and assert themselves are compared to a team that works in the old mainframe space. These individuals are seen to be "a dying breed who are working beyond their sell by date" (Respondent 14).

6.11 Forms of Capital

Capital as defined by Bourdieu is the commodity that is used as a basis for transaction by individuals to tender in exchange for a desired outcome. These transactions are not always explicit and may even be unconscious to both the redeemer and the recipient (Anheier, Gerhards & Romo, 1995).

A number of different types of capital were identified and these have been grouped into logical sets. Each group and the respective capital is explained below.

6.11.1 Technology one supports

Desktop support is seen as an entry level job advised one individual (Respondent 2). So regardless of the years of expertise in this area or the level of qualification, just

through association this team seems to be seen as junior to other teams within IT. It is also assumed that desktop support staff naturally aspires to server support and administration. And so the server team assumes that they are more authoritative on technology than their desktop support peers. This is but just one example of how the team one belongs to imparts a hierarchical and cultural force on the overall IT organisation and the dynamics thereof.

6.11.2 Influence of line manager

Through discussions with the interviewees, it was evident that even the influence of the team one belongs to and the technology one gets involved with can be amended by the level of influence of the team manager. Teams with strong management are allowed to assert themselves as it is understood that the management will stand behind the team. However this was only secondary to the team membership.

It was pointed out that if your line manager was well respected by his or her peers then this respect and confidence filtered down to the team members. If however one's team manager was perceived as one who is unreliable and not well informed then unfortunately the team carries the same stigma (Respondents 6 and 4)

6.11.3 Levels of engagement with customer and executives

"Only a select few get to speak to (CIO)" (Respondent 6). The more one has access to senior management the greater the level of perceived importance and influence in the organisation. A practice of restricted interaction and engagement with executives creates exclusivity where only limited individuals are able to relate to and speak of their senior management. This exclusivity gives rise to an informal hierarchy.

In this study the perception was that only the service delivery or customer relationship roles had free access to the business and that technical staff needed to go through these individuals if they were to clarify details with the business. This

controlled engagement with the users resulted in poor relationships between support staff and the users they support. It was also perceived that exposure to the business one is afforded is another commodity that defines who has access technical teams. This situation creates greater rifts between business and IT.

6.11.4 Technical Certifications

In some instances it was pointed out that these technical certifications are weighted more heavily than graduate degrees and diplomas from tertiary institutes. CCIE, MCSE, ITIL Foundations, COMPTIA ® and MCSD are just some of the certifications cited by the respondents as being prerequisites to doing to their jobs. It was pointed out that perhaps far too much emphasis is placed on these short courses and the value they provide. In fact one person was of the opinion that it was like “painting by numbers” (IS4) and that the certifications did not necessarily equip the individual with the skills to think and apply oneself but rather to conform and follows a prescribed set of procedures. However this does not reduce the emphasis placed on people with these certifications. In fact these certifications are used as leverage for promotions and claims as experts in a particular field regardless of the experience one has in the application of the knowledge associated with the course.

6.11.5 Forums and meetings

Getting to travel for business is seen as a perk and attending seminars and conferences is usually only available to key performers in most organisations. Similarly in IT attending external seminars and conferences is seen as an earned privilege. Due to the wide range of technical interests and organisations soliciting new customers there is always a number of events one can attend. The participants in this investigation stated that being able to attend these events holds one in good stead and usually only the most proficient in the organisation are sent as a representative worthy of interaction with similar representatives from IT organisations rather than a platform for learning and acquiring new knowledge. Thus loyalty to the

organisation is often 'bought' by permitting certain individuals to attend these events and participate on forums within the industry.

Invites to events are not restricted to just external forums but also includes attendance at internal meetings. An example of this is the Strategic Information System planning (SISP) sessions which rightfully is attended by key decision makers. However there seems to be contention there isn't visibility to the teams who need to materialise these requirements into reality. A senior member of the development team advised that it is very difficult to get context to business requirements when one is not involved in the discussions and debates up front on the prioritisation and motivation for a project especially when one has to deliver on the project (Respondent 8).

6.11.6 Tools of trade

IT people are synonymous with gadgets and whilst this is a generalised perception IT individuals are also reliant on technology as tools to effectively do their jobs.

The nature of IT demands for developers, support staff etc. to be accessible 24 hours a day and hence there is great reliance on laptops, smart phones, tablets and the internet to enable productivity and the operability of systems. It was pointed out that with the tough economic time facing global economies organisations are becoming more discerning about who has access to new devices and so this too becomes a sought after commodity. Some jobs are deemed more lucrative simply because of the tools that go with the role (Respondent 7). This too creates hierarchies between the haves and the have-nots and drives an implicit social structure in IT.

6.11.7 Access to Information

'If only we knew what the board priorities were and how we contribute" (Respondent 3). Access to information too apparently is on a need to know basis. Providing IT

support and services does not always easily translate into business benefit and so individuals responsible for this delivery of service are not always cognisant of their individual contribution to business improvement. There is a perception that access to information is a limited and thus most respondents did not have a clear view of the overall business goal they were contributing to. Access to information was deemed as empowering and clarified the plan for the group, division, and department and down to individual objectives.

Also evident is that when the plans change through the course of the year this too is not clearly communicated and hence realignment to new business objectives is not transparent. Thus it is not surprising that IT-Business alignment continues to be an issue facing IT executives.

University of Cape Town

7 Theoretical Description of the Culture in an IT organisation

7.1 Introduction

Using the model defined by Acciaioli (1981) a theoretical explanation of culture in an IT organisation follows with a focus on the specific components as defined by Bourdieu's Theory of Practice. The model gives insight into the forces at play in defining the habitus, the creation and reinforcement of schemes as well as the strategies and how this exerts influence on the objective order.

From this the individual fields described and the actors and their respective strategies are discussed. The types of capital that are exchanged in the pursuit of each strategy is then unpacked.

7.2 Strategies in the evaluation and approach to new technology

Pivotal to the business of information technology is the over-arching approach to technology and the strategies that drive the decisions in this field. The first strategy employed in this field is that of **the customer is king**. This strategy is to approach decisions for new technology with the end user and business requirements as the central objective.

The second strategy which is adopted in this field is to embrace the latest technology and pursue being at the **leading edge** of newness. This strategy seems to be most prolific amongst the younger IT members who are eager to dabble in the latest and greatest technology and for whom this also holds an image of being trendy.

The next strategy is one of **maintaining the status quo**. There are those in the organisation who either consciously or unconsciously resist the migration to new technology. Often past experiences are used as justification for this reluctance. This strategy goes hand in hand with the strategy to **transform** the organisation into one with a fresh outlook and innovative and agile to adapt as the markets and customers demand.

New technology usually comes with a high price tag and thus it is not surprising that a **financial strategy** is also adopted in this field as the individuals protective of the organisations coffers take a more risk-averse approach to new technology.

7.3 Strategies in the strategic information systems planning process

The process of planning for strategic projects to enable business priorities ensure the first phase in aligning IT to business requirements. There were three strategies which were evident in this study.

The first strategy pertains to performance management. The outcome of the SISP process is a key performance indicator for individuals across the IT organisation. Thus individuals drive this process as part of the performance measures. The second strategy which is enforced is the desire to adopt new technology (leading edge) and to foster this as a belief that with new technology a host of associated benefits will materialise like being able to relate to technology experts and to bring new functionality to the business before the competition.

The final strategy in this field is financial strategy as this echoes the same reasoning as with the adoption of new technology and that is to ensure the IT organisation remains financially healthy.

7.4 Human Resource Management strategies

Human Resources are deemed to be the IT organisation greatest asset (Respondent 27). Supporting this are two strategies which were persistent. The first is that of **performance management** where individuals undertake managing the human resource through firm guidelines and clearly defined outputs.

The second is **transformation**. This strategy refers to the attempts to revise the approach to business and to move away from the traditional to novel practices.

7.5 Transformation

In the field of Transformation are four strategies. **Performance management** is critical as individuals, especially line managers, are measured by the ability to transform their teams as prescribed by legislature. However on the contrary the strategy of **maintaining the status quo** is also adopted by the old guard who resist this transformation. This resistance is not explicit nor is it necessarily vocal but rather persisted through inactivity and lethargy to change thinking and recruitment and embrace advancement towards transformation.

Managing through process and procedure is the third strategy in the transformation where individuals persist abiding by the rules and only practice as prescribed by the corporate governance guidelines or legislation. Deviations from this are not tolerated.

The strategy of **management approval** is adopted by those individuals who only embrace transformation for the benefits that can be endowed by management in recognition of this agenda.

The last strategy in this field is the transformation of thinking where individuals challenge the age old practices and beliefs to promote a new IT organisation.

7.6 Strategies in Customer and Service Centricity

Service delivery, business or customer relationship management are approaches to being service orientated and customer centric. The three strategies associated with Customer centricity include Performance driven, the quest for the newest technology to support the business and the strategy that the customer is king. These strategies attempt to entrench a belief that the customer's requirements are at the forefront of IT decision making and that the customer as a priority cannot be compromised.

7.7 Strategies in the financial management of IT

Like most businesses in a capitalistic economy IT too has financial constraints. Thus the **Financial strategy** is an obvious strategy especially since the IT spend is at the mercy of the overall business budget. The financial management field entails 2 strategies namely **Performance driven** strategy where individuals perpetuate the traditional approach to accounting by enforcing metrics on those responsible for the organisation's finances. The second strategy is in line with this and is the management through **process and procedures** as required by the financial fraternity.

7.8 Day-to-Day operational strategies

The key strategies which emerged in the daily operation of IT were firstly individuals who managed and performed according to **performance measures** and this was coupled with the strategy to operate in a controlled environment through **process and procedures**. An element of this had to do with the need for **management recognition** which is the third strategy and finally the belief that the **customer is king** and hence drives the priorities at an operational level.

Section 7.11 illustrates the actors involved in each of the above strategies and the forms of capital that is used

7.9 Summary

Following from Chapter 6 where the various fields, actors and capital are articulated as observed in the study, Chapter 7 describes the strategies adopted in context of each field. For each strategy within a field, actors who adopt the respective strategies are discussed and to provide context to how they assert themselves the concept of capital is discussed as defined by Bourdieu.

The chapter then provides a summary of the Fields, Strategies, actors and capital to illustrate the influencing relationships. Based on this the next chapter interprets the findings which can be drawn from this study.

University of Cape Town

8 Findings

8.1 Introduction

Based on the data presented and following of the definition of the six fields within the IT organisation this chapter draws on the previous two chapters and delves into the findings this data translates into.

The findings are discussed around 9 dimensions of IT and each is influenced by culture. Each of these dimensions are very closely inter-linked and inter-related. Thus articulating each dimension in isolation proved to be challenge and was almost impossible. Hence there may be repetition as the discussion of each dimension evolves.

8.2 Business & IT Alignment and the Impact of Culture on this Relationship

One of the major problems facing IT organisations is the disparity between what the business expects from IT and what IT believes they should deliver to business (Gordon & Gordon, 2002). This issue has persistently been listed as one of the top problems facing IT executives (Luftman et al, 2006). The problem with the lack of synergy between business and IT has been an on-going problem that dates back to the 1960s (Hirschheim et al., 2003). Hirschheim et al (2003) further state that this problem is fait accompli. In fact it has almost become a difference that is perpetuated by the fact that business does not see it as something that can be resolved and is now attributed to “cultural differences” implying that it will persist regardless (Peppard & Ward, 1999). One of the mechanisms to maintain this alignment is the process of IT and business collaborating on the strategic projects to be scheduled and prioritisation and prioritisation of these projects. This is further expanded on in the next section.

8.3 Strategic Information Systems Planning

“Culture is like an iceberg. It has seen aspects and it has unseen aspects. It is the unseen ones that create and influence the seen ones” (Schneider, 2007).

An age old debate has been the alignment of IT to the business strategy and thus the ability of IT organisations to deliver on the business demand. The process of Strategic Information Systems Planning is regarded as the process that aids in building this closer alignment. Through the SISP process the key IT requirements of the business are identified by ascertaining the business strategy and goals and identifying the technologies required to support this plan (Lederer & Sethi, 1988). The actual process that it followed varies between organisations and types of organisations. The style that is applied to this process could have an influence on the organisations culture (Earl, 1993 as cited by Lederer and Salmela, 1996)). Similarly the culture can influence the manner in which the plan evolves and unfolds.

The IT plan of the customer appeared to be merely a view into the company coffers and gave insight into what the customers potential spend was going to be for the year ahead.

It was evident that the process is more formal and structured in the in-house IT organisation. “The IT Strategy Planning process is central to our annual calendar and defines our projects & support for the next 3 years” (Respondent 7). “Based on the priorities of the projects identified by the business we need to ensure we have the resource available to provide support” (Respondent 17).

Due to the significance of the SISP in the daily activities of the in-house IT organisation it is not surprising that an individual’s involvement in the planning process is perceived to be a boon that comes with status and power.

8.4 Agility to respond to and meet business needs

Coupled with the SISP is the speed at which IT can react to businesses changing demands. Darwin famously stated that “It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change”.

One of the strongest characteristics of IT is the speed at which it evolves and changes. This change emanates typically from the computing hardware but is also demanded by business to aid with keeping up with markets and competition (Mendelson, 2000). Hence IT companies have to constantly review and realign the way they deliver and support technology to business (Gordon & Gordon, 2002). Given that IT organisations are operating in an ever-changing world it is still evident that organisational culture is still viewed as a “static” phenomenon (Huang, 2003).

Dove (2001) states that for an organisation to be agile it needs to be able to “manage and apply knowledge effectively” to succeed in an ever changing world. So despite the various process improvement initiatives an organisation that is not able to teach in a form that is understood by its employees is not going to quickly reach and maintain agility demanded by the business. To achieve agility an organisation needs to have balanced ability to react to market changes as well as maintaining proactive efficiency.

8.5 IT Service Delivery

An on-going battle in the IT service and support arena is the yardstick one can use to measure customer service consistently. All IT organisations regardless of the type have recognised the need to ensure call management systems are central to the customer facing dimension of the business. However there appears to be different levels of discipline between in-house IT organisations and Outsource companies in how service delivery is managed.

8.6 Operational Practices

The daily rituals of an in-house IT organisation seem to be part and parcel of the furniture. These practices are entrenched in the history of the organisation and the group at large. In the outsource world the service review and management is governed by the Service Level agreement. This contract defines how and the frequency of formal engagement. This in turn prescribes internal activities.

Monthly billing of customers requires monthly financial reconciliation. The IT outsource-partner gets insight into the budgets of the customer and accordingly aligns its service offering to ensure that it is able to get the largest piece of the pie. In the in-house support division the IT budget is formulated as part of the group spend. Having the CIO sit on the board of directors allows for direct influence on how IT is perceived by the rest of the group. There is also direct influence on the manner in which IT is able to contribute and enable key business initiatives. With a centralised pool of IT resources there is a greater prudence at how resource should be spent on IT systems and support. Unlike IT outsource organisations in-house teams have limited resource which needs to be used creatively to ensure maximum benefit.

8.7 Impact of IT Culture on the Financial Performance of the Business

It is widely acclaimed and documented that IT is now a key enabler of business and the overall success of the business depends on the smooth delivery of IT services to the business. Hence it is not surprising that the IT organisation and its underlying culture and approach to service delivery would impact the profitability of the business. Van Der Steen (2003) cites examples of the culture of organisations like Microsoft, Oracle, Apple and Enron and its impact on business performance.

Based on the discussions thus far the “Can Do” attitude of IT staff (Respondent 17) impacts how quickly the business is able to resume operations or obtain data to

outsmart the competition. “It’s about having the right data at the right time to make the right decision” (Respondent 20). From this one can surmise that service delivery is not just about uptime. IT systems and support that part take in the responsibility of business success will inculcate an approach of doing whatever it takes to close the deal. In this case it translated into making the sale in the store. With this paradigm support staff of the in-house IT organisation were able to transform the approach to supporting the stores by recognising that the users in the business were not just users but rather the people driving turn-over for the group.

This however did not resonate with the outlook from the external IT company. If the service was paid for it was delivered. There was no personal investment in the final outcome. The IT organisation and the business were driven by 2 different sets of business objectives. IT staff were not incentivised by the financial performance of the customer organisation. The management certainly had a vested interest to ensure continued business from the customer but this did not filter to the lower ranks of support staff delivering the service. It was not uncommon for the customer to poach good staff members from the IT Company prompting retraining clauses to prevent this practice of stealing resources.

8.8 Hierarchies (Formal and Informal)

It has been well documented that the structure and hierarchy in an organisation shapes the interaction and defines the cultural order of an organisation (Martins and Terblanch, 2003). This certainly held true in both models of IT companies. Management seem to have latched on to the “flat” structure concept. However regardless of the flatness of the organisational structure and how approachable management claimed to be, the effect of the structure was primarily about how this structure was perceived by the staff. “There is good balance in our structure between management and the teams. The problem is between teams. Some teams seem to be more powerful” (Respondent 26). There seems to be a link between the technology a technical team manages and the level of influence. “The architects get

to play all day on new stuff, whilst we don't even have laptops to access work from home. That is the team you want to be in. That's fun IT!" (Respondent 21).

This concept tends to imply that the IT identity stems largely from the type and age of technology IT individuals work with. "The mainframe team are not the most exciting crowd" (Respondent 1) and "most developers want to play in the .NET space. It is the place to be" (Respondent 2) implies that exposure to new tools and technology creates a social elitism and ranking within IT.

From the outset it is important to note that in addition to the formal structure that is in place in organisations, there also exists an informal social structure. According to one respondent the formal structure seemed to be conducive to encouraging engagement at all levels. However, the informal structure created in-crowds where only a select few were privy to access to more senior members of staff. "It is worrying that junior staff members socialise with more senior management and these individuals seem to progress faster than others in the organisation" (Respondent 19). "As a manager you are involved in career discussions. How are we assured that you are not going to promote your friends especially if they have dinner with you on weekends?" (Respondent 22).

'There is an example where an individual was aware of her team members pending new role before the individual herself. On closer inspection it became evident that the person in the know socialised with two members of the management team despite being two grades lower and claimed to have been invited to the birthday party of one of the director's partner. This was used as social capital liberally in she team creating the impression that she was protected and at the same time being nurtured into something better. "you have got to be so careful about what you say to person x as it might go back to Director y" (Respondent 9). "Having an honest chat to

person x could be career limiting because of her friendships with management” (Respondent 6).

The level of socialisation also influenced the in-crowds justification of each other’s activities. “It’s okay for her to leave early because they’re all going to the same party tonight. It does not seem fair.” (Respondent 16).

One of the main differences between in-house IT and external companies are the perception that individuals hold longer tenures in internal companies. It was not unusual for individuals to “hop between companies to move up the ladder” (Respondent24). This seems more prevalent with outsource companies who act as “body shops” (CS1) and take on specific skills on contract for the duration of key projects.

8.9 IT identity

“I tell people I work for the retail industry. I see myself as being in retail first and then as being in IT but still providing support to retail” (Respondent 26)

In the 80’s anyone associated with computers and IT was perceived as being a nerd or a geek. In an effort to understand where IT individuals fitted in an organisation it became apparent that a fundamental influence on the IT organisation was in fact the way individuals were perceived by the business and their derived IT identity.

“When I was based at company X we were included in their management meetings... we were only included in our own company meetings when something went wrong” (Respondent 15). There was consistency in the feedback from individuals who worked full time at customer sites that they felt more a part of the customer

organisation than their own organisation. In the outsource organisation IT people who have been assigned on-site support are caught between the habits, practices and traditions of their company of employment and those of the company at which they spend their time. However these customer organisations don't always perceive the onsite IT staff as being equal. Thus the expected behaviour and the actual engagement varied. By contrast these individuals are excluded from the day-to-day activities in their own organisations. It was not uncommon for these resources to only engage with other head office staff at year end functions. During my tenure at a major outsource company support staff deployed to customer sites were not involved in the decision making processes at the main office nor were they regarded as being part of our core resource compliment.

Thus people deployed to customer sites were betwixt and between the 2 identities viz. that of the IT organisation of employ and the identity of their customer organisation. In a similar vein in-house IT staff of large organisations, see themselves primarily as workers in the respective industry and secondary as IT personnel.

8.10 Impact of Culture on Transformation in the IT sector and national skills development

The current IT cultural index or measures are defined by European and American practices and frameworks. We need to question the local knowledge system and local epistemology to facilitate an open and inclusive culture on our organisations. To achieve this we need to intentionally situate the organisation to be more receptive to new thoughts and ideas and not exclusively the best practices and teachings from other regions which do not resonant with our local (regional and industrial) culture. This was captured by the once of the respondents who noted that IT organisations want to transform but with limited inclusivity.

8.11 Summary

The findings detailed in Chapter 8 explain how culture exerts influence on 9 dimension of the IT organisation in this study. One of the key concerns noted for CIOs was the alignment between IT and business and this is the point of departure for the findings by unpacking how culture affects this alignment. To ensure this alignment the practices of SISP and agility to business demand and then discussed together with the overall impact of culture on IT service delivery.

University of Cape Town

9 Conclusion

This investigation was spurred by the experiences of the researcher in the IT industry over a period of 20 years. From the literature it is apparent that IT organisations have adopted many different frameworks and practices to improve performance and efficiency thereby ensuring the business functions are well supported and needs met. The expected result is stable and agile information systems that grow with the business but remain stable and available as demanded by business. Research indicates that the mismatch between business and IT alignment is still an on-going challenge and IT organisations continue to strive for improved processes. This begs the question of what role does the culture of the organisation play in the effectiveness of IT.

Evaluation of management across various industries shows that human development and motivation are essential factors in business success and yet this does not feature in the literature of IT management practices. In the local context the diversity of South Africa also cannot be disregarded by South Africa IT organisations especially as transformation needs to be embraced and fast tracked in the work place. This cannot be achieved with exclusive Euro-centric paradigms and practices.

This gave rise to the situation of concern which this study sought to understand which is to understand the cultural aspects of IT organisation.

To give the study structure and ensure it was grounded in well recognised theory, Bourdieu's Theory of Practice was applied as the framework through which the phenomenon was observed. The study was exploratory and relied on qualitative data through various data gathering techniques. This was to ensure the nuances and tacit

information was solicited through interviews and discussions. The study was further enriched with the researchers experience by means of reflexive writing.

The research was based on a case study of a South African retailer in-house IT division with a footprint across Africa. Through the lens of Theory of Practice, the various games or Fields of engagement were identified and documented. Further evaluation of the qualitative data resulted in a profiling of the actors and the forms of capital exchanged to meet desired outcomes. A set of key strategies were also identified as ways in which actors engage. All this is then related back to the theory to give a theoretical explanation of the fields, strategies and actors.

Finally the findings derived from the study are articulated with reference to the implications these have on the industry.

9.1 Contribution of the study

This thesis provides IT organisations insight into the value and impact their organisational culture has on being effective and efficient in supporting business. Using the concepts of Theory of Practice, the practice of culture in IT can now be described with an awareness of the various actors and the capital that could be used to assert oneself in the organisation. In terms of organisational planning and structuring, the strategies have also been unpacked so that organisation design can be cognisant of the games engaged and the outcomes this could lead to which may either be desirable or not. Hence IT management could be better equipped in consciously transforming the organisation towards the desired goals and objectives

The findings bring into context the regional nuances and demands by discussing the SA context in terms of social and cultural diversity. The study provides insight in how foreign practices and paradigms should be assessed to ensure that the success of

local implementations. This can be extrapolated to any African organisation or in fact any developing economy that is at the mercy of first world practices.

9.2 Future research

There are a number of aspects of this study which can prompt further research. As noted in the limitations, it was not feasible nor time permitting to explore all the opinions and concepts this investigation has discussed.

In evaluating opportunities for further research, the researcher has focused on the opportunities for improvement around three viz.

1. **For improvement of the SA IT skills pool and overall economy:** Investigation into the IT skills shortage in South Africa and the impact this has had on transformation of the demographics of the IT organisation and the economic impact to the industry.
2. **To improve IT and Business alignment:** This is an age old issue that plagues CIOs year-on-year. Hence another area of interest is the values and beliefs imposed by the business on IT and how the business demands nurture the morale and motivation of IT people and the overall impact this has on IT & business alignment
3. Finally and probably the most significant, in the opinion of the researcher, is the duel between the need for agility and quick response to business and the bureaucracy of the standards and frameworks and the discord that emerges as well as the net results this has on IT s ability to adapt to changing business needs.

10 References

- Acciaoli, G. L. (1981). Knowing what you're doing - A Review of Pierre Bourdieu's Outline of a Theory of Practice. *Canberra Anthropology* 4(1), 23-51.
- Agar, M. (1986). *Speaking of ethnography*. Beverly Hills, CA: Sage.
- Alexander, N. (2002). *An ordinary country: Issues in transition from apartheid to democracy in South Africa*. Pietermaritzburg: University of Natal Press.
- Allison, D. (2010). The future CIO: Critical Skills and Competencies. *ECAR Research Bulletin*, 15, 1-14.
- Anheier, H. K., Gerhards, J., & Romo, F. P. (1995). Forms of capital and social structure in cultural fields: examining Bourdieu's social topography. *American Journal of Sociology*, 100(4), 859-903.
- Barney, J. B. (1986). Organizational Culture: Can It Be a Source of Sustained Competitive Advantage? *The Academy of Management Review*, 11(3), 656-665
- Benbasat, I., & Zmud, R. W. (2003). The identity crisis within the IS discipline: Defining and communicating the discipline's core properties. *MIS Quarterly*, 27(2), 183-194.
- Bhuiyan, N., & Baghel, A. (2005). An overview of continuous improvement: from the past to the present. *Management Decision*, 43(5), 761 - 771.
- Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge: Cambridge.
- Bourdieu, P. (1984). The market of symbolic goods.
- Bourdieu, P. (1989). Social space and symbolic power. *Sociology Theory*, 7(1), 14-25.
- Bourdieu, P. (2007). *Outline of a theory of practice*. Cambridge: Cambridge University Press.
- Bourdieu, P., & Wacquant, L. J. D. (1992). *An invitation to reflexive sociology*. Chicago: University of Chicago Press.
- Brown, A. E., & Grant, G. G. (2005). Framing the frameworks: A review of IT governance research. *Communications of the Association for Information Systems*, 15, 696-712.
- Brown, I. (2010). *Strategic Information Systems Planning: Comparing Espoused Beliefs with Practice*. Paper presented at the ECIS 2010 Proceeding.
- Brown, W. (2002). *Centralizing information technology in a distributed system (again?)*. Paper presented at the SIGUCCS, Rhode Island, USA.
- Cater-Steel, A., Tan, W. G., & Toleman, M. (2006). *Challenge of adopting multiple process improvement frameworks*. Paper presented at the ECIS 2006 Proceedings.
- Child, J., & McGrath, R. G. (2001). Organizations unfettered: organizational form in an information-intensive economy. *The Academy of Management Journal*, 44(6), 1135-1148.
- Chu, C., & Smithson, S. (2003). Organizational structure and e-business: a structural analysis. *ACM*.
- Clandinin, D. J., & Connelly, F. M. (2000). *Narrative Inquiry Experience and Story in Qualitative Research*
- Creswell, J. (2007). *Qualitative inquiry & research design*. Thousand Oaks, USA: Sage.

- Cunliffe, A. L. (2003). Reflexive inquiry in organisational research: Questions and possibilities. *Human Relations*, 56(8), 983-1003.
- Curtis, S. (2013). European Commission sets out strategy to tackle IT skills shortage.
- Delbridge, R., Turnbull, P., & Wilkinson, B. (1992). Pushing back the frontiers: management control and work intensification under JIT/TQM factory regimes. *New Technology, Work and Employment*, 7(2), 97-106.
- Dibbern, J., Goles, T., Hirschheim, R., & Jayatilaka, B. (2004). Information systems outsourcing: A survey and analysis of the literature. *The Database for Advances in Information Systems*, 35(4), 6-102.
- Dove, R. (2001). *Response ability - the language, structure, and culture of the agile enterprise*. New York: Wiley.
- Drucker, P. (1984). *From the American System to Mass Production, 1800-1932: The Development of Manufacturing Technology in the United States*.
- Drucker, P. (1999). Knowledge-worker productivity: The biggest challenge. *The Californian Management Review*, 41(2), 79-94.
- Drucker, P. (2001). *The essential Drucker*. New York: Collins.
- Drucker, P. (2010). *Technology, management and society*. Massachusetts: Harvard Business Press.
- Du Toit, S. (2012). Policing the Skills Development Act and the Employment Equity Act [Electronic Version] from <http://www.labourguide.co.za/employment-equity/policing-the-skills-development-act-and-the-employment-equity-act-500>.
- Earl, M. J. (1993). Experiences in Strategic Information Systems Planning. *MIS Quarterly* 17(1), 1-24.
- Emirbayer, M., & Johnson, V. (2008). Bourdieu and organizational analysis. *Theory and Society*, 37(1), 1-44.
- Evans, N. (2006). *Leading information technology in South Africa: A unique challenge*. Paper presented at the SIGMIS-CPR 2006, California USA.
- Frost, N. (2002). A problematic relationship? Evidence and practice in the workplace. *Social Work and Social Sciences Review*, 10(1), 38-50.
- Galliers, R. D. (1991). Strategic information systems planning: Myths, reality and guidelines for successful implementation. *European Journal of Information Systems* 1, 55-64.
- Gallivan, M. (1994). *Changes in the management of the information systems organisation: An exploratory study*. Paper presented at the SIGCPR 94, Virginia, USA.
- Galup, S., Dattero, R., Quan, J., & Conger, S. (2007). *Information technology service management: an emerging area for academic research and pedagogical research*. Paper presented at the SIGMIS-CPR 07, Missouri, USA.
- Gartner, R. (2012). CIO Agenda: Findings from 2012. 2012, from http://www.gartner.com/technology/cio/cioagenda_findings.jsp
- Hofstede, G., Neuijen, B., Ohayv, D., Sanders, G. (1990). Measuring Organizational Cultures: A Qualitative and Quantitative Study across Twenty Cases. *Administrative Science Quarterly*, 35.

- Gefen, D., & Ridings, C. (2003). IT acceptance: managing user - IT group boundaries. *The Database for Advances in Information Systems*, 34(3), 25-40.
- Giddens, A. (1991). *Modernity and self-identity: self and society in the late modern age* Stanford: Stanford press
- Gordon, G. G., & DiTomaso, N. (1992). Predicting corporate performance from organizational culture. *Journal of Management Studies*, 29(6), 783-798.
- Gordon, S., & Gordon, J. (2002). Organizational Options for Resolving the Tensions Between IT Departments and Business Units in the Delivery of IT Services. *Information Technology and People*, 15(4), 286-305.
- Gordon, S., & Gordon, J. (2002). Organizational options for resolving the tension between IT departments and business units in the delivery of IT services. *Information Technology & People*, 15(4), 286-305.
- Gregory, K. L. (1983). Native-view paradigms: Multiple cultures and culture conflicts in organizations. *Administrative Science Quarterly* 28(3), 359-376.
- Hanks, W. F. (2005). Pierre Bourdieu and the practices of language [Electronic Version]. *The Annual Review of Anthropology*, 34, 67-83. Retrieved August 2008 from anthro.annualreviews.org.
- Hart, M. L., Berkowitz, S., Ryan, J., & Waspe, K. (2004). Key information systems management issues: A comparative study in South Africa. *South African Journal of Business Management*, 35(4), 49-60.
- Hays, S. (1994). Structure and Agency and the Sticky Problem of Culture. *Sociological Theory*, 12(1), 57-72.
- Henri, J. F. (2006). Organizational culture and performance measurement systems. *Accounting, Organizations and Society*, 31, 77-103.
- Hirschheim, R., & Lacity, M. (2000). The myths and realities of information technology insourcing. *Communications of the ACM*, 43(2), 99-107.
- Hirschheim, R., Porra, J., & Parks, M. (2003). The evolution of the corporate IT function of the CIO at Texaco - How do perceptions of IT's performance get formed. *The Database for Advances in Information Systems* 34(4), 8-27.
- Hirschheim, R., Schwarz, A., & Todd, P. (2006). A marketing maturity model for IT: Building a customer-centric IT organization. *IBM Systems Journal*, 45(1), 181-199.
- Hirschhorn, L. (1984). *Beyond mechanization: Work and technology in a post-industrial age*. Cambridge: MIT Press.
- Hofstede, G. (1983). The cultural relativity of organizational practices and theories. *Journal of International Business Studies*, 14(2), 75-89.
- Horibe, F. (1999). *Managing Knowledge Workers: New skills and attitudes to unlock the intellectual capital in your organisation*. New York: Wiley and Sons.
- Iversen, J., & Ngwenyama, O. (2006). Problems in measuring effectiveness in software process improvement: A longitudinal study of organizational change at Danske Data. *International Journal of Information Management*, 26(1), 30-43.
- Jong, J. P., & Hartog, D. N. D. (2007). How leaders influence employees' innovative behaviour. *European Journal of Innovative Management*, 10(1), 41-64.
- Kaplan, R. (1983). Measuring manufacturing performance: A new challenge for managerial accounting research. *The Accounting Review*, 58(4), 686-705.

- Kearns, G. S., & Lederer, A. L. (2004). The impact of industry contextual factors on IT focus and the use of IT for competitive advantage. *Information & Management*, 41, 899-919.
- Khan, N., Nor, K., Samani, M., & Hakimpoor, H. (2012). Antecedants, drivers, and success of strategic information systems pla view. *Asia Pacific business innovation and technology management society*, 40, 334-340.
- Krefting, L. (1991). Rigor in Qualitative Research: The Assessment of Trustworthiness. *The American journal of occupational therapy*, 1991.
- Latour, B. (1988). The politics of explanation: An alternative. *Knowledge and reflexivity: New frontiers in the sociology of knowledge*, 155-176.
- Lederer, A., & Sethi, V. (1988). The implementation of strategic information systems planning methodologies. *MIS Quarterly*, 12(3), 445-461.
- Lederer, A., & Sethi, V. (1996). Key Prescriptions for Strategic Information Systems Planning *Journal of Management Information Systems* 13(1), 35-62.
- Lehmann, H. (1995). Towards an information technology management framework for developing countries: Investigating the Keiretsu model *Journal of Global Information Management*, 3(3), 16.
- Lewis, J. D. (2005). Promoting growth and employment in South Africa. *South African Journal of Economics*, 70(4), 338-358.
- Luftman, J. (2005). Key issues for IT executives 2004. *MIS Quarterly*, 4(2), 269-285.
- Luftman, J., & McLean, E. R. (2004). Key issues for IT executives. *MIS Quarterly*, 3(2), 89 -104.
- Lynch, M. (2000). Against Reflexivity as an Academic Virtue and Source of Privileged Knowledge. *Theory, Culture & Society*, 17(3), 26-54.
- Maglio, P., Srinivasan, S., Kreulen, J., & Spohrer, J. (2006). Service systems, service scientists, SMME, and innovation. *Communications of the ACM*, 49(7), 81-85.
- Markus, M., & Robey, D. (1988). Information technology and organisational change: causal structure in theory and research. *Management Science*, 34(5), 583-598.
- Marnewick, C. (2011). Herzberg! Can we trust you in Africa? *African Journal of Business Management* 5(4), 1293-1303.
- Marquardt, M. J. (1996). Building the learning organisation: a systems approach to quantum improvement.
- Mendelson, H. (2000). Organizational architecture and success in the information technology industry. *Management Science*, 46(4), 513-529.
- Middleton, P. (2004). *Aligning individual and organisational values to facilitate information systems adoption*. Paper presented at the WISER 04, Newport Beach, California, USA.
- Morency, J. (2005). Best practice, practice, practice [Electronic Version]. *Network World*. Retrieved March 2010 from <http://www.nwfusion.com/research/2005/011005cobit.html>.
- Morgan, G. (1998). Images of Organisations. *Human Resource Management Journal*, 8(2), 93-100.
- Motsoeneng, R. P. (2011). Recruitment Policies and Practices in the Department of Public Service and Administration: UNISA.
- Murer, S., Bonati, B., & Furrer, F. J. (2011). *Very Large Information Systems: Managed Evolution As a Strategy* (Vol. Part 2,).

- Naidoo, R. (2004). Fields and institutional strategy: Bourdieu on the relationship between higher education, inequality and society. *British Journal of Sociology of Education*, 25(4), 447-471.
- Ogbonna, E., & Harris, L. C. (2000). Leadership style, organizational culture and performance: empirical evidence from UK companies. *The International Journal of Human Resource Management* 11(4), 766-788.
- Orlikowski, W. J. (1992). The Duality of Technology: Rethinking the Concept of Technology in Organizations. *Organization Science*, 3(3), 398-427
- Owusu, Y. (1999). Importance of employee involvement in world-class agile management systems. *International Journal of Agile Management Systems*, 1(2), 107-115.
- Owusu, Y. (1999). Importance of employee involvement in world-class agile management systems. *International Journal of Agile Management Systems*, 1, 107-115.
- Pels, D. (2000). Reflexivity: One step up. *Theory, Culture & Society*, 17(3), 1-25.
- Peppard, J. (2003). Managing IT as a portfolio of services. *European Management Journal*, 21(4), 467-483.
- Peppard, J., & Ward, J. (1999). 'Mind the Gap': diagnosing the relationship between the IT organisation and the rest of the business. *Strategic Information Systems*, 8, 29-60.
- Phillips, N., & Brown, J. L. (1993). Analyzing communication in and around organizations: a critical hermeneutic approach. *Academy of Management Journal*, 36(6), 1547-1576.
- Pinsonneault, A., & Kraemer, K. (2002). Exploring the role of information technology in organizational downsizing: A teal of two American cities. *Organizational Science*, 1(2), 191-208.
- Poston, B. (2009). Retrieved 4 April 2011, 2011, from http://www.astd2007.ast.org/publications/Journal%20Archive/2009/8_August_2009/CE.pdf
- Ramphale, M. (2008). *Laying ghosts to rest: dilemmas of the transformation in South Africa*: Tafelberg Publishers.
- Reckwitz, A. (2002). Toward a Theory of Social Practices A Development in Culturalist Theorizing. *European Journal of Social Theory*, 5(2), 243-263.
- Reyes, B. (2011). *People, Process, and Technology*.
- Sabherwal, R., & Chan, Y. E. (2001). Alignment Between Business and IS Strategies: A Study of Prospectors, Analyzers, and Defenders. *Information Systems Research*, 12(1), 11-33.
- Salle, M. (2004). IT Service Management and IT Governance: Review, comparative analysis and their impact on utility computing: Hewlett-Packard Company.
- Schein, E. (1996). Culture: the missing concept in organizational studies. *Administrative Science Quarterly*, 41(2), 229-240.
- Schein, E. (2010). *Organisational Culture and Leadership* (4th ed.). San Francisco: Wiley.
- Schneider, E. (2000). Why good management ideas fail: the neglected power of organizational culture. *Strategy & Leadership*, 28(1), 24-29.
- Schneider, S. (1988). National vs. corporate culture: Implications for human resource management. *Human Resource Management*, 27(2).

- Schneider, S., & Meyer, A. D. (1991). Interpreting and responding to strategic issues: The impact of national culture. *Strategic Management Journal*, 12(4), 307-320.
- Schultze, U. (2000). A confessional account of an ethnography about knowledge work. *MIS Quarterly*, 24(1), 3-41.
- Schultze, U., & Boland, R. J. (2000). Place, space and knowledge work: study of outsourced computer systems administrators. *Accounting, Management and Information Technologies*, 10, 187-219.
- Schwalbe, K. (2007). *Information Technology Project Management*. Massachusetts: Thompson.
- Schwartz, H., & Davis, S. (1981). Corporate Culture and Business Strategy. *Organizational Dynamics*, 30- 48.
- Senge, P. M. (1990). *The fifth discipline*. London: Random House.
- Sewchurran, E., & Brown, I. (2011). *Successful ICT service delivery: enablers, inhibitors and hygiene factors: a service provider perspective* Paper presented at the SAICSIT '11 Proceedings of the South African Institute of Computer Scientists and Information Technologists Conference on Knowledge, Innovation and Leadership in a Diverse, Multidisciplinary Environment Cape Town.
- Sewell, J. H. (1992). A Theory of Structure: Duality, Agency, and Transformation. *American Journal of Sociology*, 98(1), 1-29.
- Shibanda, G. C. (2001). *Skills and competencies for digital information management in Africa*. Paper presented at the 67th IFLA Council and General Conference, Boston, USA.
- Simons, J. A., Irwin, D. B., & Drinnien, B. A. (1987). Maslow's hierarchy of needs. In *Psychology - The Search for Understanding*. New York: West Publishing Company.
- Simonsson, M., & Johnson, P. (2006). *Assessment of IT governance - A prioritization of CobiT*. Paper presented at the Conference on Systems Engineering Research, Los Angeles, USA.
- Simonsson, M., & Johnson, P. (2008). *The IT organization modelling and assessment tool: Correlating IT governance maturity with the effect of IT*. Paper presented at the 41st Hawaii International Conference on System Sciences (HICSS), Waikoloa, Hawaii, USA.
- Siponen, M. (2006). Information security standards focus on the existence of process, not its content. *Communications of the ACM*, 49(8), 97-100
- Slater, S. F., & Narver, J. C. (1995). Market orientation and the learning organisation. *Journal of Marketing*, 59(3), 63-74.
- Stacey, R. (2003). Learning as an activity of interdependent people. *The Learning Organization*, 10(6), 325-331.
- Staples, M., Niazi, M., Jeffery, R., Abrahams, A., Byatt, P., & Murphy, R. (2007). An exploratory study of why organizations do not adopt CMMI. *Journal of Systems and Software*, 5(16).
- Tan, W. G., Cater-Steel, A., Toleman, M., & Seaniger, R. (2007, 5-7 Dec 2007). *Implementing centralised IT service management: drawing lessons from the public sector*. Paper presented at the 18th Australasian Conference on Information Systems Toowoomba.
- Taylor, F. (2003). *Scientific Management: Early Sociology of Management and Organizations*. New York: Routledge.

- Thomas, A., & Bendixen, M. (2000). The management implications of ethnicity in South Africa. . *International Business Studies* 31(3), 507-519.
- Tsoukas, H. (1993). Analogical reasoning and knowledge generation in organization theory. *Organization Studies*, 14(3), 323-346.
- Tsoukas, H., & Chia, R. (2002). On organizational becoming: rethinking organizational change. *Organization Science*, 13(5), 567-582.
- van Solms, B. (2005). Information Security governance: COBIT or ISO 17799 or both. *Computers & Security*, 24(2), 99-104.
- Walby, S. (2000). Analyzing social inequality in the twenty-first century: globalization and modernity restructure inequality. *Contemporary Sociology*, 29(6), 813-818.
- Weber, Y., & Pliskin, N. (1996). The effects of information systems integration and organizational culture on a firm's effectiveness. *Information & Management*, 30(2), 81-90.
- Wheeler, D. L. (2003). Egypt: Building an Information Society for International Development. *Review of African Political Economy*, 30(98), 627-642.
- White, T. (2004). *What business really wants from IT: a collaborative guide for business directors and CIOs.* London: Butterworth-Heinemann.
- Wilcocks, L., & Lacity, M. (1998). *Strategic Sourcing of Information Systems*. Chichester: Wiley.
- Zeng, S. X., Tian, P., & Tam, C. M. (2007). Overcoming barriers to sustainable implementation of the ISO 9001 system *Follow Managerial Auditing Journal*, 22(3), 244-254.

Appendix A – Profile of Participants

				Influence			Experience		Management			
Functional Area	Role	Gender	Years of Experience	Operational	Tactical	Strategic	In House IT	External IT	Not	Junior	Middle	Exec
Application Development	Business Analyst	M	15-20 YRS	x	x		x	x	x			
Application Development	Business Analyst	F	15-20 YRS	x			x		x			
Application Development	Programmer	M	0-5 YRS	x			x		x			
Application Development	Programmer	M	0-5 YRS	x			x		x			
Application Development	Programmer	F	0-5 YRS	x			x		x			
Application Development	Programmer	F	10-15 YRS	x	x		x	x	x			
Application Development	Programmer	F	10-15 YRS	x			x		x			
Application Development	Programmer	F	15-20 YRS	x	x		x	x			x	
Application Development	Programmer	F	5-10 YRS	x	x		x		x			
Application Development	Team Leader	M	10-15 YRS	x	x		x	x		x		
Application Development	Team Leader	F	15-20 YRS	x	x	x	x	x				x

Appendix A – Profile of Participants

				Influence			Experience		Management			
Functional Area	Role	Gender	Years of Experience	Operational	Tactical	Strategic	In House IT	External IT	Not	Junior	Middle	Exec
Application Development	Team Manager	F	15-20 YRS	x	x	x	x				x	
Customer Services	Business Relationship Manager	F	10-15 YRS		x	x	x			x		
Customer Services	Business Relationship Manager	F	5-10 YRS	x	x	x	x			x		
Customer Services	Department Manager	M	10-15 YRS	x	x	x	x	x			x	
Customer Services	Executive	F	15-20 YRS		x	x	x					x
Desktop Support	Desktop Engineer	M	0-5 YRS	x			x		x			
Desktop Support	Desktop Engineer	M	5-10 YRS	x			x	x	x			
Human Resources	Manager	F	10-15 YRS	x	x	x	x				x	
Infrastructure	Department Manager	M	10-15 YRS		x	x	x				x	
Infrastructure	Department Manager	M	15-20 YRS	x	x	x	x	x			x	
Infrastructure	Server Support	M	10-15 YRS	x	x		x	x		x		
Learning and Change	Facilitator	F	15-20 YRS	x	x		x		x			

Appendix A – Profile of Participants

				Influence			Experience		Management			
Functional Area	Role	Gender	Years of Experience	Operational	Tactical	Strategic	In House IT	External IT	Not	Junior	Middle	Exec
Project Management	Project Manager	M	10-15 YRS	x		x	x	x		x		
Project Management	Project Manager	F	20-25 YRS	x	x		x	x			x	x
Service Management Centre (SMC)	Incident Manager	F	10-15 YRS	x	x		x	x	x			
Service Management Centre (SMC)	Process Management	F	5-10 YRS	x			x	x	x			
Service Management Centre (SMC)	Service Desk Manager	M	15-20 YRS	x	x		x			x		

Appendix B – Interview Prompt Sheet

In order to achieve the objectives set out above, the interviews will be divided into five sections. Each section constitutes a set of open-ended questions. The result will be a discussion around each section theme:

Section 1: The Organisations Profile

This objective of this section is to draw a profile of the individual's job function and organisation being interviewed. The information gathered in this section may give insight into the size of the organisation and the type of structure in place and roles fulfilling any customer service function

Typical Questions:

What is the individual's job profile

How does your current position add value to the organisation

Who do you report in to (job function)

Do you have any staff reporting to you

If yes what are their job function

What roles would a typical regional office structure have

Where in this structure do you fit

How many employees are there within the company- nationally and regionally

Section 2: Service Delivery in the IT Organisation

Typical Questions:

What types of services does the Organisation provide to its customer base

What does service & service delivery mean to the specific job function

Key words used within the organisation to describe service delivery

Are there any obvious initiatives intended to improve the service delivered to the customer

Section 3: The Customer and Understanding the customer's IT requirements

Here the discussion will delve into the profile of the customer. The customer requirements and how this is communicated within the organisation will also be investigated. This data will provide insight into the alignment of the service to customer's expectations and the influence this may have on the customer's perception of the service being received.

Typical Questions:

Who are your key customers

How are customer requirements understood

How are the service requirements of the customer defined

Who is instrumental in meeting these customer requirements

How is information pertaining to these companies disseminated and kept up to date

How are changes to the customer needs and wants managed

Section 4: Measurement of Service Delivery

In this section companies are probed on how service to the customer is measured and monitored. The frequency of this management and level of involvement is also discussed. The interview will also solicit information pertaining to the various systems, tools and techniques used to monitor and measure the organisations service levels and thus manage the service being provided to customers.

Typical Questions:

How is service monitored in the organisation

Who is responsible for this

Are there any positions that have been created to focus entirely on the service levels being rendered

How do you know when service is being affected

- Positively
- Negatively

How do you measure service in your role

How does the organisation measure the service its providing

What tools do you use in your current role to measure the service you deliver?

Do you have examples of good service delivered by yourself & company

What contributed to this

Do you have an example of bad service delivered by yourself & company

What were the key factors contributing to this

How was this remedied

Does the company employ any specialised frameworks or models to assist with meeting service requirements

Have these been effective and how is this measured

How is service measured at:

- Business unit level
- Regional Level
- National Level

What are the main reasons you as an individual may be prevented from delivering excellent service

What can be done to improve how you service your customers

What can be done by the customer's organisation to assist you in meeting your service objectives

Section 5: Organisational Structure and Culture

This section discusses the initiatives undertaken by the organisations to create an environment, which is conducive to meeting customer service requirements and improving productivity within the organisation

Typical Questions:

How are employees recognised for going beyond the call of duty to meet customer demands

How does the company deal with individuals who hamper or impede meeting service requirements

Have there been any initiatives

How are employees educated on servicing the customer

What sort of forums are there to align individuals within the organisation vision and objectives

What is the frequency of these forums

What initiatives do you have within the company to influence the corporate culture

Finally, the interview will allow the participant the opportunity to provide any further comment or information pertinent to this research.