

The London School of Economics and Political Science

**The Influence of Total Domestic Outsourcing on the Role
of the IT Function: A Case Study of the BBC**

Hemini Mehta

**A thesis submitted to the Department of Management of
the London School of Economics for the degree of
Doctor of Philosophy, London, August 2011**

Declaration

I certify that the thesis I have presented for examination for the PhD degree of the London School of Economics and Political Science is solely my own work other than where I have clearly indicated that it is the work of others (in which case the extent of any work carried out jointly by me and any other person is clearly identified in it).

The copyright of this thesis rests with the author. Quotation from it is permitted, provided that full acknowledgement is made. This thesis may not be reproduced without the prior written consent of the author.

I warrant that this authorization does not, to the best of my belief, infringe the rights of any third party.

This thesis is dedicated to my wonderful parents, Jayanti and Vilas Mehta.

Abstract

The prominent themes of the research are total domestic outsourcing and the role of the IT function. The latter has been an issue for researchers and practitioners since the early days of information systems. The role of IT has changed considerably over the years, from basic administrative data processing to the central focus of enabling strategic processes. The literature reveals the considerable changes that have taken place over the last 30 years in the role of the IT function. The IT department over the years has moved from a traditional manufacturing role, where the department would be involved in software development and maintenance, computer operations, and technical services, to a more services orientated role.

In addition, IT outsourcing has grown over the past thirty years to become a major industry. It usually involves some transfer of assets and staff to the vendor. The concept of IT outsourcing has changed over the years from a tactical option for the IT function to, in some cases, a significant part of a long-term strategy to structure and manage organisations. As such, it has often had a considerable influence on the role of the IT function.

Although much has been written about IT sourcing strategy, there is a gap in the literature regarding in-depth case studies of the impact of IT outsourcing on the IT function, seen within various levels of the organisation, from senior management down to operations, and everyday users. Similarly, there are few studies that consider IT outsourcing in the context of other competitive and industrial forces that are affecting the management and operation of large organisations. This research comprises a detailed case study of the implementation of large-scale domestic IT outsourcing within the British Broadcasting Corporation (BBC). It utilises Activity Theory as a lens to examine the implementation from the perspective of various stakeholder groups at different levels within the organisation in order to address the research question: “What is the influence of total domestic IT outsourcing on the role of the IT function?”

The central contributions of the thesis are within the methodological and theoretical areas. The in-depth case study of a large organisation with a rich culture draws out interesting data, and the use of Activity Theory analyses the data in a novel way. The total domestic outsourcing affects not only the role of the IT function, but the entire

organisation. It leads to huge transfers of staff and assets, restructures, redundancies and changes to everyday processes.

Acknowledgements

First and foremost I would like to thank my wonderfully supportive family – Mum, Dad, Panna, Bijal, Buntty and Dylan. Thank you for being with me every step of this strange and amazing journey. With faith and my family I have finally reached this point.

Secondly, I must thank my supervisor Dr Steve Smithson for guiding me on this expedition. You have been on this rather long trip with me, and guided me through the various terrains. Your advice and laid back nature has helped me more than you realise.

My PhD friends, Dr Savita Bailur, Dr Harinder Mann, Patrizia Bertini and Huey Tan, your friendship has been a source of comfort. My gratitude to the PhD students and academics of the Information Systems group for their debates, discussions, advice and camaraderie throughout the PhD process.

The staff I interviewed and talked with at the BBC were great. Every single person I came across for input, were willing to talk openly and honestly, and went out of their way to make sure I had the information I required.

I would like to thank Harpreet Ghai and Pareena Khairdin for their amazing support when I needed it the most. There are so many friends and family that I cannot name them all, but would like to thank you for the support and kindness you have shown me.

Going through this journey I had the pleasure of meeting many fabulous people. Even strangers showed interest in the work, and many have given messages of support. I was lucky to see the most amazing sides of human nature. Finally I would like to thank one unnamed special person, he motivated me to complete this thesis.

Table of Contents

List of Abbreviations	i
List of Figures and Tables	ii
1. Introduction	1
1.1 Background of the Project	1
<i>1.1.1 A Brief History: Role of the IT Function</i>	2
1.2 Research Questions	4
1.3 Thesis Structure	6
1.4 Summary	9
2. Literature Review	11
2.1 Introduction	11
2.2 Role	12
2.3 Role of Information Technology	17
<i>2.3.1 Recent Issues</i>	19
2.4 Information Technology Function	20
<i>2.4.1 The Centralisation vs. Decentralisation Debate</i>	25
2.5 Changing Role of Information Technology Function	27
<i>2.5.1 Overview</i>	28
<i>2.5.2 Timeline of End User Computing</i>	34
2.6 Outsourcing	36
<i>2.6.1 Contracts and Service Level Agreements</i>	40
<i>2.6.2 Risks</i>	42
<i>2.6.3 Relationships</i>	43
<i>2.6.4 Personnel</i>	45
2.7 Summary	46
3. Theoretical Framework	48
3.1 Introduction	48
3.2 Actor Network Theory	49
3.3 New Institutionalism	52
3.4 Activity Theory	54
<i>3.4.1 Origins of Activity Theory</i>	55
<i>3.4.2 Present</i>	58
3.5 Limitations of Activity Theory	65
3.6 Information Systems Research using Activity Theory	66

3.7 Summary	70
4. Methodology	71
4.1 Introduction	71
4.2 Epistemology and Ontology	71
<i>4.2.1 Justification of Epistemology and Ontology Selection</i>	76
4.3 Methodology Options	77
<i>4.3.1 Action Research</i>	78
<i>4.3.2 Historical Studies</i>	80
<i>4.3.3 Longitudinal Studies</i>	82
<i>4.3.4 Case Studies</i>	84
4.4 Justification of Methodology	85
4.5 Research Design	86
<i>4.5.1 The Host Organisation</i>	86
<i>4.5.2 Empirical Research</i>	92
<i>4.5.3 Interviews</i>	92
<i>4.5.4 Observation</i>	97
<i>4.5.5 Documents</i>	98
4.6 Analysis Method	99
4.7 Summary	100
5. Findings: Outsourcing	102
5.1 Introduction	102
5.2 BBC Technology	103
5.3 Outsourcing	104
<i>5.3.1 Users' Perspectives</i>	110
<i>5.3.2 Senior IT Managers' Perspectives</i>	114
<i>5.3.3 BBC Account Manager's Perspective</i>	117
<i>5.3.4 Siemens Account Manager's Perspective</i>	120
5.4 Summary	123
6. Findings: IT Centralisation and Organisation Restructure	125
6.1 Introduction	125
6.2 IT Centralisation and Organisation Restructure	126
<i>6.2.1 Users' Perspectives</i>	126
<i>6.2.2 Policy Knowledge Management Team's Perspectives</i>	135
<i>6.2.3 Middle IT Managers' Perspectives</i>	143
<i>6.2.4 Senior IT Managers' Perspectives</i>	151

6.3 Summary	161
7. Analysis	163
7.1 Introduction	163
7.2 Overview	165
7.3 Organisational Level Activity	167
7.3.1 <i>Object</i>	167
7.3.2 <i>Subject</i>	167
7.3.3 <i>Community</i>	167
7.3.4 <i>Division of Labour</i>	167
7.3.5 <i>Rules</i>	168
7.3.6 <i>Mediating Artifacts</i>	168
7.3.7 <i>Outcomes</i>	169
7.4 Outsourcing Activity	170
7.4.1 <i>Object</i>	170
7.4.2 <i>Subject</i>	171
7.4.3 <i>Community</i>	171
7.4.4 <i>Division of Labour</i>	171
7.4.5 <i>Rules</i>	171
7.4.6 <i>Mediating Artifacts</i>	172
7.4.7 <i>Outcomes</i>	172
7.5 Siemens Account Manager Level Activity	173
7.5.1 <i>Object</i>	173
7.5.2 <i>Subject</i>	174
7.5.3 <i>Community</i>	174
7.5.4 <i>Division of Labour</i>	176
7.5.5 <i>Rules</i>	177
7.5.6 <i>Mediating Artifacts</i>	177
7.5.7 <i>Outcomes</i>	179
7.6 BBC Account Manager Level Activity	180
7.6.1 <i>Object</i>	180
7.6.2 <i>Subject</i>	180
7.6.3 <i>Community</i>	181
7.6.4 <i>Division of Labour</i>	181
7.6.5 <i>Rules</i>	181
7.6.6 <i>Mediating Artifacts</i>	182

7.6.7 Outcomes	183
7.7 Senior IT Managers' Level Activity	184
7.7.1 Object	184
7.7.2 Subject	184
7.7.3 Community	184
7.7.4 Division of Labour	185
7.7.5 Rules	187
7.7.6 Mediating Artifacts	188
7.7.7 Outcomes	189
7.8 Middle IT Managers' Level Activity	190
7.8.1 Object	190
7.8.2 Subject	190
7.8.3 Community	190
7.8.4 Division of Labour	190
7.8.5 Rules	192
7.8.6 Mediating Artifacts	193
7.8.7 Outcomes	195
7.9 Policy Knowledge Management Team Level Activity	195
7.9.1 Object	195
7.9.2 Subject	196
7.9.3 Community	196
7.9.4 Division of Labour	196
7.9.5 Rules	198
7.9.6 Mediating Artifacts	200
7.9.7 Outcomes	201
7.10 Users' Level Activity	202
7.10.1 Object	202
7.10.2 Subject	203
7.10.3 Community	203
7.10.4 Division of Labour	203
7.10.5 Rules	204
7.10.6 Mediating Artifacts	204
7.10.7 Outcomes	205
7.11 Activity Theory Constructs and the Interviewee Groups	206
7.11.1 Object	206

7.11.2 <i>Subject</i>	208
7.11.3 <i>Community</i>	208
7.11.4 <i>Division of Labour</i>	209
7.11.5 <i>Rules</i>	209
7.11.6 <i>Mediating Artifacts</i>	210
7.11.7 <i>Outcomes</i>	210
7.12 Concepts of Emotions, Mood and Legitimacy	210
7.13 Activity Theory and its Limitations	213
7.14 Summary	219
8. Discussion	221
8.1 Introduction	221
8.2 Concept of Role and Activity	221
8.3 Roles within the IT Function	223
8.3.1 <i>Account Managers</i>	227
8.3.2 <i>Senior IT Managers</i>	230
8.3.3 <i>Middle IT Managers</i>	234
8.3.4 <i>IT Teams</i>	236
8.3.5 <i>Users</i>	237
8.4 Outsourcing	239
8.5 Summary	247
9. Conclusion	249
9.1 Thesis Synopsis	249
9.2 Research Contributions	251
9.2.1 <i>Theoretical Contributions</i>	252
9.2.2 <i>Methodological Contributions</i>	256
9.2.3 <i>Practical Contributions</i>	258
9.3 Research Limitations	263
9.3.1 <i>Theoretical Limitations</i>	263
9.3.2 <i>Methodological Limitations</i>	263
9.3.3 <i>Practical Limitations</i>	265
9.4 Further Research	265
9.4.1 <i>Further Theoretical Research</i>	265
9.4.2 <i>Further Methodological Research</i>	266
9.4.3 <i>Further Practical Research</i>	266
9.5 Concluding Remarks	267

Appendix 1	268
Appendix 2	274
Bibliography	290

List of Abbreviations

ANT – Actor Network Theory
BBC – British Broadcasting Corporation
BPR – Business Process Re-engineering
CEO – Chief Executive Officer
CIO – Chief Information Officer
CORMS – Corporate Occupational Risk Management Systems
CSCW - Computer Supported Cooperative Work
CTO – Chief Technology Officer
DMI - Digital Media Initiative
DMS – Document Management System
DVD – Digital Video Disc
E – Electronic
FM&T - Future Media and Technology
HCI – Human Computer Interaction
HQ – Headquarters
HR – Human Resources
HSS Net – Health, Safety and Security Intranet Site
ICT – Information and Communications Technology
IS – Information Systems
IT – Information Technology
LAN – Local Area Network
MIS – Management Information Systems
ORM - Occupational Risk Management
PA – Personal Assistant
PAC - Public Accounts Committee
PC – Personal computer
PDA – Personal Digital Assistant
PKMT - Policy Knowledge Management Team
PMO – Programme Management Office
SLA – Service Level Agreement
TD – Technology Direction
TV – Television
XDA – Phone and PDA

List of Figures and Tables

Figure 2.1 – Role set (Handy, 1985).

Figure 2.2 – Technology push and competitive pull (Scott Morton, 1991).

Figure 3.1 – Mediated relationship at individual level (cited in Kuutti, 1995).

Figure 3.2 – Model of an activity system (Engestrom, 1999).

Figure 3.3 - Hierarchical levels of an activity (Kuutti, 1995).

Figure 3.4 - Hierarchical levels of human activity (Gonzalez et al, 2009).

Figure 4.1 – Elements informing one another (Crotty, 1998).

Figure 4.2 – BBC’s major milestones timeline.

Figure 4.3 – ORM work structure.

Figure 4.4 – Hierarchy of IT function structure.

Figure 4.5 – Timeline and number of interviews.

Figure 5.1 – Timeline and number of interviews.

Figure 5.2 - Before Siemens outsourcing contract, pre-2004.

Figure 5.3 - After Siemens outsourcing contract, post-2004.

Figure 5.4 – Structure of interviewees.

Figure 6.1 – Timeline and number of interviews.

Figure 7.1 – Model of an activity system (Engestrom, 1999).

Figure 7.2 – BBC’s high level IT story depicted as an activity system diagram.

Figure 7.3 – BBC organisational level activity system.

Figure 7.4 – BBC IT outsourcing activity system.

Figure 7.5 – Siemens Account Manager’s activity system.

Figure 7.6 – BBC Account Manager’s activity system.

Figure 7.7 – Senior IT managers’ activity system.

Figure 7.8 – Middle IT managers’ activity system.

Figure 7.9 – PKMT’s activity system.

Figure 7.10 – Users’ activity system.

Figure 7.11 – New altered activity system.

Table 2.1 - Timeline of the outsourcing trend (Lee et al, 2003).

Table 4.1 – Checklist for case studies (Benbasat et al, 1987).

Table 5.1 – BBC outsourcing: the contract between the BBC and Siemens Business Service (House of Commons Committee of Public Accounts, 2007).

Table 7.1 – Interview summary.

Table 7.2 - Mediating artifacts hierarchy (Collins et al, 2009).

Table 8.1 – BBC’s Willcocks’ and Cullen’s scorecard (Willcocks & Cullen, 2007).

Table 8.2 - BBC’s capabilities (cited in Willcocks & Craig, 2007).

1. Introduction

“A journey of a thousand miles must begin with a single step.” Lao Tzu

The quest of learning is a life long journey, and the thesis is that small single step towards attaining minute knowledge. The thesis focused on two main subject areas, total domestic outsourcing and the changing role of the IT function. These two subjects have oceans of knowledge and depth, and the thesis is a small drop in those oceans.

“The Influence of Total Domestic Outsourcing on the Role of the IT Function: A Case Study of the BBC.” In order to answer the questions of what, how and why total domestic outsourcing affects the role of the IT function, the introduction chapter provides some background on the study, and to answer why it is an important subject. It moves on to the research questions, answering how the questions arose and their significance. Finally a breakdown of the thesis is provided, chapter by chapter.

1.1 Background of the Project

One of the prominent themes of the research was outsourcing. Much has been written about outsourcing, from the type of outsourcing, domestic outsourcing or offshoring, to the management options, short term tactical steps or long term strategic decisions. IT outsourcing has grown over the past thirty years to become a major industry. It can be seen as “the commissioning of third-party management of IT assets, people and/or activities to required result” (Willcocks & Fitzgerald 1993, p.224) and it usually involves some transfer of assets and staff to the vendor. As such, it has probably had a considerable impact on the role of the IT function.

Outsourcing, and in particular the use of contractors is not a new concept. Many organisations in the 1970s would employ contractors as programmers, and system integrators to oversee projects. With outsourcing, organisations are used for similar reasons as the contractors in the 1970s - to review the IT function and offer advice on strategic planning, methodology consulting and restructuring (Gallivan, 1994). The timeline of the outsourcing trend was: 1960s, the focus was on hardware, and the approach was on services and facility management. In 1970s, the focus was on software and the approach was facility/operations management. In the 1980s, the focal points were hardware and software standardisation, and the approach was on customisation

management. In the 1990s, the centre was on total solutions, and the approach taken was asset management. The 2000s saw the focus on total solutions to projects, and the approach was cost savings via offshoring. However, during the 2000s some organisations brought the technology services back in-house or to the UK.

The other prominent theme was the changing role of the IT function. This has been an issue for researchers and practitioners since the early days of information systems. The role of IT has changed considerably over the years, from basic administrative data processing to the central focus of enabling strategic processes. “The growing importance of information, coupled with the increased distribution of technology to knowledgeable users, has both IT professionals and business managers re-examining the role of the IT unit. Some wonder whether there will even be a role for the IT function” (Rockart et al, 1996). The reading revealed the considerable changes that have taken place over the last 30 years in the role of the IT function. The IT department over the years has moved from a traditional manufacturing role, where the department would be involved in software development and maintenance, computer operations, and technical services, to a more services orientated role.

1.1.1 A Brief History: Role of the IT Function

Large organisations’ IT functions have typically grown from the finance department and experienced end user computing, strategic information systems and outsourcing along the way. They have changed a great deal in terms of the people, technology, structure and processes employed, and it is reasonable to assume that this history has influenced their present role. This section provides an introductory sketch, based on the literature, of generally how the IT function has changed through history, although the dates shown here are approximates.

1960s/70s

The key issue of the time was organisational efficiency and this was achieved through the use of batch processing with central mainframes. The operational research and management science academics and practitioners were technically competent, enthusiastic and confident that their discipline would be transformed from an art to a science (Somogyi & Galliers, 1987).

By the late 1960s many large organisations had acquired large mainframe computers. The era was characterised by the notion 'big was beautiful'. The majority of organisations had huge centralised installations operating remotely from the users and business (Somogyi & Galliers, 1987). The problems with the computerised systems were that although cost was saved on clerical/administration employees, this was offset by the cost of employing highly specialised IT personnel.

In the early 1970s the information management strategy (if it existed in organisations), would have manifested in the form of a management standards manual. Many organisations in the 1970s were improving their management of data processing in a classical control manner. At the end of the 1970s minicomputers began to appear on the shop floor and databases were introduced. They were seen as flexible and cheaper than the mainframes (Somogyi & Galliers, 1987). The idea of a functional strategy for IT was gaining attention (Earl, 1989).

1980s

There was no field entitled 'telecommunications and business policy (strategic management).' Discussions on the impact of communications technology usually focused on hardware, public policy and regulation, or on specific applications such as office automation, teleconferencing, and electronic banking (Keen 1981, cited in Scott Morton 1991, p.124). There was an emergence of the vital linkages between strategic management and IT, the notion of IT providing strategic competitive advantage.

The responsibility of efficiency shifted to the effectiveness of the individual user. The foremost facilitators in achieving this were PCs and packages. The PCs led to the phenomenon of end user computing, and then the emergence of LANs.

1990s

The business strategy moved towards gaining competitive advantage and transformation of organisations to become knowledge based. The buzzword of the time was 'knowledge'. Organisations were knowledge firms, using knowledge management, through the use of knowledge sharing and knowledge systems.

Outsourcing and Business Process Re-engineering (BPR) were major strategies used by firms to reduce costs and gain IT efficiency. This was assisted through the utilisation of

networks. The role of the IT function during this period was strategic, infrastructural, consultant led and based on the coordination of systems. The development of high performance, high reliability, communication networks, both intraorganisationally and interorganisationally, occurred at a fast pace. Simultaneously, hardware and software technologies were evolving to the state where it was possible to maintain extensive amounts of information online and to be able to access it from almost any location (Scott Morton, 1991).

2000s

It seems as though everyone was looking towards the electronic ('E'), and this was driven through the use of the Internet. Initially the Internet implied an increased role for the IT function in promoting and applying an extremely pervasive new technology throughout the organisation.

It has also been argued that in the 2000s IT was beginning to be seen as a mature technology, it had become a commodity, and its strategic importance had diminished, similar to electricity. Initially with the Internet there was the possibility of competitive advantage, but soon all firms gained access to the Web (Carr, 2003). The role of the IT function in 2000s was said to have shifted to the efficient control of resources.

Overview

The rapid advance in technology and the growth in the range of applications had placed considerable demands on IT management. The role and structure of IT/IS departments had to adapt to realise the opportunities and control the risks. Most IT departments currently carry out business support, information resource management and infrastructure work. The IT department, along with the organisation has experienced a culture change. The primary cause of the IT change is the changing business environment. Over the past two decades, organisations have faced increased competition, and dynamic markets. This has led to continuous change and uncertainty.

1.2 Research Questions

In terms of outsourcing, much on the topic has been written about, from total domestic outsourcing to global offshoring. Academics such as Willcocks, Fitzgerald, Lacity and Hirschheim have provided management advice and lessons learned to the academic profession and practitioners within industry. With the vast amount of literature

available on outsourcing from academia and industry papers, have practitioners adopted the advice provided? Have they stopped making the same mistakes as the previous generations of outsourcers?

Outsourcing has matured, in particular total domestic outsourcing, however there has been little follow up on cases. What has happened to the total domestic outsourcing almost a decade after all the academic interest? There is a gap in current literature with the topic. The domestic outsourcing subject has been taken over by offshoring, however large domestic outsourcing ten year contracts continue to be signed, and therefore an in-depth case study is required to view what has changed, if anything has changed at all.

Little is known about what is happening currently in the IT functions, there is a gap in the literature. Furthermore, there is now an opportunity to find out how this somewhat 'bumpy' history is represented in today's IT function. In recent years, many papers have been written around the topic but they tend to be fairly prescriptive; for example, dealing with the role of the CIO, and there have been few recent empirical studies. Significant changes in the organisational IT environment, such as outsourcing and end user computing, are necessarily reflected in the changing role of the IT function but little is known about what is currently happening in organisations.

A focus on the role of the IT function necessitates a precise treatment of the notion of 'role' that goes beyond its normal everyday usage. The literature of social and organisational psychology to strengthen our understanding of this concept is required. It is argued that a person's role has much to do with a person's behaviour, i.e. 'what' they do and 'why'. A greater insight in to the current role of the IT function is important not only for a better understanding of the organisational application of information systems but also in terms of the current and future skill requirements for industry. Thus, this research will interest not only researchers in the field but also educators and practitioners.

The review of the literature illustrates the changing role of both IT and the IT function within organisations as the technology and the environment changed over the years. Particularly noteworthy are the trends concerning end user computing and outsourcing, which have clearly impacted the role of the IT function significantly, such that user

support (through end user computing) and outsourcing remain key issues for senior IT managers.

However, much of the literature concerning the role of the IT function in user organisations is either old or highly prescriptive (with little empirical base) or focuses on a particular aspect, such as outsourcing. There are very few rich in-depth studies concerning this important issue. The overall research questions asked: “What is the influence of total domestic IT outsourcing on the role of the IT function?” “What is the current role of the IT function in a user organisation after outsourcing?” A user organisation is one that is not a specialist technology provider.

This research question can be broken down in to various sub-questions:

- How has the role of the IT function changed in recent years?
 - What influenced this change?
 - How was the change implemented?
- What are the key policies, processes and activities?
 - How have they changed in recent years?
- What is the size and skill set of staff within the IT function?
 - How is the IT function structured?
 - How have they changed in recent years?
 - How are relationships with users and vendors managed?
- How has history and institutionalisation affected the IT function?
 - Institutionalisation implying organisation culture, structure and processes.

1.3 Thesis Structure

A review of the literature concerning the role of the IT function in user organisations revealed a gap of recent in-depth studies, although there is widespread agreement the role has changed significantly over the years through trends such as end user computing and outsourcing, as well as changes in the overall business environment. In order to fill this important gap, the research proposed is to carry out a detailed study in a large user organisation.

The literature review details the concept of ‘role,’ and is a much richer and more precise definition than its everyday usage and included aspects of behaviour, perception, culture and social construction. The chapter moves on to review the role of IT; the definition of

IT has been debated, however IT is so dynamic, that by the time it is defined, it would be out of date. Next, the IT function was investigated, the centralisation vs. decentralisation debate formed the foundation of what the optimal structure is for the function. The role of the IT function is constantly changing, and the ideal key roles for the function are prescribed by Rockart et al (1996) and Feeny and Willcocks (1998), in order to provide the optimum output from the function. Finally, a brief introduction to outsourcing is offered, specifically the management issues of the contracts and service level agreements, risks, types of relationships between organisations and personnel.

The next chapter is the theoretical framework selection. A number of theories are defined; Actor Network Theory, Activity Theory and New Institutionalism. It was proposed that the role of the IT function can be conceptualised as the agglomerate of the roles of the IT people and, furthermore, it can be investigated through the use of Activity Theory. The latter provides a comprehensive and systematic way of examining roles. Activity Theory was further justified by demonstrating the use of the theory with the research itself, and the concepts of role and history.

Next, is the methodology chapter. Various forms of epistemology and ontology are explored. The justification for opting for subjectivism as the epistemology and realism as the ontology are explained at length. The following section is the methodology options. There are a number of methodologies that seem to be a good fit for the research; action research, historical study, longitudinal study and case study. All the options are detailed and why they could fit the thesis. Case study was selected and its justification was presented. The proposal argues for the use of a single in-depth qualitative interpretive case study in a large organisation. The organisation chosen was the British Broadcasting Corporation (BBC), mostly on the grounds that access was secured. An outline research design was produced that helped to answer the research question: "What is the role of the IT function in a user organisation and what influence does outsourcing have on the role of the IT function?" The chapter moves forward by introducing the host organisation, and giving the reader some background knowledge. The methods of data collection are presented, as well as the reasons for their use. The final section provides information on how the analysis was conducted using the methods and its tools.

Following on from the methodology chapter are the findings chapters. The findings have been split in to two. Chapter five focuses on the findings based on the outsourcing subject. It provides some background on how the Siemens contract was attained. The BBC had looked in to outsourcing previously, but decided to keep technology function in-house. Historical data was used to compile the background story that led to the Siemens contract. It proceeds on to the views and beliefs of outsourcing, and its affects on the interviewee groups – users, senior IT managers, and both account managers. Chapter six focuses on the findings based on the influences of the outsourcing, IT centralisation and organisation restructure. The interviewee groups (users, department IT team, middle IT managers and senior IT managers) tell their stories of how the outsourcing has directly affected them. Every staff member was affected by the outsourcing in some form, from change of process for IT support to being made redundant.

Chapter seven is the analysis section. The data collated is made sense of through the Activity Theory lens. Initially, the reader is presented the organisational and outsourcing information at a high level. This gives a broad picture of what was happening. The analysis then drills down the organisation structure through all the interviewee groups (users, department IT team, middle IT managers, senior IT managers and both account managers) to detail what was happening, why, and the interviewees' activities that were being carried out. The interviewees and their activities all led to the role of the IT function and what was happening within it. The chapter moves on to the Activity Theory's activity system constructs and how they worked with the interviewee groups, and through the analysis what new interesting features are presented. Finally, the Activity Theory and its limitations are given, and through it the theoretical contributions.

The penultimate chapter is the discussion segment, and the outcome of this section is to find meaningful contributions to the academic and practitioners' knowledge base. The rich concept of role used in the study and the definition of activity in Activity Theory are discussed and how they both complement each other. It then proceeds to the roles within the IT function, where the interviewee groups and the generalisable contributions for those groups are presented. This section takes forward the roles in IT, particularly those prescribed by Rockart et al (1996), and Feeny and Willcocks (1998), and shows if they continue to be relevant and if any changes have occurred. The final section focuses

on the outsourcing topic, and what was learned through the case study, but also if the academic advice continues to hold true.

The last chapter is the conclusion chapter. The aim of this chapter is to summarise the findings and contributions of the total thesis. The synopsis of each chapter is presented. It then proceeds on to the research contributions, divided by literature, theoretical, methodological and practical contributions. It moves on to the research limitations. All work has some issues, and it is important to recognise the problems and shortcomings. The limitations are partitioned by theoretical, methodological and practical limitations. The final section of the chapter looks ahead to further research that can be conducted. All research raises questions and it should be clarified that further research could enhance the current knowledge base. The researcher found further research areas in the theory, methodology and practice. The overall contributions of the study are:

- Extend our knowledge of outsourcing and the changing role of the IT function.
- To fill the gap in the literature.
- To view the long term affects of organisational IT strategy and decisions.
- To add to the body of literature of Activity Theory.
- Provide further guidance (decisions, suitable structures, policies, etc.) on IT functions to practitioners.

1.4 Summary

The introduction chapter highlighted the significance of the research areas and question, “what is the influence of total domestic IT outsourcing on the role of the IT function?” It went in to detail on why it is important. There has been a gap in literature on total domestic outsourcing of some years, and whether industry has taken any notes on management practice prescribed by academic such as Willcocks, Fitzgerald, Lacity and Hirschheim. The other part of the question relies on the state of the role of the IT function. Much has occurred over the years, e.g. Internet and mobile technology, and how have all these issues played their part in influencing the role of the IT function. The final segment of the introduction provided a synopsis of the structure of the thesis.

The next chapter is the literature review. A foundation of current knowledge on role, role of IT, role of IT function and outsourcing is presented. Its aim is to provide the reader with some existing knowledge available and for the research to build upon. The concept of role for the research is discussed and selected. IT, role of the IT function and

the changing role of the IT function are presented, as well as management practices within organisations. Finally outsourcing is examined, various case examples are presented and prescriptions for management when considering outsourcing by academics.

2. Literature Review

"The more extensive a man's knowledge of what has been done, the greater will be his power of knowing what to do." Benjamin Disraeli

2.1 Introduction

The research seems straightforward, however it encapsulates a myriad of topics: How does outsourcing influence the role of the information technology (IT) function and it includes areas of role, role of information technology, information technology function and outsourcing. These topics are the foundations for basing the research upon. The chapter's aim is to give a broad understanding of the foundation of existing literature. The topics are themselves highly detailed, however the chapter only gives a flavour of them. It sets a benchmark for the research to add upon. Outsourcing is a huge topic in itself therefore in terms of the research only domestic total outsourcing literature is presented.

The first section opens with the definition of role. One would think that this is a simple task, however role is a complex concept. The history of role's definition is rich and goes back to ancient Rome. In the 20th century, sociologists added various angles to role; the idea of culture, perception, enactment and society. The second section discusses the role of IT. IT has many definitions and one of the reasons for this is that IT is dynamic and has changed so much through its short history that the term cannot be static. A brief history of IT is presented and then it moves to more recent academic work tackling 'what is IT'? As well as the definition, positive and negative perspectives on IT are presented. The third section examines the role of the IT function. This section brings the two previous sections together, as it reviews the role of IT in organisations. The structure of the IT function changes to the definition of IT within the organisation. The section reviews the different IT function models organisations have adopted from 1970s – 2000s, and why those models were appropriate at the time. The next segment discusses the changing role of the IT function. There are various IT function models adopted in organisations, but there are many management practices and "rules" that academics feel should be adhered to in order to get the maximum out from the IT function. The final section endeavours to provide an overview of total domestic outsourcing. A brief history of outsourcing from 1960s to present day is presented along with examples of case studies pertinent at the time. The management best

practices of the time are also highlighted. The section ends with well known academics providing prescriptions for organisations considering outsourcing.

This chapter is relevant to the thesis as it sets the tone on the concept of roles and the total domestic outsourcing phenomenon. Both areas are defined and detailed to provide the reader background to the study. The notion of role is important, many studies use the term in a generic manner, and no formal definition is provided, however this study wants to get in to the heart of the definition, and utilise it through the thesis. The concepts of role enactment, perception and behaviours will come in to play throughout the study. For this reason, the next section defines and discusses the concept of role.

2.2 Role

The standard definition of role is “1): a character assigned or assumed 2): a socially expected behaviour pattern usually determined by an individual's status in a particular society” or “a function or part performed especially in a particular operation or process” according to the Merriam Webster Dictionary (2004). The Oxford English Dictionary (2004) defines it as “a person’s or thing’s function.” The term ‘role’ has an interesting history of usage, which Moreno has summarised:

“Role” originally a French word which penetrated in to English is derived from the Latin *rotula* (the little wheel, or a round log, the diminutive of *rota*-wheel). In antiquity it was used, originally, only to designate a round wooden roll on which sheets of parchment were fastened so as to smoothly roll them around it since otherwise the sheets would break or crumble. From this came the word for an assemblage of such leaves in to a scroll or book-like composite. This was used, subsequently, to mean any official volume of papers pertaining to law courts, as in France, or to government, as for instance in England: rolls of Parliament – the minutes or proceedings. Whereas in Greece and also in ancient Rome the parts in the theatre were written on the above mentioned “rolls” and read by the prompters to the actors (who tried to memorise their part), this fixation of the word appears to be lost in the more illiterate periods of the early and middle centuries of the Dark Ages, for their public presentation of church plays by laymen. Only towards the sixteenth and seventeenth centuries, with the emergence of the modern stage, the parts of the theatrical characters are read from “roles”, paper fascicles. Whence each scenic “part” becomes a role (Moreno, cited in Thomas & Biddle 1966, p.6).

Moreno presents the reasons for disagreement on the definition of role due to its historical usage. However, the universal common denominator seems to be the notion of behaviour, and in particular, behaviour of specific persons. Role can be defined as “those patterns of behaviour characteristic of certain persons” (Thomas & Biddle, 1966, p.31; Katz & Kahn, 1978). The idea of characteristic being the behaviours performed by the persons designated, e.g. it is characteristic for policemen to stand on corners and direct traffic. In 1945, Linton (cited in Banton 1965) stated “the term role will be used to designate the sum total of the culture patterns associated with a particular status. It thus includes the attitudes, values and behaviour ascribed by the society to any and all persons occupying the status. It can even be extended to include the legitimate expectations of such persons with respect to the behaviour towards them of persons in other statuses within the same system”. This view was accepted by sociologists such as Banton who stood by role behaviour, and the way that people translated their roles in to action.

The concept of role has been split in to three categories by Moreno: 1) psychomatic roles as the sleeper, the eater, the walker; 2) psychodramatic roles as a mother, a teacher, a daughter, etc.; and 3) social roles, the mother, the teacher, the daughter, etc. The genesis of roles went through two stages, role perception and role enactment. Role enactment is considered to be experimental, a method of learning to perform a role. When an individual begins a new job or their existing role changes, they have some perception of what their new role will be. The perception is created by a number of factors, e.g. previous experience, knowledge and script. The role enactment is carried out once the person is in the role. The role perception may be different to the performance of the role, and therefore the person will need to adjust, and learn to execute the new role.

Oeser and Harary (cited in Thomas & Biddle 1966) stated the concept of role does not apply to unique individual personalities nor to persons, but to positions within a structural system that comprises of persons, positions (e.g. a father), and tasks (e.g. earning a living, or repairing the roof). For the purpose of the research, Oeser’s and Harary’s conception can seamlessly be transferred in to the workplace. An example would be studying an IT department within an organisation (structural system) and in particular Mr Smith (person) the CIO (position) making some decision (task).

Sociologists such as Goffman and Stryker proposed that roles are not completely formed or scripted but required the active negotiation of the role occupant with the other participants in the social situation (Fincham & Rhodes, 1988; Reitzes & Mutran, 2002). Using the IT department scenario, if the senior management decided to end the use of Cobol legacy systems and move to new Oracle databases, the decision would affect the Cobol developers. The developers would be required to learn a new coding system. In organisations, roles are not completely independent, other roles and decisions affect the role occupant. There is the notion of “role acquisition”, a process of 1) role taking, learning the shared meanings of roles, and 2) role making, negotiating role boundaries to reflect personal and unique meanings (Turner 1956, cited in Reitzes & Mutran 2002). Role making includes self-motives, concerns, and interests.

The role itself and role behaviour are distinguishable units, argued Fincham and Rhodes (1988). The role itself is structured (similar to a script), and behaviour in a role can be altered by the expressive concerns of individuals (similar to how an actor interprets a part). For example, a new manager may want to be the most popular or the most innovative manager in an organisation. In this example, roles provide an arena for the interplay of the practical requirements that need to be met and the individuals own expressive concerns.

In the organisational form, roles are standardised patterns of behaviour required from all people playing a part in a functional relationship, regardless of the personal wishes or obligations. In terms of organisations and roles within an establishment, structural sociologists such as Perrow argued that in the design and analysis of organisations it made sense to concentrate on the “roles people play rather than the personalities in the roles” (Perrow 1970, cited in Robertson & Cooper 1983, p.8). Other sociologists, such as Arygris, argued that consideration should be given to individual personalities. The use of organisation charts suggests there may be some value in making a distinction between organisational roles and the individuals who fill them (Robertson & Cooper, 1983). During the analysis phase it may make sense to focus on the individual personality. This literature review presents cases where IT departments become effective or successful due to the CIO making a decision “out of the box”. A motivational or charismatic senior manager can help the change to be smoother. He/she can persuade the staff that the correct decision has been taken. Sociologists such as

Handy, looked at roles within groups, that roles are dependent on other people - what they think should be done, and how they think it should be carried out.

An individual's role is a combination of the role expectations that members of the role set have of the focal role (Handy, 1985). According to Handy (1985) the person's performance is influenced by the forces in the person (personality, attributes and skills) and the forces in the situation. The focal person's role set can be viewed as a spider's web, where the focal role is in the centre and interacting with others. The focal person performs differently in each relationship interaction, however each relationship has expectations of behaviour on the focal person.

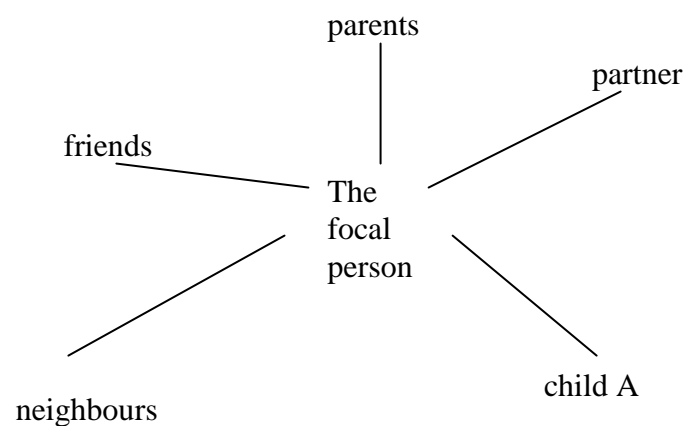


Figure 2.1 – Role set (Handy, 1985).

A role was viewed as social, and interbehaviour was an important element according to Sarbin and Allen (1968), it followed Kantor's view that the occupant of one social role interbehaves with the occupants of complementary social positions. The total of the complementary roles related to a given role was known as a role set. The role expectations lead to the person's conduct whilst the role is enacted. By specifying "how", "should", and "is" ensures that the enactment is appropriate. Overall role expectations can be seen as specifications for adherence to group norms. The role behaviour should occur at the correct time and place. People find it difficult to escape from the role that cultural traditions have defined, e.g. doctors' role behaviour is constrained if people are in that role of a long period, it becomes part of them, part of their personality.

One of the main strengths of a formal organisation is its constancy under conditions of continuous turnover of employees. Since the units of the organisation are not linked

physically, they must be connected psychologically. The organisation consists of patterned and motivated acts of humans, and they will continue to exist as long as the attitudes, beliefs, perceptions, habits and expectations of humans evoke the required motivation and behaviour. In other words, each behavioural element is to a greater extent caused and secured by the others (Katz & Kahn, 1978). This can be exhibited in the workplace, as people bend the rules or do not use official channels to complete tasks, e.g. IT users go directly to one person they know to fix a PC support issue, rather than going through the support helpline, and the support staff may be happy to fix small problems this way. This follows Handy's (1985) definition of role set, that others can impose role expectations on other people, and that the expected behaviours become part of the role set. The organisation can be divided into offices. Associated with each office is a set of expected behaviours. The activities constitute the role to be performed by any person who occupies that office.

The efficiency and effectiveness of organisations rely on employees presenting dependable role behaviour. However, it is impossible for organisations to specify the complete prescriptions associated with a role. Instead, they rely on the socialisation of employees for jobs, including the learning of general scripts for work behaviour. Scripts are plans or structures that state the appropriate sequences of events in a specific context. An example of a script is a university professor's script for the delivery of a lecture. Scripts serve a number of important functions:

- Enable an individual to organise previous knowledge and to know the behaviours appropriate in particular situations.
- Allow individuals to "fill in gaps" that are not explicitly given in a particular situation.

When an individual adopts a script as a guide for behaviour in a given situation, they behave in accordance with the roles inherent within the script (Stone-Romero et al, 2003). It is important to recognise that scripts are socially and jointly constructed. For example, a professor does not generally need to tell the students to take their seats at the beginning of the lecture. The student script involves taking seats at the start of the lesson and the students recognise their sitting area is different from the professor's teaching area, the social and historical behaviours come in to play.

In the office scenario, role ambiguity means uncertainty regarding what the occupant of the office is supposed to do. There may be uncertainty over particular aspects of a role, including the membership of the role set (e.g. superiors, colleagues), the ends to be served by role enactment, and evaluation of present role behaviour (Katz & Kahn, 1978). The majority of roles in the IT industry are fairly ambiguous, the role of an IT consultant in one organisation may be completely different to an IT consultant in another establishment. The boundaries of work may not be very clear. For example in end user computing departments, the IT team within the department may support and maintain a particular system, but it is not their role to look after the organisation networks. A problem with end user computing can be that the IT team is bombarded with network problems, such as forgotten passwords, and the users expect the department IT team to resolve the issues. The scripts in these situations are not strongly embedded in the organisations, and this leads to the role perception being incorrect.

The research will use Handy's concepts of role perception and role enactment in the workplace, the idea that other's perceptions can lead to role enactment on the focal person. Goffman's and Stryker's idea of roles not being completely formed or scripted as part of the role enactment will also enter the research.

2.3 Role of Information Technology

The term 'information technology' has various definitions. Earl (1989) defined IT as comprising computers, telecommunications, and automation technologies. He went further to show other aspects of IT – as an activity, it consisted of the supply, development and use activities in which an organisation had to be involved with if it wished to exploit the technologies to its advantage. IT should be viewed beyond an automating or mechanising force, and it can fundamentally reshape the way business is conducted. It was seen as a strategic catalyst and enabler of process reengineering. Specifically when Internet based applications became pervasive in organisations, this consideration became important (Wu, 2002). The history of IT, although being a fairly young industry, is huge and complex with many differing lenses to view it from. Much has been studied on the subject, e.g. the dynamic technology itself (from computers to mobile technology), organisational behaviour and operations, management, and effects on society (taking in to account economics, sociology, and psychology), all of which adds to its complexity.

“Information technology will change the world more permanently and more profoundly than any technology so far seen in history and will bring about a transformation of civilisation to match” (Diebold 1984, cited in Scott Morton 1991, p.124). The theme of the quote is not unique. Nevertheless, it emphasised the impact of IT capabilities on the economy. Even if one does not agree entirely with this stance, it is clear managers should evaluate the emerging role and implications of IT for strategic management (Scott Morton, 1991; Currie, 1995). IT has moved beyond the administrative function towards a central role of business operations (Loh & Venkatraman, 1992). The main assumptions underlying the role of IT in knowledge firms is that it enables value creation by assisting creation, transfer, integration and leverage of knowledge resources across the business units of an organisation (Tanriverdi, 2004). There are many academics and practitioners that have a positive view of IT, such as Olson (1984), however there are others that have a negative view, such as Carr (2003). He believes that IT is losing its value in the strategic sense, that it cannot assist an organisation in gaining strong competitive advantages as the cost and availability of IT is decreasing. IT is a commodity, similar to electricity.

Some academics argue the traits and uses of information make the role of IT inherently different from that of other technologies. Beniger (1986, cited in Scott Morton 1991) states that information is powerful because it can be used to control production processes. Malone (1988, cited in Scott Morton 1991) views IT as a coordinating technology. Zuboff (1988, cited in Scott Morton 1991) argues that IT does not only automate, but also informs – generates masses of useful information previously unavailable to the organisation. These views differ from Carr (2003) that IT is losing its strategic importance.

A frequently raised issue is whether information increases management's control over the work force, or empowers the work force to make improvements in their responsibilities (Scott Morton, 1991). Scott Morton argues that the effective exploitation of IT can lead to significant changes in organisational strategy, management structure, systems and processes. He states the emerging definition of the role for IT within organisations is the result of the convergence of two forces – technology push and competitive pull. The diagram is shown:

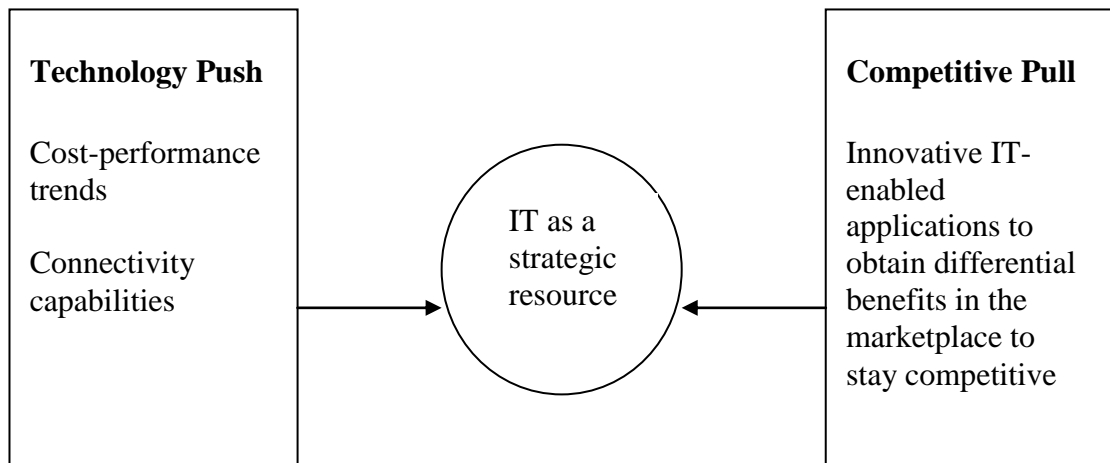


Figure 2.2 – Technology push and competitive pull (Scott Morton, 1991).

2.3.1 Recent Issues

IT is seen as having many issues; software crashing, hardware breaking, network traffic, viruses bringing systems down, data becoming corrupt, and users using systems in the way designers never imagined. The daily operational work processes evolve, communication links are restructured, and strategies change. IT is complex. Despite the complexities, individuals, organisations and societies increasingly depend on IT to provide services and capabilities (Butler & Gray, 2006). It is the dependency on IT that many view as negative. The increasing dependency on IT has fuelled much debate, not only in academia but also in society. The issues have led to many science fiction films showing Earth being powered by technology, and although the films are set far in to the future, people are seeing the seeds being sown at present.

Hirschheim et al (2003) feels in organisations the main problem with the role of IT has been corporate management's lack of understanding of IT. Executives are unaware of what can realistically be achieved by IT. Their perceptions of IT do not match reality.

After almost five decades, IT continues to be considered an overhead. The executives grow weary of IT's incomplete promises to gain competitive advantage, enable business transformation, reduce costs, and improve customer service. News stories and research show negative cases of IT, and these have appeared to influence senior management. An example would be the 2008 London Stock Exchange computer crash that seized trading for 7 hours.

The negative perception of IT is not new. In the 1960s, Andrew Pettigrew wrote that a senior manager described the IT department as a "bunch of techies" that had to be separated from the rest of the organisation because they were too different. The manager's solution was to "build a wall around the computer department," to reduce the interaction between them and the rest of the organisation. He understood that an IT department was essential, but he felt that the people working in IT were so different from the rest of the people within the organisation that they needed to be left alone (Hirschheim et al, 2003). Forty years on, researchers continue to find this attitude.

According to several researchers, one way of highlighting the IT perception problem is to view it from a service quality issue (Pitt et al 1995, cited in Hirschheim et al 2003). Service quality is based on a comparison of what the customer feels should be offered and what is actually provided. Another view is that service quality is the gap between customers' perceptions and expectations. Rushinek and Rushinek (cited in Hirschheim et al 2003) conclude that fulfilled user expectations have a strong effect on overall satisfaction. The IT function suffers from the high expectations set upon them from top management (Ibid).

2.4 Information Technology Function

After twenty plus years of research, the question 'how should contemporary firms organise their IT function?' remains unanswered. Throughout the 1970s and 1980s, organisations alternated between the centralised and decentralised models. During the 1990s, numerous organisations moved towards the federal model, in which control and authority for IT decisions were dispersed. The corporate IT groups were given authority for IT infrastructure, whilst the divisional units had the authority for the strategic deployment of IT. A number of researchers conclude this model of distributed governance and decision-authority is appropriate for huge, multidivisional organisations because it balances business priorities for scale and IT standardisation with the

divisional priorities for IT innovation in their products, services, or customer relationships (Agarwal & Sambamurthy, 2002). Organisation designs are one of the key factors for building and sustaining IT function capabilities (Clark et al, 1997). The designs are the forms of organisation and IT department structures. There are many types of structures, and in practice the organisations tend to be hybrids.

According to Earl (1989), the term infrastructure encapsulated the processing power of technology, highways of telecommunications, the foundations of data, and the fabric of basic business systems. Whilst the technologists advised on and recommended infrastructure plans and policies, it was the executive management that had the strategic responsibility to approve them, and be kept up to date on the technology matters.

In the 21st century, IT plays a greater prominent role in corporate agility. It acts as an enabler to rapid and continual business innovation in products, services, channels, and supply and demand chain management. Hence, the heavy investment in enterprise digital platforms (such as enterprise resource planning and customer relationship management) to support innovations in the organisation's "ecosystems" – their business partnerships with customers, suppliers, and other firms. The accelerated rates of technological change and obsolescence in the IT market require models to pay close attention to human capital and relationships with other key organisations (Agarwal & Sambamurthy, 2002).

Clearly as the role of the IT function has changed, so too has its internal structure and the distribution of functions between the IT department, user departments and vendors – and their coordination. Agarwal and Sambamurthy (2002) uncover three organisational models for the IT function. The models are seen as benchmarks or archetypes for executive management to consider when reassessing the organisation's design: Partner Model – IT is an active partner in business innovation. Business leadership in IT innovation occurs through the divisional information officers. The corporate IT department acts as a catalyst for innovation through strategic consulting. The models work where there is a need to promote business innovation through IT, the business executives lack a deep understanding of IT, the organisations have multiple related businesses and there is a strong IT leadership; Platform Model – IT provides the assets, services and resources for business innovation across the organisation. The IT department is viewed as a factory, delivering scalable, seamless and flexible

infrastructure. IT managers liaise with business units. The model works where there are global businesses in multiple lines of business and there is a strong knowledge of IT among business managers; Scalable Model – IT provides flexible and scalable resources for the business. The IT department is centralised for leveragability. There is a strong IT presence in the business units. The model works where there are global businesses in related lines of business, and in cyclical industries.

There is no single best IT organisational structure because IT needs to react to the unique environment in which it exists. The models are benchmarks for executives to consider when assessing the organisation design. The executives are required to view the nature of the business, understand the industry environment, and look at the IT sophistication and knowledge in the business units – all these should point to one of the three models as the appropriate. The IT function needs to continue to reassess and adapt its design to ensure relevance. Organisational designs should not be static (Agarwal & Sambamurthy, 2002).

Time also plays a part - how should the IT staff divide their time between maintenance and new system development? The motivation aspect enters in to the issue, Cougar and Colter (cited in Swanson & Beath 1990) found that development work has higher motivating potential than maintenance work. This has led some organisations to separate the development and maintenance roles in to different departments. Many organisations have gone further to outsource the maintenance work, hoping for productivity gains. Within the time aspect, there is also the issue of manager's attention across many diverse markets and activities, where each one has the potential to make a transformation (Feeny & Willcocks, 1998). Good organisation design makes a difference in IT, but organisation design is more than organisation structure. The benefits of separating the IT unit is dependent on good management, particularly at the top, and it is important to recognise and reward its members (Swanson & Beath, 1990).

Cross et al (1997) studied Bell Atlantic and how the organisation transformed its IT department. A new CEO and CIO were appointed, together they opted for radical changes. A centre of excellence was set up to house the IT personnel. The staff in the centre had proficient level of popular skills of the time. The staff would be contracted out to various projects as required. The hierarchical structure of the IT department was altered to become a flatter organisation. New reward and appraisal systems were set so

that individuals could have greater control of their career, and the organisation would also benefit from motivated staff. The transformation was not straightforward; staff had anxieties, processes needed to be modified, and structure and function of the IT department required change.

Another term for the contemporary organisation is 'boundary less'. It focuses on the notion of diminishing organisational structures. The formal structures are fading in to the background. The informal structures (the ones that emerge rather than those mandated) are gaining greater importance. Previous studies have shown that organisations are a combination of 'explicit and implicit values, beliefs and assumptions'. The informal structure cannot be separated from the formal structure because together they bring the organisation's socio-technical systems (including work, technology, people, processes, structures and information). The combination comprises of the various informal structures, connections, and procedures that are used to get work done, such as social networks, communities of practice, cross departmental relationships, unofficial agreed on processes and flexible division of work (Chan, 2002).

The definition of IT alignment ranges from "the fit between an organisation and its strategy, structure, processes, technology and environment" (Kanellis et al, cited in Chan 2002, p.98) to a more a focused meaning such as "convergent intentions, shared understanding, and coordinated procedures" (Reich & Benbasat, cited in Chan 2002, p.98). A well received view is that IT alignment is "the degree to which the information technology mission, objectives, and plans support and are supported by the business mission, objectives, and plans" (Keen, cited in Chan 2002, p.98). According to Chan, IT alignment is best described as a "superset of multiple, simultaneous component alignments that bring together an organisation's structure, strategy, and culture at multiple (IT, business unit, and corporate) levels, with all their inherent demands" (Chan 2002, p.99). Organisations are more dynamic and networked, and they defy the old hierarchical models.

In order for IT alignment to occur, business executives need to intertwine technology and business processes at the beginning. The relationships between business partners and IT executives need to be strengthened. They must be able to share values and have evolving roles. Managers must note that alignment should be viewed as a journey that is not always predictable or rigidly planned. It is the informal and formal organisation

structures working together that allow good IT alignment performance. The two sides of the organisation bring together the organisation's socio-technical systems (work, technology, people, processes, structures and information). Overall, it is the informal structures, connections and procedures people use to get their tasks done, such as social networks, communities of practice and unofficial agreed on processes – these are the important factors for a successful IT alignment placement. Poor business IT alignment can manifest itself in a number of ways:

- Business executives cannot communicate their IT needs.
- IT personnel have limited business knowledge.
- IT investments are likely to be costly and the returns low.
- High potential IT applications may not be identified.
- Business executives that have good ideas, but find it difficult to turn them in to reality.

In organisations that presented these traits, business executives placed IT personnel disguised as business analysts in to departments. However, to retain talented IT employees, the organisations need to challenge and appreciate them (Chan, 2002; Peppard & Ward, 2004). Organisations try to rectify the situation by throwing more money towards IT to compete effectively, but continue to experience sub-optimal performance. Investing heavily in IT also creates higher expectations for success (Currie, 1995; Chan, 2002).

A general consensus is that it is not always necessary to utilise extensive amounts of technology. Good results can be achieved with reasonable amounts of technology (industry average) if correct organisational arrangements are in place. The high tech approach requires customised organisational arrangements. If these are not in place, the overall the results are poorer than if less technology is used. Scott Morton's (1991) findings show that conditions favourable to effective IT utilisation are in place before the IT system is implemented. IT should be pulled in to place by the users rather than pushed by managers. The reasoning behind this is users that have substantial input are more likely to be lined up with organisational arrangements. In order for an IT-enabled strategy to succeed and change the organisation, the managers should have a vision of what the new organisation should be like with regard to its structure, style, and relationships. The strategy approach formalises the role of IT and it should align with the business objectives in order for the organisation to continue successfully.

2.4.1 The Centralisation vs. Decentralisation Debate

The role and structure of the IT function has to be considered against the backdrop of the old dichotomy of centralisation and decentralisation. A universal arrangement has not yet been found. It is evident that technological changes can affect the existing arrangements. A centralised solution is where the “IS responsibility is held totally within a centralised or corporate IS unit” (Brown & Magill 1994, p.373). A decentralised solution is where “the IS responsibility is held totally within business units, resulting in multiple units with IS personnel dispersed throughout a firm” (Brown & Magill 1994, p.373). There are three aspects to the centralisation versus decentralisation issue, according to King (1983):

- Control concerns are at the centre of decision making activities in organisations. Centralisation implies the concentration of the decision making power within an individual or small group, whereas in decentralisation the decisions are made at various levels in the hierarchy.
- Physical location concerns the location of facilities. Centralised physical location has all the facilities in one place, but in decentralised locations the facilities are dispersed.
- There is also the issue of function, referring to the position of an activity or responsibility within the structure of an organisation. For example, a centralised accounting control would require all departments to report to a single unit, whereas in decentralisation, the organisation may establish a number of profit and cost centres with their own accounting activities, and require specific data to be passed to the corporate headquarters.

Centralisation of control preserves the senior management prerogatives in majority of the decisions, whilst decentralisation allows lower level managers discretion in choosing among options. The former strategy is believed to promote continuity in organisational operations, but separates decision making from its environment. If decisions are misguided due to the poor top level understanding of the problem, or are subverted due to poor enforcement at the lower levels, centralisation can be disadvantageous. Decentralisation of control forces the lower level managers to take responsibility for their actions, possibly improving their performance. It also encourages lower level managers to exploit innovative opportunities. It can create problems if the lower level managers are incompetent (Ibid).

Centralisation of physical location capitalises on economies of scale, arising from exploiting the full potential of technologies that allow output to increase faster than costs. The costs of duplicating overheads and facilities are avoided, and organisational protocols are simpler to enforce. The advantages can be outweighed by the costs for organisational communications (including travel costs), transportation of raw materials and finished goods, and maintaining close ties with the customers/clients (King, 1983; Angell & Smithson, 1991).

The centralisation of organisational functions keep performance in line with the organisational protocols and standards, it smoothes the work flow on highly discrete tasks, constrains the labour cost escalation by reducing the need for new employees, and allows close monitoring and modification of work activities to correspond with overall organisational operations. Decentralisation is beneficial when the functions performed require close cooperation with other units, when the tasks being conducted require great worker discretion and less central guidance, or when regular interaction with members require too much commuting (King, 1983).

The traditional models of hierarchy, standardised procedures, functions, responsibility centres and performance management have all been criticised. The basic argument is they serve organisations well in periods of environmental stability, and adjust to cope with occasional shocks, but the present is a continuously changing environment, more flexible and adaptive capabilities are needed and radical change is necessary. Therefore, Cross et al (1997) state organisational transformation have been encouraged, and contemporary practices such as downsizing, outsourcing, delayering and reengineering have emerged.

Organisations such as British Petroleum (BP) radically changed the face of their IT department in the early 1990s. The IT department was downsized to a quarter of its original staff. The IT staff were specialised in various technologies, and if additional staff were required, BP would contract out. The IT staff function changed from systems analysts to business consultants, they had technical and business knowledge, and were seen as flexible and productive (Niederman et al, 1990). If the technical skills were lacking, the gap would be filled by external people. It was a move towards end user computing, but also a centralised IT department (Cross et al, 1997).

Robey (1977) observed that computing appeared to support an existing decentralised structure in organisations with uncertain environments. However, in simpler environments, it seemed to strengthen a centralised authority structure. Robey (Markus & Robey, 1988) recommended that IT should be viewed as a moderating variable, affecting the strength of a causal relationship between environment uncertainty and organisational structure.

Excessive centralisation or decentralisation can create nightmares of frightening proportions, and a middle position seems inevitable, according to Angell & Smithson (1991). To find a balance is very difficult to achieve in practice, and there are no simple answers; the outcome of whether IT favours more centralised or decentralised organisations depends upon the particular situation of the individual organisation (Ibid). It is sometimes believed the issue of centralisation or decentralisation is no longer relevant because it has been much discussed and the conclusion seems to be that organisations should find a balance that works for them (Niederman et al, 1990; Brown & Magill, 1994). IT is required to provide a suitable mix of line and staff functions whilst staying in tune with company strategy, organisational direction, and business cycles. The key is to unlock the value from technology, and this can only be done by business management. The change from IT decentralisation to centralisation continues to be significant, and management continue to debate the optimal balance of this, as will be seen in the case study.

2.5 Changing Role of Information Technology Function

The literature discussed so far demonstrates the changing role of IT as well as some ambiguity regarding the role of IT in today's organisations. For example, in some organisations the specialised IT department serves the organisation, but also provides solutions for external clients, organisations such as the British Broadcasting Corporation (BBC). In other organisations, the IT department has moved from development towards procurement, using off the shelf software, such as IT consultancies during difficult economic periods.

This section suggests that the concept of role is highly complex and difficult to grasp. Nevertheless, the literature provides a sound basis theoretically to proceed with the research as it requires the concept of role to be defined. The notion of role is explored further in this chapter. This also suggests that it is sensible to treat the role of the IT

function as the agglomeration of the roles of the people within that function (developers, senior/middle management, etc).

The IT department can act as a powerful change agent. The department can affect transformation in the organisation by suggesting new business strategies and information based products, and coordinating the development of technology and the planned alterations in the organisation. Changes in organisation also lead towards role change or reinvention pressure. The IT function should also keep a technology watch and observe opportunities or threats from developing technologies. IT departments tend to operate in a complex environment. The function has evolved from controlling information resources to an era where they must account for the growing user influence in IT investment decisions (Gottschalk, 1999).

2.5.1 Overview

One characteristic of the IT era is that IT is viewed as a management function together with finance, marketing, and production. However, the function has many descriptors – information technology, information systems, information services, management services, technology, management systems, and management information systems being common examples (Earl, 1989). The term encapsulates a great deal, and what is considered IT in all organisations is fuzzy. The key is the IT function needs to be manageable. Ramakrishna and Lin (1999) state there are three distinct roles for the IT function: 1) IT function having a subordinate status compared to the user departments, 2) IT function having equal status to that of user functions, and 3) IT function having a leader (driver) status compared to the user functions. Ramakrishna and Lin (1999) view the IT function's role as providing the organisational information processing backbone to a business driver that changes the way organisations operate and compete. Taylor et al (2000) has a similar stance to Ramakrishna and Lin (1999), as they believe the function has evolved from providing automatic processing and record keeping, to not only contributing towards organisational success but its survival. This can be achieved by business professionals having an understanding of IT/IS concepts.

The four stages in the development of the IT function were identified by Nolan (1973): initiation, contagion, control, and integration. Initiation was the reasoning behind selecting the first computer, usually driven by cost reduction. Contagion corresponded to the rapid expenditure on computing equipment. Control was the response by

managers to control the excess spending of the expansion stage. Finally, the integration stage was where the systems started to operate in an economical way. The stages of Nolan's growth model was revised by Galliers and Sutherland (1991):

- Ad hococracy – Uncontrolled, ad hoc approach to use of IT in organisations.
- Starting foundations – Attempt to find the users' needs and try to meet them. The future is viewed as a linear expansion of the past.
- Centralised dictatorship – The need for planning is recognised, and is typically conducted top down. IT is under central control. The IT development should be seen to link with the business/corporate plans.
- Democratic dialectic & cooperation – Integrating and coordinating the central control and end user computing systems. The IT function moves out of the 'ivory tower' in to the real world of turmoil of the business organisation.
- Entrepreneurial opportunity – IT function moves from support services to being a strategic benefit.
- Integrated harmonious relationships – New age of sophistication and use of IT. IT is deeply embedded in to the organisation. The organisation tries to maintain comparative strategic advantage. IT remains centrally coordinated, but not controlled in any strict sense.

According to Rockart and Short (1989), IT's purpose was to "manage organisational interdependence," for example to solve coordination issues between departments and strategic business units. Within strategic management, the strategy concept was based on three-level categorisation. The levels are linked through the strategic planning processes and systems. The levels are 1) Corporate strategy – Develops the overview vision. It sets the agenda and guidelines for the business level strategies. 2) Business strategy – Sets the agenda and guidelines for functional strategies. 3) Functional strategy – IT is viewed as the supporting infrastructure for the implementation and administration of the higher level strategies. Therefore, the level of resources tends to be based on administrative expenses considerations rather than as business investments that could potentially modify the organisation's strategic thrusts.

Rockart et al (1996) identify eight imperatives for the IT organisations. To be successful, an IT organisation must excel in each of the following; Achieve two-way strategic alignment – align the IT strategy with the organisation's business strategy. To assure IT investments are targeted at strategic priorities, it is imperative that IT

management are knowledgeable of senior management's strategic and tactical thinking. IT staff need to be present when business strategies are discussed. IT executives should contribute positively to management thinking by identifying the business threats and opportunities that IT poses, due to the fact that technology influences strategy and vice versa; Develop effective relationships with the line managers – IT personnel should develop strong, ongoing partnerships with their main users, e.g. line managers. It is through the relationships that the communication can occur to ensure that both business and technology capabilities are integrated in to effective solutions; deliver and implement new systems – the types of systems being built have changed over time from mainframe to desktop systems. As a result the approaches to building, designing, implementing and maintaining the systems have changed, IT executives need to respond to the challenges with a variety of strategies; Build and manage infrastructure – from the user's viewpoint the correct data needs to be available effortlessly. In order for this to occur the infrastructure requires to be seamless, although it may pass through several different systems; Reskill the IT organisation continuously – IT staff should be kept up to date with technical and business skills; Manage vendor partnerships – outsourcing particular IT responsibilities to vendors can compensate for skill shortages and relieve management from peripheral tasks to concentrate on core competencies. Outsourcing can be reliable, cost effective, and can lead to productivity gains through specialisation, efficiency of communication and management control¹ (Swanson & Beath, 1990; Rockart et al, 1996); Build high performance systems – transfer of TQM and customer services programs in to the IT department. Systems development cannot constrain business development. The long wait for applications development is no longer acceptable in the fast changing markets; Redesign and manage the federal IT organisation – a well thought out IT vision, effective leadership and group wide IT strategy and architecture is required.

Feeny, Willcocks and Rockart amongst others have defined the roles within IT departments, mostly in a rather prescriptive fashion: IT Leadership (Feeny & Willcocks, 1998)/Senior Management (Rockart et al, 1996) – Effective leaders design organisational arrangements (structures, processes, and personnel) to address each challenge area, and to manage their interdependencies. It is their responsibility to build strong business-IT relationships at the senior level of the organisation (Feeny &

¹There are many cases of outsourcing successes and failures, however, the details of them go beyond the scope of this paper.

Willcocks, 1998). IT management must be knowledgeable of the board's strategic and tactical thinking. In order to do this successfully, the CIO must be a formal or informal member of the top management team. IT executives should be present when business strategies are debated. The alignment between IT and business is two way – IT executives should contribute positively to management thinking by identifying the business threats and opportunities IT poses. IT can influence strategy, and vice versa (Rockart et al, 1996). IT executives can influence the values and culture of the IT function;

Business Managers – Professional business system thinkers understand the connections and interdependencies of business activities. They should communicate holistic views of the organisation and activities as a foundation for envisioning potential new patterns. It is their responsibility to overview business development projects, such as BPR (Feeny & Willcocks, 1998);

Project Managers – The project managers are required to have business and IT experience (Ibid). To continue the success of end user computing, avoid delays, and focus on critical functionality. The ideal step is to recognise that high-level line managers should be the ultimate project leader. This ensures that the business staff that use the system, will take responsibility for its implementation. Line managers have power and are in a position to change structure, culture, processes, and people's roles (Rockart et al, 1996);

Developers – IT developers need to keep pace with the rapidly changing industry. The new technologies e.g. wireless communication, system methods and programming languages. The way business is conducted is transforming and it demands new skills and capabilities from the IT function (Feeny & Willcocks, 1998);

Fixers (maintenance and support staff) – This group rapidly troubleshoots problems. They are required to identify business needs that are not properly satisfied by standard technical approaches and how to resolve them. They understand IT fundamentals and are the core IT capability (Ibid);

Contractors – Many organisations enlist the help of outside sources. Some contractors are specialists in application development, and others tend to be experts in packages (Rockart et al, 1996);

Outsourcing Team – This is a large team consisting of various roles. Staff from IT, business, and the legal departments are required to handle the service level agreements (SLAs). The legal personnel carry out work on the contracts; IT personnel monitor the agreements; various IT and business managers build relationships. The team should consist of leaders, skilled negotiators, and informed buyers (Rockart et al, 1996; Feeny & Willcocks, 1998). They need to be able to recognise the vendor relationship, whether it is transactional and contractual, or more strategic and joint. The team strategise IT's role in business, oversee the best practices in IT management, and develop and review the required scope. Due to the outsourcing, the original IT function becomes business centred, advisory, and managerial. The IT manager's role amends to ensuring line managers understand IT's potential and how they can leverage it effectively, and to provide advice and expertise to ensure effective implementation.

According to Ramakrishna and Lin (1999), roles of IT personnel change with time and the rate of change is increasing. The roles within the IT function are different for different projects. The roles can also be affected by the external environment.

There are four faces of the emerging IT function stated by Feeny and Willcocks (1998). These four faces lead researchers and practitioners to make explicit the need for an IT sourcing strategy and supportive capabilities within the contemporary organisation. The business face is focused on the elicitation and delivery of business requirements. It is the domain of the IT strategy, capabilities are business focused, demand led and concerned with defining the systems to be provided. Technical face is concerned with ensuring the business has access to the technical capabilities it requires. The governance face defines the organisation's governance and coordination of IT activity. For example, focus of the role of the IT within business, and responsibilities of the IT and business staff in achieving that role. The supply face encompasses understanding and use of external IT service market. The decisions on whether to outsource or insource are made within this domain.

According to Agarwal and Sambamurthy (2002), the role of the IT function is to:

- Organise IT to foster co-evolution between the business and the IT function (Sambamurthy & Zmud, 2000).
- Organise IT to nurture relationships for visioning, innovation and sourcing.
 - Visioning – build relationships between senior management and IT management to create strategic vision regarding the role and value of IT in the organisation.
 - Innovation – create a network between business and IT executives when conceptualising and implementing IT applications, specifically the systems that aim to enhance the firm's competitive level.
 - Sourcing – build networks between IT executives and external partners. These relationships can help during negotiations for cost effective and innovative uses of IT assets and services in multi-sourcing arrangements, joint ventures or strategic alliances.

A study conducted by Peppard and Ward (1999) suggests the business does not fully appreciate IT, and it gives little strategic guidance to the IT organisation. Business managers do not understand and have low awareness of IT opportunities, however the business managers do believe they need to be more involved in IT decisions. They also feel the IT requirements should not be specified by the IT personnel, and that projects should not be managed by IT. Overall IT has become integral to the business manager's job, IT is central to the core business activities and it offers potential but the organisation is not good at exploiting the opportunities.

Today's high performing IT function has four important tasks, each of which has strategic and operational aspects (Willcocks and Craig, 2007): Governance – includes leadership and coordination. This involves aligning the IT function's activities internally and with those of the whole organisation. Business and function vision – gathering and delivering business requirements. Define the systems, information and processes and leverage them for the business. Architecture planning and design – ensures technical capability. Define the architecture for the evolving technical platform and deal with the non routine technical risks. Delivery of service – manages external supply. Define and manage the sourcing strategy. This requires understanding of the external services market – the ability to select, engage and manage internal, and external IT resources and services.

2.5.2 Timeline of End User Computing

The proliferation of personal computing, individualised software, decrease of hardware costs, and the rise of fourth-generation programming languages in the 1980s led to an increase in end user computing. In the 1990s, with the growth of networks, control of IT returned to the central IT department. The explosion of the Internet elevated the user's role in directly driving the IT implementation. The users became confident in their ability to satisfy their own requirements.

One definition of end user computing is “the adoption and use of information technology by personnel outside the information systems department to develop software applications in support of organisational tasks” (Brancheau & Brown 1993, p.439). Users found freedom from the IT department, perceived to be centralised, unresponsive and expensive. The movement was motivated by the desire for users to gain some control over their technological environment. The availability of inexpensive microcomputers with “powerful, task based, user friendly software packages, and an increasing user knowledge and familiarity with IT” (Angell & Smithson 1991, chp.4, p.6) facilitated end user computing. There are many opportunities and risks associated with it.

It is difficult to define a system that satisfies every wish of the user. The analyst needs to produce several possible systems, with different sets of benefits and investments. The user can then choose amongst the alternatives. The user should be given walk-throughs of the systems and is required to be communicated with at all levels of the system from conception through to completion. The communication with the user is viewed as the most critical aspect of the whole system – its success or failure is determined by this (Jarvinen, 1983). The user moved from an interviewable source of information regarding system requirements, to that of becoming an active member of the development team (Welke & Konsynski, 1982).

Consensus participation tried to enable all the staff in the user department to play a role in the design of the new system. They should be involved at the point when efficiency and job satisfaction needs were being diagnosed through feedback and discussion in small groups. As the IT team designed the strategies, these should have been discussed at staff meetings, and the choice of work organisation and task structures associated with the system should be influenced by the user staff. Consensus participation is not

always easy, as there may be conflicts resulting from different interests within a department, however these conflicts should be resolved first (Jarvinen, 1983).

The dangers of end user computing are equally great, challenging the IT and user management with new trials. The root of management problems was the prospect of large numbers of users independently developing/buying systems throughout the organisation. This dispersed activity was likely to run out of control as “responsibilities cross boundaries” between various user groups, and entangle the IT department in a web of confusion. End user computing has penetrated so deep in to particular organisations that it could no longer be managed effectively through the IT function (Niederman et al, 1990). These pressures can place strains on the organisation’s structure, in terms of decision-making, budgeting and provision of support. Some form of coordination was required in order to stop the organisation reinventing the wheel. There was also a problem of amateurs developing unmaintainable, undocumented systems, and then leaving the organisation with no one who understands them (Angell & Smithson, 1991). Kettinger & Lee (2002) state users often failed to use planning, controls, and standards.

In some cases, the users are prepared to go it alone without the IT department if they perceive they have the knowledge and development skills, hence many decentralised IT teams appear in organisations. One such case was in the BBC divisions and departments in the 1990s/2000s. In many cases of IT innovation, users are confident in their ability to drive IT projects that they delegate the IT function a secondary role. In the larger picture, the project driver is dependent on the power and influence users and IT functions have over the planning, and resource allocation. However, the power issue can create another source of conflict (Ibid).

According to Angell & Smithson (1991), the complexities of much modern systems development were too difficult for IT managers to carry out alone; it required an equal contribution from an informed user management. The advantages of end user computing for the IT department could mean they focus their expertise on key corporate systems, or systems that are more technically challenging, rather than spending time and resources on small, less demanding, time consuming projects. It could actually provide ‘beneficial competition’ for IT departments, particularly those that had become inefficient through their previous monopoly.

The relationship analysis between users and the IT department has academically moved on by introducing psychology/management practices. Carr (2006) studied users and IT managers using hard and soft interactions. Hard aspects being functional and technological, where as the soft relational goals are factors such as trust, satisfaction and user commitment. The soft factors are seen as the glue that holds the relationship between the two departments together. Neglecting the cultivation of positive relational aspects can lead to tension, resulting in negative behaviour between the two parties. Carr's data suggests if the relationship is positive, the users are cooperative and supportive, e.g. voluntary participation in development projects. The relationship building best practices according to Carr are: avoiding long gaps in communication between IT department and users. Improving service performance. Providing consistent, fair and reliable service, and treating each user as unique. The best practices are understood in organisations, and the practices are in use by IT outsourcing vendors, and also with in-house IT teams to improve the relationships between IT and its users.

2.6 Outsourcing

The outsourcing story covers a number of decades. IT outsourcing can be seen as “the commissioning of third-party management of IT assets, people and/or activities to required result” (Willcocks & Fitzgerald 1993, p.224). This usually involves some transfer of assets and staff to the vendor (Willcocks & Fitzgerald, 1996). The concept of IT outsourcing is not new and has changed over the years. Lee et al (2003) has summarised the story through the decades, as shown below:

Year	Outsourcing Focus	Outsourcing Approach
1960s	Hardware	Services and facility management
1970s	Software	Facility or operation management
1980s	Hardware and software standardisation	Customisation management
1990s	Total solution	Asset management

Table 2.1 - Timeline of the outsourcing trend (Lee et al, 2003).

The outsourcing of IT services and product development became popular during the 1990s, and continues to be in the spotlight due to offshore outsourcing. Several reasons for its popularity include: it denoted a shift in the business strategy (refocus on core competences); uncertainty regarding the value of IT (often perceived as a cost burden); and cost reduction (vendors claimed that outsourcing could cut costs from 10–50%)

(Lacity et al, 1996; Ang & Straub, 1998; Nellore & Soderquist, 2000; Costa, 2001; Lacity & Willcocks, 2006; Lacity et al, 2009). Eastman Kodak decided to outsource a major percentage of its IT function to IBM. Due to the increasing specialisation in IT, outsourcing arrangements could lead to significant cost savings, 40% for Kodak over the life of the contract (Lash & Sein, 1995). However, a number of experts suspect that the figures represent short term savings or budget manipulations. Vendors also claim to supply expertise, provide leading edge technology, eradicate problems associated with technology obsolescence, and increase the flexibility and quality of IT services. The outsourcing organisation and the vendor can both obtain economies of scale. The vendor may benefit from carrying out the same work for a number of clients. Large vendors may achieve low average costs due to mass production and labour specialisation efficiencies (Costa, 2001). Outsourcing is as common today as it was a decade ago (Computer Economics Report, 2010), due to the global downturn. For some organisations it is cheaper to outsource than to retain IT in-house, particularly due to outsourcing in developing countries, such as India. Initially it was large organisations that outsourced, however there is a trend with small and medium size firms.

The use of contractors is not a new practice. Most organisations hired contract programmers and employed them in the traditional ways back in the 1970s. System integrators were employed to oversee a single project. In outsourcing, firms are utilised for the same reasons – to review the IT function and offer advice on strategic planning, methodology consulting and restructuring (Gallivan, 1994). For a non-IT organisation, it can be difficult to attract staff with the appropriate IT skills. Outsourcing offers a way to gain the relevant skills without getting involved in the complex management issues. The IT staff within non-IT organisations may be happier to be transferred to the vendor and gain exposure to new technologies (Costa, 2001). Outsourcing was often viewed as a response to the hype and publicity surrounding it. It was a bandwagon effect that led to senior executives asking “why don’t we outsource?” (Lacity et al, 1996). It may have been a response to economic and competitive climate, a way to control the costs. It could have been part of a larger and longer term strategy to structure and manage the organisation. Outsourcing could have been the desire of senior management to remove a troublesome IT function that it found difficult to present business value (Willcocks et al, 1995). It could be due to some political agenda (Young & Hood, 2003). Management may pursue their own political interests (Willcocks & Fitzgerald, 1993).

The various types of outsourcing options are: 1) Body shop – management outsources to fulfil short term demand. The most common type is the use of contractors (e.g. programmers) managed by organisation employees. 2) Project management – management outsources for projects, e.g. vendors to develop a new system. In these types of contracts the vendors are responsible for managing and completing the work. 3) Total outsourcing – the vendor is in total charge of a significant piece of work. The most common type is total outsourcing of hardware operations (Dibbern et al, 2004). Willcocks et al (1995) found that organisations follow one of three paths in to outsourcing; incremental outsourcing where a small discrete area is outsourced to achieve cost savings and/or lack of internal expertise. The second path is the hard learning option, where an organisation is pressured in to a fairly large outsourcing contract with little experience of how it should be managed, and make mistakes over several years. The third path develops a strategic approach, it looks at how outsourcing fits with the business and how it is managed. Majority of the organisations in Willcocks et al's case studies tend to take a strategic approach.

According to Costa (2001), the cost rationale is not the only driving force to outsource, but other reasons include the technical considerations and the need to focus on core activities. Gallivan (1994) lists factors that usually lead to outsourcing; poor economy, increased competition, global competitors, deregulation, new entrants to the industry and pressures to reduce IT costs.

As responsibilities for IT services are transferred to the vendors, and certain operational tasks are performed by end users, the IT department receives new duties. Areas of evaluation, selection and maintenance of relationships with the vendors must be conducted by the internal IT department. Change management is also likely to remain in-house, as it involves organisation specific knowledge. The organisation continues to require technical expertise in-house, in order to avoid undue dependence upon the vendor (Lash & Sein, 1995; Markus & Benjamin, 1996; Wang et al, 2008).

Organisations outsourcing their IT function should separate the internal roles from the external and should then deal with the internal roles (Lash & Sein, 1995). There needs to be clear roles and responsibilities transparent to both organisations (Koh et al, 2004). In most outsourcing case studies, a small team of IT experts remain in-house to fulfil critical roles. The roles cover areas such as strategy, control, and responsibility for

running outsourcing contract and ensure IT is delivered for current and future business demands (Willcocks & Fitzgerald, 1996).

Many organisations in the 1990s went through cycles of restructuring, reengineering, downsizing, outsourcing, and even back sourcing their IT functions due to negative perceptions of IT (Willcocks & Lacity 1998, cited in Hirschheim et al 2003). Over the past two decades, there has been extensive investment to remove corporate IT functions, support IT in business units, and outsource – often only to return to the corporate IT functions once again. The rush to eliminate the IT problems has caused many organisations to overlook the negative consequences of such reorganisations. For example, the much publicised savings through outsourcing did not always materialise and service levels declined (Lacity & Hirschheim 1993, cited in Hirschheim et al 2003). Many organisations found that once the IT staff and its knowledge left the firm, management reduced control over IT strategy and operations. Even after downsizing, outsourcing and back sourcing, many organisations still do not know the value of their IT (Lacity & Hirschheim 1993, cited in Hirschheim et al 2003; Willcocks et al, 2006).

The public sector should view IT outsourcing as a managed relationship rather than traditional procurement (Chen & Perry, cited in Moon et al 2010). Public sector differs from private sector ideologically and operationally, having different goals reflected in the ethics and values. Therefore adopting a framework for the private sector can be misleading for the public sector. IT outsourcing success lies in the importance of relationship management, a move from the traditional contractual model. The relationship model generates new ideas and solutions. As with the private sector the relationship between the two organisations must be highly interactive and flexible. There are no solid guidelines for public sector relationship practice. The two sectors vary in decision making process, accountability in purchasing decisions, HR, risk of failures, culture and management of IT.

The bidding process for the public sector is inflexible. The public sector is more obliged by legislation during the supplier selection process. Once a contract is in place, it is difficult for any organisation to change it. Huge contract deals in the public sector should follow the partnership type of relationship, both organisations working together as strategic partners with a common vision. One example is the EDS and Ministry of

Defence contract in 2005 worth £2.3bn. The first increment of the 10 year contract was to run a project together (Chen & Perry, cited in Moon et al 2010).

2.6.1 Contract and Service Level Agreements

There are a number of risks associated with outsourcing. One major risk is the long duration of the contract, the longer the contract, the greater the chances of the outsourcing company finding itself 'locked in'. The risk can be reduced if the systems are standardised, the technology is commonly available, general development techniques are used, and there are clauses in the contract to retrain staff when a particular contract expires. It would be useful to have contract negotiations at various intervals of the contract. The danger of the lock in can also be reduced through the use of flexible contract terms. These allow the two parties to establish close relationships to ensure stability and predictability of the arrangement, building strong trust relationships (Elitzur & Wensley, 1997; Fowler & Jeffs, 1998; Lee et al, 2003). Cullen (2006) wrote a paper on auditing outsourcing deals and it contains a checklist on auditing both parties in the outsourcing contract. The paper states that organisations should carry out a profile of the work to be outsourced which would reduce risks and cost.

Hidden costs tend to be related to weaknesses in contracts. The root causes are; undefined full present IT requirements, full undefined future requirements, loopholes or ambiguities in the contract, not allowing the vendor a reasonable profit, and unforeseen, rising in-house contract management costs (new roles, time and effort) (Willcocks et al, 1995).

Both organisations should realise the elements in the contract being fulfilled are dependent on good communication between the parties. The ongoing exchange of information can assist the legal obligations, achieve expectations and satisfaction, avoid conflicts, manage solutions to problems, decrease uncertainty and allow flexibility. The key is flexibility, as adjustments and changes are not foreseeable during the initial agreement to ensure the relationship progresses. Regular communication is vital, and it leads to greater trust (Kern, 1997; Han et al, 2008; Rustagi et al, 2008). Both parties should recognise the contract is mutual and not one sided, as they both have obligations to fulfil. The concept moves away from the legal contract and in to the psychological, unwritten promises, commitment, and behaviour of both parties (Koh et al, 2004).

Client organisations and their CEOs expect a great deal from vendors, and not enough from themselves. The organisations should be able to:

- Formulate and monitor sourcing strategy that fits with dynamically changing strategic and business operational requirements for the next 5 years (Boguslauskas & Kvedaraviciene, 2008).
- Understand the external services market, vendor strategies and capabilities in detail.
- Place a process for management of all outsourcing arrangements across the life cycle.
- Have a contract that delivers what is expected and required without high hidden or switching costs over the 3-5 years.
- Put in place a post-contract in-house management capability that controls the IT/business function destiny and leverages supplier capabilities and performance to mutual advantage (Willcocks & Cullen, 2008).

The SLAs should not be confused with the main contract. SLAs are additional to the contract, they describe the products or services to be delivered by the vendor. They establish the expectations, identify contacts if problems arise and state the metrics by which the services are measured and controlled. SLAs do not guarantee outsourcing success. Early SLAs often only contained metrics for measuring basic services, and ignored issues such as governance and changes to relationships. On the other side, the SLAs that tried to cover every issue made them unmanageable (Goo et al, 2008). Ideal SLAs should contain foundation characteristics (the arrangement of the relationship, and roles and responsibilities of key process owners), change characteristics (evaluation and improvement of the SLA areas) and governance characteristics (communication protocols, reporting policies and administrative processes).

Strassman (1995) and Lacity et al (2009) found that majority of the organisations that IT outsourced were poor financial performers. In addition to the poor financial performance, inferior IT department technical experience explained some outsourcing decisions (Markus & Benjamin, 1996). It is difficult to answer the question, “was outsourcing a success?” Success can be viewed as a feeling that the right decision was made. Other criteria to evaluate: the quality of the services provided by the vendor; dealing with the HR issues; selecting the correct functions for outsourcing; increasing flexibility and control; and accountability of clients (Costa, 2001).

2.6.2 Risks

Before outsourcing can commence, the organisation should conduct a thorough IT evaluation. The senior management should fully investigate risks and its costs (operating, maintenance, human and organisational) and apply appropriate metrics to assess the business contribution of IT. These can be used as comparables against the vendor bids. The evaluation should be conducted in the lead up to the request for proposal. The safest measurement guidelines produced by Lacity and Hirschheim were to; measure everything during the baseline period, develop service level measures and reports, specify escalation procedures, cash penalties for non-performance, determine growth rates, and adjust charges to changes in business (cited in Willcocks et al 1995).

The transaction costs associated with the time and effort required to set up and manage the collaborations can be high. The set up costs (search costs and supplier development costs, e.g. training and technology transfer), trading costs (continuous costs for coordinating exchanges as they occur, e.g. ordering and contract enforcement), and competitive costs, all require constant monitoring (Nellore & Soderquist, 2000). True costs and savings of outsourcing need to be calculated, and as part of the calculations the organisations should include the power dependencies, and balance the opportunities of free flowing information versus the need to protect the organisational capabilities.

Earl (1996) found eleven definitive risks of outsourcing; 1) Possibility of weak management. To reduce the risk, the organisation must be capable of managing its IT service first before the outsourcing takes place. Once outsourced, the client can lose its hold on IT, and would have to rely heavily on the vendor. 2) Inexperienced staff. The vendor may not always have the most experienced personnel. The client must create shrewd personnel policies before the contract is created in order to retain good experienced IT staff within the organisation or within their contract if staff are transferred to the vendor. 3) Business uncertainty. The client organisation should focus on long term strategies and understand where IT may enable these before IT outsourcing commences. 4) Outdated technology skills. Only vendors that can keep up to date with technology should be found. IT moves at a rapid pace and for the vendor to provide value for clients must keep abreast. 5) Endemic uncertainty. The contracts should have regular intervals to check contracts or to provide flexibility to the terms of the contract. 6) Hidden costs. Organisations underestimate set up and management costs. 7) Lack of organisational learning. The partnership style allows the

organisations to share uncertainties. New technology experience can only come from doing and participating. To share this risk, both organisations should be involved (Mehta & Mehta, 2010). 8) Loss of innovative capacity. In general outsourcing does not facilitate innovation (Windrum et al, 2009). The processes are formal, and most innovative ideas come from tinkering. Clients do not want to pay vendors for tinkering time. 9) Dangers of an eternal triangle. The middlemen between the client and vendor need to understand the business and build relationships. The vendor personnel should be located with the client in order to become accepted members. 10) Technological indivisibility. If the outsourcing functions cannot be ring fenced, it is not a good idea to outsource. 11) Fuzzy focus. Outsourcing cannot deliver the IT benefits. Outsourcing tends to be concerned with supply side of IT.

The IT outsourcing strategy is defined by Lee et al (2004) as “the logic visible in a firm’s portfolio of IT outsourcing decisions.” The logic may have served as a guide to outsourcing particular functions or may have revealed the pattern in the outsourcing decisions. Thus, strategy does not need to be a single decision that is made but a manifestation of multiple decisions. The costs are high in making incorrect outsourcing decisions. The costs relate to management time and effort, unanticipated vendor bills, affect on business, high switching costs in moving to another vendor or rebuilding in-house technical capability and buying out of contract. Before entering a contract, all issues should be thought out in a structured manner (Willcocks et al, 1995).

2.6.3 Relationships

The outsourcing organisation should not put too much faith in the close relationship with the vendor, and they should not expect the vendor to act in their best interest. The interests of both organisations do not naturally coincide. The outsourcing organisation should design incentives to ensure that it is in the best interest of the vendor to act in the interest of the outsourcing organisation (Elitzur & Wensley, 1997).

Lacity and Hirschheim (1993) revealed that many outsourcing stories in trade articles present an inaccurate view of outsourcing arrangements and results. They believed three myths emerged. One, the outsourcing relationship portrayed as a strategic partnership. This does not conform to the actual contract relationship, which does not usually contain provisions for sharing risk and rewards associated with outsourcing. Viewing the relationship as a partnership can be dangerous because it can lead to a

loose or incomplete contract. Consequently, there is the possibility for opportunistic behaviour by the vendor. Two, vendors are painted as more efficient than internal IT departments. This view is based on the assumption that vendors can attain economies of scale, based on the theoretical concepts of mass production and specialisation of labour. Three, outsourcing can save huge amounts of money. In reality, these savings are anticipated savings, and are not realised as time goes by (Dibbern et al, 2004).

Partnership is defined as “an interorganisational relationship to achieve shared goals of the participants” (Lee, 2001). It includes risk and benefit sharing. The relationship is viewed as a series of exchanges without a defined endpoint (Lee & Kim, 1999). The authors’ results show the partnership quality and knowledge sharing, and outsourcing success has a strong relationship. A cooperative relationship based upon trust, business understanding, benefit and risk share, and commitment are all critical to reap the benefits from outsourcing. Trust is also based via knowledge sharing towards a common vision (Lee, 2001; Han et al, 2008; Lee et al, 2008; Mehta & Mehta, 2010). The vendor has to realise the initial trust and distrust are vital to how the relationship begins. The greater the trust in the relationship, the less need for clients to utilise formal control mechanisms (Rustagi et al, 2008). They need to maintain a high level of trust and minimise distrust in order to maintain the clients. The relationship needs to be nurtured and requires continuous maintenance to increase its value.

The recent areas of IT outsourcing are web and e-business where the vendors are contracted to provide web-based applications to enable the organisation to enter the e-business arena. The partnerships require not only IT understanding but in addition require innovation and creative forging of vital and scarce resources. The vendors must understand the client’s core competencies, the organisation’s focus and organisation structure, as well as establishing relationships with core personnel (Lee et al, 2003). In order to move in to collaboration innovation, both organisations have to work towards a common goal. This phase can happen when close partnering behaviour has developed over the long term. There needs to be high trust, flexibility, risk sharing, and investment of resources (Willcocks & Craig, 2009). Partnerships open the debate of roles of both organisations and the role of the IT function in the outsourcing organisation. The IT function changes its role to become managerial; change management, strategic, stakeholder management and contract management. The role of both organisations alter to become ideally equal partners, share knowledge, burden and

incentives. According to Dibbern et al (2004) another area of growth is provider of application services. All the previously mentioned areas of growth with an expected IT service market increase indicates that outsourcing may not be a passing fad.

2.6.4 Personnel

Lacity et al (1996) found that companies that opted for total outsourcing experienced difficulties a few years in to their contracts. The key problems were increased IT costs, poor service levels due to ill defined contracts and inflexibility to adapt to changes. The root of the problem is that many senior executives view IT as any other function in the organisation, e.g. catering. However, IT cannot be easily handed to a vendor, it is different to other functions. IT is not homogenous, IT capabilities evolve at a fast pace, and there are large switching costs associated with IT sourcing decisions. The authors suggest that long term total outsourcing should only be an option for organisations in highly experienced IT outsourcing contracts, and managing major long term relationships with suppliers. Studies in outsourcing have shown that organisations have to appoint leaders to contract facilitate, contract monitor and build relationships, and that should be 100% of their role (Willcocks & Craig, 2007).

The role of middle managers has seen a revival due to outsourcing and the general economic climate. Their role is crucial in determining whether outsourcing is effective, or whether it adds to the cost base. According to Osterman (cited in Willcocks & Griffiths 2010) middle managers are “the glue that holds organisations together... responsible for accomplishing the core tasks of their organisation.” Middle managers sit between senior management and the workforce, they are the collaborators that facilitate work effectively. They manage internal and external teams, and relationships. They manage risk, and take daily decisions that senior management do not know of. The overall role of the middle managers is to implement the organisation’s vision as smoothly as possible. A strong middle management team can produce outstanding results, leading to less daily operation intervention by senior management. The middle managers need to ensure the vendor provides cost effective service performance against SLAs, the transformation occurs smoothly, and maintains a good relationship with the vendor. This case shows how influential good middle managers can be to lead senior management’s IT/IS policies and strategies. They also help to spread the welcoming feeling of the outsourcing vendors.

Collaborative thinking and action must be in the DNA of all vendor managers and delivery personnel. Willcocks and Craig (2009) conclude their research with the following lessons learned:

- Organisations outsourcing need to create a shared goal with their suppliers, and need the right metrics.
- Suppliers need to understand the client's business first. They must be able to bring complementary skills within a collaborative governance model.
- Co-management by entities is a powerful governance model which sets the framework for innovation.
- Executive level commitment is vital to set the environment for collaboration and innovation.
- Co-managed entity requires shared client-supplier objectives with a risk reward mechanism based on project performance, entity performance, supplier cooperation and group performance metrics.

2.7 Summary

The chapter has presented the overarching areas included in the research. As stated the topics are well studied and have a wealth of information on them, however for the purposes of the research, only a general overview was given to show understanding of the areas, and a brief introduction to the thesis. The concept of role for the research was discussed and selected. IT, role of the IT function and the changing role of the IT function was presented, as well as management practices within organisations suited with the models. Finally outsourcing was examined, various case examples were presented and prescriptions for management when considering outsourcing by academics.

Outsourcing process must continue to be updated because outsourcing keeps changing. Outsourcing organisations may appear to have outsourcing experience, however the problem is change. Those organisations that have outsourced more than once, changed what they outsourced second and third times around. If the knowledgeable staff were not retained or replaced, organisational learning could not take place until fourth or fifth generation deals (Cullen et al, cited in Lacity & Willcocks 2006).

Much of the literature concerning the role of the IT function in user organisations and total domestic outsourcing is either old or highly prescriptive. There are very few

recent rich in-depth studies concerning the role of the IT function. The overall research questions asked are important to address these issues: “What is the current role of the IT function in a user organisation?” “What is the influence of total domestic IT outsourcing on the role of the IT function?”

The next chapter is the theory framework section. It introduces Activity Theory to the reader and an explanation of why it would be a good theoretical lens to use for the research. Activity Theory uses the concept of roles, it divides it under the headings of subject and division of labour, to demonstrate the activities taking place. The activities are the operations and tasks that are carried out.

3. Theoretical Framework

“He who loves practice without theory is like the sailor who boards ship without a rudder and compass and never knows where he may cast.” Leonardo da Vinci

3.1 Introduction

The previous chapter introduced the concept of role, defined the IT function, and outsourcing. The literature review gave an overview of the research areas. The research areas such as outsourcing have been detailed in abundance, however the chapter was not intended to be a complete review but a foundation only. The literature review naturally leads on to the theoretical framework. The aim of this chapter is to introduce the theoretical lens, and to tie it with the previous chapter. Theory helps to add a framework to the research. It is important to have some boundaries in order to make sense of the data, as without structure the research would be a fuzzy mass of information. The theory assists to locate the areas of interest, and lays a path to follow through to the analysis, discussion and conclusion.

The chapter introduces Actor Network Theory (ANT), New Institutionalism, and Activity Theory. ANT and New Institutionalism are presented and then the reasons why they were rejected are offered. It then proceeds to give a brief background to the origins of Activity Theory. The roots of Activity Theory are from the works of three leading Russian psychologists (Vygotsky, Leont’ev and Luria). The background helps to lay the foundations for the current uses of the theory. The current uses of the theory are explained, followed by the final section that covers why Activity Theory is well matched for the research.

A number of theories were considered; ANT, New Institutionalism and Activity Theory. ANT was rejected because it was too loose, and one of the criticisms of ANT is that it is not considered a theory. It is a descriptive story telling tool, and has no structure (Latour, 2005). The notion of actors is also used in Activity Theory as well as ANT. New Institutionalism was discarded due to being an overarching theory at sectoral or society level. The study was focused within one organisation, and not an industry, therefore using New Institutionalism would have been a fruitless endeavour. However, Avgerou (2000) wrote a thorough analytical paper on organisational change within Pemex using institutional perspective. She recognises that institutional forces stem

from international, national and sectoral contexts. The Pemex case study had strong elements from the national perspective, which this thesis does not, as this angle is not in scope. The theory selected to use as a framework was Activity Theory. The theory provides a holistic perspective on human activity, allowing the study of human actions and interactions with artifacts within historical, cultural and social contexts (Coverdale, 2011). Vygotsky (1978, cited in Jonassen & Rohrer-Murphy 1999) argued that a person's role has much to do with a person's behaviour (i.e. 'what' they do and 'why') and thus it is argued that Activity Theory seems good theoretical lens to drive the data collection.

The final section of the chapter focuses on previous IS studies using Activity Theory. Activity Theory has been used in human computer interaction, computer supported cooperative work and business strategy areas. The section moves on to the justification of using Activity Theory with this particular study.

3.2 Actor Network Theory

Actor Network Theory (ANT) roots are in French philosophy and semiotics. It has been inspired by the work of Serres (1974), but has evolved through the development of social studies of science and technology (Miettinen, 2000). It is argued that ANT is not a theory, but a storytelling tool. Theories try to explain why something happens, however, ANT is more descriptive and can be disappointing to those that wish to seek strong accounts. It tells a story of how relations are assembled or not (Law, 2007; Latour, 2005). Entities form and acquire their attributes as an outcome of their relations with other entities (Law & Hassard, 2005). As a research strategy, ANT's focus is on expertise, boundedness and flexibility, suitable to investigate key contemporary developments in organisational thinking and practice (Lee & Hassard, 1999).

Callon (1986) worked with ANT on a project. In the 1970s, stock of scallops in Brest (France) decreased swiftly. The reasons for the occurrence were marine predators, hard winters, and fishermen that wanted to satisfy the insatiable consumers. They dredged the ocean floor for scallops all year round without allowing them time to reproduce. The investigation began with the problematization phase, to try to understand the problem and involve the actors and their relationships. The next stage is interessement, a group of actions by which the researcher attempts to impose and stabilise the actors defined in the previous phase. Enrolment defines and coordinates the roles. It describes

the multilateral negotiations, trials of strength and tricks that come with the intersements. The actors were all displaced (scallop, fishermen and specialists) and then they came together in the mobilisation phase. In the research there was a spokesman that brought them together. The specialists put together a programme to allow the scallops to have time to reproduce, however the programme was a long term project. One Christmas Eve (the popular time for scallop consumers) some fishermen could no longer resist the temptation of a huge catch, and went against the programme to satisfy their immediate desires. The fishermen de-enrolled from the programme. This phase was seen as a controversy in the research.

The theory states the world consists of hybrid entities, both human and non human elements. It was developed to analyse contexts where the separation of the elements is complex. In software for example, which part of it is an inanimate object and which part of it is the outcome of human interactions? It is difficult to distinguish the program's technical aspects from the influence exerted by the socio-cultural background of the development team. Therefore, what seems to be social is partially technical and what may appear to be technical is partly social. All actors have a function, or a program of actions and goals (Miettinen, 2000). ANT complements the social technical divide by claiming that only technical or only social relations are not possible, and it presents the concept of heterogeneity. ANT attempts to be impartial towards all actors, human or non human, and does not have a distinct approach between the social, natural and technological (Latour, 1996; Tatnall & Gilding, 1999; Miettinen, 2000; Law, 2007). The distinction between human and non human is of little importance. It is obnoxious to think people are morally special, and flawed for those who frame social in terms of meaning and intersubjectivity (Collins & Yearley 1992, cited in Law 2007). It is concerned with the mechanics of power, analyses the great in the same way as anyone else. It is not to deny that there are some more powerful than others, but they are "no different in kind sociologically to the wretched of the earth" (Law, 1992). ANT recommends the research starts with a clean slate, and discusses when size, power or organisations are generated, and how they came about (Law, 1992). ANT is not based on a stable theory of an actor, rather it assumes "radical determinacy" of the actor (Law & Hassard, 2005). The actor's size, psychological make up and motivations are not predetermined. ANT is considered so tolerant of representing actors that are anonymous and ill defined, it explains why it cannot explain anything (Ibid).

Networks are dynamic and change, they can become unreliable or unstable. New actors enter the network, existing actors leave and changes in alliances occur, and these can cause black boxes of networked actors to be opened and examined. Actors are not simplified objects but are an association of heterogeneous elements constituting of a network. An actor can be viewed as a black box, and when the box is opened it constitutes of a whole network of associations. Changes are when one actor is affected in the network, other networks are also effected (Tatnall & Gilding, 1999). A network relies on the maintenance of its simplifications for its existence to continue. The simplifications are constantly challenged and if these break down, the network may disintegrate, and reform as a different network (Tatnall & Gilding, 1999). ANT presents the social world as flat as possible in order to view the links between the elements as clearly visible (Latour, 2005). Society could not exist without the heterogeneity of networks of the social, and thus the exploration of organisations, inequality and power can be studied on how they come to be (Law, 2005).

ANT focuses on studying the mechanics of power through the construction and maintenance of networks made from human and non human actors. It traces the transformation of the heterogeneous networks comprising of people, organisations, agents, machines and other objects. It explores how the networks of relations are composed, emerged, constructed, maintained and competes with other networks (Tatnall & Gilding, 1999; Whittle & Spicer, 2008). It studies how actors enlist other actors in to the network, and how they bestow motivations, desires, qualities and visions on these actors (Tatnall & Gilding, 1999).

The theory can be useful in IS studies where the interactions between social, technological and political are viewed as important according to Tatnall and Gilding. It is particularly useful in situations where the researcher needs to develop a holistic narrative, in which they need to investigate contributions of each factor (Tatnall & Gilding, 1999). Although ANT is an ideal tool to tell a story, its descriptive nature is also its downfall for this particular study. It is too loose as a theory, it does not help to draw out any issues or conceptualisations. For example, the actors in the network exist, but what about them? What do they do? Why do they do certain things? The theory does not have any structure (Latour, 2005). It is the same problem with the human and non human entities, they exist, however no prescriptions are offered from ANT to

explore these facets in detail. ANT was deemed unsuitable for the study, the main problem was its looseness.

3.3 New Institutionalism

Sociology has always been closely associated with the study of social institutions and the analysis of institutional change. Sociologists argue that institutions have repercussions for social and economic action. Institutionalism is an approach to study social, economic and political phenomena, however it is often said that it is easier to agree on what it is not rather than what it is. One of the main reasons for this view is because it means different things in different disciplines (DiMaggio & Powell, 1991). New institutionalism aims to explain institutions rather than to simply assume their existence. The theory is not regarded as a theory of organisational change, but as an explanation of the similar (isomorphism) and the stability of organisational arrangements in a field of organisations, e.g. sectoral (Greenwood and Hinings, 1996). New institutionalists view institutionalism at sectoral or societal levels. Organisations are treated as loose coupled arrays of standardised elements. According to Parsons the institutional framework is an organised system of cultural beliefs, and norms. He argues that it was the rules and values that constitute an institution, not the pattern of behaviour or social relationships (Suchman, 1995; Nee, 1998).

North acknowledged Parson's efforts to produce a theory that has many issues that require addressing. Institutional theory must specify the causal mechanisms through which the norms and rules are produced, and maintained. It needs to explain the relationship between formal and informal regulatory norms. It must explain institutional change. It needs to address the question of how differences in cultural beliefs give rise to different institutional structures (Suchman, 1995; Nee, 1998). Actors are constituted by institutions (DiMaggio & Powell, 1991).

Old institutionalism's focus was on informal interaction's influence on patterns, coalitions and cliques, particularly embedded in areas of recruitment and promotion to illustrate how informal structures deviated from the formal structures. New institutionalism locates irrationality in the formal structure itself. From the diffusion of departments and operating procedures to the interorganisational influences, conformity, and persuasiveness of cultural accounts, rather than performing functions they were intended to (DiMaggio & Powell, 1991). In institutionalised contexts, organisations are

pressured to become similar to each other, sometimes due to environmental constraints, and sometimes because of network ties to other organisations that are creating changes in one area and affecting other interconnected elements (Zucker, 1987). Institutional pressures lead to organisations adopting the same organisational form (Greenwood and Hinings, 1996). Powell and DiMaggio (1991) state that if institutional prescriptions change dramatically, the organisational response is revolutionary and not evolutionary. The notion of power can be a focal point as some groups or individuals have the potential to enable or resist change (Greenwood and Hinings, 1996).

Institutions are defined as webs of interrelated norms and rules that govern social relationships, they comprise of formal and informal social constraints that shape the choice-set of actors. Viewed in this way, institutions reduce uncertainty in human relations. They specify the limits of legitimate actions, similar to the way rules of a game specify the structure within which players are free to pursue their strategic moves using pieces that have precise roles and status positions. Norms are implicit and explicit rules with expected behaviours that embody the interests and preferences of members of a group or community. Norms could be viewed as a form of social capital or to provide social order (Nee, 1998). Cultural models such as education and individual rights, these norms and institutions are taken for granted in the contemporary life (Finnemore, 1996).

It is thought that new institutional theory is not the right framework for this study. Although the approach helps to understand social phenomena, it does not fit correctly to explain the outsourcing phenomena within an organisation. New institutional theory is useful to explain phenomena at a higher level, e.g. sectoral level, where as the study is based within one organisation where politics and national level view are not prevalent. The theory focuses upon isomorphism and not change, however the research focuses on organisational change. Outsourcing will lead to changes, and it is the affects of this phenomenon that we wish to explore. Only culture and norms of the organisation are explored in the theory, the notions of perceptions and roles are not taken in to consideration in new institutional theory. Outsourcing influences staff roles, and through the change in roles the activities they perform. New institutional theory does not take these factors in to account. The study does not fit with new institution theory's basic tenets and therefore it is not sensible to use it as a theoretical lens for this particular research.

3.4 Activity Theory

Many academics do not view Activity Theory as a methodology but a philosophical framework to allow studies of different forms of human praxis as developmental processes at individual and social levels interlinked at the same time (Jonassen & Rohrer-Murphy, 1999). According to Leont'ev (1972, cited in Jonassen & Rohrer-Murphy 1999) the theory adopted Marx's dialectic materialist view of activity and consciousness as interrelated dynamically, as an alternate to the mentalistic and idealist views of human knowledge that claimed learning must precede activity. Activity Theory's standpoint is conscious learning emerges from activity (performance), not as a precursor to it. The theory is an alternative way to view human thinking and activity. Activity and consciousness are mutually supported. There is a reciprocal feedback between knowledge and activity. As one acts, one gains knowledge, which affects one's actions, which changes knowledge and so on. This process is important to the Activity Theory conception of learning. "You are what you do" (Vygotsky 1978, cited in Jonassen & Rohrer-Murphy 1999), i.e. consciousness is shown in practice. What a human does is embedded in a social matrix of people and artifacts in the activity. Therefore, it is important to analyse the activity's subjects engaged in the context of the performance.

The theory is seen as a powerful socio-cultural and socio-historical lens through which majority of human activities could be analysed. Its focus is on the interaction between human activity and consciousness within the relevant environmental context. When analysing human activity it is not only important to examine the kinds of activities being engaged in, but also what the goals and intentions are, what objects or products result from the activity, the rules and norms that define the activity, and the larger community in which the activity occurs. Humans are never involved in one activity only, but in many concurrently, however they are defined or differentiated, thus one has to expect that humans have different ways of thinking. They have different tools provided by society, and through using different tools, think in different ways (Tulviste, cited in Chaiklin et al 2002). Activity is viewed as a historically developed phenomenon. In other words, activities evolve over time within a culture. To understand the dynamics of a particular situation, it is important to comprehend the changes or evolutions of that situation over time (Jonassen & Rohrer-Murphy, 1999).

3.4.1 Origins of Activity Theory

The origins of Activity Theory has its roots in classical German philosophy (from Kant to Hegel), in the writings of Marx and Engels, and in the Soviet Russian cultural-historical psychology of Vygotsky, Leont'ev, and Luria (it was the latter strand that is pursued for the research). At present Activity Theory is transcending its origins, and becoming international and multidisciplinary. Some academics fear the changes occurring to the theory will alter it in to an 'eclectic combination of ideas' before it has had a chance to redefine itself, however, Engestrom believes it will become a new type of theory (Engestrom et al, 1999). The use of the theory in the IS/IT field is removing (although not in its entirety) the theory from its origins, but it is also reshaping it for contemporary issues. Borrowing aspects of the theory in the proposed research will contribute to the multidisciplinary issue, and will present findings of whether the theory can seamlessly integrate in to the IS field. Activity Theory was one of many approaches used in computer supported cooperative work. Activity Theory can be utilised in a number of ways, for example, it is used for meta-level analysis, and to examine Activity Theory driven information design (Halverson, 2002).

Vygotsky

During the early 1900s Vygotsky was researching systematisation of psychological theory and in order to carry out the research he observed development in children. He looked at the concept of goal-oriented action in adults and children. He agreed that without the goal it was not possible to have a form of goal-oriented action, however the goal does not explain the process through which it is attained. The presence of the goal and task was necessary, but they did not guarantee that a true goal-oriented activity would emerge. The goal attempted to explain the mental processes that led to the resolution of the task, but it cannot limit the explanation to it. The problem with goal-oriented activity is the process of looking at the mental operations and how they are fulfilled. Labour cannot be completely explained by saying it is "called to life by the goals and tasks with which man is faced" (Vygotsky, 1987), there is a need to take in to account the use of tools and the application of them without which it could not arise.

Vygotsky did not examine mental phenomena in themselves (the mind) but analysed labour activity, he took Marxism's tool nature, and the mediation of the labour process by tools. The mediation of labour process through tools was his starting point (Vygotsky, cited in Rieber & Wollcock 1987). Vygotsky felt that there were two levels

in the human mental processes: the mind left to itself, and the mind (mental process) with tools and auxiliary means. In the same way the practical activity can have two levels: the “naked hand”, and the hand armed with tools. He then moved this in to the practical and mental sphere. In the area of mental phenomena the first level was “natural” and the second was the “cultural” mental processes. Cultural process is the natural process mediated by unique tools and auxiliary means. The terms used by Vygotsky led to misunderstandings, and questions were raised whether all mental processes of modern humans are cultural processes?

Vygotsky tested children’s development level by giving them psychometric tests. Firstly, the children were unassisted and had to complete them on their own, and then the children were allowed to mediate with the tester, they were allowed to talk through the problems. The children did far better in the second tests than the first. The adult’s assistance increased the child’s abilities and cognitive potential. Vygotsky showed the difference correlated more highly with the next two years of school learning of the students than the original unassisted test scores. The difference between the two tests described the concept of the Zone of Proximal Development (Shayer, cited in Smith et al 2000). The interaction between the adult and child becomes internalised in the child, thus becoming an essential characteristic of the child’s own mind (Stetsenko, cited in Chaiklin et al 2002).

Vygotsky was viewed as a theorist of cognition as a social process. He believed the theory conceptualises psychological development as a process of social interaction within specific historical and cultural contexts. The interaction provided an interpretative base from which individuals gave meaning to their own and others actions, and were enabled to participate in shared activity. Shared activity is practical, as it is conducted with an outcome (Jarzabkowski, 2003). Humans hand their tools and procedures for utilising them (knowledge) to the next generation, thus children’s development can be seen as a social and cultural-historical process (Hedegaard et al, cited in Chaiklin et al 2002). Phenomena has to be understood in its sociohistorical context (Luria, cited in Cole & Cole 1979; Kuhn, cited in Smith et al 2000).

Leont’ev

Leont’ev along with Vygotsky had the same problem of explaining the specific aspects that differentiate humans from animals. In trying to resolve the issue, Leont’ev

formulated the idea of activity, characterising human motives and consciousness as culturally and historically developed, therefore qualitatively different from animal motives. Leont'ev took the activity one step forward as a collective process, with actions as goal oriented processes of individuals, and operations as psychic functions conditioned by tools (Hedegaard et al, cited in Chaiklin et al 2002).

He devised the idea of activity from the analysis of the most elementary life processes, "the fundamental 'unit' of the life process is the activity of the organism" (Fitchner, p.55, cited in Chaiklin et al 2002). Living systems participate in activity. Activity is not what the organism does, the organism consists in its activity (Fitchner, cited in Chaiklin et al 2002). According to Leont'ev (Kouzin, 2001) human activities differed depending on their object, the particular activity's true motive. Therefore Leont'ev is applied here along with Vygotsky because they both took the mental processes forward by observing and explaining human activities conducted through the use of tools, and that activities were goal motivated.

Luria

Luria's work goes back to psychology and he looked at the brain in the neurological sense. The work looked at the disturbances of behaviour (out of the norm) and related it to actions people/animals would take. The brain is complex and it is well known in neurology and psychiatry that any damage to the frontal lobes would impact the goal directed behaviour. Lesion in this area leads to a disturbance of psycho-regulatory activity, and as a result animals do not assess the result of their actions. Any human activity complex in its organisation has a program of behaviour. The action programs are made up of social historical experience, abstracting and generalising and the use of speech (Luria, 1966).

Frontal lobe lesions have been characterised in clinical psychiatry by two symptoms: asponaneity and absence of critical appraisal. By asponaneity it was understood to be a disturbance of the regulation of activity, and the inability to breakdown activity in to plans, programs or internal speech. The absence of critical appraisal is the inability to evaluate one's own action. The patient is unaware of the defects in his/her behaviour, and makes no attempt to correct it. The patient is satisfied of the action regardless of how defective it may be.

As well as the neurological angle Luria participated in psychological research, and in particular focusing on children and their actions. When the objects of study are from different cultures, there is a need to examine the nature and developmental history. Culture plays a fundamental role in the formation of the mind. “Man is not only a product of his environment, he is also an active agent in creating that environment” (Luria, cited in Cole & Cole 1979). Society and social history mould the activity structures.

Cultural mediation was broadly conceptualised by Luria’s statements (Akhutina et al, 2005) that humans live in culture, and the residue to past human activity is preserved in the artifacts, tools and stimuli. The human behaviour stems from the ability to create stimuli and to subordinate oneself to them to reach goals. Human consciousness is seen to be located in one’s social life, the genuine source of the conscious activity. Culture prescribes what should be learned, at what ages and by which gender. Therefore, different cultural environments lead to development of different models of abilities.

3.4.2 Present

According to the Merriam-Webster Dictionary (2004), activity is defined as natural or normal function: as **a** : a process (as digestion) that an organism carries on or participates in by virtue of being alive. Activity Theory is an inter-disciplinary philosophical framework for analysing individual and social aspects of human behaviour. The basic unit of analysis is human activity. In an activity network, one or more *subjects* use a *tool* to achieve an *objective* that results in an *outcome*. The activity is the cyclical transformation of the object. For example, in a software development company, the subjects are the employees, they carry out the activity of the organisation. The employees perform different jobs and thus different actions – the developers programme and the cleaners clean – their actions contribute to the company’s objective: software. The objective refers to the object to be transformed and to the objective of transforming it, an objective that extracts different actions from different employees within the organisation. As the company transforms the object (developing and releasing new versions of the software), it achieves an occurring outcome. The outcome could include accrual of market share and profits. The subjects mediate the transformation of the object through the use of tools. The tools may be physical (PCs, servers, mops) and semiotic (documents, voices, graphics) (Spinuzzi, 1996; Barthelmeß & Anderson, 2002).

Activity Theory takes in to account an essential aspect of work activity – activities take place for some purpose, and that purpose is not always clear from the formal specification of the activity in ‘job description’ terms. In work contexts, employees’ personal goals also affect their actions. According to Leont’ev, motivation does not emerge from inside a person but comes through and in course of participating in socially constructed activities (Laufer & Glick, 1998; Worthen, 2002). Every individual participating in the activity has a different view and interpretation of the aim of the activity depending on the individual’s position in the division of labour, history in the activity, training and experience. Thus, the activity system is viewed as internally heterogeneous and “multivoiced” (Virkukunen & Kuutti, 2000). Certain individuals can be powerful and central in a collective activity, but no one individual can completely impose their view to the others in the activity. Studying human qualities using a smaller object of research is meaningless because without the basic context one cannot understand the essence of the phenomenon.

The theory states learning and doing are inseparable, and are initiated by an intention. Intentions are directed at the objects of the activity. The object can be anything as long as it can be transformed by the subjects of the activity system. The transformation moves the subjects towards the achievement of the goal. The transformed object was the aim of the activity (Jonassen & Rohrer-Murphy, 1999). Activity should not be seen as brief events with a definite beginning and end, but rather as an evolving complex structure of mediated and collective human agency (Roth & Jin Lee, 2007). Activity could be seen as a type of “doing” directed towards an object. Activities are distinguishable from each other depending upon their objects. Converting the object in to an outcome motivates the existence of the activity. The object can be material, but it can be less tangible or intangible, the only criteria is it can be shared for manipulation and transformation by the subjects of the activity. The object may change through the process of an activity. The object is mediated by a tool that encapsulates the historical relationship between the subject and object. The mediating artifacts can be enabling and limiting concurrently: it empowers the subject in the change process with the historical experience and skill, but it also constrains the interaction to be linked to that particular tool (Kuutti, 1995).

Tools can be anything used in the transformation process. The utilisation of culture specific tools shape the way people act and think. The tools change the activity, and in turn, are altered by the activity. Activity Theory can be viewed as a mediating tool for research and development (Jonassen & Rohrer-Murphy, 1999). A fundamental construct of Activity Theory is that tools mediate or alter the nature of human activity. When internalised it influences humans' mental development. The nature of the tool can only be understood in the context of human activity, viewed by the way it is used by people, the needs it serves and the history of its development. The use of the tool changes as it is used. Tools are a reflection of their historical development, they not only change the process, but are also changed by the process (Jonassen & Rohrer-Murphy, 1999). The use of tools is oriented towards the conduct of practical activity.

The subject is the central, driving character in the definition of the activity. Whilst traditional theories of learning assume a Cartesian mind-body dualism with regards to the mind and external behaviour, Activity Theory challenges that separation. The mind and body (mental and physical) are interrelated, and can only be interpreted in the context of doing (Jonassen & Rohrer-Murphy, 1999). The subject, mediating artifacts (tools) and the motive relationships at the individual level by Vygotsky is depicted as a diagram, shown below.

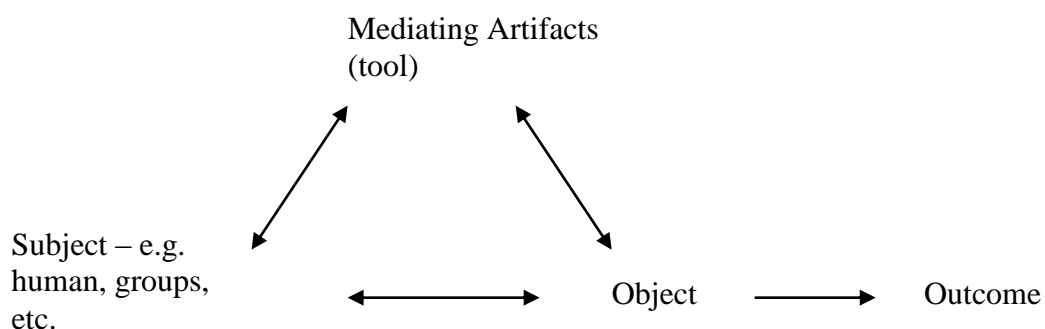


Figure 3.1 – Mediated relationship at individual level (cited in Kuutti 1995).

Figure 3.1 draws on Vygotsky's concept of mediation at the individual level and is considered too simplistic to fulfil the requirements of systemic relations between an individual and their environment in an activity. Various new relationships are conceptualised by Engestrom to produce Figure 3.2.

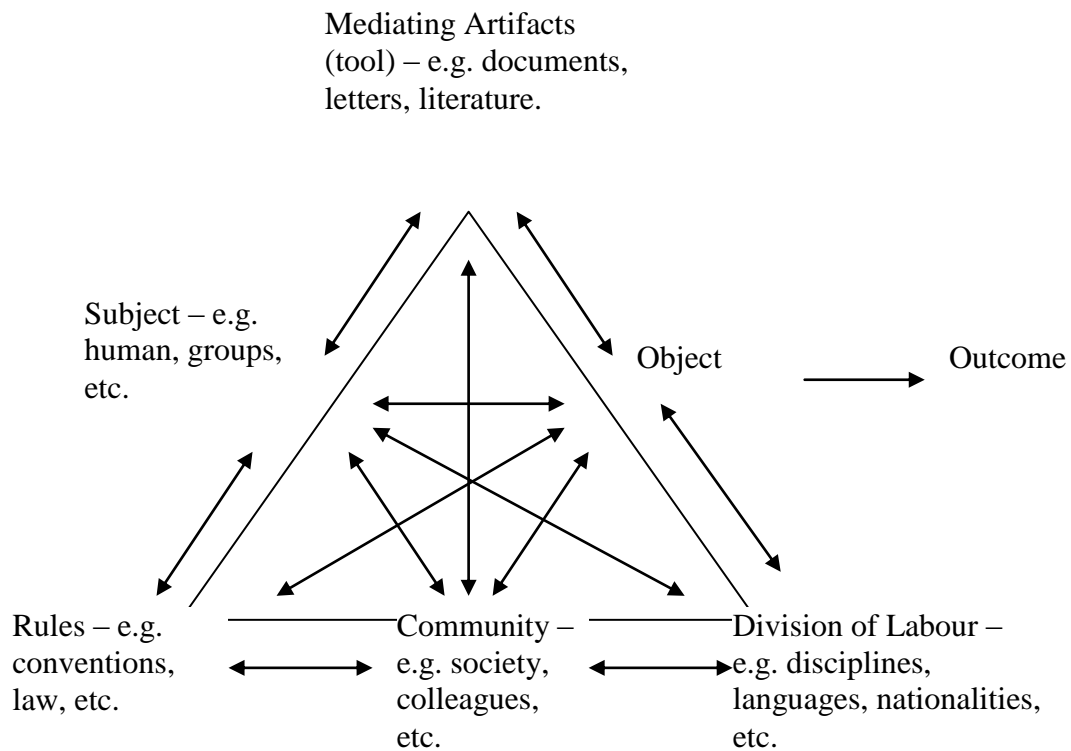


Figure 3.2 – Model of an activity system (Engeström, 1999).

The above diagram is Engeström's complex model of an activity system. The diagram explains the various components of an activity, and how they are interconnected. Engeström's research emphasises that activity is a collective phenomenon involving several actors (Korpela et al, 2004). Human participation in connected activities has different objects that cause tensions and distortions, e.g. using the previous example of software house: bug free delivery vs. excellent financial results (Kuutti, 1995). The object is the central issue of Activity Theory – what connects the individual actions to the collective activity? It is the motive of the activity, and it gives a broader meaning to the subject's actions (Engeström et al, 1999). According to Korpela et al (2004) it is important to note individual human actions can only be understood through the collective activity of which they are a part. According to Leont'ev's principle, it is the need objects (motives) that guide and direct the activity. As the object changes, so does the activity, and the components within it (Laufer & Glick, 1998).

Humans interact with their environment and learn about the world through the interactions in order to reach some goal. Activity Theory focuses on purposeful actions realised through conscious intentions. Before the intentions become actions, they are planned. The intentions and plans are not rigid or accurate descriptions, but tend to be

incomplete and tentative. Intentions emerge from contradictions that humans perceive in their environment, such as, differences between what they believe they need to know in order to fulfil a goal, and what they do know at any point in time (Jonassen & Rohrer-Murphy, 1999). For analysis purposes snapshots in time are taken, however the interactions are ongoing.

The majority of any meaningful activity is not accomplished individually. A solo concert pianist, for example, relies on teachers, manufacturers of the piano, designers and builders of the hall, the conductor and the orchestra (Ibid). When an individual contributes to one activity system, they also link to other systems that make society. Activity's elements continually change and develop, and the development is not linear or straightforward. The remains of previous phases stay embedded as the activity develops (Kuutti, 1995). Leont'ev added the element of the historically evolving object practical activity in to the fundamental unit of analysis (Roth & Jin Lee, 2007). Change is connected to the object. It is the object that is the focus of the activity, and sets the activity's direction and outcome.

Engestrom believes the focus is on the collective phenomena; the object scrutinises the dialectical process between the subjects and their communities. The idea implies that the object is bound to the collective level, occurring over a longer time span and reveals the potential and direction for change (Hardman, 2007). Activity Theory is viewed as a multilevel framework – individual, interactional and collective. Activities are viewed as long term arrangements, and their objects usually cannot be changed in to outcomes rapidly, but they go through a process of steps or phases. Therefore, there is a requirement of short term processes: activities consist of actions or chains of actions, which in turn consist of operations. The levels are shown below:



Figure 3.3 - Hierarchical levels of an activity (Kuutti, 1995).

The action level has been the focus of psychology – in conscious, goal directed actions. Usually the goal of an action is subordinate to some higher/larger goal. As one moves upwards, there is finally a goal that is self sufficient and not subordinated. The uppermost level is the activity and it has an objective depending on its purpose. The motive of the activity is not the motives of the individuals participating in the activity, it refers to the potential to transform the object of the activity and to fulfil some need of some of the members of the community that participate in the activity. The operation is the lowest level of activity. There are two types of operations: adaptive and conscious. “Adaptive operations are formed in conscious adaptation to objective conditions of a given situation” (Koschmann et al, 1998); they are involuntary, initially unconscious and rigid, e.g. bodily movements required for balancing on a bicycle.

Gonzalez et al (2009) found a gap between action and activity. They proposed an addition to the hierarchy between the two as ensembles. Ensembles are sets of thematically related actions defined by a purpose, and framed within a particular object related activity. “The more one understands actions as describing the short term, goal directed efforts by which an activity is instantiated, the easier it is to perceive a conceptual gulf between the notion of action and the notion of activity” (Ibid). Ensembles make the actions meaningful, they are above the short term goals and help people map actions on to higher level practical purposes. An ensemble refers to efforts of limited duration, for example, implementing a fix for a software module, or events such as a training session.

Leont’ev’s notion of chains of actions implies a string of actions to be carried out in a linear order. Gonzalez et al (2009) identify the set of actions connected via a theme, towards a particular purpose. The researchers found that people talked more about ensembles than objects which were often unstated, background of shaping activity or unconscious. The transformation between action and activity has quite a gap. It is difficult to make sense from the action of sending an email to the activity of taking on a new project. It is easier to envision the transformation of ensembles to working out new objects, e.g. in IT, applying temporary patches but then progressing the bugs in to a permanent solution, a piece of work that becomes a project.

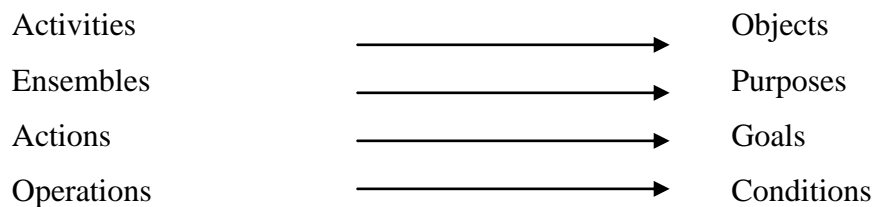


Figure 3.4 - Hierarchical levels of human activity (Gonzalez et al, 2009).

Activities are realised as singular or multiple actions, and they are all related by the same object. Actions are made of operations, ‘well defined routines used subconsciously as answers to conditions faced during the performing of the action’ (Kuutti, 1995). Initially the operation is a conscious action, but when the action has been carried out frequently enough it lapses in to an operation. Simultaneously a new action is created of which the operation becomes a subpart. When conditions change the operation can revert to being a conscious action.

Engestrom when looking at change processes in organisational settings, based the analysis on contradictions within the activity, and between a specific activity and surrounding activities, since they constituted the basis for change. He looked at contradictions in how tools, objects and subjects were seen and studied the contradictions between them. An example of a contradiction could be where a designer felt part of a collective group, but also needed to act as an individual (Bodker & Gronbaek, 1998).

Activity Theory is viewed as a descriptive tool rather than a prescriptive theory, a meta-theory by Engestrom (1993). Engestrom (1993, cited in Jonassen & Rohrer-Murphy 1999) believes that it did not offer ready to use techniques and procedures for research, its popular application as a lens for analysing activity has yielded some generally acceptable practices. The activity must be studied in the real world (Jonassen & Rohrer-Murphy, 1999; Roth & Lee, 2007). It is a qualitative approach to analysis. The research time frame should be long enough to understand the objects of activity and the history of the objects over time. Analysts should firstly pay attention to the broad patterns of activity before delving in to the narrow fragments that do not reveal the overall direction and importance of the activity (Jonassen & Rohrer-Murphy, 1999; Roth & Lee, 2007).

3.5 Limitations of Activity Theory

As with all research approaches, Activity Theory also has its problems and limitations. The researcher needs to develop a thorough understanding of the activity system under observation. Similar to ethnography, it is useful to have an understanding of all forces that impact the system and the changes that have occurred over time. This can only be gained by immersing oneself in the system. Kuutti (1996, cited in Ditsa & Davis 2000) recognises that activities tend to be long term forms and their objects cannot be transformed in to outcomes instantly, but they go through a several step process. The researcher should study and follow through with the process to gain a complete picture of the activity system. The time element of this is a cost to the researcher.

The researcher when applying Activity Theory needs to understand and account for history, actions, rules (stated and unstated), tools, norms and division of labour that are intertwined in the activity system. These elements cannot be assumed to exist in all activity systems. Therefore, it leaves the researcher open to criticism and the challenge of it being a description of interactions that lacks an analysis that can be generally applied. Engestrom (1999, cited in Ditsa & Davis 2000) has a solution, to apply the theory as an approach where researchers enter activity systems allowing the overall ideas of Activity Theory to be put to “the acid test of practical validity and relevance.”

Nardi (1996, cited in Ditsa & Davis 2000) reveals the methodological implications of Activity Theory. The research time frame must be long to understand the users’ objects, including changes in the object over time and their relation to other objects in the environment of the studies. Attention needs to be paid to the overall patterns of the activity rather than the narrow episodic fragments that do not highlight the overarching direction of the activity. The researcher should use a varied set of data collection methods, such as interviews, observation, video and historical material. There should not be a reliance on one method only. Finally, the researcher should commit to understanding things from the users’ point of view.

Regardless of some of the detailed weaknesses, Activity Theory has a distinctive way of considering IS as a tool, and it has the advantage of taking in to account the history, time, the individual, the community, the IS and the organisation in the research setting (Ditsa & Davis 2000). The approach is reflection-in-action, and it involves participation, evolution, context, holistic and development (Crawford & Hasan, 2006).

3.6 Information Systems Research using Activity Theory

There have been a number of IS studies that have used Activity Theory, namely in the human computer interaction (HCI) field. There are several key academics that have studied HCI with Activity Theory – Nardi, Kaptelenin, and Kuutti. The theory takes account of social interactions, cultural factors, developmental aspects, and higher level goals and values (Kaptelenin, cited in Nardi 1996). The theory is a neat fit with HCI as the underlying principle is human activity. The other area of IS studies with Activity Theory is computer supported cooperative work (CSCW). The activity system model is useful to study the differences between areas of support and the levels of support required for cooperative work situations (Kuutti & Arvonen, 1992; Crawford & Hasan, 2006). Jonassen & Rohrer Murphy (1999) conducted a study using Activity Theory as a framework for analysing needs, tasks and results for designing constructivist learning environments.

Activity Theory fits well with IS research where the means of work is focusing upon individual actions, or as a means of co-ordination and communication for collaborative actions in an activity, or as a means of networking between the activities (Mursu et al, 2007). It is suitable in dynamic situations, where people, their objects and tools are constantly changing, which tends to be the case in IS environment (Crawford & Hasan, 2006). The concept of activity in the theory provides a suitable framework for the analysis of everyday human tasks where information technologies make a strategic contribution (Hasan, 2002). Kuutti (1991, cited in Mursu et al 2007) maintains that the systemic unit that IS researchers and practitioners should consider initially is the work activity in all its aspects and dynamics. The important aspect is whether the use of IT facilitates the objectives of the activity. The theory allows researchers to concentrate on the use of IS, and it adds the social context, history and time. Activity Theory marries the human and technological aspects of IS in to a holistic research approach (Ditsa, 2003; Crawford & Hasan, 2006). The theory focuses on how technologies shape and are shaped by human activities (Crawford & Hasan, 2006). Most IT systems fail to meet the objectives, not because they are not technically sound, but because the organisational and psychological issues are not addressed during development, implementation and operational phases (Ditsa & Davis, 2000).

A case study was conducted in an Australian university focusing on the university management and their strategic objectives by Hasan (2002). The study followed how

management operationalised the strategic objectives using Activity Theory. The data collection and summarised processes (interviews and workshops) occurred at the action level and they were automated in to operations. The overall project was classed at the activity level, and it included issues that were influenced by the university community.

Activities are socially and contextually bound. The activity system can only be described in the context of the community in which it operates. The community negotiates and mediates the rules and customs that describe how the community functions. The rules can be formal or informal. Humans belong to various communities at any one point in time, therefore the beliefs are continuously changing to adjust to the various groups. Conflicts between the different roles can arise, leading to transformational activities requiring to harmonise the contradicting expectations (Jonassen & Rohrer-Murphy, 1999). Regardless of the activity under examination, Activity Theory focuses on the concept of human activity as the fundamental unit of analysis. Activity Theory is a tool that is useful for analysing and understanding collaborative work (Barthelmess & Anderson, 2002). This case study focuses on an organisation, and the activities within the organisation are team or collaborative exercises. The interviewees all work within the organisation structure and within teams or groups. The interviews are based on their roles and the activities they carry out.

The role of the IT function participates in an activity that can be analysed and mapped using Activity Theory. Engestrom's activity system represents many of the key aspects of roles, as shown below:

- Object – Every role has objectives and they are critical in defining and describing that role. The objective can be organisationally related, but may include personal motives. Humans belong to various simultaneous activities, and the objectives of these activities can overlap or feed in to different activity systems, a spider web like depiction of activities.
- Subject – The notion of role relates to one or more people and thus 'subject' is important in identifying different roles. Role is observed through behaviours performed, and it is the performance of the activities that are carried out. A number of subjects are involved in carrying out the function of the activity. The subjects can alter the object of the activity, and in some cases although the objective changed, the path of the activity did not.

- Mediating artifacts – Every role that participates in an activity carries out the task using some tool. An office based role would utilise computer systems such as emails, reports and documentation. The tools used are also to mediate with other community members.
- Community – The notion of role is a social one, constructed by the role occupant in conjunction with the other employees with whom the role occupant interacts. Role perception of others influence what activities are carried out by the focal role also known as the subject. It is also important not to isolate the context.
- Division of labour – The notion of role is based on particular tasks and skills and thus fits with the division of labour. The subjects carry out tasks to fulfil the object of the activity to reach its outcome. In regards to the research, the division of labour is hands on development, attending meetings and coordinating work dependent on the role.
- Rules – Role has a strong element concerning the rules and norms that govern behaviour. The organisation has rules and norms of its own, as well as the communities within the organisation having rules and norms of their own. The rules and norms set boundaries on how activities are carried out, how subjects and communities behave, and what tools are utilised in the activity system.
- Outcome – The actual outcome of the activity is clearly important to the role occupant, subject and the community. The outcome leads to other activity/activities.

An organisation can be viewed as an activity system comprising of three main elements; individual actors, collective social structures and the practical activities in which they participate (Jarzabkowski, 2003). Strategic actors in the activity may use tools to coordinate and manage the material resources of the strategy as well as to create meaning from, and impose meaning upon the situation in which the strategy is conducted. Whilst the organisational elements may not have similar views, in order to function as a system, there needs to be a means of interacting with each other in order to produce sufficient action. The mediating function is similar to the concept of formal operating procedures through which the elements of an organisation can reach agreement on the actions. The operating procedures are underpinned by tacit, habitual and inexplicit routines that are effective vehicles for truce between the various elements or groups.

It is argued that roles should be studied through positions within a structural system. The case study focuses on the roles of the employees within the IT function of an organisation focusing on the real world collective and over a long time span. Thus, it can be argued that Activity Theory is a comprehensive and effective framework with which to gather data concerning the nature of the role of the IT function.

The key unit of analysis from the empirical phase is the human activity. The research examines, what decisions were taken, why, by whom and whom was involved. The human activities are also roles that change the IT function. Overall it is the activities that are investigated, and how they alter the role of the IT function, how, why, and who or what was involved. The in-depth interviews hope to seek the motivation for activities. For example, colleagues may have known that the reason a particular system was implemented because of someone's personal goals, and politics may also have entered in to the arena.

The concern with the way the role of the IT function has changed in recent years fits with Activity Theory's convention of history. Activity Theory follows the tenet that a new activity structure does not emerge out of the blue. An activity may evolve over time, moving from one relative fit to another, from one mode to another, in historical phases (Korpela et al, 2004). "It requires reflective analysis of the existing activity structure – one must learn to know and understand what one wants to transcend" (Engestrom et al 1999, p.33). The in-depth interviews with various actors in the case study looks for contradictions and where shifts of focus occur. Efficient communication and its relationship to the organisational structure need to be addressed. Knowledge and information flow affect the quality of technology because developers, IT managers and users require information from each other in order to understand the perspectives of the different worlds (Harrison & Wells, 2004).

In conducting the case study, one needs to understand the recollection of memories. Engestrom discusses collective remembering as "an act mediated by one's own experience, material traces such as records, and the experience and communication of others. Forgetting is thus a breach or rupture between features of the collective, including material culture, and one's own experience; it was not a failure of retrieval or of the individual simply to perform a memory task" (Star, 1998). According to Korpela et al (2004) the wider societal and organisational contexts of activities need to be

incorporated in to the framework. The empirical research looks within an organisational perspective that needs to be reflected in the analysis stage.

3.7 Summary

The chapter presented Actor Network Theory, New Institutionalism and Activity Theory with its tenets. Actor Network Theory and New Institutionalism were introduced and then the reasons for rejecting both theories were explained. The origins of Activity Theory were introduced, as it was important to show what the theory was and how it has changed. The background was briefly touched upon to highlight the interesting framework and how it had come in to being, the concepts of the original theory remained in the new usage of the framework. The chapter moved on to show the current use of the lens. Engestrom adds constructs to the original activity system, and his activity system is much used by researchers today. Finally the chapter concluded with why Activity Theory would work well with the research. The concept of role and its aspects fit in to Engestrom's activity system.

Social practice is not in addition to Activity Theory but is in its heart of the conceptual structure. Social practice has no particular ontological or epistemological position, therefore it could be used with various philosophical and theoretical perspectives. Social practice is not unique to cultural historical tradition (Hedegaard et al, cited in Chaiklin et al 2002). Activity Theory is a helpful methodological framework for understanding the internal dynamics of organisation continuity and change. It provides an integrated approach for examining how strategic activity occurs from the social interactions between the organisational elements. It also enables understanding of how practices raise the tensions and contradictions between an organisation's past and future, therefore generating organisational change (Jarzabkowski, 2003). The research is based on these tenets and therefore the theory fits well and can be a useful lens.

The theory chapter leads logically on to the research methodology and design chapter. Chapter four presents the epistemological and ontological stances, it defines them, and explains why the research aligns with them. It moves on to the methodology of the study. Case study is selected, and the justifications of using that particular methodology are presented. Finally the research design is highlighted; introduction to the host organisation and information on the empirical research is provided.

4. Methodology

“There is not a single rule, however plausible, and however firmly grounded in epistemology, that is not violated at some time or other. It becomes evident that such violations are not accidental events, they are not results of insufficient knowledge or of inattention which might have been avoided. On the contrary, we see that they are necessary for progress.” Paul Feyerabend

4.1 Introduction

The previous chapter's focus was on the theoretical framework that will be used as a lens for the data analysis. The chapter presented a number of theories that were examined, and Activity Theory was selected. It was chosen because it is a useful tool to analyse organisation continuity and change. The model allows to view the activities, but it also brings in the historical and cultural aspects of the research environment.

This chapter will define and detail epistemology, ontology and methodology. The researcher details the various epistemological stances from objectivism to subjectivism, and selects subjectivism and justifies the reasoning for selecting the stance. The ontological positions considered are idealism and realism, and both views are detailed. The researcher has opted for realism and has defended the decision. A number of methodologies are presented; action research, historical studies, longitudinal study, and case study. It is the case study approach that is selected, and the researcher provides justification for the selection. It then goes on to providing relevant information on the host organisation. Finally the data collection methods such as interviews and observation are defined. The methods are detailed, and the selections are made and rationalised.

4.2 Epistemology and Ontology

Epistemology is defined by the Oxford Dictionary (2011) as “the theory of knowledge, especially with regard to its methods, validity, and scope, and the distinction between justified belief and opinion” and it deals with “the nature of knowledge, its possibility, scope and general basis” (Hamlyn 1995, cited in Crotty 1998, p.8). It is a way of understanding and explaining how we know what we know. Selecting a particular epistemology leads the researcher to follow a path for their research. Crotty (1998) depicts the elements that inform one another. The selection is viewed from one element to another, and some are better suited than others.

Epistemology (objectivism, constructionism, subjectivism...)

→ Theoretical perspective (positivism, interpretivism, feminism, postmodernism...)

→ Methodology (survey research, ethnography, grounded theory...)

→ Methods (questionnaire, interviews, focus groups...)

Figure 4.1 – Elements informing one another (Crotty, 1998).

Epistemology provides grounding for deciding what type of knowledge is possible and how it is adequate and legitimate. There are a wide range of epistemologies. According to Chua (cited in Orlikowski & Baroudi 1991), there are three sets of beliefs that are a way of seeing and researching the world; 1) beliefs regarding the phenomenon or object of study, 2) beliefs with reference to the notion of knowledge, and 3) beliefs about the relationship between knowledge and the empirical world. The positions on the three sets of beliefs can lead to distinct research perspectives that social science researchers adopt towards their work.

Objectivist epistemology states that meaning and meaningful reality exists apart from the operation of consciousness. For example, a tree in the forest is a tree, regardless if anyone knows of its existence or not. When humans recognise a tree, they are discovering a meaning that has been lying in wait for them all along. Another epistemology is constructionism. Meaning exists with the human engagement with the realities in our world. There is no meaning without a mind, and it is not discovered, but constructed. In this view of the world, different people may construct meanings in different ways, even in relation to the same phenomenon. In subjectivism, meaning does not result in an interplay between subject and object, but is imposed on the object by the subject. The object does not contribute to the generation of the meaning. It is humans that make meaning out of something. Humans import meaning from elsewhere. The meaning ascribed may come from dreams, primordial archetypes located within human unconscious, or from religious beliefs, or from various other places (Crotty, 1998).

Ontology is the study of being. It helps in the understanding of ‘what is’ as well as understanding ‘what is means to know’ (epistemology). In figure 4.1, ontology according to Crotty (1998) sits alongside epistemology. Ontology is viewed as the truth claim and epistemology as the method. They are not opposite ends but complement each other (Van de Ven & Johnson, 2006). Orlikowski’s & Baroudi’s (1991)

ontological beliefs view the world as objective (independent of humans) or subjective (it is only through human actions in creating or recreating it).

The terms epistemology and ontology boundaries are fuzzy depending on what authors are read. In order to stop the philosophical debate to continue within this thesis, the ontology concepts used in the study are realism at one end of the spectrum and idealism at the other. Realism is defined as "the inclination towards literal truth and pragmatism" (American Heritage Dictionary of the English Language, 2006). It tries to accept life the way it is and dealing with it in a pragmatic manner. Idealism is "the act or practice of envisioning things in an ideal form" (American Heritage Dictionary of the English Language, 2006). The concept is to try to aim for perfection.

The theoretical perspective element provides context for the process and grounds its logic. The methodology brings in assumptions, and it is these that should be brought to the research task, and discussed. It's a way of looking at the world and making sense of it. Research involves knowledge, and therefore embodies a certain understanding of what is entailed in knowing (how we know what we know). According to Crotty (1998), the methodology is the strategy the research adopts. It is the design that shapes the choice of methods to use, and relates to the desired outcomes. The methodology should not only be described but a rationale should be produced for the choice of methods, for example, why it makes sense to carry out unstructured interviews.

A positivist approach follows the methods of natural sciences, detached observation to seek to identify universal features of human hood, society and history that offers explanation, through control and predictability. It aims to test a theory in an attempt to increase predictive understanding of phenomena (Orlikowski & Baroudi, 1991). Positivism is preoccupied with the notions of operational definitions, objectivity, replicability and causality. On the other hand, an interpretivist approach seeks culturally derived and historically situated interpretations of the social world. Natural science looks for laws, therefore is nomothetic, and social sciences are concerned with the individual and therefore, idiographic. Interest in the social world tends to focus on aspects that are unique, individual, and qualitative, whereas the natural world focuses on abstract phenomena that tend to be quantifiable and empirical regularities (Crotty, 1998).

Early social positivists such as Comte (cited in Esterberg 2002) believed that sociology could become a positive science of society. He believed that by unearthing laws that governed social behaviour, sociologists could develop policies that would improve or perfect society. The social world has regular order that social scientists can discover. Positivist sociologists argue research must be value-free and objective. Researchers must be free from social/cultural values that govern human activity. They must remain neutral towards their object of study. Methods such as questionnaires allow the concepts to be operationalised (Bryman, 1984). Researchers adopting the positivist approach assume that human action is intentional and rational, humans interact in stable and orderly ways, and conflict or contradictions are not endemic to organisations and society. If conflict does occur, it is viewed as a dysfunction to the social system and it should be suppressed or overcome. The quest for universal laws disregards the history and context as triggers of events or influences of human action. The use of IT in organisations is embedded in social contexts, notions of time, locale, politics and culture. Neglecting these gives an incomplete picture of information systems phenomena (Orlikowski & Baroudi, 1991).

Interpretative approaches are based on premises. The first is that humans act towards things based on meanings they have for those things. The second premise is the meanings of things arise out of social interaction, and thirdly meanings are created and changed through the process of interpretation. Researchers can never completely capture all the viewpoints, their writings are always interpretations of what they think their subjects are doing. The insights are limited, even though the researchers are immersed in the social world (Esterberg, 2002). Interpretive research assumes people create and relate their own subjective and intersubjective meanings as they interact with the world. The researchers try to understand the phenomena via the meanings the participants have assigned to them. Research wants to understand the deeper structures of the phenomena which could then be used to inform other settings (Orlikowski & Baroudi, 1991). The controversy with interpretive research is that the researchers' assumptions, beliefs, values and interests shape their study. Retelling the participants' story is never fully possible, the interpretation of the researcher always intervenes, and part creates the reality of the study. However, the positivist researcher also has issues on verifiability and independence.

With research in organisations, the people are viewed as active sense makers, engaged participants and creators of organisational life. Interpretative research does not examine knowledge directly, but studies the role of knowledge in organisational transformation and the role of technology in supporting knowledge work. Where technology is researched it is not the technology itself that is scrutinised but the organisational practices that enable the implementation of itself. Research carried out by academics (Schultze & Leidner, 2002) studying technology in organisations with an interpretative approach has led to the view that as a socially constructed artifact, technology has unintended consequences.

Research methods are the activities engaged in to collect and analyse data. The methods should be described in as much detail as possible, it is not enough to discuss “carrying out interviews” but detail what type of interviews, what techniques will be utilised, and what is the settings of the conducted interviews. Similarly, it is not enough to state that “participant observation” will take place, but to describe what kind of observation occurs and to what degree of participation is involved (Crotty, 1998). The distinction between qualitative and quantitative research occurs at the method level. Crotty’s model suggests that objectivist research is associated with quantitative methods, where as subjectivism is aligned with qualitative, but this is not completely justified. Research can be qualitative or quantitative, or both without it being problematic.

There is much debate on exactly which element the qualitative and quantitative stances belong to. Some academics such as Esterberg (2002) view them as methodologies. Sociologists that prefer quantitative methodologies argue that if researchers do not use quantitative methods then it is not social science research. Others believe that social science research is different from natural sciences, and the aim of the research is interpretation. Social science requires investigation and explains how humans construct social reality.

Quantitative research uses numbers to describe relatively large groups of people. This is not to say qualitative research never uses numbers, but that quantifying is not their main strategy (Strauss & Corbin, 1998; Esterberg, 2002). Quantitative researchers may be interested in studying the effects of race and gender on people’s incomes, for example. However, if there are only a small number of cases, the research will be of

little use. Quantitative research is not suited to understanding complex social processes in context (Bryman, 1984; Esterberg, 2002).

Qualitative research is interested in the enquiry of social phenomena. Sociologists such as Gubrium and Holstein (1997, cited in Esterberg 2002, p.2) argue that qualitative researchers look beyond the ordinary, everyday ways of viewing social life and try to understand it in novel ways. Qualitative researchers try to understand and explain social processes in context. They try to understand the meanings of the social events for those who are involved in them. Researchers also need to understand their own perspectives, and how it affects the way they conduct their research (Esterberg, 2002). This type of research is exploratory. The researcher embarks on a journey of discovery rather than verification. The research will open up new leads and questions used as a basis for further research (Bryman, 1984).

New researchers can hold the view that qualitative research is easier than quantitative research, particularly as there are no mathematical formulas to remember or no statistics to enquire over. But this view is not always correct. Qualitative research can be difficult due to complex issues of interpretation, gathering data can take a long time, and researcher has to develop their analytical skills. Researchers need to develop methodological skills, such as conducting interviews, and they need to learn to move back and forth between theory and evidence. Learning the art of interpretation is a difficult skill to gain (Esterberg, 2002). Qualitative research tends to produce rich data, with a great deal of depth (Bryman, 1984). The researcher may receive surprise data, however the data could become helpful in telling the actor's story.

4.2.1 Justification of Epistemology and Ontology Selection

The epistemology selected for the study was subjectivism. The epistemology fits the concept of the research, to study human actions and perceptions. The research views the interactions between humans and humans, and humans and things. The study was not an objective piece. The focus was not on an object, or in the case of IT, a technology. Organisational forms, processes, activities, and strategies are fields that require subjectivism. The research was investigating and understanding the organisation's activities. In social based studies, it is the roles of context and interpretation that is the subjective perceptions of humans that drive the actions, not the objective reality that may underlie the situation. Research cannot apply meanings to

human actions if there are no references to human perceptions. The research falls naturally in to subjectivism because of the way the study was carried out and its structural aspects. In order to understand what was happening in the IT function, it was the people, and their actions and perceptions that were studied. Therefore, subjectivism seemed to be the ideal world view to approach the work.

Ontological stance was not overly important in this particular study, however in order not to miss the approach entirely, the notion utilised was realism. However, it is taking the concept of realism in today's pragmatic definition. The research aimed to produce the truth as much as it could to human involvement, but also to provide some practical outcomes.

The theoretical perspective adopted was interpretivism. It was the obvious stance to select as the study focus was on social human aspects and therefore, was idiographic, but also because the role of history and culture came in to play. The three premises (humans act towards things based on meanings they have for those things, meanings of things arise out of social interaction and meaning are created and changed through the process of interpretation) on which interpretative studies are based was utilised in the study and explained later in the chapter. The results of the study were based on the researcher's interpretation of what the subjects were doing. The analysis of organisational structures and activities were 'things' that required interpretation.

The study fits the qualitative angle with the epistemology and theoretical stances adopted. The study's focus was on the social phenomena of outsourcing and its influence on the role of the IT function, therefore the natural fit was qualitative approaches and methods of enquiry. The study can be viewed as an exploratory piece. The data collated was rich and therefore the researcher had to apply interpretive analytical methods to pull the meanings out of it, and present it as useful knowledge.

4.3 Methodology Options

A wide array of methodology types exists for researchers. In dissecting the various layers of general research, it was deemed that four natural methodologies stood out more than others: action research, historical study, longitudinal study and case study. Action research is the newer style of study adopted by IS researchers. It works well where the researcher immerses themselves in the organisation and produces a report that

the organisation will use to implement findings. If the researcher is an employee of the organisation, this could be a natural methodology to use. Historical study tries to detail the past and draw from it to explain the current context. The historical aspect works well with Activity Theory, the theory has a historical element within it, and it follows the idea of activity systems lead to other activity systems. The host organisation looked at outsourcing in the past and rejected it, therefore the previous activity could be studied against the recent outsourcing decision. A longitudinal study works well for researchers focusing on strategic management. The outsourcing in the study is a long term management strategy and may benefit the research to take a long term view of it. Finally the case study approach is also looked in to, as the research is trying to understand a real world phenomenon of outsourcing and its influence on the IT function.

4.3.1 Action Research

Action researchers believe the aims of research should not be creating esoteric knowledge carried out by people with advanced degrees. Research results should not gather dust in the library. The results of the research should be useful and should improve the lives of the research subjects. The action of the research, and its outcome should be applied in the community. Individuals are experts on their own lives, the research should involve community members at all levels, including the development of the problem and research strategies. The researchers argue that the process of research should be open and democratic. It is not only the researcher that contributes to knowledge, but ordinary people can as well. The research participants should become active in all phases of the project. The participants become co-researchers to reflect their active role. Therefore, the positivist approach is rejected as there is not a clear separation between the researcher and the researched (Esterberg, 2002). Action research can be quantitative or qualitative. It is dependent on the problem and the researcher's preferences. The aim of action research is to create positive social change. Action research is ideal for social scientists that want to effect social change. It allows the researchers to develop community organising skills, learn empathy, and listening skills.

There is a focus on the process of carrying out the research and its outcome. Unlike in traditional approaches of research where researchers detail in advance the questions they will ask, action research is more fluid. It allows for changes as co-researchers

collectively define the problem and the ways to investigate it. The process of conducting the research is liberating for the co-researchers, as they gain knowledge of their own situation. Action researchers view knowledge as power. The co-researchers gain knowledge regarding their situation, and they gain power to change them (Esterberg, 2002). Social settings cannot be reduced for the research and action brings understanding to the study. Researchers observe and participate in the phenomena under study (Baskerville, 1999).

Who owns the research process? In traditional forms of research, the researchers are often associated with a university or some educational institution, and they develop agendas based on their own interests (Esterberg, 2002). A problem statement is developed, a plan of what methods are to be used are created, the research is conducted by the researcher or with help of others, and then the results are written. The research participants are viewed as subjects, and their role is to provide information sought by the researcher. Regardless of whether the research is intended to contribute to general knowledge or to serve some practical application, the subjects have no voice on how the research is done or applied. In the traditional forms of research, it could be said the researcher owns the process. The participants will have little motivation to apply any changes suggested by the researcher because they were not fully involved. Action research is empowering for the co-researchers because they participate in all the phases leading to the knowledge creation.

Stringer (1996, cited in Esterberg 2002) divides the process of conducting action research in to three phases: look, think and act. In the first phase, the aim is to look carefully at the situation and define the problem. The researcher needs to define the stakeholders and collaborate with them to define the problem. The group gathers data to help design a solution. In the next stage, the group needs to think about what they are finding out. There is a requirement to interpret and explain what is occurring, and why. In the final phase, the group creates a plan of action and carries it out. In reality the process is not neat and linear.

One of the main difficulties of action research centres on the issue of sharing power. Social researchers are often middle class, with specialised degrees, therefore can they really share power with the co-researchers (who are often from marginalised social groups)? In addition it is not clear to what extent the marginalised groups are interested

in such a sharing. Establishing an equal power relationship can take time and commitment, and even then it is not assured. On a practical level, the researcher can analyse a problem differently to the participants or may believe a different solution is required. However, if done well it can be heartening to see the research has real impact (Esterberg, 2002).

Action research seeks achievable goals for the research subjects, and is a common technique among consultants for organisational development. The result is that action research looks like consulting. Financial support from clients is common, and the payments add to cloud the distinctions between the two areas. A scholar that consults may view a research opportunity in the consultancy setting, and this may lead to ethical and professional problems (Baskerville, 1999).

4.3.2 Historical Studies

“Seeing the past can help envision the future” (Neudstadt & May, cited in Mason et al 1997, p.307). A historical study can offer a valuable perspective with which to view the present circumstances. It provides a backdrop from which one can determine what is novel in the current situation and which factors distinguish the present situation from any others in the past. History assists one to understand the sources of contemporary issues, how they arose and how they unfolded through time. It also helps to identify the solutions that worked in the past and those that did not. More importantly, it reminds one of the richness of human experience and of the broad degree of complexity, intricacy, and unpredictability that surrounds real circumstances. These forms of studies tend to be idiographic. The context is explained as carefully and fully as possible (Mason et al, 1997).

“Historical analyses teach us to interpret existing organisational structures not as determined by laws but as the result of decisions made in the past choice opportunities, some of which were made intentionally and others more implicitly” (Kieser 1994, cited in Mason et al 1997, p.310).

Historical research may be divided into two types: descriptive and analytical (Kranakis, 1988). Both categories of history share the same essential goal: to order the past, to give meaning to it, and to extract meaning from it. In the case of descriptive history, the

ordering is conducted through the means of selective simplification. Events and situations cannot be described in their entirety, so they are described from specific perspectives. For example, descriptive histories of a particular era, such as the Renaissance, may focus upon the politics, or daily life. Each perspective gives a new and unique view of the reality.

Analytical history has the object of explaining the nature of historical processes, and the forces that create change. A vital means to order the past is by revealing the consistent patterns and regularities that underlie the apparent complexity and diversity of events. Some historians have attempted to display that the whole of history may be viewed as a following pattern. Others with a narrower focus have analysed patterns at the individual level. For example, historians of technology have examined patterns in the ways individual engineers chose and solved technical problems. Some have studied patterns among events that are separated in time and space – such as the ways some groups respond to unwanted technical change (Luddism phenomenon); patterns in the objectives guiding innovation (e.g. the quests for efficiency); patterns in the way technical change shapes industrial competition; and patterns in the research traditions of different nations or in the character of the technologies they create. The objective of analytical history is to view the patterns and regularities, and to identify and understand them (Kranakis, 1988; Mason et al, 1997).

According to Kranakis (1988), historical research has five important functions: it provides new empirical data and information, which comprises a necessary foundation for theoretical analysis. It shows patterns and regularities that may in turn become the object of theoretical analysis. It proposes significant variables and causal relationships that need to be taken in to account in theory formulation. It provides a means for testing the validity of theories and suggests interpretive concepts that in turn may constitute vital building blocks for theoretical analysis.

The majority of organisations present a form of ‘dynamic conservatism’. Managers and employees are bound together by their previous experiences that were formed over a long period of time and have become rooted in their culture. From this there is a tendency to distance themselves from any innovations that may require these people to realign their lives. MIS histories have exhibited situations where leaders have successfully overcome resistance to change and have arranged the organisation to

absorb the new technologies and organisational structures. There have been some studies that also highlight the conditions under which the leaders have failed (Mason et al, 1997).

The causal relationships are studied by means of comparative analysis, e.g. comparative studies of revolutions have been conducted to evaluate what variables are important in causing revolutions and determining their success or failure. The ultimate objective is to develop theories of how and why revolutions occur. In terms of technology, much work has been devoted to comparative analyses of industrialisation and economic growth, in order to establish the causal factors that either promote or inhibit these processes. Social and economic processes are dynamic, and evolutionary processes need to be viewed over time in order for them to be clearly analysed and understood. In some cases, a small change in the timeframe can fundamentally affect the theoretical conclusions that can be extracted from it (Kranakis, 1988; Mason et al, 1997).

From the outset it may appear that for technology topics the useful comparisons would be those from the recent past, due to the similarity with current and future trends. However, there is a great deal to be gained from further distant comparisons, because they may provide sharper contrasts with the present. In some cases drawing comparisons with the recent past is dangerous, because there is a tendency to take present standards for granted, to the extent that they are falsely treated absolutes (Kranakis, 1988). An advantage for IT/IS student is that many pioneers who applied IT in organisations are still alive. They are eyewitnesses, rather than hearsay evidence, and if need be can be contacted later to clarify issues. The complications involved are to locate and interview these participants. It is important to note, their recall may be imperfect and biased. One of the main problems encountered in histories is the difficulty of finding and qualifying reliable informants. Many people have stories to tell, however, some of the stories can be dubious or tangential. Accounts of great organisational barriers overcome by a specific person can be useful for describing the tensions in the organisation. However, they must remain suspect until they are corroborated by other sources (Mason et al, 1997).

4.3.3 Longitudinal Studies

Longitudinal research has become popular, particularly in the strategic management domain, articles such as Katila & Ahuja (2002) explore the global robotics industry and

how organisations reuse or search for knowledge. The increase in popularity is not surprising, as most of the definitions and theories of strategic management are longitudinal. Academics such as Miller and Friesen presented studies whereby strategy can be best understood over time. However, for longitudinal relationships to be interpreted correctly, researchers are required to recognise strict analytical assumptions and employ specific analytical procedures. Failure to do so can lead to incorrect conclusions for theory development and biases (Bergh & Holbein, 1997). Longitudinal studies may help to present multidirectional patterns that can occur in organisational change and in strategy management (Pettigrew, 1990).

Longitudinal research is defined as “those techniques, methodologies and activities which permit the observation, description and/or classification of organisational phenomena in such a way that process can be identified and empirically documented” (Kimberly 1976, cited in Bergh & Holbein 1997, p.558). It commonly involves collection of data at two or more points in time by use of consistent measures of comparable or identical subjects. The analysis of the data is accurate and complete when the researcher 1) satisfies the strict and analytical assumptions, and 2) tests the stability and form of the empirical relationships over time. By failing to consider the form of relationships over time, researchers may potentially miss the unique insights.

Schendel (1996) states that if the field of strategic management is to continue to grow and develop significant linkages between research and practice, researchers must improve the rigor of their studies by: identifying, cataloguing and defining strategy phenomena more carefully. Recognising and developing theories appropriate to the utilisation of data and analysis, and produce results that are replicable and useful to other researchers and practitioners (Bergh & Holbein, 1997).

The more academics look at present day events, the easier it is to identify change. The longer the stay with an emergent process, and the further one goes back to disentangle its origins, the more the continuities are identified. Empirically and theoretically, change and continuity are a matter of time. A good empirical study in to change has to be capable of revealing patterns, causes and movements (Pettigrew, 1990).

Longitudinal research often entails becoming familiar with particular organisation(s), either through an intensive study of secondary accounts and statistics, or by detailed

studies within the organisation(s). An in-depth knowledge of the nature of the organisation, its environments, the personalities of its managers, etc. allow the researcher to make inferences about why things happened. The researcher can view the specific processes that led to the critical events, and they can readily distinguish between cause and coincidence. Conducting research in one organisation can provide a foundation for real insights to how organisations make decisions, adapt to their environments, enact new environments, and restructure themselves. The researcher can begin to see why things change, and this can help in building better models. The rich accounts of processes show the dynamic interrelationships between the elements of the organisation and its setting. The main weakness is that it is difficult to generalise from a sample of one (Miller & Friesen, 1982).

4.3.4 Case Studies

The distinguishing characteristic of a case study is that it attempts to examine: 1) a contemporary phenomenon in its real world context, particularly when 2) the boundaries between phenomenon and context are not clear (Yin, 1981; Benbasat et al, 1987; Yin, 1994; Stake, 1995). The context is relevant, however, the contextual variables are numerous and rich, that the focus can only be on specific one or two in isolation from the broader environment (Yin, 1993). The essence of a case study tries to illuminate a decision or set of decisions – why were they taken, how were they implemented, and with what result (Schramm 1971, cited in Yin 1994). The following five components of research design are important for case studies: the study's question – how and why. Its propositions, if any. Its unit(s) of analysis. The logic linking the data to the propositions. The criteria for interpreting the findings (Yin, 1994).

Each research strategy has its advantages and disadvantages; no one strategy is better than another. Benbasat et al (1987) state that the aims of the researcher and the nature of the research topic influence the selection of a strategy. Case study is appropriate for the following types of problems: those in which research and theory are at their early stages, and those that are practice based where the experiences of the actors are critical and the context of action is vital.

According to Benbasat et al (1987) the reasons why case study research is a viable IT research strategy are: researcher can study in a natural setting, learn about the state of the art, and generate theories from practice. The researcher can answer “how” and

“why” questions, to understand the nature and complexity of the processes taking place. It is an appropriate way to research an area in which few previous studies have been carried out.

The IS area is constantly changing. The researchers often find themselves falling behind practitioners in proposing changes. Researchers learn by studying the innovations put in place by the practitioners, rather than providing the initial wisdom for these new ideas. For example, when organisations were first experiencing end user computing, the academics were unable to offer advice on how an organisation could effectively manage the introduction of end user computing systems. The researchers had to study how the organisations were managing. The studies then formed the foundation for the development of prescriptive management guidelines. The case study strategy is suited to capture knowledge of practitioners and develop theories from it. A pilot study can assist as a tool for assuring that the exploration is followed by some exploratory theory. The theory should be generalisable; it has been tested and confirmed within a variety of situations (Lee, 1989).

4.4 Justification of Methodology

It was deemed that action research was not suitable as the researcher’s output did not lead to the organisation making any changes resulting from the research. The research was not commissioned by the organisation in any form. Action research was looked at as a possible methodology because the researcher was working in the organisation, had access to data and understanding of the situation. Historical study was not used as getting information from the past would be difficult. The organisation employee turnover was high, it was a dynamic organisation that was continually changing, and due to its dynamic nature to locate data would have been highly difficult and time consuming. Longitudinal study was not a good fit, as the research was not going to be conducted at two different time points to compare and contrast. The study was not to explain two different points in time, but to explain the phenomena as it occurred.

Case studies go hand in hand with interpretation, therefore it was logical to use it as the preferred epistemological stance. The case study took aspects of longitudinal methods as the research period was over one year, therefore the longer term affects were studied, particularly those from major strategies adopted. Using long term case study, one can understand the power and culture relations of the organisation which may be required

particularly when focusing on the changing contexts. The central IT department was going through the outsourcing process and it could help to explain the before and after of outsourcing. When studying changes within organisations it is important to view the context. Case studies allow the researcher to focus on the why and how the decision were taken and what the repercussions were. The researcher had a good grasp of the host organisation culture: the environment. It helped when focusing on the changing contexts. Case study was ideal for studying the situation in the host organisation. Using Benbasat et al's (1987) key characteristics of a case study, a checklist for the particular case was constructed.

Characteristic	True	False
Phenomenon is examined in a natural setting.	X	
Data is collected by multiple means.	X	
One or few entities (person, group, or organisation) are examined.	X	
The complexity of the unit is studied extensively.	X	
No experimental controls or manipulation are involved.	X	
The investigator may not specify the set of independent or dependent variables in advance.	X	
The focus is on contemporary events.	X	

Table 4.1 – Checklist for case studies (Benbasat et al, 1987).

4.5 Research Design

4.5.1 The Host Organisation

The researcher had chosen to study the BBC, to which good access was gained, and the organisation agreed to collaborate. The BBC is a government organisation; however, it is seen as a quasi-government institution. It is financed by public funds, the British citizens pay a TV licence fee if they use a television set. The 'mission statement' of the BBC is known as its values (BBC, 2003):

- Trust is the foundation of the BBC: we are independent, impartial and honest.
- Audiences are at the heart of everything we do.
- We take pride in delivering quality and value for money.
- Creativity is the lifeblood of our organisation.
- We respect each other and celebrate our diversity so that everyone can give their best.
- We are one BBC: great things happen when we work together.

The organisation employs up to 24,000 people at any one time, of which a large percentage are contractors or independent workers. The broadcasting divisions hire people for the duration of the series in which they participate, television or radio. Talent such as scriptwriters are also hired on ad hoc bases. Many IT personnel are employed through the continuing contracts initiative, for example, 6 month contracts that are extended if required. The core management in each division tends to be permanent staff.

The BBC is an international organisation with sites across the globe. The HQ is in London; the television HQ is in White City, the radio HQ is in central London, and the BBC Worldwide HQ is at the Aldwych (London). There are several other sites in London, and many others around the UK, e.g. local radio stations. The organisation is divided into sixteen divisions. The board of directors and the executive committee are seen as one division. Some of the other divisions are: Resources, Training and Development, Research & Development, Radio & Music, Television, Factual & Learning, Drama, Entertainment & Children, Finance, Property, & Business Services, Professional Services, News, Technology, and Marketing & Research.

The culture of the BBC changed from strict and hierarchical in the 1970s, to a younger and flatter organisation in the 2000s. In order to get new fresh ideas, the BBC recruits younger employees. The viewing figures, expanding cable and sky channels, growing number of radio stations, and news organisations mean that the BBC needs to compete more with independent companies. The constant media attention on the public BBC funding means the organisation has to constantly prove its value, and its spending of the public's money wisely.

The BBC is globally the largest broadcasting corporation according to its website. The aim of the BBC is centred on its historic core service, programme making. Its mission is to enrich people's lives with programmes that "inform, educate and entertain," these are the values it hopes to promote to its customers. Its vision is to be the most creative organisation in the world. In order for the organisation to fulfil its mission, the Royal Charter and Agreement set public purposes the BBC should deliver. The BBC Trust had set remits of purposes and the BBC management set plans on achieving them. The public purposes are (BBC Purposes, 2006):

- Sustaining citizenship and civil society.

- Promoting education and learning.
- Stimulating creativity and cultural excellence.
- Representing the UK, its nations, regions and communities.
- Bringing the UK to the world and the world to the UK.
- Delivering to the public the benefit of emerging communications technologies and services.

As a public organisation the BBC needs to be open and accountable. The Freedom of Information Act gives the public access to various types of recorded information held by public authorities. In order to be open, the board meetings minutes and the annual report are accessible to the public².

The BBC is constitutionally established by a Royal Charter. An accompanying Agreement recognises its editorial independence and sets out its public obligations in detail. The current Royal Charter was granted to the BBC on 19 September 2006. It took full effect from 1 January 2007. Before the Royal Charter was given, a review took place and the government published its green paper: A strong BBC, independent of government. In May 2005 the BBC published its response: Building public value.

The BBC Trust is a body that works for the licence fee payer. It is the Trust's role to listen to the public and ensure the BBC is independent, innovative and efficient. The BBC needs to portray an image that it is creative, and a good economic force in the UK, and for the UK internationally. The Trust makes sure the organisation is providing public value through high quality services³.

The way the BBC is funded is unique compared to any other organisation, as it is financed through the licence fee. In order to use any television receiving equipment such as a TV, set top box, video or DVD recorder, computer or mobile phone to watch or record TV programmes, the household needs to pay the licence fee. The annual cost of a colour TV licence (set by the government) is currently £142.50, and a black and white TV licence is £48. This allows the BBC to run public services for everyone, free of adverts and independent of advertisers, shareholders or political interests. The BBC

² Can be found at <http://www.bbc.co.uk/info/purpose/accountable.shtml>.

³ Can be found at <http://www.bbc.co.uk/bbctrust/about/index.html>.

provides 8 interactive TV channels, 10 radio networks, more than 50 local TV and radio services, the BBC's website, and the on-demand TV and radio service, BBC iPlayer.

The remit of BBC Online is to “serve the BBC's public purposes through the provision of innovative and distinctive online content and through distinctive propositions that reflect and extend the range of the BBC's broadcast services, available to all” (About the BBC, 2009). The BBC Online enables the BBC to develop a deeper relationship with the licence fee payers and strengthen accountability. Its aim is to be a starting point on the Internet from which users “can develop their use of the medium and provide a trusted guide to the wider internet”. BBC Online has to contribute towards the delivery of the public purposes. The overall improvements the online area want to deliver are:

- Improved engagement – user personalisation and participation through commenting, rating, user generated content, recommending and sharing with friends.
- Partnership - become better connected to non-BBC sites and services, e.g. make more content available for syndication to partner sites that wish to feature it.
- Site wide navigation – new navigation across the site linking to BBC and external material.
- Feedback management – seek feedback from users through contact us methods and message boards.

IT is an integral part of the BBC. Broadcasting is going through its IT revolution. The broadcast technology is moving away from old clunky systems to desktop application editorial suites. As well as the broadcasting arena, the BBC website has moved in leaps and bounds due to competition from sites such as You Tube. The BBC website allows UK residents to view programmes via downloads or streaming. The BBC iPlayer became the UK's leading player that many organisations consider a standard. BBC has begun a major programme Digital Media Initiative (DMI) to bring all its content, including archive, on to one platform. This will allow the organisation to share all its content across the organisation and output to users.

The general timeline outlining all the IT major milestones in the BBC as regards to this study are shown:

Late 1991	Mainframes outsourced to CFM
April 2001	BBC Technology set up as commercial arm
October 2004	BBC Technology sold to Siemens for £150m, 10 year deal worth £1.5bn (approx)
October 2005	BBC Reorganisation <ul style="list-style-type: none"> Technology Direction - technology centralised hub for BBC Professional Services - HR outsourced to Capita, IT team becoming central hub for the division, Knowledge Management Solutions team made redundant, Intranet team redundancies Occupational Risk Management - Policy Knowledge Management team redundant, Medical arm outsourced to Capita

Figure 4.2 – BBC’s major milestones timeline.

In 2003, the BBC was undergoing changes. The central IT division, known as BBC Technology was outsourced to Siemens and thus its role was under serious examination. These issues developed as the research progressed. In order to overcome the problem of attempting too large an area, the detailed empirical focus was on the user support aspects of the role of the IT function through an initial ‘shopfloor’ study of one of the departments. This was complemented by broader interviews with senior managers later in the study, in order to gain a ‘bigger picture’. It was the Occupational Risk Management (ORM) department that was selected to study end user and user support. The ORM department was chosen because the department had traditionally opted for user support projects, and access to people, documents and systems was secured.

The BBC takes health and safety very seriously, not only on BBC premises, but anywhere a BBC employee is based. Any accidents, injuries or near misses that occur are recorded, and the department’s role is to reduce and mitigate the issues. The users of the ORM systems were ORM advisors, administrators and senior management, amounting to approximately 120 people. The department had a small IT team known as Policy Knowledge Management (PKMT), consisting of a Manager, 2 Developers, 1 Web Editor and 2 Administrators. One example of a project in ORM was SHE 2000⁴ was built by a third party vendor, therefore PKMT was not allowed to modify the

⁴ SHE 2000 captures safety related incidents data and reports on them.

system, however, they had rights to the data and could develop other reporting tools. The system was web based, and sat on the BBC intranet, therefore a few members of BBC Technology were also involved on the web and database server issues/maintenance/support. Any developments or enhancements to the system involved the ORM Manager, BBC Technology and vendors.

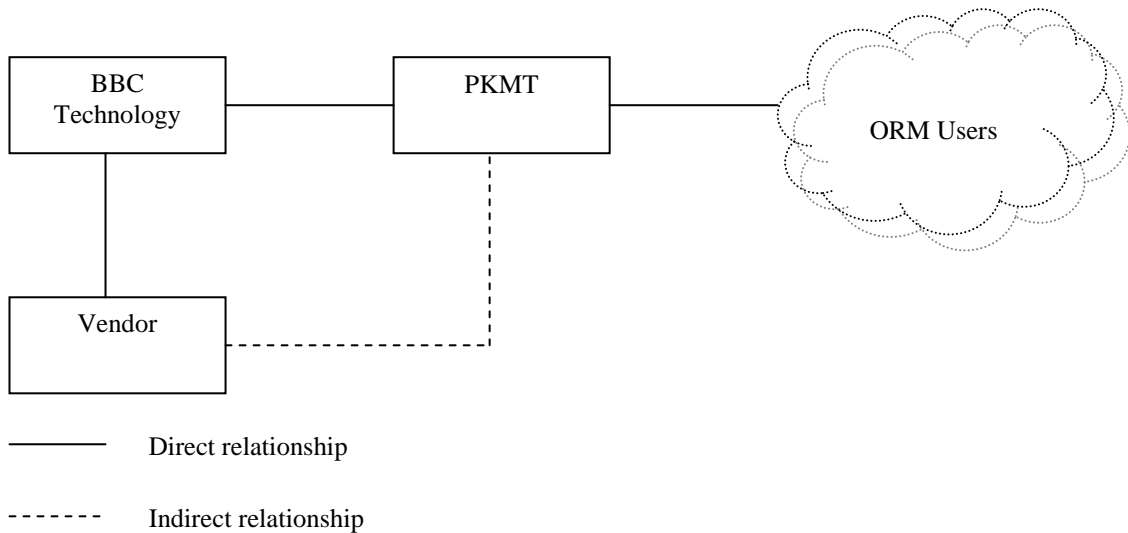


Figure 4.3 – ORM work structure.

Thus, initially, the researcher studied the roles of the IT people in PKMT. Moving on to the middle/senior management. The groups and their roles were examined. The focus was on the activities of the people in the organisation – the activities of users, PKMT, Professional Services and Technology Direction (central IT department). When satisfied with the shopfloor studies, there was a move up the management hierarchy and the IT managers were interviewed, both about their roles in the division and their broader roles within the IT function. Thus, the research took a bottom-up approach using ORM as a starting point, and pushing up in to the overall central IT function.

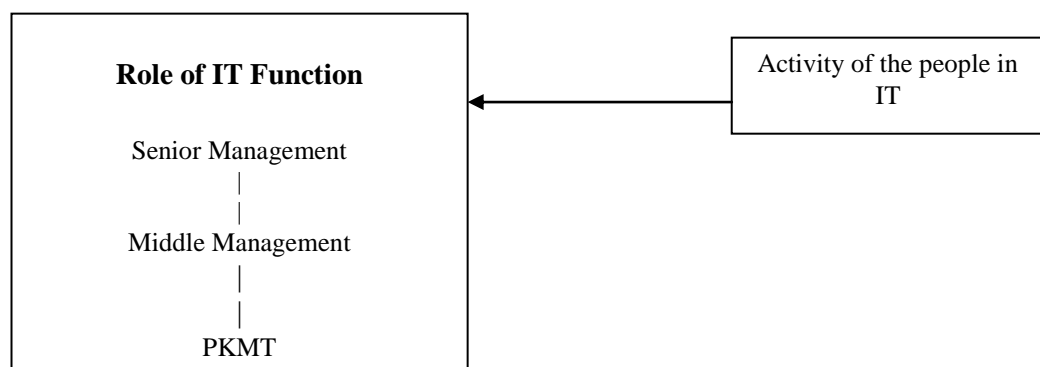


Figure 4.4 – Hierarchy of IT function structure.

4.5.2 Empirical Research

There are many ways of collecting data. Some of the techniques are explained here. Researchers need to gain trust and develop relationships with the actors in the setting. At the beginning, the people may not trust or pay attention to the researcher. They maybe suspicious of someone sitting around all day and just watching, so they may not let the researcher “in” (Esterberg, 2002).

When conducting social research, the researcher should follow ethical guidelines produced by Social Research Association and the British Sociological Association. However, the guidelines are vague and can be interpreted in ways that fit the needs of the specific research being undertaken. Therefore, researchers make decisions based on their own ethics and their specific research project (Wiles et al, 2006). It is common practice for social research that participants’ identities are concealed. The researcher in this particular study used job titles to mask the identities of the participants. In the BBC, there were many job titles and many staff had the same titles, and the organisation was under constant change, therefore to pinpoint the participant would be difficult.

Researchers that work for the research organisation have some preunderstanding of the project. They have knowledge, insights and experience. The researcher understands the organisation’s rules, norms, culture and the networks. They can participate freely without drawing attention to themselves. There are some disadvantages of being close to the data. The researcher when interviewing may assume too much and may not probe as deeply as if they were outsiders. There could be chances of loosing out on data because the researcher is bound by hierarchy boundaries that an insider is denied, but might not be denied to an outsider (Coghian, 2001). The researcher was bound by the permanent job role, however, the BBC staff were open on being interviewed and the “networking” culture in the organisation helped the researcher to gain interviews higher in the organisation structure.

4.5.3 Interviews

Most social research is based on interviews. Janesick (cited in Esterberg 2002, p.83) defines an interview as “a meeting of two persons to exchange information and ideas through questions and responses, resulting in communication and joint construction of meaning about a particular topic.” The aim of all interviews is the attempt to gain information and meaning from people on topics. On one end of the interview spectrum

are structured interviews, these are the most formal and rigidly controlled type. These types of interviews are more likely to be used in survey research. The sequence of the interview and the pace tend to be pre-established. The interviewer usually does not deviate from the schedule. The questions asked can be closed or open ended. The interviewer tries to remain as neutral as possible because they do not want to influence the interviewee's response.

Semi-structured interviews are also known as in-depth interviews, they are less rigid than structured interviews. Semi-structured interviews' goal is to explore the topic in an open fashion and allow interviewees to express their thoughts in their own words. The interviews are to understand what life is like from other perspectives other than our own. The interviewee's responses shape the structure of the interview. Each interview is tailored to the interviewee. Semi-structured interviews allow a freer exchange between the interviewer and interviewee. The interviewer needs to listen carefully to the responses of the interviewee to follow their lead. The interview resembles a dance. In semi-structured interviews the researcher prepares an interview guide to help focus the interview. It lists the main areas and probes. The questions are adapted through the course of the interview, and additional questions may be asked dependent upon the responses. In-depth interviews explore the interviewee's reality, therefore the questions should open up discussion, not close it. New researchers tend to use formal language, which looks good on paper but can sound awkward in speech. Locations of the interviews can vary, but the crucial aspect is to be in a quiet place where the interview will not be disturbed (Esterberg 2002).

Finally there are unstructured interviews. These tend to be spontaneous and free flowing, with topics arising from the situation or behaviour at hand. They often occur in the field setting, and usually as part of an observational study. The interviewer does not have set questions prepared in advance, rather the questions arise naturally (Esterberg 2002).

The researcher selected the semi-structured interview method because in-depth knowledge of the actors was required. The structure of the research needed rich data, but the data was in the actors' head, and therefore to draw it out required probing. A good way to get this knowledge was through interviews, but allowing it to be flexible for actors to tell their interesting stories. These were the main themes of the interview

process, and they also revolved around the tenets of Activity Theory. Activity Theory was used for the data collection phase.

- Object – what was the aim of PKMT, BBC Technology and various senior IT management roles? What were the strategies and why? The strategies helped focus on the structure of the departments and the organisation.
- Mediating artifacts – documents such as job contracts defined job descriptions. How did the employees feel about their individual role? Did they face or foresee problems? Were they satisfied with their role, and the organisation as a whole? What were their fears, and why? What was the opinion on outsourcing, and why? Were the job descriptions changing, and why? Memos and emails were a major communication method in the BBC.
- Subject – Those interviewed were: ORM users, PKMT, BBC Account Manager, Siemens' Account Manager, and various middle and senior IT managers.
- Rules – Within the case study several conventions were observed: the IT industry standards, Technology Direction's standards, BBC culture/environment, group norms, and regulations/laws concerned with the BBC.
- Community – roles do not affect only an individual, but also the community surrounding them, in the case of the interviewees, their colleagues. There was a need to collate data on interviewees' roles, and their perceptions of others' roles.
- Division of labour – the geographical locations of the interviewees impact the perceptions of roles. It was interesting to view the users, PKMT, Technology Direction, Siemens, and the management's opinions on the strategies – were they all heading in the same direction?
- Personal histories – helped uncover any major events in the past. What was the interviewee's role, and how they felt about it? How had their roles changed? How did their roles affect the organisation and its structure? Their opinions on various decisions taken.
- Major events – needed to understand where the turning points occurred and why? How did these events affect the organisation, its structure and employees? How did these events affect the present/future? Did the outsourcing affect the responsibilities, how and why? Did the technical people change to project managers?

The timeline of when the interviews took place is shown:

Late 2005/Early 2006	11 Occupational Risk Management Users
	Policy Knowledge Management Team - 4 members of IT team
	5 Middle IT Managers
Early 2006/Mid 2006	8 Senior IT Managers
March 2007	1 BBC Account Manager
	1 Siemens Account Manager

Figure 4.5 – Timeline and number of interviews.

The reasons for the interviews held during the specific periods was due to the logical sense for interviews to be carried out in blocks, e.g. ORM users, and then PKMT. The BBC is continually changing and to try to keep up, the interviews were in blocks to help to research the story in the time period. If there were inconsistencies between the different interviews in the same time period it would show a period of confusion. In order to interview senior management level, it was easier to get the names of interviewees and possible introductions from middle managers. BBC did not have updated organisation charts readily available, the organisation worked through networking, and in order to get some interviews networking was adopted. ORM and PKMT interviewees were easily accessible and dates for interviews were arranged fairly quickly. In carrying out the interviews in blocks, and the accessibility of the interviewees in ORM, it was logical to interview bottom up. Interviews with senior IT management was not easy to arrange, trying to find time in their diaries was quite a task. It was difficult to arrange interviews with the Account Managers during the early phases of outsourcing because the contract was huge, and there was a great deal of work to put in place. Initially many people were involved at the senior level and there was much confusion. The managers were busy and did not have time for the interviews, hence why they were left until the end. The interview questions can be found in Appendix 1. The questions were based on role, role perception and Activity Theory constructs. The people to be interviewed and observed were:

- Members of Technology Direction – using Mason et al (1997) titles of leaders (CIOs, Account Managers, and CEOs, etc.), maestros (IT managers) and supertechs (senior technical staff). What was the view of the central IT department on user support, and why? How did the outsourcing affect the IT department? Did it lead to changes in structure and role? If so, how and why? What policies were planned to be brought in to affect? Why?

- ORM department users and IT staff (including managers) – To understand fears, and general perceptions of strategies and systems. To get feedback on the decisions and their experiences. The study examined how outsourcing affected departmental IT teams. The advantages and disadvantages of user support. How did they structure the department to cope with the new IT structure, and how it affected the department.
- Siemens (vendors) – To view their opinion and gain feedback. Did they know who they were dealing with, and why? How did they communicate any issues or concerns from their side or the clients?

The duality of the role can affect relationships with colleagues (Coghian, 2001). The traditional approach in research interviews is that the interviewer and interviewee are anonymous to each other, are from different social groups and unlikely to meet again. With interviewing peers, the interviewer has to manage both researcher and colleague roles (Platt, 1981; Coar & Sim, 2006). The researcher in this particular case because of the changes (restructures and redundancies) occurring in her department found that colleagues were happy to be interviewed and she did not face problems with her colleagues wanting to tell their accounts. The interviewees did not seem to conceal or divert their discourse. The interviews did not probe in to gossip or personal details, hence the interviewees were free to disclose their opinions.

In majority of cases the researcher is higher in the organisation structure than the interviewees, however this is not always the case, particularly in health studies there can be the need to interview peers. Interviewing peers can give the feeling of professional scrutiny for the interviewees. In other cases, the interviewer may be seen as an expert in the research field by peers. A disadvantage of interviewing peers is that the interviewer's own feelings and opinions may dominate the path of the interview and its interpretation. Some distance is required when interviewing (Coar & Sim, 2006). The researcher addressed this issue through a reflexive approach. An insider's understanding of a profession is neither better nor worse than that of an outsider, it is dependent on the appropriate approach to the objective of the research (Coar & Sim, 2006).

4.5.4 Observation

The researcher is the research instrument. The study is based on what the researcher observes and hears. The researcher cannot observe everything at the same time, so they must decide what to focus their attention on. Within qualitative research, there is no list of items the researcher has to focus on. Humans are moving targets. They do not stand still to allow the researcher to jot down their behaviour or what they have said. It is left to the judgment of the researcher on what to capture (Esterberg, 2002).

Observation is looking in a focused way. In observation, researchers go to the natural settings in which social life takes place, and observe what people do in these settings. The idea is to immerse in to the settings for a long period of time and get to know the people intimately. Ethnography adopts the same ideas, embedding in to the social life setting, observe and write about observations. A researcher learns more through living the experience than asking questions only. With ethnography the study of culture should be the central premise of the research. Ethnographers should not study people like themselves as biases set in and they should have fresh eyes to conduct a thorough observation (Esterberg, 2002).

In order to carry out observational research, the research setting is important. Depending on what the researcher wishes to observe, the physical place of the research setting must be selected. Is the area an appropriate place to study? Are the boundaries of the field setting defined? Is there access to the site? There is a dichotomy with regards to the research setting. Some researchers suggest the place of study should not be a place the researcher is too familiar with. They argue the familiarity will hinder the researcher viewing anything new. Others believe the familiarity of the setting can direct the study and assist the researcher in where to start (Esterberg, 2002).

The researcher in the case study was not out of place in the setting. The actors in the research were not suspicious of her as she was an employee. If they had a story to tell, even a controversial story, they felt they could speak honestly to her. The actors are the true experts on their own lives, and the researcher is there to learn from them. The researcher sat with the PKMT team. She was an active member of the team, working in an IT role. As she worked in the organisation, the type of observation was covert/overt, the ORM department knew she was conducting a case study, however because she was someone they knew, they did not alter their behaviour. She wanted to view the

interactions between PKMT, and its managers and users. The interactions detailed the type of relationships PKMT had with ORM, in particular the concept of PKMT's role and the roles of the members perceived by ORM. Sitting with PKMT also allowed the researcher access to hear and view documents on what was happening within the organisation's IT function. PKMT's manager had a close working relationship with Professional Services IT team and Technology Direction, and therefore PKMT were kept up to date. The researcher examined the day to day IT operations within the BBC, particularly within the ORM and IT function.

4.5.5 Documents

Documents and records are written material that are left behind. These might include materials such as private letters, corporate records and government documents. More recently it would include electronic material. The problem with electronic documents is the emotion can be lost, for example, conducting an interview (asking questions) over email. Also there is a great deal of information on the Internet that the quality of it may not be to standard or valid. Public records are produced for official purposes and by institutions such as government, schools and hospitals. Again these public records can be available online. In terms of research, examining documents can be combined with observation (Esterberg, 2002).

The BBC is a public entity which means majority of the documents are viewable by the public. The organisation has a library and archives area. The key documents analysed were:

- Obtained and analysed key internal documents (organisational and departmental) concerning policies and major changes – legal documentation, Parliamentary reports, and papers. The reports are publicly available, and the organisation documents were archived, or access was gained to them if soft copies were available through staff. The government papers revealed the influence of the BBC budget and its affect. How the organisational and legal policies were filtered down in to the departments, and its affects. The internal policies opened issues regarding direction, structure, and involvement.
- Current and previous organisation charts.
- Consultancy and external academic reports concerning the role and structure of the BBC IT function.
- Use data available on the intranet and Internet.

4.6 Analysis Method

The primary source of data for the research was from the BBC and Siemens staff interviews. The research was a qualitative study on how the outsourcing influenced the role of the IT function. In order to understand how the role of the IT function changed, it was important to study the people within the function, and what their activities were and how they altered. The IT function was not a neat package with a defined boundary, therefore it was deemed necessary to slice through the organisation via the IT function, collating data from users within a user department and IT teams through to the IT senior management in the IT hub of the entire organisation. Thirty face to face interviews were conducted and lasted on average 40 minutes each. The interviews were designed to elicit information from staff relating their views and practices around IT activities and the changes they had noticed, not only through the activities, but also rules and norms. All staff were keen to talk about their roles and outsourcing experience, and it was a topic of current relevance.

The interviews were recorded using a dictaphone. They were recorded because the researcher scribbling notes would be left behind the speed of the interviewee, the researcher would not be able to listen to the interviewee, and this was particularly important as the interviews were semi-structured and the researcher wanted to follow any leads that were interesting and salient points. The recordings were transferred from the dictaphone to the computer as wav files. The wav files were then converted in to generic mp3 files so they could be heard using any generic audio application, e.g. real player or windows media player.

The initial phase of data sense making was conducted by listening to the interviews and creating notes on each interview. The notes were based on important points the interviewees made, but also any interesting stories or quotes. The notes allowed the researcher to view what she believed were the central themes, patterns and significant points from the rich data. Once all the interviews were noted and the main topics established, the researcher listened to the interviews again to ensure no information had been missed out. If there were new points, she added them to the notes. In the third phase she transcribed the established areas of the interviews utilising a free transcribing software. Only the important sections of the interviews were transcribed due to time constraints, and also the non-relevant sections would be tedious to read. The

transcribed sections were produced and interpreted for the basis of the findings and analysis chapters.

4.7 Summary

In this chapter, the epistemology (the theory of knowledge) and ontology (the study of being) were defined. The chapter explained the difference between the two terms and detailed the various perspectives within those terms. The selected epistemology was subjectivism. In subjectivism the meaning to the object of study is given by the subject, in other words, meaning is given by humans. The researcher defended the reason to adopt realism as the ontology. Realism attempts to move towards the literal truth and pragmatism. Subjectivism and realism worked with the research as the goal of the study was to understand social phenomena and there was a need to interpret the work to the truth as close as possible.

Theoretical perspective grounds the logic of the study. It is a way of looking at the world. Various ways of looking at the world were defined, and interpretivism was selected. It was chosen because the researcher was interpreting what the actors were doing and saying. Due to the selected epistemology, ontology and theoretical perspective it made sense that the study was a qualitative piece. The problem statement sought knowledge on social occurrences, and therefore in order to produce results on this type of a study it made sense to interview actors, hence the reason for selecting a qualitative approach.

The researcher defined four methodologies (action research, historical study, longitudinal study and case study) that seemed to fit the epistemology, ontology and theoretical perspective criteria. The chosen methodology was case study, as it was a closer fit than the others. Case study allowed the phenomenon to be examined in its natural setting, data was collated by various means and a number of groups within an organisation were examined.

The next section gave some relevant background information on the host organisation, the BBC. Finally the methods used for the study were examined. The researcher decided to opt for semi-structured interviews in order to allow actors to give their views, tell their interesting stories and to allow some flexibility for the actors. The chapter proceeded with the researcher expressing what documents were viewed and the

observation techniques utilised to collect data. Finally the analysis method used was detailed, how the researcher transformed raw data in to useful information.

Chapter five, details the findings the researcher collated using the methods that were selected within this chapter. The researcher interviewed the actors, observed the actors within their natural environment, and read various documents. The researcher aimed to tell the actors' stories as close to the truth as possible because the recognition of subjectivism can bring about different but correct truths. It is understood that in interpreting the actors' stories there will be some assumptions brought in to the explanation by the researcher, and these will be highlighted.

5. Findings: Outsourcing

“If you don’t know the trees you may be lost in the forest, but if you don’t know the stories you may be lost in life.” Siberian Elder

5.1 Introduction

The previous chapter discussed the various epistemological and ontological stances that could have been adopted. The researcher selected the stances and justified why they were chosen. The decided philosophical stances were subjectivism as the epistemology, realism as the ontology, interpretivism as the theoretical perspective, and case study as the methodology. The methods of data collection were interviews, observation and documentation.

Chapter five presents the results from the data collated within the BBC. It tells the story of the IT outsourcing that was taking place in the organisation. It covers the period from 1990, when the idea of outsourcing was first mooted within the organisation, to late 2007, when the interviews with the BBC staff were conducted for the research. The primary sources of data from which the details of this chapter are drawn were derived from staff interviews, supplemented by the organisation, Parliamentary and conference documentation. The findings are split in to two chapters because of the huge amount of data collated, and to amalgamate it in one chapter would have been overwhelming for the reader. The findings are divided in to outsourcing and organisation restructure information, as this made logical sense, when the data was viewed it fell in to these two categories naturally.

The first section of the chapter presents information on the BBC Technology division. It gives pre and post outsourcing details on the division. This recent history of the division is important to the story as it is the backdrop of how the outsourcing decision was reached, and uniqueness of how the organisation created the division as a subsidiary, a “half way” house before outsourcing. The next section tells the outsourcing story from the view of the interviewees. Explanation of a previous IT outsourcing contract the BBC participated in is given, however, the prior contract was much smaller than the Siemens deal. Finally, the interviewees’ perspectives on the recent outsourcing contract are detailed – what they thought of it? Did they consider the decision to outsource a success?

Late 2005/Early 2006	11 Occupational Risk Management Users
	Policy Knowledge Management Team - 4 members of IT team
	5 Middle IT Managers
Early 2006/Mid 2006	8 Senior IT Managers
March 2007	1 BBC Account Manager
	1 Siemens Account Manager

Figure 5.1 – Timeline and number of interviews.

5.2 BBC Technology

The technology department was set up as a commercial subsidiary of the BBC in April 2001. Tasked with generating additional revenue for the organisation by delivering leading edge technology solutions internally to the BBC and external clients. In doing this, the aim was to become the world's leading rich media technology solutions provider.

The value of offering revenue earning services can be demonstrated by the amount BBC Technology delivered to the BBC. During its first year of trading (2001/2002) the department contributed £16m. As well as striving to increase revenue from external clients, the department recognised the BBC was its most important customer. The department was committed to delivering cost savings on services they provided to the BBC and developed new technology solutions to enhance BBC's media content and delivery (BBC Technology Intranet, 2004). Since the commercial set up, BBC Technology delivered a number of projects and solutions to the BBC. These included continuing to deliver the communications, encoding and transmission services for a number of BBC channels, developing the infrastructure for the interactive television services and the hosting of bbc.co.uk.

BBC Technology was part of the Future Media and Technology (FM&T) division. The department consisted of approximately 300 staff, with skills ranging from desktop support to specialist broadcasting engineering. In 2004, BBC Technology was bought by Siemens as part of the outsourcing agreement. All the BBC Technology staff except 30 staff approximately were transferred to Siemens. The staff retained by the BBC were senior technologists and broadcasting specialists, and they moved in to the Technology Direction (TD) department of FM&T. TD's role was to act as the IT strategy driving force for the BBC, and manage the Siemens contract. The team was set up to liaise between the BBC and Siemens. The two diagrams show the before and after of the Siemens contract effect on FM&T.

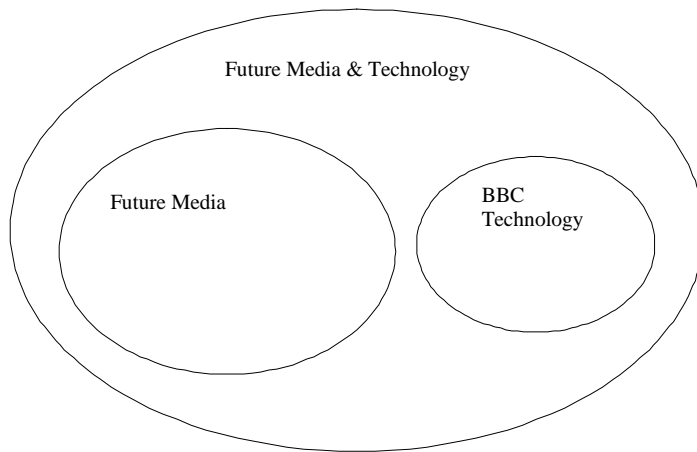


Figure 5.2 - Before Siemens outsourcing contract, pre-2004.

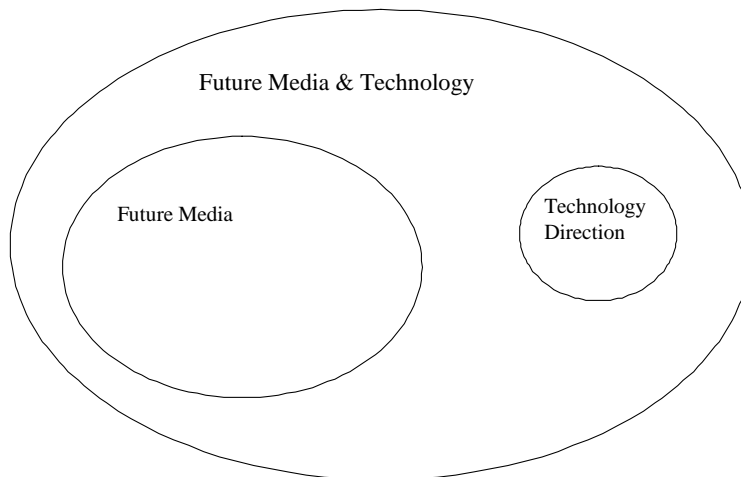


Figure 5.3 - After Siemens outsourcing contract, post-2004.

5.3 Outsourcing

In March 1990 there was a practitioners' industry conference centred on the area of whether organisations should outsource or not. The conference participants were industry practitioners only. Before 1990 outsourcing was regarded as a fringe activity, but it was gaining ground rapidly as a genuine strategy for getting the best return from investment in IT (Parlett, 1990). The conference outcome was not to answer the question of whether to outsource, yes or no, but to present the delegates with facts, so that they could base their own conclusions to their circumstances.

An Operations Manager from the computer directorate (mainframes – the only technology department in the BBC), Parlett, from the BBC participated in the

conference. He managed the computer area. The main argument to outsource was to allow the business to concentrate on its core business. However, Parlett's view was IT was important to all organisations and should not be regarded as peripheral to the main business. The strategic role of IT was too important to be left to external businesses (Parlett, 1990). His analysis of the 1980s showed the focusing and sharpening of the business perspective. There was a shift of power from the unions to employers, the rapid growth of high-tech industries, privatisation and the re-emergence of the profit motive. The idea of core business became prominent in the 1980s.

In 1990 there were not many corporate systems and standards in the BBC, and there was no IT guru at board or senior management level. The nature of the IT set up made it difficult to consider it as a single entity. The actual research in to outsourcing was sparked by a circular sent to the Director General by an outsourcing vendor claiming they could cut computing costs by 40%. This led to the outsourcing investigation not for the entire organisation but for Parlett's directorate.

In Parlett's outsourcing investigation there were two approaches organisations could take; to do it in total secrecy or total openness. In reality it happens somewhere between. Total secrecy required an approach where the deal was "hammered out, signed, sealed and delivered before anyone knew about it" (Parlett, 1990). All the workload, from gathering of information, to dealing with all the employees' terms and conditions should be done in complete secrecy. To work in this way would be quite a task. There was always the danger of a leak. Total openness was an unusual approach, as senior management would have to explain their thinking from the outset. It allowed the employees to contribute, but it could take longer. In the BBC's case, the invitation to tender had been issued, and then staff were informed. Therefore, no in-house alternative could be considered, and the employees' questions were answered in a non-specific way.

The outsourcing vendors responded, and their responses were looked at in detail. BBC's Operation Manager Parlett (1990) learned some lessons from the exercise:

- Carefully examine the underlying assumptions in any predictions – the outsourcing vendor made some huge assumptions on rate of growth. The vendor stated the BBC could save £11m on a turnover of £54m, in reality it was closer to a saving of £4m on a turnover of £39m.

- Always be flexible in your planning and in your thinking – there are often more cost effective ways of doing things, if the thinking is radical enough.
- Examine staff cost proposals carefully and fully explore the implications – the staff savings would be £400,000 per annum, however the vendor's annual management fee was £600,000.
- Costs are only controllable to the same extent as the predicted growth – vendors' price works on the assumption that everything remains the same.
- Impact on management in order to monitor the contractor - auditing and monitoring costs can be reduced if the organisation is prepared to forego the level of control they previously had on costs and levels of service.
- Examine the quoted standby benefits – support and disaster recovery claims need to be examined.
- Explore with your suppliers/leasing companies what deals you can do directly with them.
- There is no such thing as a free lunch.
- Do not underestimate the value of staff loyalty.

In the end it became clear that considering all the factors, the BBC's in-house IT function could more than match the vendor's bid. The decision to remain in-house was made. In late 1991 there was another prompt to look at outsourcing. The reasons for another investigation were; the data centre was in a leased building and faced a move due to lease rationalisation within the BBC, and the data centre was facing a decreasing mainframe workload. There was a move towards Unix and not huge mainframes. Second time round the BBC were more proactive in the evaluation process. The bids were invited from their hardware supplier, four vendors, in-house and a joint venture. The CFM organisation vendor bid seemed attractive – CFM to run the mainframe bureau, and technical support remained in-house. In the early days of the contract there were some problems, such as users experiencing longer waits than previously experienced, but this was due to change control becoming tighter with a more bureaucratic approach. After the initial period, outsourcing the technical support was also on the agenda.

In October 2004 the BBC entered in to a 10 year framework contract with Siemens for the provision of technology services provided previously by BBC Technology. The contract was estimated to be worth £1.5bn over 10 years. The contract covered desktop

computers, specialist technology projects, and technological support for programme production and broadcast functions. According to the Director General, Mark Thompson “in areas which are partly scale businesses, where Siemens deals with millions of desktops, we thought the value for money arguments for this kind of arrangement were powerful. I have to say that I believe the PAC (Public Accounts Committee) would be criticising us roundly if we had not looked at these value for money questions and gone down this road” (House of Commons Committee of Public Accounts, 2007). The strategic objectives for the contract were:

- Deliver emergent technologies and innovation.
- Maximise value for money and identify opportunities to reduce the service charges paid by the BBC.
- Accommodate changes to the BBC’s service requirements.
- Deliver excellent customer service.
- Provide maintenance and support of a resilient technology infrastructure and continuity of services for live broadcast environment.

In June 2007 the House of Commons Committee examined the public accounts and the outsourcing contract. When the BBC sought approval for the contract with Siemens from the BBC Governors (currently the BBC Trust), they reported that savings were guaranteed at £35m a year, but mistakes were made when they estimated the cost reduction the contract could deliver. In year 1 there were savings of £22m (House of Commons Committee of Public Accounts, 2007).

Overall reported performance against key service targets had been high, but the early projects experienced delays or cost overruns. Siemens did bear the additional costs, but delays meant that some benefits of the projects were fruitful later than planned. The BBC were given 6 months of year 1 to put arrangements in place to manage the contract, but there were gaps in them. There was the absence of controls over performance data validation, volumes of services purchased by divisions, checking of the accuracy of the suppliers’ bills and the lack of contingency plans in the event of early contract termination (House of Commons Committee of Public Accounts, 2007). The committee’s conclusions and recommendations in regards to the outsourcing contract were:

- The first year’s savings were £22m, 38% lower than original forecast. The BBC responded that at the time there was no BBC Trust, however the Trust can

examine proposals and review progress in detail independent of BBC management.

- The BBC's estimates of annual savings fluctuated widely from £21.8m to £40m – this did not inspire confidence in BBC's forecasting. The BBC had to get Internal Audit to confirm the accuracy of its savings estimate.
- Many areas of BBC were buying technology services and commodities from other suppliers – controls were asked to be put in place. After the report the BBC centralised its technology funding and added new governance arrangements.
- Contract does not provide for BBC to share profits if Siemens' return exceeds a specified level.
- BBC had been slow to introduce effective management of the contract.
- 60% of the key technology projects commissioned in the first year of the contract suffered delays or were over budget.

The table shows how BBC's forecasts of annual savings have changed:

Forecast (£ million)	Date	Comment
35.2	September 2004	Average annual savings of £35.2m forecast when Governors approved the deal.
27.5	October 2004	£7.7m reduction in forecast savings to reflect BBC's mistake in forecast Siemens' expenditure.
21.8	April 2006	Further £4.5m reduction in forecast because some services were mistakenly excluded from original forecast.
40	November 2006	Forecast offered by BBC at session.

Table 5.1 – BBC outsourcing: the contract between the BBC and Siemens Business Service (House of Commons Committee of Public Accounts, 2007).

The BBC wanted Siemens to deliver excellent customer service. In order to measure the service quality the BBC asked 500 staff in 2006 to complete a survey. Only 24 responded, the response rate was too low to allow performance reliably. The Director General stated that the low rate of response usually meant the users were satisfied, if they were not, the number of responses would have been higher. PAC believed it was a dangerous assumption to make. According to the Director General when asked in the

PAC if the service from Siemens was an improvement from BBC Technology, he replied “yes”.

The contract between the organisations was to promote a partnership approach. BBC felt the partnership was strong, but acknowledged that the BBC senior management should have been more engaged from the outset. A Partnership Executive Board was set up to allow board level executives from BBC and Siemens to agree strategic priorities and to raise the profile of the contract inside the BBC. The Board only met once in the first 20 months of the contract (House of Commons Committee of Public Accounts, 2007).

The House of Common’s Committee of Public Accounts and the board viewed outsourcing from a high level and almost externally. The case study detailed what was occurring in the organisation from 2005 - 2007. The BBC IT function was changing and to study how, it was important to focus on what the BBC staff believed happened. The interviews conducted in the BBC were taken from a small department (Occupational Risk Management - ORM), its users and its IT team (Policy & Knowledge Management - PKMT), and then up the IT hierarchy, in to the division level (Professional Services), and in to the main technology department (Technology Direction - TD). The structure of the interviewees is illustrated:

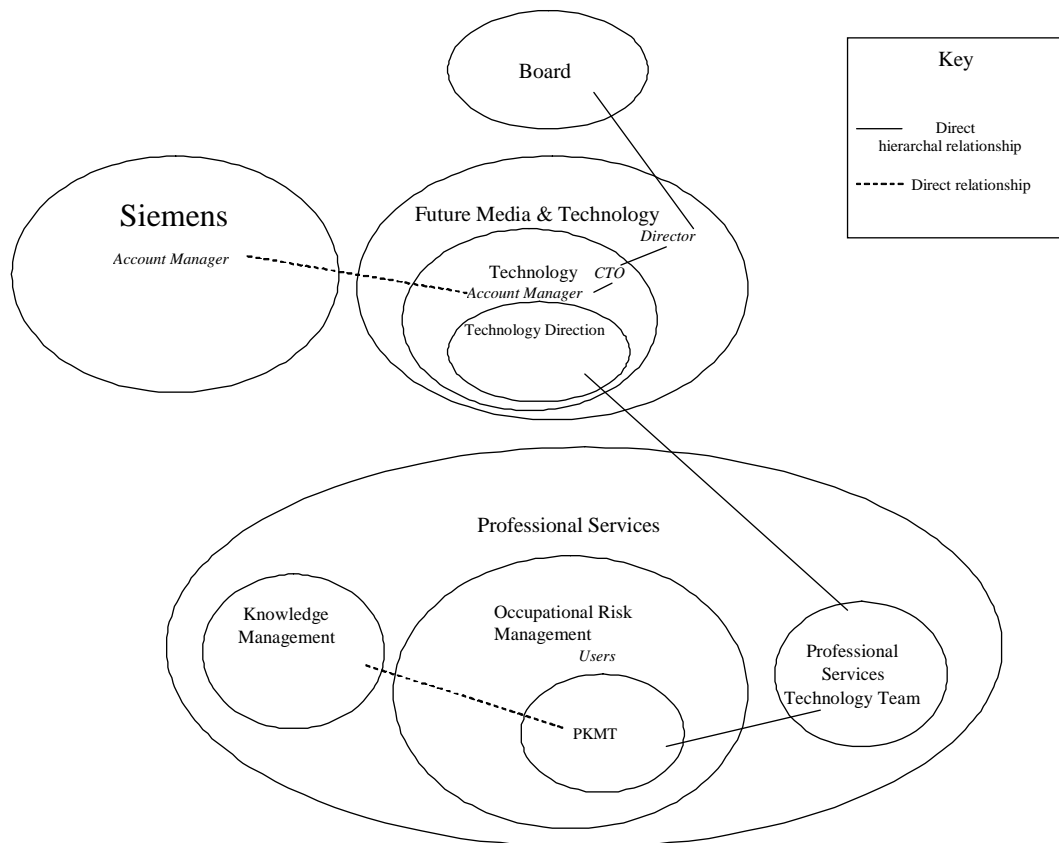


Figure 5.4 – Structure of interviewees.

5.3.1 Users' Perspectives

The users were from the Occupational Risk Management (ORM) department. The department was BBC's health and safety, and security advisory. The advice ranged from conducting health and safety checks for programme making, e.g. stunts, to ergonomics, doctors for journalists, and BBC security. The staff ranged from Health and Safety Advisors, to Physiotherapists, Nurses and Doctors.

Generally the users were happy using the Siemens helpline/extension 26333 (used interchangeably), however two users stated that they never directly called the helpline, they would go through PKMT (ORM's IT team – Policy Knowledge Management Team). PKMT acted as a conduit between Siemens and the users to resolve issues. The PKMT staff the users would go through was the ICT Coordinator. The users, such as the Environmental Manager and the Occupational Health Nurse that used the helpline felt that the general routine and desktop issues were resolved quickly and efficiently. The users liked the remote logging of support staff to help resolve issues, as it was quicker than IT support having to come to the user in person. The users also liked that they were kept up to date with their issue via email. They liked to know the status of their issue in the resolution process.

“Siemens response rate is quick. Remote logging is good, it saves time” (UK Security Manager).

“Will call IT helpline as first point of call for everyday IT problems. They are good when they fix everyday IT problems, and helpful. They have always solved the problem. There is timely help and communication via email if there’s going to be any downtime” (Physiotherapist).

“If I had a query 3 or 4 years ago they were more anxious to get straight in to the computer, but if I call up now there are more instructions to get the problem fixed” (Occupational Health Nurse).

Three users mentioned the introduction of process when dealing with the helpline. They liked that there were steps to getting their issues solved. The users were not aware of BBC Technology’s process, but when the contract began, Siemens printed leaflets and publicised the resolution process.

“Process is good with Siemens, before there wasn’t a process. It was difficult to get things resolved” (Environmental Manager).

“The process is better as its sped up, but I don’t have the required training (in IT processes)” (Occupational Health Nurse).

Part of the process was to keep the tickets detailed and included an up to date status *“the status of calls with Siemens is good. They keep you informed (via email)... Siemens is good, they’re better because they have to close calls soon, they’re commercial led. Maybe its German efficiency. Logging of calls is more strict, they record everything, for example, always ask for your login name first. They have to justify everything, it’s needed for the outsourcing contract to show how good they are. Better service from them than before (BBC Technology).” (UK Security Manager).*

Although Siemens had good reviews for general issues, there were some problems. External to routine issues, getting a resolution from Siemens was difficult. The users felt Siemens had limited knowledge with non routine queries.

“When you call up they think you’re an idiot, and that you’ve only picked up a PC for the first time, and you haven’t tried to fix the problem already. They make no attempt to find those things out. They just suggest a number of things for you to try, and sometimes they get lucky. Sometimes it would be more useful if they asked what you’ve done already. They should try to actively listen to the user, and judge the level of knowledge they are dealing with because in general in the BBC there are a lot of technically abled people, who have probably built these systems from scratch and don’t want to be treated as school children. Don’t want people to think we’re all numbskulls. I don’t want someone straight out of university; we want someone who has some experience” (Compliance Executive).

“I’ve had a bad experience with trying to get a PC fixed, it needed to be rebuilt but at first it kept getting passed around from team to team, and then eventually Siemens fixed it, but it meant 4 days without a PC, and no work getting done” (Environmental Manager).

“Siemens service has been rubbish recently to get a shared drive. It has taken 2 weeks to get any work out of them, and its still not working. My ticket has gone in to the ether. It will get worse because Siemens are thinking of further centralising their helpdesk, getting out of BBC offices” (Deputy Head, Divisional Support).

“IT is becoming a call centre approach due to cut backs. When you call the helpline you are calling in to a centre where they serve 20 other companies” (Occupational Health Nurse Specialist).

“Sometimes their (Siemens) knowledge base is limited and sometimes there might be someone who is very knowledgeable. It’s hit and miss. I don’t feel the knowledge base is as good as it used to be. The service is impersonal, over the phone, and you don’t know who they are. Sometimes engineers will come in to the department, but overall the service has got more and more impersonal. The users are expected to know more these days, this is not a bad thing, but users can be ignorant, and need training” (Occupational Health Nurse).

The IT outsourcing deal to the users did not mean a great deal. IT is what they worked with, the only time it became a problem was when it stopped working. The general feeling was that the move to Siemens was a good decision. It reduced the BBC headcount and was seen as value for money. The role of IT was to provide support, but also be specialised and make good IT decisions, e.g. regarding the IT infrastructure, and this was viewed as Siemens' core business.

"The Siemens relationship isn't managed well. It's like eating in McDonalds, there is a limited choice on what they will give you. If you go to a posh restaurant you will get a wider choice. And we've got a McDonalds situation" (Compliance Executive). But he thinks his experience with the helpline prior to Siemens was probably the same. "I want people that will give solutions and not just using online help, but those that are knowledgeable. I want someone to help me find a piece of software. I shouldn't have to become a software expert. IT is completely screwed up because we are ruled by IT. I don't think we're very grown up with IT. If I don't have meetings in my diary (Outlook Calendar) people assume I'm not doing anything, which is not the case. This is how we're ruled by IT" (Compliance Executive).

User opinions varied on the changes that occurred since Siemens entered the contract. Some users felt that the service did not change because Siemens staff were transferred BBC Technology staff, and others felt the knowledge had disappeared.

"The skill set has not changed much because it's still BBC Technology people, it might change later... We drive Siemens towards innovation, but the danger is that BBC won't like it because of the costs. You don't get anything for nothing... We say the word Siemens but we still think of them as BBC Technology, so things have not changed. But the main focus is on the helpdesk, there's change for them with moving out of the BBC offices, but other people are working as business as usual" (Deputy Head, Divisional Support).

"Siemens will become powerful because they will dictate what BBC IT teams should do" (Health & Safety Advisor).

“The helpline is a central call centre, all calls go to one place. It’s a good thing, a central expertise in one area, don’t get conflicting advice or solutions. At the same time, they don’t have familiarity with the BBC in terms of business (broadcast critical or not) or location... Siemens are more open than BBC Technology, more customer focused than the old team. For example certain applications are allowed on the network, that before wouldn’t happen” (UK Security Manager).

“BBC don’t manage external contracts well. I have tickets with Siemens, it’s one problem but with several reference numbers, how are they charging for this? ...IT is changing continuously, and the rate of change is accelerating, and Siemens will have to keep up with this change, if they can’t the BBC will need to reconsider the contract... Siemens are not aware of all the BBC systems, I called up with problem on XDA active sync, but they don’t know anything about this. It has gone through various support levels and they are researching it, but they need better communication” (Occupational Health Nurse).

Some users thought that many BBC Technology staff left before the contract began. The users believed that Siemens sole focus was on making money.

“Siemens will be focused on money only, problems are being logged in several times with different ticket numbers. Are they multiplying charges due to this?” (Consultant Occupational Physician).

5.3.2 Senior IT Managers’ Perspectives

A newly employed senior IT manager felt the moving of BBC Technology to Siemens was badly managed. His view was that it was a quick way to get money in to the BBC, and the outsourcing was completed without any planning or thought. One of the central issues for him was knowledge retention, people left or were moved to Siemens, and they took the knowledge with them.

“The contract doesn’t seem tight. Whoever did it this and made the decision left before all of this was looked at. I don’t think this will work, the intellectual capital moved out of the BBC or walked out of the door... Siemens has been made the permanent employee, I have a 3 month notice period, so who is

permanent, me or Siemens? No one else can say they will be here for 10 years. If they (BBC) see Siemens as contractors, they should really look at this. BBC may end up living with them for 10 years and it may be something we do not want. This is the worst pieces of outsourcing I've ever seen... BBC Technology people in the organisation is very small. There is a pool of people, but not all of them are IT people, they are engineers and don't have the correct skills" (Head of Technology).

One other senior manager was not happy with the outsourcing either, he felt that the BBC were making a huge mistake in outsourcing. He felt that the BBC's creativity would be constricted through staff leaving, new Siemens' processes and the culture change in the technology area. However, he may have felt resentful because his team were being made redundant.

"Outsourcing has led to more constraints, and will limit BBC's creativity" (Director of Knowledge Management Solutions).

On the issue of suppliers, there was a Siemens vs. others attitude from the interviewees. Comments such as "Siemens are preferred suppliers, but we do not have to use them in all cases" was cited numerous times. The attitude stemmed from senior IT managers down to middle IT managers. There were a number of reasons for this perspective; old bonds with third parties, loyalty to third parties, the outsourcing contract was in its infancy, and cost cutting. Everyone in the BBC had to tighten their belts between 2003 – 2007 due to the reduction in licence fee fund available.

"Siemens are preferred suppliers but won't use them in all cases. We'll do research and see if it works best with Siemens. There's always an element of negotiation" (Head of IT Strategy & Policy).

Four senior managers that were employed by the BBC for longer than one year were more positive on the outsourcing to Siemens. They believed it was a good move for the BBC, to allow the organisation to concentrate on its core role of making programmes. They wanted to create a partnership with Siemens. Their roles were carved to build a relationship with Siemens, and to create IT strategies rather than to focus on IT operations.

“Technology (department) within the BBC has become more of a service function. People (BBC staff) will think Siemens holds the power because we are a captive audience, but this isn’t the case, Siemens are starting to understand what a tough customer the BBC is. We are in the honeymoon period at the moment, but we are squeezing Siemens hard, we are not losing money to them” (Business Technology Analyst).

“Reasons for outsourcing was that it was fashionable around 5 years ago, and its value for money. It was less of a shock because we went from internal IT, to BBC Technology and then to outsourcing. We took a soft approach. BBC were thinking more about services and money. Our entire IT is actually looked after 4 people in BBC now. Not all IT has gone to Siemens, e.g. News, and Nations and Regions. News works in a different way. They’re not standardised, for example, if something like 9/11 happens, News need to work fast and implement new infrastructures, so they manage it on their own... We are trying to standardise as much as possible in News, so they have their own 1st line support, but after that it goes to Siemens... With Siemens there’s a thorough governance structure in dealing with them, a board structure. Siemens have had a tough transition, they’ve taken on 1400 new staff, and tried to please BBC, whilst doing the day to day work. BBC don’t really understand or appreciate the complexity of it... There is a process in order to get things done with Siemens and everyone has to follow it, gone are the days of the backhands” (Controller, IT & Business Systems).

The transition for Siemens was difficult, as the BBC senior management view outsourcing by its text book definition. Outsourcing allows sharing of risks, and brings economies of scale through bulk buying and established relationships. The BBC staff occasionally forgot that there has to be motives for the vendor too.

“BBC shouldn’t take huge technology risks, it should be shared with partners. IT on a huge scale should not be done by the organisation unless it is an IT house. If you outsource you get much greater benefits from a global scale provider, they can bring you economies of scale, mass and solutions... There are 45 people in technology within the BBC... Five years ago it was more about

internal IT and not looking at broadcasting systems. Now it is more about the programme making... Siemens have relationships with other vendors, but there are some vendor relationships directly with the BBC, long term relationships BBC had. Each Technology Controller has at least 2 relationships with vendors... The move is towards offshoring to India, that is the way forward – costs, efficiency, turnaround and quality is better there. There are cases where Indian companies are opening first point contact call centres in the UK such as Wales, but the official contract is offshore” (Chief Technology Officer).

The Head of Services Assurance role was created because of the outsourcing contract. The main task was to negotiate with the service provider, and make sure they were treating each other fairly, and managing the expectations from both sides (BBC and Siemens). Services were defined from PCs to broadcast tools. Siemens initially did not have a single point of contact in the BBC if something was broken.

“I sometimes have to physically go and see Siemens, and be on their back... BBC feels like it’s special. It is arrogant, it thinks it’s special and unique, like the BBC is the only company that has gone through outsourcing.” The role was to educate the BBC that Siemens was one of the largest IT providers, “they maintain hospital systems, peoples lives depend on them, at least in the BBC no one would die! The team wants the relationship to be a partnership. It’s getting there but there is a need to build trust... My role is to encourage a partnership feel. If Siemens makes a mistake and divisions want money back, my role is to stop this happening and keep the partnership going.” The BBC still kept contacts with old suppliers and continued to build relationships, “in one way to keep an eye on Siemens but also just to know what is happening in the market... I can see more areas to outsource, such as classical broadcasting work, Siemens do the infrastructure for this already and it would lead to more savings... Need to keep key knowledge within BBC not to get locked in with Siemens so that can bring it back in if need be” (Head of Services Assurance).

5.3.3 BBC Account Manager’s Perspective

The BBC Account Manager was responsible for the Siemens contract and IT in the BBC. His role was strategic and to plan for the subsequent 5 years. It was his responsibility to deliver large projects. The main areas of work for him were Internet

distribution, delivery work owner and strategy for Internet distribution, and the main tasks were to coordinate functions and groups.

“I manage the contract with Siemens on Internet distribution. Projects like DMI which are strategy and business process change projects that need to happen, and in order for them to happen we need to outsource commodity work such as PCs and desktops. IT is a key activity for the business, and we can’t borrow any money, can only use the flat amount we get through the licence fee, therefore makes sense to outsource.”

The outsourcing move meant that some BBC staff were transferred to Siemens. There were two categories of staff, those from BBC Technology, and some BBC staff from other departments. There was a period of uncertainty for the staff, but the BBC Account Manager felt Siemens did a “good job” of integrating them in to Siemens. When the outsourcing partner was researched, the culture of the vendors was taken in to account. Some BBC staff welcomed the outsourcing deal as it could lead to career enhancement and new opportunities. Others were finding the culture tough, there was too much rigidity in Siemens processes than they were used to. The major problem over the transition period was the number of BBC staff leaving at early stages, and taking specialised knowledge with them.

“Change has to be continuous. Internet distribution was done in-house. A guru was running it and he was left to it. They were given a budget and had to come back with no problems at the end of the year. Then the transfer to BBC Technology occurred, a half way house. They had management activities and SLAs against them, and then the seamless transfer from BBC Technology to Siemens happened. The culture will change for the existing BBC Technology people, but they will become more professional. The amount of work year on year increases but the budget doesn’t. It gets harder to do this in-house, and easier to allow Siemens to do it. There is uncertainty and change for people, and no one wants to go through this period. There were issues, but Siemens have done a good job. Some staff have found it very hard with the culture, but they were more positive staff than initially thought. We had high turnover in 1 or 2 areas. BBC Technology wasn’t set up with the express idea to outsource. BBC saved money through the sale. The savings have been achieved and

continue to be achieved, this is hard to see from ground level, but from higher level this has happened.”

The relationship with Siemens according to the BBC Account Manager 3 years in to the contract was client supplier. He believed it should have been a partnership, and attitudes needed to change in order for a partnership to occur. Siemens needed to deliver innovation and excellence. The relationship was different depending on the IT area, for example, in the transformational projects it seemed to be more partnership. Siemens needed the relationship to be commercial as well as keeping BBC happy. But in order to have a partnership it would need to take both organisations to work towards it. It is also on BBC's shoulders on how they wished to operate with Siemens. The BBC Account Manager's team covered infrastructure work, and he would have liked to move it to Siemens, but the relationship was not reliable enough for the transfer to happen. He considered the outsourcing to be a success.

We want a partnership but we are more client supplier at the moment. We have redefined the partnership, and are starting to change attitudes. Siemens need to deliver excellence and be creative straight away... You have a honeymoon period, get in to working and then some things start to go wrong and then you question how you start dealing with that. One way is to bring in the lawyers, but what we have chosen to do is talk and make it work. The desktop services is done through SLAs, but projects have different classes, small projects, and high risk projects. There is a trust relationship in some areas and not others. How we work with Siemens will result in the relationship we have with them. They are serving two masters and it is difficult. In some cases there are joint negotiations between Siemens, BBC and suppliers, which works like a partnership approach... In the middle of the contract we let Siemens do their job, if they do it well then it's good for both parties, but if they don't, at the end of the contract the control has to come in to the BBC. At present we want Siemens to do more work and move more areas to them, but the partnership is not at the right place where we can move things across... On the preferred supplier clause we are not locked in. There are negotiations periods in the contract, not for big issues, but there are small negotiations we need to do as part of variation and change. There is formal monitoring, numbers and trends which twice a year Mark Thompson and Siemens go through. There are board

meetings. Technology operations have meetings twice a month... It is a success from the finance perspective absolutely. Is it better than BBC Technology? Overall the answer is yes, it's far from perfect, we've had problems but we are still in the best position than we were with BBC Technology."

5.3.4 Siemens Account Manager's Perspective

The Siemens Account Manager was an Executive Director. His role emerged directly from the BBC contract, and he had some knowledge of the media industry. He was a Siemens' Board Member and the official Account Director for the BBC. The main area of work for him was to "manage the relationship". According to him the contract was the purchase of BBC Technology and delivering services to the BBC. There were a number of challenges for the Siemens Account Manager. There was no text book to say this is how to manage an outsourcing contract. The toughest challenge was to align his staff to the BBC. His daily role was to integrate BBC Technology in to Siemens, and drive a change programme.

Building the relationship was difficult for Siemens, because the BBC is a huge conglomerate, complex and politically driven organisation. It was difficult to understand the dynamics. The BBC was continually going through changes and to align with them was complicated. At the beginning a governance structure was created, and on day to day basis he had to engage with BBC divisions and FM&T. Each division in the BBC was different and they did not communicate with TD. According to him, the BBC did not like to be aligned to anything central or core. He believed the history of the BBC through its Director Generals was; Burt centralised the organisation and had a tight control over it, Dyke decentralised and everything was sprawled, and Thompson was trying to find a middle ground, but it was quite a challenge for him.

"How do we understand the drivers as well as provide a service? Siemens had to work on huge change driving programmes/transformation programmes and we are in the middle of this. The programmes allow the BBC to adopt and use technology to drive the business. What governance do we need? All these challenges led to activities and team building. I'm moving out of the hands on role, but carrying on the strategy and relationship at a high level, and I'm now a Media Industry Director to get more work for Siemens... We have monthly board meetings between Siemens and BBC to go through the challenges and

make sure all is going fine, if not, what needs to be done. We have regular meetings with TD. Sometimes I might need to get in to meetings with the BBC divisions with my account managers. It's difficult to work with BBC at present due to change and transformation happening in the BBC itself. It's never constant and I have to make sure people are continually aligned. We need to align to the corporate technology, and this is difficult because divisions, and Nations and Regions do what they want, they don't care what is happening centrally. Nobody wants to be centrally controlled. Mark Thompson has a very difficult challenge. He sees that technology is a great enabler for the business to move forward, but the business doesn't see this as yet, although the attitude is changing. It's difficult to please everyone."

The Siemens Account Manager's role perception by his subordinates was that his role was one of the most challenging roles and teams to be working in. The team needed to perform and deliver, and the team realised that people were not known for their success, but their failures. They had a major challenge ahead. His seniors also viewed his role as a challenge.

"You don't get recognised for success. The challenge is coordinating everyone and keeping the team happy. My managers are wondering how do we group and communicate with BBC... BBC Scotland project was tough but it has worked well, and the Division Director has been happy with Siemens and we were aligned, so we need more successes like that."

The Siemens Account Manager felt Siemens transferred the BBC staff to be more commercial and had given them project management skills. Initially no one wanted to move to Siemens, but to help the staff, Siemens held welcome presentations in BBC offices, set the scene on what they would do and not do. They showed the staff the plans and adopted a very open style. They kept the staff up to date and were visible. After year one Siemens had "won the hearts and minds of staff".

"BBC Technology staff didn't want to join Siemens at the beginning. Some of the staff did get a chance to be part of the tendering process and saw how each bidder worked. Siemens was the most aligned to BBC in terms of the culture and work. On day 1 in Media Centre we held presentations for the BBC

Technology people. There was a welcome, this is who we are, what we do, will address your fears, and what will happen in the next 100 days. We did walkabouts, and made sure we were visible – it's a human factor people can relate to. Staff felt they had some contribution to make. In the 100 days we didn't get hearts and minds of everyone, but most of them, and we delivered to the service level, in fact it got better (over the 100 days). We wanted to put staff in one building and accommodate them in one rather than the three buildings they were in, but this wasn't possible straight away. I wanted to sit and have my staff with the BBC/customers. I didn't want to change too much for the staff, but little things make a difference, for example payslips, Siemens sends them home, but BBC deliver them at work, and some people didn't like this. One problem was moving from the BBC intranet to Siemens intranet because of security. Lots of staff felt like they were letting go of everything they knew. Some BBC Technology staff have moved around Siemens and left the (BBC) account for career enhancement, and this is positive for them if they want to take the opportunity. It has opened some people's eyes."

Siemens wanted to be BBC's technology partner. BBC did not need to worry about their desktops. Siemens brought new thinking to help business and technology. They set up a team to look at innovation for the BBC contract. Technology was enabling the business change, it was a power shift in the BBC with technology becoming more important. It enabled the organisation to operate.

"Some people thought the relationship wouldn't last a year, but it has. We are a technology partner with BBC and the main task is to make sure technology is working for BBC (support), and the other role is thinking and innovation/strategic direction for technology. BBC Technology understood broadcasting, but Siemens added the management skills, such as programme management. Core services delivered to BBC have been working since day 1."

There was a detailed SLA structure. There was a need to keep track of all corporate key services, of which there were approximately 15, and Siemens produced monthly reports against them. There were regular polls of customer satisfaction, team meetings and governance meetings. Communications was difficult but also the key to move towards a partnership. It was hard to establish trust with the BBC because it was not a naturally

trusting organisation. Also the BBC used its brand to get what it wanted, it had an arrogant attitude. Siemens were trying to create a partnership but it still had some way to go. There were many agendas, so Siemens had to prove itself constantly. The contract between BBC and Siemens was for 10 years with no breaks unless there was a failure. The BBC should be able to say the contract was a success, but there was still some way to go. Siemens wanted to build a world class relationship.

“There is a formal structure and reports, but you don’t want to get it too clunky... BBC uses its brand to get what it wants, an arrogant attitude, and that arrogance makes it difficult to develop a trust relationship, we want to build trust through openness and common standards. We are using an external company to develop this (trust relationship), and its working, but it won’t be 100% because there’s so many agendas. If we can give value for money, this will contribute to the trust relationship. We built the relationship on a strategic partnership and when the CTO was around it was very positive but he left and then had to rebuild a little with the Division Controller of FM&T. The work done with Scotland has helped on building a good relationship, it’s a good model. There have been tensions in other parts of the business. If you please someone over here, doesn’t mean you’ve pleased someone over there... The change team in the BBC is not as successful as it should be, but it needs to be a key enabler, and change authority... It’s a 10 year fixed term contract, break will happen if Siemens fail. We are a preferred supplier status in the contract, so there is an incentive on us to work if we want more work, if we don’t then BBC can use someone else. BBC should be able to say it’s a success to date, it’s a 10 year relationship, so you’re not done until it’s done. We want this to be the best relationship, world class. It’s been a success in terms of delivery. I think the BBC needs more innovative thinking from us, and we need to be more innovative, that success still needs to be defined. Siemens would view it as a success.”

5.4 Summary

After conducting the interviews the summary of the findings were; the outsourcing contract with Siemens affected every individual in the IT function. As well as the IT outsourcing there were other areas being outsourced, such as the medical arm of ORM and HR outsourced to Capita, and BBC Broadcast was outsourced to Red Bee.

The ORM users were preoccupied with their own roles and restructure of the department, however they were happy to talk about their Siemens experiences. Many staff could not see major changes in the IT support service from BBC Technology to Siemens. They were happy overall with the service, particularly with the usual technical problems, e.g. not being able to access a particular application. Several users preferred Siemens as the perception of German efficiency was highlighted, and the new processes, such as remote logging in, ticket status update and reset your own login were efficient. The unusual IT requests caused a problem for the staff as Siemens required BBC and IT understanding, e.g. problems with XDAs. Those staff that used the IT helpline continued to do so, and those that never did, continued to go through the ICT Coordinator.

All the Senior IT Managers' roles were created or changed because of the Siemens contract. Three of the roles were new posts. The senior IT roles encompassed project management or management of the stakeholder relationships. The stakeholders were staff within the BBC where IT would have an affect, BBC executive management, Siemens and other third parties.

Both account managers felt the relationship between Siemens and the BBC was relatively good, but there was still some way to go before a partnership could be achieved. BBC and Siemens wanted the relationship to succeed, and the managers felt it was a success overall, but in order to move forward, the relationship needed to be a trusting partnership, where as at the time of the interviews it felt more like a client supplier relationship.

The next chapter is the findings of the IT centralisation restructure. The outsourcing led to a change in BBC's IT structure. BBC's IT hub reduced in size, IT became centrally controlled and the role of the IT authority changed from operational to strategic. IT within divisions also became smaller and centralised. The remaining IT staff saw their roles move from hands on technical roles to managerial roles. The data collated from the interviews, observations and documentation is presented.

6. Findings: IT Centralisation and Organisation Restructure

“There have been great societies that did not use the wheel, but there have been no societies that did not tell stories.” Ursula K. LeGuin

6.1 Introduction

The outsourcing led to a reorganisation of the BBC. The story was written from the interviewees' outlook. How did the outsourcing affect the interviewees? What was the role of technology in the organisation? All these questions were answered by the interviewees. They were the storytellers. The groups of interviewees differ in this chapter from the previous chapter because the middle IT managers and Policy Knowledge Management Team (PKMT) were more concerned with the changes occurring to their roles and organisation restructure led by the outsourcing rather than the outsourcing contract itself.

The Charter renewal and the speculation that BBC would not get the amount of money required from the licence fee in the future, led to the value for money initiative in 2003. The initiative meant drastic changes to the way the BBC was run, it was not just a matter of tightening the belt but huge outsourcing contracts and restructure of the organisation. The BBC decided to outsource its technology arm to Siemens, BBC Broadcasting was outsourced to Red Bee, and HR and various other areas such as medical, were outsourced to Capita. There was also a major restructure of divisions which led to redundancies.

Occupational Risk Management (ORM) was an affected department, some parts of the department were outsourced to Capita, and there were also teams and people that were made redundant. The decentralised IT teams within departments was a typical structure in the BBC. In order to study what was happening to the IT function in the BBC, it made sense to start at the IT team within a typical BBC department and then observed activities in to the central IT department to see if they were aligned, and what was happening to IT in the whole organisation. ORM was selected as a typical user department in the BBC to collate data from as the researcher had secured access to the interviewees. It was easy to set interviews with the users and the researcher was invisible during the observation periods. ORM had its own dedicated IT team, PKMT,

similar to other departments within the BBC. As with the users, the researcher had access to PKMT members. The story of ORM and PKMT was relevant because the Siemens outsourcing was affecting the whole organisation, and ORM's and PKMT's story was representative of other departments and IT teams within the BBC. Departmental IT teams were made redundant, and the departments themselves were restructured. The story of how the departments would prepare and cope without their own IT team was pivotal to the outsourcing story.

Late 2005/Early 2006	11 Occupational Risk Management Users
	Policy Knowledge Management Team - 4 members of IT team
	5 Middle IT Managers
Early 2006/Mid 2006	8 Senior IT Managers
March 2007	1 BBC Account Manager
	1 Siemens Account Manager

Figure 6.1 – Timeline and number of interviews.

6.2 IT Centralisation and Organisation Restructure

6.2.1 Users' Perspectives

Each users' proficiency level of IT was different. The users' definition of the IT team varied, some saw it as PKMT and Siemens, and some included telephony. ORM managers also included the strategic team, TD (Technology Direction, the central IT department) as part of the wider IT team. Some users worked with specialised IT equipment, e.g. those that worked for the News department had specialised application support desks. The term 'IT team' meant something different to the individual users, and the role of IT had many variations. Users were fairly self centric, and felt the IT team(s) were there to support their hardware, software and telecoms. The ORM managers felt PKMT had further functions, it was embedded in to the business, therefore they not only developed and supported the systems for ORM, but they also found solutions to help the business. PKMT understood the business and was proactive, rather than reactive. Users also liked the face to face communication they had with PKMT, they could walk to the IT person they knew and their problem was solved.

Users conducted their work through the use of IT systems and the number of systems increased since 2003. The systems changed from paper based and desktop applications, to web applications. The web applications allowed the users to become more self sufficient. PKMT systems allowed the different teams within ORM to talk to each other.

PKMT's role is *"supporting me in finding IT solutions to my business needs. Finding new solutions or helping me. The solutions can be external or internal but they should help me. They should see what I want to achieve and find me a product that can help me with that. It includes software and hardware. If I was looking at PDAs and mobiles, I would look to the corporate the IT team"* (Compliance Executive).

"PKMT is about e-services. I see IT as PKMT only. IT is a framework, it is about the systems and the content being provided by the actual experts, this change is happening due to costs, and also keeping people's core jobs as they should be. IT people should build systems not data input" (Environmental Manager).

"My immediate thought of IT teams is PKMT. In the bigger structure I've worked with TD and see them as strategic. I work with them when working with Siemens and suppliers. But day to day they are not relevant, PKMT are. The role of PKMT is to ensure we have the tools available to assist people in the occupational risk work. Advisors should provide content but PKMT should build the system or get the solutions. It should be a two way process, PKMT should be able to help us continually improve our systems and PKMT should understand the business, which I think they do" (Deputy Head, Divisional Support).

"The role of IT team is to act as specialists in advising managers and staff on how they work. Maintenance of systems, deliver the specifications of the systems the business might need and the development of them. Continue improvement and maintenance of systems. They are part of the team, it is important for me that the IT business solutions are integrated in to the business and not stand alone. The IT teams are PKMT, and the corporate IT team, but the corporate IT team are divorced from daily realities" (Head of Divisional Support, Occupational Health Safety).

"I see the IT team as the all of IT teams within BBC. PKMT is a branch of IT. When we move, it is IT's job to make sure the IT equipment is all working, the

PCs are working. I only focus on what I need to do, and it only comes about when something doesn't work. I don't see PDA or XDA as part of the IT teams remit, only PCs" (Health & Safety Advisor).

"IT is made of PKMT which look after our local needs and wider it is Siemens and telecoms. It's quite wide and diverse" (UK Security Manager).

The IT teams' role is "to maintain and provide a service to the BBC. To me it is a group of people who are largely invisible, I only talk to them on phone. It's support and team working within a current programme I am working in. That's my experience of IT" (Physiotherapist).

"To give support in our department, the IT Coordinator troubleshoots and helps you deal with Siemens. Also they maintain department intranet and extranet. There are a lot of other roles I didn't know until the CORMS (ORM change programme), such as process mapping. Team also provides training, such as working with XDAs and question/answers. Siemens look after the general BBC systems, such as day to day problems with Outlook. Issues with hardware I would see the ICT" (Occupational Health Nurse).

"IT team should be doing repairs on the software and implementing packages. They are responsible for all things IT. I call Siemens if anything goes wrong" (Occupational Health Nurse).

When asked about the individual job titles of those in the IT teams, some users did not attempt a guess because they only went to IT if something was broken, and would usually approach the person they had a relationship with. Some users understood the general type of areas the IT team worked in, e.g. a programmer or developer, but no user correctly answered all the titles. The users' perception of the skill set in the IT team differed, from supporting users (programming/developing and system administration) to aligning with strategic goals. Some users answered the skill set through qualifications required to be in the role, again the answers differed from needing university degrees to having work experience. The users did not care that they did not know what PKMT members did, as long as their IT problems were solved. This was quite common in many organisations, and followed Pettigrew's 1960s notion that

the techies were too different from the rest of the organisation and the users did not want to know about them (Hirschheim et al, 2003)

“I wouldn’t want to hazard a guess. There is a manager of some sort, he manages ICT Coordinator and Developer 1. Don’t know if he manages Developer 2. He is the person I would normally go to ask a question, that’s because I’ve had a longer relationship with him. You tend to use those enforced relationships rather than the strict hierarchy. I will come to Developer 2 with questions with CORMS, but don’t know anything else outside of that. I don’t go to Developer 1. I go to ICT Coordinator, she is good for technical help and helps me get through the BBC bureaucracy. Go to corporate for telephony or PC applications, I don’t even know their proper name other than 26333. I found 26333 accidentally, I thought the applications desk was something else. Don’t know the skill set of PKMT. Corporate only vaguely in terms of meeting general needs, phone lines help with routine things, but anything specialised then will get through to local support. Local support are more helpful and knowledgeable than people on the phones. I won’t guess the size of the IT teams. I wouldn’t even know the numbers in order of magnitude, 10s, 100s or 1000s” (Compliance Executive).

“I have no idea about the titles. ICT Manager is in charge, Information Assistant is an information manager, Developer 1 no idea, no idea what ICT Coordinator does some sort of coordination, and Developer 2 no idea. I see ICT Manager as the strategy direction, Developer 1 and Developer 2 I think are systems developers, don’t know about Information Assistant or ICT Coordinator. PKMT designs in-house software” (Environmental Manager).

“I don’t know the job titles of PKMT. As a guess ICT Manager is a Manager, there’s a Web Editor, ICT Coordinator is something about coordination, Developer 1 I’m assuming is coordination and some editorial, and DBA, Developer 2 I’m not sure some development, and Information Assistant is some sort of DBA. The roles between Information Assistant, Developer 1 and ICT Coordinator are fairly blurred. Some issues I go directly to the helpdesk, if they’re relatively simple, but some problems I go through ICT Coordinator, such

as the connectivity issues I've been having recently" (Deputy Head, Divisional Support).

"There's an ICT Coordinator, Developer 2 is IT/systems administrator, but I'm not sure, ICT Manager is the manager, Information Assistant is some sort of IT, and Developer 1's job is similar to Developer 2. Professional Services team looks at integrating systems for the whole business and not just individual departments if possible. I don't speak to Siemens, if I have an IT problem I tend to go to ICT Coordinator. PKMT is efficient, but I would go to ICT Manager if anything needs doing, and for HSS net (ORM department's intranet site provided all BBC staff health and safety information) I would go to Developer 1, due to working with him for many years. For hardware I would go to ICT Coordinator. If I need any data or reports I will go to Information Assistant. I don't know what formal qualifications are needed, but there has to be an understanding of the business and of systems, some sort of development and design of them. ICT Manager has a good skill set because he was a health practitioner and moved in to IT, it's a good mix of skills. Developer 2 knows the IT side of systems and gets requirement from the business" (Head of Divisional Support, Occupational Health Safety).

"No idea what the team members titles are, there are authorised requestors, but their jobs will be wider. Authorised requestors' upgrade PCs and they will liaise with Siemens to get the equipment. PKMT also provides reports. Before we integrated in to ORM, we ran our own website, we told the developers (third party) what to do and they did it. Becoming part of ORM meant we lost some of our identity. We feel that it worked better before. I've used helpdesk to get myconnect and they are based in Durham, before they were in London, but the service from Durham has worked well, no complaints. I usually go through the helpdesk, but if I see an analyst walking around and I have a small problem I would ask for their help, they're usually quite obliging. ICT Manager also sometimes acts as local support, have used him for anything at times, initially when I got my XDA for the first time, but now I'm seen as a super user in the department and other people come to me with their problems. Skills must be pretty diverse, web sites and things, but I have no idea. No idea about size,

maybe about half dozen. I expect IT to fix any of my software or hardware problems” (UK Security Manager).

“For IT support I tend to call Siemens. I know PKMT is going but it hasn’t been explained and I don’t know the rationale behind it. To me IT has become more visible, that’s because I’ve got to know people personally. There is a need for something in each department whether it’s an IT Coordinator, as a first point of contact, to build a relationship and know the nature of your work because when I called Siemens one day I had to call and explain the situation 3 times, from scratch, it’s not their fault but it doesn’t work, you need some sort of a super user or admin in the department, that’s more efficient and cost effective, it flags up quicker and earlier any problems” (Occupational Health Nurse).

The size of PKMT increased from years 2000 - 2005 from a one man band to a team of six. The ORM department generally felt that PKMT had placed systems in to the business, and overall done a good job, however PKMT was due disappear because of the IT centralisation movement within the BBC and the Siemens outsourcing contract. Some users did not know how the size and skill set of the IT teams had changed over the past 5 years, to them it was an invisible entity.

“I’ve only been with BBC for 1.5 years and there has always been a helpline to call the corporate IT. PKMT team is less interested in doing peripheral work, its about standardising and so when we want a system, the ORM Director does not seem interested in the small specific systems. My main concern is that PKMT is leaving so soon after putting systems in and not around during the transition phase” (Environmental Manager).

“PKMT has grown and the skill set has changed because we’ve introduced technical and testing skills in order to provide the right tools for ORM in a more structured way. The team was 2 or 3 people 5 years ago but now it’s 6 with a different skill set. PKMT will go because Professional Services IT team are coming in to the arena. Siemens is still dealing with BBC Technology, but it might change later down the line. Relationships with users is piss poor at the moment, the service from PKMT is very good no complaints, but the service from Siemens is rubbish lately. Customer care aspect is very poor. Moving to a

centralised helpdesk will get even worse, I've seen with organisations like NTL. Professional Services will work fine if there are enough resources for ORM, but if not, we will get a watered down service and it will diminish. The challenge is to get the personalised service, but if we get the tools we want then its OK and given the time at the moment we're not going to get tools, and PKMT is going. Role of IT team has gone from maintaining assets, to developing and managing tools, an end to end solution. BBC Technology was providing solutions and being creative which was good, but they couldn't negotiate and work in a commercial way. The BBC wanted both, and that's not going to happen. With Siemens we want things but we will have to pay for it and we'll grumble because nothing is for nothing. With BBC Technology it was a more quid pro quo relationship. With the new IT structure, going in to the hierarchy does not work, it's too erroneous, the intent is good but implementation is bad. Either give local teams the autonomy or if centralising then go ahead and centralise properly. The process should seem smoother and quicker" (Deputy Head, Divisional Support).

"Over 5 years the team (PKMT) has got more professional and bigger. There is adequate communication with stakeholders, it has formal and informal aspects, the informal with going up to the team member to ask questions and formal through meetings. Everything we do is done through IT. Five years ago I didn't have a XDA or laptop and I wasn't so reliant on IT. IT has been implemented through evolution, it is not something that just appeared, we have IT strategies and continue to look at emerging technologies. Before IT was implemented by anoraks and that isn't the case now, we are more business focused and the technology serves a purpose" (Head of Divisional Support, Occupational Health Safety).

"I haven't seen any changes over 5 years. IT is invisible as far as I'm concerned, no difference in response. PKMT team has increased in numbers and skill set has changed but I don't know how. PKMT relationship works well because the team is visible and I can just go up to them and my problem will be looked at. I know IT support in general is no longer going to be from White City, and they are moving it out of London due to cost savings, free up some space and put them somewhere where its cheap. PKMT shouldn't go out of the

department geographically because they are integral to ORM (user did not know PKMT was disappearing). With Siemens moving, everything will be done remotely and won't affect service" (Health & Safety Advisor).

"Over 5 years PKMT has probably shrunk because Information Assistant has left, but skills have been enhanced. 26333 can be helpful, but the rebooting is frustrating, but the proxy in (remote log in) is very good, means instant access for the IT team, they'll come and see the PC if needed. Before I had a contact (in BBC Technology), which was nice because it was personal, they would come at times when it was convenient if we had patients, but now its impersonal, it works but you don't have continuity. The role of the IT team has changed, become more call centres and this is due to BBC cutbacks and that's the mentality, you pay people the least and get the most out of them. It's like when I call my bank and the helpdesk goes to India, and they don't know how things are here. The Siemens number is good, it's an easy one to remember, but you know sometimes when you call in it goes to a call centre that services other companies as well as BBC" (Occupational Health Nurse, Specialist).

When users were asked about policies, rules or norms when interacting with IT teams, most of them could not think of any. They understood with Siemens they needed to go through the helpdesk, but other than that there were no formalities. With local IT teams the relationship was informal. The user knew they had to go to the helpdesk for IT problems, but would try their luck by approaching PKMT first. If PKMT solved the problem it meant decreased waiting time than going through Siemens, and also the policies were not enforced.

"In general I go to the helpdesk at least once a day, in general I have to reboot – that's a rule. I know in terms of getting material, I have to get permission to do that, I can't just go out and buy something" (Compliance Executive).

"There are no rules or policies. If I want something I ask for it, but I know it has to be escalated to various places, and eventually I get what I want. I understand we need some governance but I think it will be too bureaucratic. All I want is a good set of tools delivered on time, but I won't see that because people we rely on will have left before go live. TD are trying to become a focal

point, but people in the regions still have their own IT teams and don't use Siemens, so there's no real centralisation, but we do need it. TD should strategise for the whole BBC. Divisions have gone mad, but in terms of trying to be a creative organisation I think it will be difficult to achieve with centralisation" (Deputy Head, Divisional Support).

"Processes in order to get IT systems have become more formal. You have to go through Professional Services and TD teams. Before if you had a budget you could go and get your system. I see the point in it, but BBC divisions run as different organisations and each ones' needs are different. I don't think it will work with a central dictator" (Head of Divisional Support, Occupational Health Safety).

"Don't know of any policies, rules or norms. If you request something you fill in the form and have reasons and generally you get it. I generally call helpdesk first for IT problems" (UK Security Manager).

"No idea on how to interact with IT teams, no formal policies or rules, nothing has been said. I phone Siemens for general problems, or will go to ICT Manager or ICT Coordinator" (Occupational Health Nurse).

The users were asked if they saw any IT power shifts. It was an interesting question considering all the changes that were happening in the BBC. The main change was the outsourcing to Siemens, but at the local level there was the disavowment of PKMT and work was to go the division level. There was also the medical arm of ORM outsourced to Capita.

"Siemens will become more powerful. Experience shows companies outsource and it goes horribly wrong and then comes back in. In my last company we outsourced IT, the team was sitting with the users and that worked quite well, but the organisation was much smaller" (Environmental Manager).

"The local teams might have to take direction from Siemens" (Health & Safety Advisor).

“Concern with Siemens is the strategic in-house team end up doing just contract management which will be sad because it won’t be developing new services, so you feel that it could be Siemens driven rather than BBC driven” (Consultant, Occupational Physician).

“Power in BBC will decrease, and IT is very important in the organisation” (Occupational Health Nurse).

6.2.2 Policy Knowledge Management Team’s Perspectives

The PKMT team consisted of a Manager, a Policy Executive, ICT Manager, a Coordinator, two Developers, an Information Assistant and a Web Editor, however when referred to the PKMT in the thesis the focus is on the IT team part of PKMT (does not include the Manager and Policy Executive). PKMT’s main role was to build systems for the ORM department, to maintain them and support the users (ORM and BBC staff). However, the team also had many sub-roles, and these were not the team’s remit, but they carried them out regardless. Examples of sub-roles were setting up presentation equipment, helpline for ORM, and training of third party systems. They were seen as an one stop shop for all IT matters. The ORM department had positive comments on the team, but PKMT were not happy to do tasks that were not in their remit, and they viewed the sub-roles as beneath them. The team enjoyed the work related to their titles, for example, the Developer liked to gather requirements and build web sites. The Information Assistant liked the training aspect of the role although it was out of her remit, she liked working with people, the interaction and travelling to different parts of the country to carry out the training sessions.

“I got my job description on email initially, and then the changes were all verbal. I coordinate all the IT processes and communications, it includes software, hardware and mobiles. I order IT, such as computers, laptops and accessories, and I work on databases. I work with Siemens to make sure the process is followed, from putting a request in, for example for a PC and follow it through to completion.” She is part of ICT user group, and views that as her main role. *“All the ICTs meet to figure out processes and budgets for all BBC. The BBC has many preferred suppliers outside of Siemens. I have quite a few sub-roles. I support a helpdesk, anyone needing help regarding health and safety would call me and I would direct them in the right direction using the*

department systems, such as HSS net (ORM department's intranet site provided all BBC staff health and safety information) and other intranets. I have an administration role and I get involved in web maintenance. I'm testing the advice line that will open to the BBC staff by following scripts... Users' perception of me is that they think I'm their one stop shop, anything relating to IT is me. Sometimes I have to correct them, but sometimes I help out where I can. The positive aspect is that they only go to one place, and I'll probably sort their problems out quickly. I think they enjoy coming to me. I don't want to get involved in this because of the timeframe, I don't mind doing the work, but I don't always have the time. Managers' perception is they see me as support, but boundaries need to be drawn. The manager does impose boundaries, but sometimes they make exceptions, and then exception becomes a norm. It was embarrassing, as ICT I was called to be involved in a user's problem, he said Siemens wasn't doing their job, and I had to get involved to see what was happening and resolve it. Upon escalation and investigation, it was the users fault because user hadn't followed the correct procedure, and I shouldn't have escalated and looked silly. It put me in an awkward position. Makes you learn not to trust what everyone says and not to escalate until I know the full story. There are cases where user will be clear in email, and we follow procedures, and all works out, good communication and team work. With the outsourcing there are new communications and processes, overall it is an improvement compared to before" (ICT Coordinator).

"The main role at the moment is to manage HSS net on the content front, assist on the CORMS (ORM change programme), I have some development work on HSS net, to expand the hostile environment site, I support the manager and team. My role has changed over time, I got a job description 2 or 3 years ago, but it has changed and developed, and so now the job description is out of date. On a daily basis I do something simple like fixing a broken link to changing the behaviour of how a page works, populating content on to HSS net, liaising between content editors and team to make sure the right protocols are followed, such as making sure all the stakeholders are involved, and process mapping on the CORMS. I have the odd things, for example a new project for development or creating CD roms for HSS net, or upfront training sessions (training new BBC starters on HSS net). My sub-roles are upfront training sessions, HSS net

helpline, setting up for presentations, which is quite common, set up of laptop and projector, sometimes it includes getting all the different presenters' powerpoints and setting the whole thing up, assisting with presentation itself, and booking equipment is carried over from my previous role. Some users see me as a web developer, some look at me as IT support desk, if users have problems with their PC they'd rather call me first before Siemens helpdesk, some perceive me as someone who gets involved in the health and safety aspects, but it's not something I get involved in as I'm not qualified in it, but sometimes they drag me in to the politics of it, but I try and stay away from it, as it's not my job and I should stay away from it. They should give me the final approved content, I have to tell people things need to be approved by certain other people before it can go on to the intranet but it's not my role, however it needs to be done and it will take longer to rectify if it is wrong. Sometimes I'm proof reading. The quality checking makes sense but it can be viewed as negative because it's my comments slowing them down. Seeing me as it helpdesk is negative, it's a waste of time. I do tell them to go to Siemens after helping them, but it all depends on who it is asking for help, it's about being tactful" (Safety Web Coordinator).

"I oversee HSS net, the architecture and rewrite it so it's useful to all users. I edit the documents to put up on HSS net, write clear guidelines for how to write for the web, and compile user information for rebuilding architecture. I don't have sub-roles at the moment, I did, but not anymore. For CORMS I was doing communications which wasn't my role, but now I'm not doing it. I write user briefs, proposals, and reports. I also teach people how to write for the web. I was brought in for a fixed 1 year contract, and they didn't really know what my role would really be, and so my role was a bit standalone, I was not really integrated in to the team. The goal post changed because of CORMS and now everyone is busy with that. In CORMS people were doing jobs they weren't qualified for and it was taking a long time to do it and this led to morale being low. I was called in to do press and PR and that doesn't impress me, its not my current role. Some people think my role is writing for the web on behalf of them, but it is to train them. Managers are confused, one thought I would be responsible for the back end as well as the content, but this is not the case. I'm looking at usability only. I think people think my role is easy because anyone

can do it, and because they don't really know, and also with my work the results aren't instant so they think what is she doing?" (Online Editor).

"I have PA duties to PKMT Manager, advice line duties and training of SHE systems. I floated in to the role, I was drafted in through a restructure and was told verbally what my role would be, but it has evolved. I'm also a database administrator and conduct data quality checks, day to day finance, assisting people on intranets systems via phone or email. My sub-role is training people out on field and over the phone. A lot of people think I'm just a trainer or people think I'm a PA, so it's a mixed response. Managers see me more as a PA. Training was quite positive for users, they like having support. Managers are positive because I can help with reports. Some PAs didn't like that my role was above a normal PA in ORM. I like the training aspect, face to face communication. I don't like the day to day ordering bureaucracy, taking a number of phone calls to get order numbers and getting the orders. I don't like it when some managers in the department make decisions and don't think of the consequences. One manager decided it shouldn't be the team assistant putting data in to the system but the advisors themselves, but this led to corrupt data in the system because the advisors weren't properly trained and didn't enter the data in correctly. I think the users think we are a basic helpdesk rather than ORM systems team. We (PKMT) weren't properly introduced to the ORM when we all became one department, and they only see snippets of what we do and don't really know how much we do, this is negative" (Information Assistant).

The role of the ICT Manager was under confusion. Generally, the role sat between the IT team and the business, however it changed due to the reorganisation and the ICT Manager was himself unsure of his role. The Manager focused on a programme of work relating to the reorganisation of the ORM department and the impact on IT for the department. The reorganisation was leading towards more e-enabling systems. Users were more technical savvy than they used to be, and this was because of e-systems being implemented gradually over time and work life evolving.

"I guess it's to develop and maintain IT systems for ORM, and to ensure the requirements are met. My job description is actually a senior health and safety advisor, but my ICT Manager job description was verbal between me and my

manager, there was no formality. Daily I liaise with managers on requirements, and with external parties to get equipment, I'm a manager for PKMT team, and on CORMS I find IT solutions to requirements. My sub-roles, the only one I can think of is to set up meetings for other people and set up IT equipment for them. Sometimes we train and advise people on certain technologies which isn't our job, such as with XDAs, I don't see it as my job but I'm happy to do it. I sometimes get dragged in to some meetings and get work out of it and that's because I have health and safety knowledge so it can be helpful. But now it's 3 or 4 years down the line and there should be less reliance on me as a health and safety person. My manager's role perception is fairly in tune with my idea, that I will implement departmental systems, but they also think anything IT related means my job. They feel I will know everything IT happening in the BBC. The view is very positive because over 4 or 5 years we have constantly delivered quality products, not always on time or budget, but it's positive nonetheless. We've continued to deliver regardless of the changes, lots of reorganisations. Subordinates' view is the same as mine, we develop and maintain ORM systems, but probably think I do too much, I cover too much. I think their view is positive but I don't delegate enough or communicate enough, but feel it's positive. I dislike the fact I am constantly busy and there isn't enough time to react, everything is done last minute, there's no essence of planning or time for thinking. ORM always works last minute and change requirements all the time, and it's a general BBC trait" (ICT Manager).

When PKMT were asked what the ORM department thought their role was, all the team members answered that the department thought of them as an IT one stop shop. The department did not know exactly what their role was, there was a great deal of misperception and confusion, therefore anything IT related would come to PKMT first. The team felt that the users' perception was positive towards them, however the team itself was not happy to be seen as a first point of call. Many PKMT members lost a huge amount of their work days solving ORM's problems that were out of their remit. In some situations, such as a small favour that took days to resolve, caused low morale in PKMT.

"The users' perspective is positive of the team, we are always the first port of call, and if we don't help them we can point them in the right direction. The role

is continually changing. Siemens have come in and made changes in terms of items available and costs, and so we had to change to support them. The number of products has increased and therefore increased our workload, new products have new accessories. Siemens are a commercial company, and their interests are commercial, where they make changes to benefit them they will, they should also benefit the BBC because it's latest technology and it's cheap, but at the same time it may not be a benefit to the BBC. The products changed quickly, over night almost, you would look for them and can't find them all of a sudden. Feels like we're just fire fighting" (ICT Coordinator).

"Role of team is to support ORM and providing the IT solutions to their requirements. We manage the content but we also have to develop and support them with hardware requirements. There's a grand role of knowledge management, which they are still trying to figure out. Sometimes there's a misperception that we also provide helpdesk for ORM queries as opposed to a helpdesk for the actual sites and tools we provide. Overall perception is positive because we get good feedback on what we provide, we continue to provide good systems. Manager's role has changed so its quite tricky. I'm not sure exactly what it is now, he leads CORMS on the IT strand. He still helps with the management of HSS net. He manages us. Over 5 years the team has embraced new technology, it supports a bigger team and it's always trying to work more efficiently, providing tools to work efficiently. New technology has led to this change, and keeping up with the BBC intranet, and the organisation structure in the department has led to a change in the scope of our support. At the moment the size of the team is 5. The skill set is 1 highly skilled systems developer, 2 web/database developers, and there are skills that can enable dynamic sites. People skills are required with dealing with ORM. The key problems are unrealistic expectations from ORM, too much work and too little time. The problem is that we have to do the editorial function, and we need an editor in the team or a process...Our function will be moved to Siemens, we were accessible to ORM but Siemens won't be, not sure how that will work for ORM in general. ORM will gain power on self sufficiency for HSS net, they can control their own content" (Safety Web Coordinator).

“Team’s role is to look after HSS net and the technical side relevant to ORM. End users find the team positive but they don’t understand time requirements and why things aren’t done instantly because people think things on web should be done in an instant. Manager’s role is positive because the systems are good. He looks after the systems for ORM. Team are picking up lots of new skills, such as design being integrated with development, creativity and IT mixing together. The reason is partly due to downsizing and multitasking, and generalising skills. Skill set is highly advanced, but I don’t think we use people’s skills well, in terms of allowing creativity, sometimes our projects are too rigid. Team has people skills, and good stakeholder/management skills. Over the 5 years we have started using new technology and using content management systems. The key problems are lack of role definition, and reluctance to train people/development staff. I’d like to see younger people coming in to the organisation with fresh ideas” (Online Editor).

“Since we all (ORM) have moved in one office we’re doing a lot more work than before and things not in our remit. We’re not told much, a decision is made and we’re put in it, such as SHE (health and safety risk system) database, there was no consulting with users, the managers made a decision and got the system. Skill set changed over 5 years, we have more programmers/technical people, but overall no other changes, there has been some training on systems. The key problem is we need to change the users’ perception of the team. Maybe do some work shadowing and introduce us properly” (Information Assistant).

“Role of team is similar to my role, but at one level removed. The role has been to do the development work to help me deliver (systems and projects), they respond to day to day questions, liaising with technical people around maintenance/support equipment and CORMS participation. They are moving towards project management. My manager’s view is positive, he sees the team as an important team with good customer focus, we’re open and responsive. When things need doing it gets done in a professional and quality manner. I think my team views itself positively, I guess there’s questions on how we do things. HSS net has expanded and short term fixes have created a lot of work for the team, and that needs to be looked at. I think they might feel that we’re taken for granted, we are subservient to those that make requests to us, and

some of these requests are not our jobs, but we feel we have to do it. The IT team sits with my manager (not IT) because it was the natural place in the department. I did question it before, but it was decided that it should stay within PKMT. Over 5 years the individual departments (health and safety, security, medical and environment) have come in to one ORM, and the HSS net was needed, information on the intranet. Relationships with users and vendors are managed through ICT Coordinator, she has the interface with users through helpline. When developing products myself and developers will get requirements from users, and will test with them. With vendors it's mostly me, liaising and negotiating, and the developers talk to vendors for day to day problems or issues. The biggest problem is ignorance/lack of knowledge of IT from user point of view, people not understanding what they should be doing after training, but also not understanding deliveries in terms of timescales and costs... I'm surprised that ORM doesn't think they don't need one IT person in the department after PKMT has gone. They need someone who has an IT overview to negotiate/liaise on their behalf. I don't know if they've got another team somewhere and they haven't told me. I think eventually a role will appear back in ORM. In the interim the ORM Director will have to make the IT decisions" (ICT Manager).

The outsourcing deal with Siemens affected all parts of the BBC. The users had new support processes, departmental IT teams were made redundant, and TD department was undergoing restructure and change in role. Therefore, naturally the power question was raised. PKMT felt that the Professional Services IT team at the divisional level would become powerful, as they held the IT project decisions for all the departments within the division. Another team that would become powerful was TD. TD was the central IT strategy and overall IT controller in the organisation. As IT centralised the IT power shifted from decentralised divisions/departments towards TD.

"In terms of power shifts there will be a team within the BBC that looks after overall IT and it will be that team (maybe TD or some e-services)...Siemens don't allow users to order their own products, so they have to come through ICT to order and it be approved. ICT acts as a monitor and there is some control, a layer between user and Siemens, so that Siemens job is not the administration.

There have been cases where users have found the link to the order form and tried to order directly, but there are fields in the forms only the ICT can fill out, so there are preventive measures. The procedures have got stricter over time due to outsourcing, before if leases expired on equipment the user would automatically get a new piece of equipment, but that doesn't happen anymore, they need to use the equipment for longer, that is value for money" (ICT Coordinator).

"The Professional Services team are pretty powerful, we have to go through them at the moment. I don't think it will increase, it will just be more explicit because PKMT won't be around... I know BBC wants Siemens to be a partner, not client relationship, and they want Siemens to be more proactive. Siemens are pretty powerful because they are preferred suppliers but we don't have to use them and Siemens are acting responsibly but there is a move towards balance of power... There are TD key policies and documents required when engaging with Siemens, naming conventions, how to create websites and we should be using them, although they are not enforced. Intranet has policies, styling guides and what you can say or not say, these are enforced. The documents are kept up to date and changed regularly. With some high profile or high budget projects we need to go through TD to move forward and get authorisation from them" (ICT Manager).

6.2.3 Middle IT Managers' Perspectives

Before the Siemens contract and the organisation restructure, the IT teams within departments had power to purchase and implement their own systems or applications. The IT teams had their own relationships with various vendors, however after outsourcing, all the relationships had to go through various BBC committees and Siemens. The main dislikes by majority of the managers was the politics and bureaucracy, and the latter was exasperated due to the outsourcing agreement. The SLAs needed to be in place at a corporate level. The IT teams within departments saw the power shifting from them, to TD. TD was setting IT related strategies for the whole organisation, and they sat between the BBC and Siemens.

Many of the middle IT managers' roles changed due to the restructure. All of them except one did not have a formal job description. The only manager that did have a

formal job description was a new manager, and the job advertisement was the job specification. All the managers' roles evolved, therefore they did not have a formal contract but a verbal one. One manager wrote his own job description and had it approved by his manager. The main tasks the managers carried out were liaising with stakeholders, planning and guiding their teams. Middle managers also carried out sub-roles, and most of the sub-roles were inherited from their old posts. People continued to contact them for advice, issues and occasionally they had to get their hands dirty and do some technical work.

"I don't know what my job totally is because its evolved. When I joined it was correct because I was looking after the HR intranet and its policies, but over the years I've moved through different departments. I've worked within HR and my role has changed depending on where I was working. I never had a formal job description update, it's been sorts of project management. Now it makes sense for me to sit within the Professional Services team because I was on my own and it made sense for me to join the IT team within the division. On a daily basis my work is project based and it's a number of things: part of it is maintenance of current web sites and this part of the role is reducing, but there's also supporting content writers for the Professional Services systems, and there's a general move towards content management systems. I work on the definitions of projects, how best we can take the best HR processes and move it online, writing specifications, and coordinating with users and Siemens. With sub-roles it's hard to distinguish that from my not so well defined role. I'm proactive so I'll fix things on my own without someone telling me to do it, for example broken websites. I don't tend to turn down work, if someone has a problem I'll help them. I should say it's not my job and go find someone else, but that's not in my nature. I guess writing software and programming are my sub-roles as my main role is project management. We have Siemens to code, and so I don't really do it, but I do the odd things and deliver it. I don't think I'll be doing that for much longer as the guidelines with Siemens becomes clearer I won't be coding"
(Project Manager, HR Intranet).

"I have no idea of my formal job description. My job is a mixture of operations and executive production, overseeing the systems. The routine things I do are one to one with managers, day to day jobs vary, support the team, make sure

they are OK, if they have any problems to help them, keeping up with emails, and keeping abreast of what we do, which is surfing the net or reading blogs. There are no sub-roles because my job role has never been fixed. If there's a problem I can help with I will do. My role, I'm making it up as I go along. I won't do anything I don't really consider not my job, but I do most things or requests. There are some people that call me up for technical advice, they have become dependent, but if I can help I will do" (Learning Systems Manager).

"There is a job description but it's a new role and it is evolving. I'm implementing the Me and My Team system, but my role does include more HR services online, the implementation of the solutions. There's a business management aspect of the role, looking across the Professional Services division and see what's happening there and the projects going on. It's an overview manager role at the moment with planning, working with TD, looking at the broader plan of where we want to be and all the if scenarios. The job description was through the advert for the role. I'm planning with my manager, looking at the vendors, lots of research around that and the packages, it might be outside vendors or maybe Siemens. I also talk to TD and see how our HR functions/processes fit in to their centralised area. As we start the project then it will get busy and I'll be more hands on, at the moment it's all talking to people. My sub-roles are people with HR experience have to be on call as part of risk management, they can call us out of hours, 24/7. This is inherited from my previous role and HR experience. For example, it can be horrible that someone has been killed and they need to call next of kin (this can happen in News journalism). We are part of business continuity, if something horrendous happened at the BBC, for example to a whole BBC building, we are part of the disaster planning and recovery team. I also have experience of SAP systems, and can get questions related to that, part of my old role. I'm having to do this is part of the reorganisation transition period" (Implementation Manager). He does not see himself as an IT person, more of an architect or designer.

"I've written my own job descriptions, but overall it's quite fluid. There's not really anyone to look over me. The role is to manage the IT state across the division. I get involved in the data management work, making sure people are doing it properly, project management, that people are following correct data

policies, and I use my knowledge of the business to coordinate between Capita, Siemens and Professional Services. Day to day varies, the project manager role is taking most of my time, being the middle person between Professional Services and Siemens. A lot of chasing to make sure forms are filled in and then chasing them up. I get pulled in to doing data analysis because I am data expert and it could be pulling data, or going to meetings with Siemens” (Consultant).

Most of the managers’ teams understood their role fairly well, however they did not know the nitty gritty details or the sub-roles. On the other side the middle managers’ superiors did not know the middle managers’ roles in their entirety, and the reason being, many of the middle managers were left on their own “to get on with it”. The superiors did not get involved unless asked to do so or if work was going in wrong direction. The overall perception from the middle managers’ view was positive because they felt they were trusted to get on with their work.

“I don’t know how my new manager perceives me, he probably sees me as a web person, and if he has a question on the web he’ll come to me. I do need to talk to him and get my role clarified and give me a remit in the team. His view is positive which is nice, in the restructure he made it clear he wants me to be part of the team, if he wanted me to go there was an opportunity for that to happen. I dislike that its been a bit quiet in terms of work, but I think it will be temporary. I don’t like the lulls and I like being active, it drives me nuts. The lull is because of Siemens and clarifying the relationship. I like the team members and the different types of jobs I do. I like the flexibility, but that’s a BBC thing, there’s a lot of trust for the employees, no one is watching you or clocking in or out, it’s a healthy environment. I can work at home once or twice a week. Great environment! I want more responsibility and I would like a team as there’s a lot more I’d like to do. Our relationship with Siemens is still fairly young and we still need to be involved in that aspect. I don’t have a team but I’m part of business solutions team which enables e-services systems, and maintains them. We try to rationalise systems, and find cost effective ways to maintain and build them. The manager views most of the team as fairly proactive, thinking ahead, planning and the team supports him. It’s positive because everyone gets on well, there’s respect for the manager and he respects the team. Manager’s role has changed because its been given a lot more

prominence recently, he's viewed as the main technical contact in the department, and he is held in high esteem by the senior management team, they respect his views. The new project has been given very high profile. His role is high level strategy, where are we and where are we going, also participating in the outsourcing aspects with Siemens. Of course he also manages the team. The team has grown in the past 5 years, systems have been consolidated and integrated. They have a user interface, the idea of self service. The team is 5 people, and the skill set is varied, there's a technical person, everyone has strong project management skills, good organisation skills, planning, healthy technical knowledge of the systems, and good people skills" (Project Manager, HR Intranet).

"The team's definition of what I do will vary depending on the person. For immediate reports it's been to provide support of some sort, provide direction on where we are going, what we should be doing, and explaining, more of a coaching role. Sometimes I have to make decisions they don't want to make and sometimes it's backing them up. It's a supporting role really. I think it's positive because that's the feedback I receive through the 360 degree appraisals. For my manager, my role is to understand exactly what he's thinking and to put it in to action, to get it, be an intellectual mirror. He has a strategy and I have to make it in to something tangible. His view is positive, we have regular conversations. I keep to budgets. I like delivering stuff that goes beyond what people were expecting, and I experiment. I have to be clear to stakeholders on what they're getting, a clear deliverable, work that expectation, but also go beyond if we can. We like the experimenting, that's things we really want to do, and being creative. It will change, I think it will get more constrained, but I will try and find a way to continue the experimenting if we can, and if I'm still around. I dislike the supporting of guidelines and documentations, monitoring, and moderation which I'm sometimes called in to, but I think these things are needed. Rules are needed because they seemed right at the time, but if someone comes with a better idea, then we should be able to move forward. I don't like rules or moderations, I don't think we should have it, but that's the world we live in. I like to set guidelines, rather than set standards that have to be followed. The restructure has affected my role which has become more pastoral, more about people's concerns and their personal issues.

I'm a counsellor. I don't mind doing that because it is part of my job, but it has become more of my role recently. The team's role varies but it's largely to support the systems and write the guidelines. We are the hub of the community (intranet). The team are positive as they get good feedback. I don't think my manager's view of the team is any different to mine, we keep each other informed. My manager's role is to support the team, manage stakeholders - let them know what's going on, and provide direction" (Learning Systems Manager).

"My manager set the job up, and sees it as a fundamental role to where we want to go. He involves me in discussions, he kind of sees me as a deputy. When he's caught up in something, then I could step in. It (the role) could lead to having direct reports. He knows of my sub-roles, but he doesn't mind because he knows I work well, and it has to be done, he understands. I am trusted by my manager. He involves me and wants me to make decisions, so it's positive. I like the potential of the role, but what I don't like at the moment is the transition stage, the role as defined has not got going, it will happen, but you want to get in to the interesting things. We spent a lot of time working on the functional specifications with Siemens, it was good positive work, but it went in to a black hole. It's not all them, part of it is lack of focus in the BBC, and we want it to come in to fruition, we're waiting and don't know what could happen with it. It had an affect on morale. People like being busy and they're not at present. I don't think what we did will be wasted, we could rewrite bits, as long as we have a focus then it will be fine. It's the waiting around that's the problem, some people are leaving, and others waiting, no good for morale.

My hope is the job is a 2 year job, and then I'm redundant, but whatever happens at the end whether I leave BBC or the role, I hope we end up achieving something, we have a system that works and users find it useful. It would be a shame for me to mull about the next 2 years, I really want to achieve something.

The team is a mixed bag. Working across Professional Services on technical and IT based solutions. Defining the Professional Services' needs to the developers. We coordinate the user acceptance testing and sign off. There might be training aspects we would get involved in because we'd be experts in

the systems. Manager's perception of the team would be the same as mine. Manager's manager would probably say a similar thing, but she's an HR person. My manager is the technical person for division, he works with TD to make sure Siemens are delivering what the division wants, intranet reports to him and where we are moving, looking to the future, and he manages SAP HR systems. We have a well defined team, so my manager doesn't have too much day to day involvement, intranet is taking most of his time at the moment. The team has evolved, we've had a business solutions team for a while, but it was quite small initially. It started as a one man band with my manager. As more systems came in the division, the team grew in to developers and designers, and now it's moved to Siemens to do the technical work. This happened due to the team's success, but there has been a need to save money and reduce headcount. The systems have become central. The key problem is IT does tend to become a political control, there are people who skirt around the central processes and not go through the team and will build their own systems because they have their own budget and don't want us to hold things up or ask questions. People don't like central areas and don't go near it, we end up with systems developed and then they're not supported. You can see why some people do it, but it would be good to follow processes" (Implementation Manager).

"The team all work together informally, we all muck in and work things out. We don't stand on ceremony, people can work from home sometimes or from elsewhere if they want. We're flexible. We have learned all the systems we administer, most people have a HR background, we're all professionals – look after diaries, plan etc. They know my role with regards to the bits that relate to them, they know of my data protection background, and systems support. They like my hands on approach, it's not a problem for them. My manager is positive about my role because I'm left to do the job myself. We used to have a career path in the team, but with the outsourcing and reorganisation it has blown it out of the water. The team is only 3 years old. We built the role up, but we will be disbanded next year, so don't know where it will go. The morale will go low as we get towards the end. The team is made of project managers, business analysts and a deputy, they all report to me. It's about 7 people including me. Manager thinks the team is important and that every member is needed. The better we do our job the more invisible we are though. I only go to manager if I

need to, if there's a problem. I like the variety, the ability to follow data through and see the whole picture – the systems side, the reports, and what the users want. I don't like the bureaucratic nature of the business which has been exasperated by the outsourcing, all the formal processes, and it can take some time which is not always for the best. A number of decisions affect us, all the reorganisations in the BBC always affect us because we have to rethink how we work. With all the systems and the outsourcing to Capita, I can't see how it will all fit together. Self service done properly is good, but some of them are terrible sites, not everything is standardised" (Consultant).

The middle IT managers' key problems at work were due to the restructure and working with Siemens to deliver the IT projects. The process was long and formal. There was a formal IT project process to follow, but it took time, this was something BBC staff were not used to. TD became powerful in the middle IT managers' view, because they decided on the fate of the projects. However, one manager believed it was the divisions that would be powerful because they held the budget, if they did not like TD's answer, they could go around the system. The manager believed the power was with those that held the purse strings, therefore it did not matter what policies were in place by TD.

"The shifts in power, my manager has a high profile and this reflects on the team. I think there might be coordination between us and the TD. We don't really have any policies, although we have gone through project management training but it's difficult because all projects are different and need to be managed differently. We do follow certain rules but all projects are managed through experience. TD have started to formalise the way they work because of outsourcing, they're also the central team and they strategise. We can't just go and buy a product like we could before, we can advise TD, but we can't go ahead and buy it. It's good that Siemens should find the right product for the BBC, as they're the technical people with knowledge and they will be supporting/maintaining it" (Project Manager, HR Intranet).

"We're changing from a world to buying things rather than building our own. We do create some of our own systems, but we are definitely moving to off the shelf, we're reducing the number of technical people/coders in the organisation.

We've got more people who project manage rather than develop" (Learning Systems Manager).

"There's a potential loss of control due to the outsourcing. We've been used to making our own decisions, and now we have an outside company that's involved in the decision making and it's a different dynamic, people you know are no longer in the same company as you. We will have to keep looking at the contracts, particularly if something going to cost us more money. It's a difficult thing to get your head around. TD are getting more monetary control of things and they need to be signed off by them before you get your money, again people will try and go around this. This will be the real shift of IT control. TD are good, it's good to get them involved at the start because projects tend to go fairly well with them involved" (Implementation Manager).

"When we deal with vendors we use the high level SLAs, we don't have our own team based ones. We're learning new ways of working due to outsourcing, it's not like we can call someone or ask for favours. Power will shift away from central TD out to the business and I think that will continue" (Consultant).

6.2.4 Senior IT Managers' Perspectives

The role of IT in the BBC was changing because of the value for money initiative. This led to the outsourcing contract to Siemens, which in turn led to an organisation restructure and redundancies. There were some positives from the situation, IT staff could work with new technologies and e-enabling systems. The size of decentralised development teams decreased or in some cases, such as with PKMT, disappeared altogether. The IT team that was growing was TD, and the skill set in TD was moving away from hands on work towards project management/contract relationship management/business analysis.

The senior IT managers' roles were centred around strategies and stakeholder management. Most senior managers had formal job descriptions, either through a contract or a job advertisement. There were a couple of managers who did not have formal job descriptions, one was due to the role evolving. Most of the senior managers' day consisted of meetings to facilitate work, building relationships with stakeholders and suppliers, and negotiating. There was the occasional period where they became the

project managers and had to fire fight. One manager as part of his role attended conferences and seminars. The types of sub-roles they were involved in were to attend meetings not directly related to work, but to give advice and sit on various committees.

“I did have job description but it’s not something I do anymore, it’s a funny one because we’ve grown out of it. We changed from doing things for production to doing networking. Bringing communities together from outside and inside the BBC. This involves bringing people with new technologies by going to conferences. We facilitate and not become the experts in everything. We bring what’s new and right for business and let people choose if it’s useful. It’s like knowledge management. I also write papers... We run workshops because people couldn’t keep up with rate of change so we started running them to allow people to keep up and it became very popular. We got together with senior managers to see what is relevant and what we need to get us to a goal. On a daily basis I evangelise and spend time at workshops, talking about the impact of the way we work and what we can do to make it better. I read blogs. I try not to go to any meetings, they tend to be a waste of time. My purpose is to allow people to find each other, and the subtext is mediating” (Director of Knowledge Management Solutions).

“I sit between BBC and Siemens, and the services it supplies to the BBC. I’m responsible for all the services, SLAs, type, and the perception of that service. There was a formal job description, from day one it changed. I’ve set up the services assurance team. Main role is to negotiate with the service provider, negotiate with the BBC as a receiver of services and making sure they are both treated fairly. I also manage my staff (team of 5 and growing to 8). The services are everything from PCs/desktops to broadcasting services. Of my week 10-15% is roughly spent on business continuity, physically going to see Siemens and being in their face. We need to make sure we support them on getting it fixed, but check they are also fixing it” (Head of Services Assurance).

“I help/support Head of Technology Services in Professional Services division. We look at strategy and governance. I have a job contract detailing my job. My job is 3 years old, and it’s changed now, about 30% of my role is as the original contract. On a daily basis I direct projects that are pan BBC IT infrastructure

projects (60%), 20% doing the general Professional Services role, 20% focusing on real technology implications across the wider BBC, this is the change work. I sit on the CTO's 10 year strategy committee and make sure Professional Services technology fit in to the BBC vision. The big project at the moment is the roll out of electronic document management system in the BBC. I represent the sponsor of that project. I'm pretty good at not taking stuff not relevant to my role. I do spend a lot more of my time managing projects than directing them and am dragged in to the detail. I'm helping to develop colleagues, and interviewing for the department. I get involved with R&D for divisions, I go to Kingswood and create a work plan. I manage those relationships" (Business Technology Analyst).

"I'm responsible for the management of the major contract technology with suppliers. To make sure we have improved capability in key projects, provide legal/contract support (45% of time spent on framework contract with Siemens) and this includes SLAs/performance measures, delivery assurance and the team is growing, project management office and to deliver high key projects, and client side support dealing with Siemens. Making sure the business is happy and that everything is happening as it should. We look after baseline work, but not all projects because the business can manage some of their own projects with Siemens, we come in to make sure the contracts are all correct. My daily tasks are: I'll help the team if they need me, but I tend to work with difficult issues that are escalated or the relationships have broken down or projects gone pear shaped or complex contract issues. So I look after Pacific Quays project in Scotland. The job description is so wide, and things can change quite a lot. I don't feel there are any sub-roles. At present I'm working with the audit office over the Siemens contract and this is taking 80% of my time, but I don't see it as a sub-role, these things come up" (Head of Technology Delivery).

"I'm responsible for making sure that we have adequate liaison between the primary business divisions' representatives and to align their business strategies with the BBC strategies. Looking at the commonality and start looking at that in terms of work to do for the future and setting up strategies. I attend meetings for communications and awareness with senior management in the BBC, getting finance approvals and the like. I have a lot of coals in the fire at any one time.

I'm a sponsor on some projects and sometimes problems are escalated to me. At present I'm looking at new tenders/contracts for the finance systems. I'm overseeing various governance groups. My sub-roles are liaison with external parties, third party liaison where there is a technology overlap and I end up doing some arbitration" (Head of IT Strategy & Policy).

"My role is pan BBC. I look after IT and this includes networks, desktops and pan BBC business systems, such as content management systems, SAP, and storage etc. I set strategy and direction for IT in the BBC, do some governance, policy setting and technology leadership. I have a formal contract and the role is the same as the contract. I attend meetings and emails, that sums it up, it can be suppliers, strategy, issue resolution, and managing governance of BBC. Managing and understanding what's going on. The way IT is changing is not about technology but the business. My sub-roles are to look after information security, software compliance around the policy based areas, look after Professional Services division, but I have a team to look after that, supplier delivery area, the contract with Siemens, Programme Management Office function, and enterprise architecture. Mostly issues around management" (Controller, IT & Business Systems).

"I'm CTO for BBC and my role is to find a vision for use of technology inside the organisation, and the external pressures that drive change, and to make sure supplier technology is at the appropriate level for the BBC. This was in the job contract. This all was small part of my job and a large part of my job was around the amount of reorganisation needed. I cover all technology, broadcast and day to day stuff. Broadcast was never a high tech industry but it is now. Day to day I do a lot for HR and lots of self service systems for them. Daily tasks are to be involved in the formal corporate process meetings (finance change etc), visioning/strategy meetings, and supplier partnership work. I get involved in a lot of issues, I don't get in to the deep details, but overall picture. My sub-roles are sitting on the Director General's finance committee, some might argue that sitting on change steering group is also sub-role, participating in corporate process such as facilitating audit on any IT related audits in any part of the BBC, union meetings, and HR issues" (CTO).

The senior IT managers felt their subordinates knew what their role was because they fed in to it. The senior managers felt their teams were aligned and all moving in the same direction. The senior managers' superiors were hands off when it came to the senior managers' roles, they were only called upon if the senior managers could not handle the situation. One senior manager believed his superior had no idea what he did, and the CTO believed his superior did not fully understand his role. All the senior managers enjoyed working in the BBC, as they felt it was a creative environment with great people. Their gripes centred around the politics and bureaucracy. Many of the senior managers felt the BBC needed to start working like the private sector because there were problems with the charter every renewal phase, and there were chances that the total licence fee given to the BBC would reduce and could eventually disappear. Therefore, they were happy about the centralisation, but the fear was it could cripple the creativity. The senior managers believed IT was moving at a fast pace, and BBC was struggling to keep up.

Overall the number of people in IT was reduced due to the outsourcing, the only roles that remained were managerial and some technical broadcasting specialists. When asked how many people remained in IT, depending on the interviewee the answers ranged from a handful to 300. This highlights the old problem of what is considered IT. The definition of IT remains loose and therefore not only causes issues in the academic world, but also in the real world.

"My team is only 4 people. We spend a lot of time together. My enthusiasm has carved out the space for them. The team is going to disappear, however it is positive, they'll (team members) all miss the team. We're like mates. Team works informally – we don't need regular meetings, we work together and talk on a day to day basis. I think BBC has made a big mistake getting rid of the team because people have finally understood and benefit from what we do. BBC is going the other way, centralising everything where as the world is localising. Manager issue is interesting, he's confused, he's finally understood it, but it's sad because other senior people don't understand it. They see our role as technology only. We don't fit in to a structure as such. They're jealous because I don't get drawn in to the politics, I'm writing a book at the moment. Manager's role is confusing for me, I don't really know what he does. I like most of my role because I've carved it myself. I get a good buzz out of it. Wiki's

have generated fantastic work, and when people say thank you it's a great feeling, I like inspiring people. My dislikes are bureaucracy, conservatism in the organisation and I try and stay away from it as much as I can... Intranet was quite small team and a small site. We gave them a box to tinker with and it expanded the intranet to what it is now – BBC intranet has won awards. IT function has got worse over the years in BBC when we moved IT in to finance, its homogenised and it hasn't added any capability as we could have had. It's all constrained, no creativity... Power will move to those that share knowledge and have networks. I don't like to see myself as an IT person, I'm a web person – creative, not rigid. Everything is moving to the web, it's better than corporate IT applications. It is not fun at the moment, I like web, blogs – it should be fun.”
(Director of Knowledge Management Solutions).

“I keep as much crap away from my team as possible so they can carry on building relationships with Siemens, and they can get on with their work. My role is not to daily manage them, they are senior, but they can come to me when they need to. I encourage them to make decisions, even if they're wrong. I facilitate to make sure Siemens are delivering. I think it's positive. My manager is happy with my job. I love the variety. I dislike the BBC's attitude that it's special and unique – which is not the case, it frustrates me. There are parts of BBC which are unique and special but we can't focus on that if we are dealing with desktops. My team's role is to sit on the fence to make sure BBC and Siemens treat each other properly – we arbitrate. They know it's important to the BBC and to the contract. I feel they (team) are undervalued by BBC. Siemens understand the business because it's not their first time. My manager expects very high standards and because it's a new team she's keeping that judgement in reserve. We're keeping her up to date and not involving her in solving the problems but she knows of them. Her role is to be there for the team and give direction as to where she wants the team to go, but also to give me free rein as a senior manager... BBC has a major shake up every 3 or 4 years, and so I'm sure something will change in terms of the team, but change shouldn't be seen as a negative. I can see more outsourcing to Siemens and more of the broadcasting side, the classical broadcasting engineering. This is an area where BBC is special, so why outsource it? There could be benefits, money in BBC, although this type of outsourcing might be a challenge. We need to keep

key people in BBC so we can bring it back if need be” (Head of Services Assurance).

“I don’t directly manage anyone but I do manage the project team. Hopefully the team see it as someone stepping in for my manager (project sponsor). My manager’s attitude is just do it, I’m representing him. He knows my role well, we have good communication channel. A lot of the work, he’s the sponsor so I’m the man on the ground, a project manager, inward facing. I deliver for him and it makes him look good. I’ve got freedom to do things the way I’d like to do them. I don’t like the politics in the BBC, it is a very political organisation. I don’t like fighting the same battles even when it’s wrong. Centralising IT is a good thing, but the balance is needed, don’t want it to go too far, there is always going to be a boundary. We want an impact and people to see the benefits. My manager is deputy CTO, Head of IT, Head of Information Security, and Head of IT for Professional Services, project sponsor for various pan BBC projects, and a member of change programme in BBC... BBC has gone from IT telling the business what they’re going to get to the outsourcing, where now IT manages suppliers’ service levels, and making sure the BBC benefits from the right technology and the right value. It has become more of a service function. It’s a natural progression. All businesses are run from a financial perspective, and need a good understanding of the organisation and the cost implications of IT. At the moment management is focusing on core competencies and driving down the costs. TD is the IT function looking at innovation and strategy, and is approximately 300 people, including broadcasting. Traditional IT, desktop is only 10 people. We’re more about project management, analysis, more about the business, strategy. Team is increasing in power in the BBC for a centralised approach, and that makes sense because we are in times where money is an issue. Localised IT is losing power because of outsourcing... There’s an increase in compliance due to Enron and Anderson Consulting fiascos, it has led to many regulations and we’re driven by compliance. Information security is becoming important, to protect the BBC, staff and customers.” (Business Technology Analyst).

“My team is new and we’re getting on with it. They know what I do. In terms of my manager, again my role is new, and the whole technology structure is going

through a restructure. I created the team and it was peer reviewed by my manager (CTO). My manager is a strategist and a visionary, and my role is to make it happen. It's hard to find out about business decisions and drivers, I have to fight hard about the background of projects or for papers/documents. There is no access to important papers, no traceability, and the organisation works through networking, which is difficult. The projects are challenging and they're leading edge. The things we do are more leading edge/risky compared to banks for example. Team's role is to make sure we get the very best out of our suppliers – commodities, quality, value for money, and best out of our high risk projects. The team and managers understand their role, but we need to be communicated to the rest of the BBC. My manager's role is to provide high level technology advice to the executive group and finance committee. To lead the BBC's technology vision and make sure the BBC remains leading edge in the broadcasting industry, e.g. digital production. Changes in IT function are moving from delivery in business divisions to one where there is more control, and the reason is importance of technology success in the overall vision, and the money. We used to use new technology, but never looked at the benefits or value for money and that is now important as well as being leading edge. Technology group is approximately 200 people, including R&D staff, strategists, project managers, and broadcast engineers. We still have technology groups in some divisions, such as News, Nations & Regions, but some of them will be moving to Siemens shortly. We need to get better at project management, particularly in complex programmes, that's the big gap, we've got lots of contractors that are good, but not enough BBC staff... There is centralising, intention is that its not forever but to get processes in to place, and doing things properly, there will be cultural implications. It is difficult to do this in the BBC. We are also trying to bring in quality standards and particularly in the projects and managing of them” (Head of Technology Delivery).

“I only have one subordinate, and they only see the role affected by their work, BBC Internet strategy, so he doesn't know the entire breadth of my role. From the 360 degree feedback it's positive and we're working in a dynamic and interesting area. Team's role is to ensure the business requirements of IT are met in a secure manner. Team members are intelligent people and I'm always learning something from them. We don't hog information but pass it on. My

manager knows the full breadth of my role. He looks after technology in the BBC as a whole. Manager doesn't intervene much with the team, in that sense we are autonomous. My manager is deputy CTO and he makes key decisions. He's responsible for IT strategy across desktops and telephony. He has other teams under him. The roles between us are aligned. The change is also a negative because the BBC is not cash rich at the moment and so I don't have enough resources to do what I want and you end up making compromises. I want to be able to provide a real technology strategy to the BBC allowing them to deliver in the future. Siemens were investing a lot of money in new services but it did mean that we had a lot of projects that we had to track interdependencies, monitor and get involved in, and it means we are stretched. We don't have the capacity to manage all these projects and has meant we have had to look at a dedicated team. Changes in IT function are centralisation, less division specialised teams and services. We've successfully outsourced technology. There's more alignment from project approval to aligning with business and strategy. We want to standardise things to get value out of it and reduce costs. This happened initially when we had BBC Technology so we could see costs and they were more transparent, and that moved to outsourcing to Siemens. There are 80 people in the technology group in operations and strategy not including R&D. The staff are service managers, project managers, architects and specialists. Technology function now doesn't include delivery, it's down from 1400 to 80 people. Skill set has moved from delivery/technology development to more contract management, project management, and strategy... The ability of business divisions to control their technology spend will be reduced by the centralised team" (Head of IT Strategy & Policy).

"My subordinates probably think I'm over everything. I manage 10 people. They know what my role is. I think it's generally positive because they can see the changes going on, and they understand it. My manager knows what I do, he is very clear about it. He's supportive and positive. I dislike the politics and amount of work due to all the changes going on. I have a gap in resources and need someone in place to handover, but at the moment budgets are held due to changes going on. Technology group is a small group of about 200 (including R&D) and generally quite senior staff in this team. They act as brokers between the suppliers and BBC. Sometimes the supplier is right as opposed to BBC, and

this can create tension, and the trust issue plays a part because we still need to be trusted by BBC and the supplier. Sometimes it's easy to blame technology, but most of the issues are about processes...I think CTO/CIO role should be for 4 - 6 years, and then should cycle through and get someone new, it's good for the organisation. The team's role is to act as ambassadors, strategy advisors, governance, specialists e.g. security. They are all senior managers because we have outsourced all the doing, it's all the thinking that has stayed in the BBC. Skills are the same as project managers. The team's view isn't totally cohesive, but we are going through the changes. Manager's role is political fire-fighter, visionary, manager, broadcast and business continuity. He works with the directors to make sure we are going in the right direction. Manager is CTO, but he reports to Director of FM&T because it's effectively 2 departments in one. Normally you would expect the CTO to report straight to board, but not the case here and in some companies they do report to finance for example... Outsourcing with Siemens is a technology contract without mention of technology, we haven't specified that we want Microsoft Word v. x, we said we need a word processor, and Siemens will decide what is best for us. IT is done by 3 people in the BBC because Siemens do the delivering, but looked after 3 people – monitoring, project managing, issue resolution etc. There are still some pockets of IT in certain divisions, in News things happen fast and they need to make fast decisions. IT in BBC is a dirty word due to broadcast community. But now it is taking over everything. Key problem is communication in the BBC, do the divisions know to call us up for governance or how IT is managed – some people do and others don't. We are creating a model that will go to the divisions and will be enforced, particularly due to centralisation” (Controller, IT & Business Systems).

“Subordinates think my role is the original job description – strategy, vision, partner management with Siemens. My manager's view of my role depends on the day of the week, but it focuses on my sub-roles – change transformation... I dislike level of process in BBC overall, can be stifling and crippling, it's corporate process on process on process, it's a lack of freedom to do what we are paid to do. We had the National Audit Office coming to look at outsourcing deal with Siemens and this took out a lot of time and stopped me for a while. I guess it's the nature of being in a public organisation, but it was an unhelpful

audit. Team's role I think it would be the same as mine, to drive change, manage Siemens relationship, making sure BBC is using best in class, and not reinventing the wheel. We look 15 years ahead by using a group of people which is like a think tank, they don't look at technology, but at the world. They model the world in 15 years time, and from there we develop a 3 year strategy and try to move to that new world, and this keeps cycling. Changes over 5 years, we used to focus on back office process but now we're looking at transformation, streamlining. I have led the change because my role needs to look at this and drive change – IT is changing business process/transformation. Internet and mobile devices were the drivers. We changed from delivering content to traditional TV and radio to new platforms and it had to be faster. In year 1 we were looking at making sure we had the IT capability, year 2 was looking at the providers, BBC shouldn't take the whole risk but share IT risk, year 3 was looking at bringing Siemens in, now we're looking at vision/strategy/reshaping – we need to continue to update the vision, and get stakeholders on board. This isn't about us (IT), it's about embracing this change that is happening in the industry. We have an open IT forum that happens every other month, that is open to all to attend to get ideas, and visions. We have a lot more forums/annual workshops, more informal things. Formality has disappeared, and more informal... CIO and CTO are different – CIO for me is the IT head dealing with back-office and support functions, CTO brings a vision of the future. As the organisation becomes more dependent on IT there might be a shift from self service to the back-office. CIO/CTO should sit on the board, it's nonsense that it wouldn't happen. I don't see BBC making that change straightaway. The BBC isn't always far behind industry, sometimes they are ahead" (CTO).

6.3 Summary

ORM was a relatively small department within Professional Services division, and the medical arm was in the process of being outsourced to Capita, and PKMT were made redundant. All the nurses/physiotherapists except one interviewed were not in tune to what was happening to PKMT, they were not worried about IT as they had their own outsourcing to worry about. Users in general were worried that PKMT redundancies would occur before IT solutions were put in place, as IT had become a large part of their daily routine. Some users did not seem concerned they would have no IT presence in

the department, and others felt there needed to be at least one IT person in ORM to coordinate the tools and systems.

PKMT viewed the redundancy as an opportunity to move on, and the developers got a chance to move up the career ladder as Project Managers. The interviewees understood why they were being made redundant and it made sense for them to go with Siemens taking over the development work. However, whether ORM with no IT people would work after all IT staff left, they were not convinced. Two members stated that they should keep one IT person to manage Siemens and Professional Services.

Two Middle IT Managers were managing their teams that were going to be made redundant, and all the others were going through the centralisation and change of role exercises. Many of the middle IT managers moved from being on their own to joining the central Professional Services IT team. The emphasis was to move away from development/hands on role to project managing.

All the Senior IT Managers' roles were created or changed because of the Siemens contract. Three of the roles were new posts. The senior roles were to project manage or manage the stakeholder relationships. The key word used by the senior managers was "centralisation", and TD was to become the central hub for the BBC IT function.

The next chapter is the analysis component of the thesis. The data collated from the interviews, observations and documentation will be examined using the theoretical framework, Activity Theory. The theoretical lens will be applied to the data to make sense of it. It will structure the information and create a boundary to it to help pull out the pertinent points.

7. Analysis

“A commodity appears at first sight an extremely obvious, trivial thing. But its analysis brings out that it is a very strange thing, abounding in metaphysical subtleties and theological niceties.” Karl Marx

7.1 Introduction

The previous chapter presented the story of the BBC IT function and its role in the words of the interviewees. The Siemens outsourcing decision had an affect throughout the organisation; restructure, redundancies and role changes. The role changes not only affected the IT staff but all BBC staff. New web applications and content management systems were installed so that staff were responsible for content in systems and self sufficient. Pockets of IT in the BBC were being disbanded. The chapter produced rich and interesting data.

This chapter hopes to bring sense to the data. It ties the previous chapters (theory and findings) in order to explain what is occurring through the use of the framework. Analysis allows to view the data using the framework as a lens. It focuses on relevant issues in the study. The chapter will begin with a brief review of Activity Theory, it then proceeds on to the data collection information, followed by an overview of the activities, and an explanation of how the data is constructed by analysing the activities, firstly at a high level and then drilling down in the organisation hierarchy from executives to users. The constructs of the activity system are analysed through the interviewee groups. Finally, the use of the lens is analysed, what worked and what did not work with the study, and why. The limitations of the theory are presented leading to a minor adjustment of the activity system. Activity Theory focuses on the concept of human activity as the fundamental unit of analysis. Activity Theory is a tool that is useful for analysing and understanding collaborative work (Barthelme & Anderson, 2002). The case study focused on an organisation, and the activities within the organisation were team or collaborative exercises. The role of the IT function participating in an activity can be analysed and mapped using Activity Theory. The theory is at a stage where it is trying to define itself.

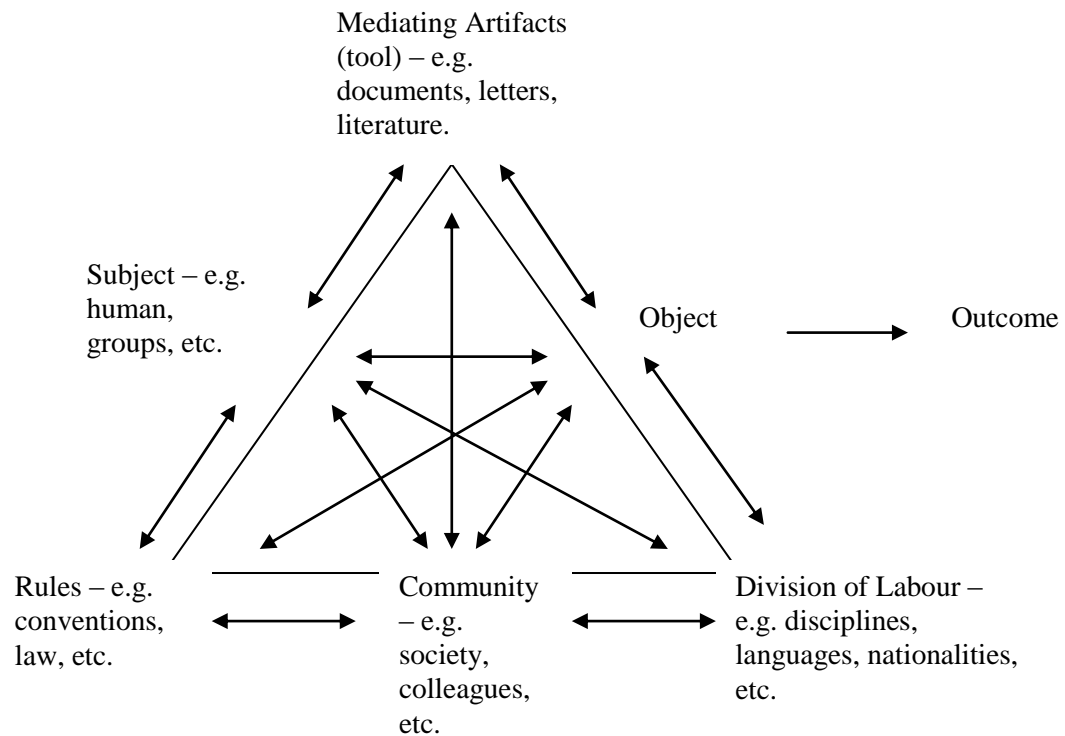


Figure 7.1 – Model of an activity system (Engestrom, 1999).

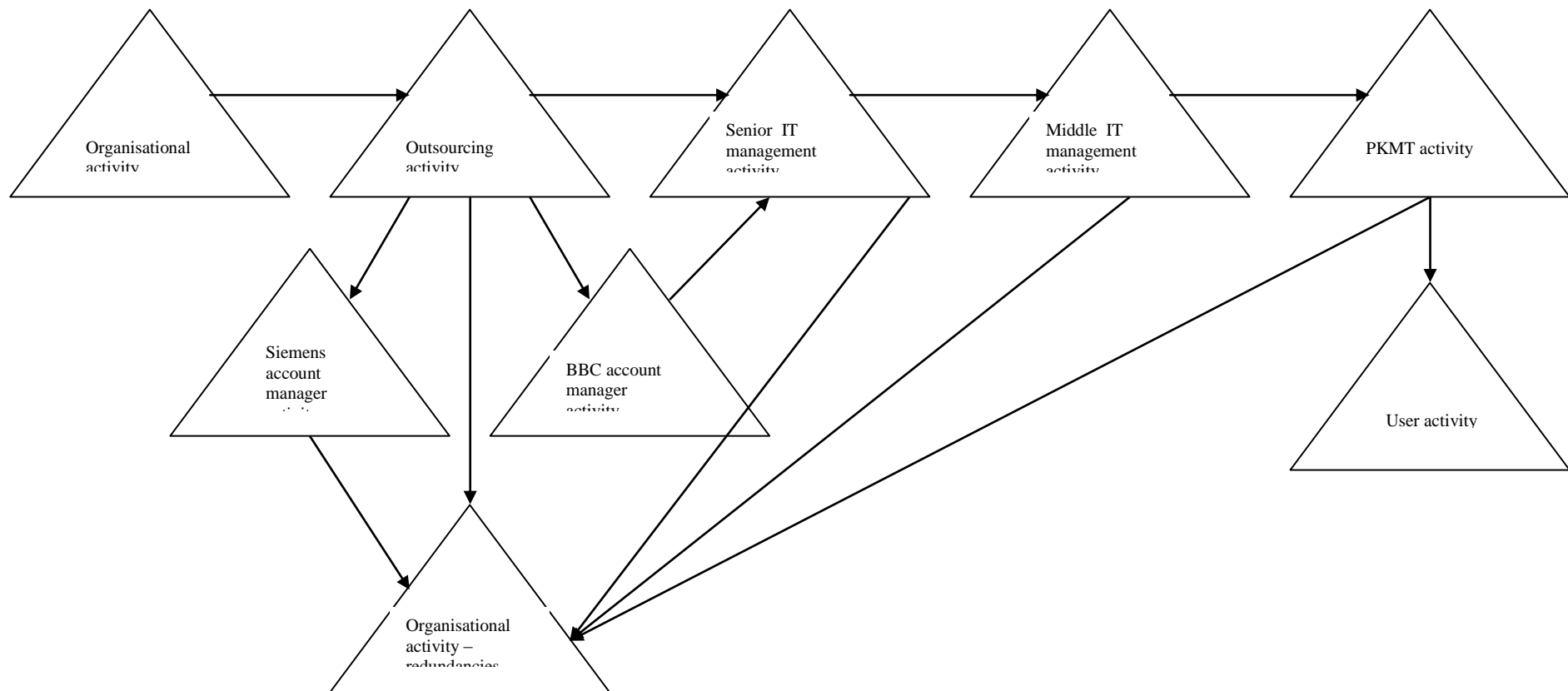
The interviews were conducted with thirty subjects who were employees of the BBC, except one that was employed by Siemens. The table below summarises the type of interviewee and the department where they resided.

Type	Department	Number of Interviewees	Activity Level
User	Occupational Risk Management	11	Outsourcing & user.
PKMT	Occupational Risk Management	5	Outsourcing & PKMT.
Middle IT Manager	Professional Services & Technology Direction	4	Outsourcing & middle IT manager.
Senior IT Manager	Professional Services & Technology Direction	8	Organisational, outsourcing, & senior IT manager.
BBC Account Manager	Technology Direction	1	Outsourcing & account manager.
Siemens Account Manager	Siemens	1	Outsourcing & account manager.

Table 7.1 – Interview summary.

7.2 Overview

The overall picture of the activities is shown below. One activity led to another, however the activities were not one to one relationships. The diagram clearly shows a web of activities. It is a simple structure for the purposes of depicting the story from the analysis, however in reality there were webs and overlapping of activities taking place at any one point in time. Appendix 2 presents the IT community that the focal role (interviewee) was interacting with. The diagrams in Appendix 2 also highlighted a number of activity systems the subject participated in concurrently. The tenets of Activity Theory explain that activities do not appear from thin air, the triggers are other activities. One activity can lead to a spore of activities. Each activity had its own history, and this can be seen in the case study; the outsourcing activity occurred due to previous research of outsourcing (in the 1990s BBC researched the idea of outsourcing its IT, but concluded that IT remaining in-house was a better option financially), through the external pressures of reduced licence fee activity, and due to outsourcing activities that occurred in the private sector. An activity can change or develop but the previous activities remain static. The BBC was going through a number of outsourcing contracts, such as HR, however the analysis focused on the IT outsourcing contract with Siemens.



2003 → 2007
 Figure 7.2 – BBC's high level IT story depicted as an activity system diagram.

7.3 Organisational Level Activity

The organisational level activity led to the outsourcing and other activities affecting the whole organisation. There were a number of outsourcing contracts occurring in the BBC, however, the concentration for this study is on the IT outsourcing. The decision to outsource was taken to help save the BBC money. The BBC is not unique in its reasons to outsource, majority of organisations outsource to save money, although other reasons can be involved, e.g. the organisation is not technically advanced. However in the BBC's case, it was a technically advanced organisation, but the decision was made purely due to the financial cost savings forecast (£27m per annum). The organisational activity was the trigger for the domino effect of activities in the BBC. The effects of the organisational decision to outsource its IT, were reorganisation and further outsourcing in areas such as HR.

7.3.1 Object

The object is the centre of the activity, it is the activity's purpose. The object can change through the process. The main object for the BBC was to save money and reduce costs, following the value for money initiative.

7.3.2 Subject

The subjects at the organisational level activity were executive staff, such as the Board and Trust. Elements of IT were also involved, IT professionals such as the CTO and his senior team. This was a huge activity, it included staff from finance, IT and legal backgrounds.

7.3.3 Community

The community consisted of stakeholders in the value for money initiative. The stakeholder groups were BBC Technology, Future Media, and all IT teams in the BBC, as well as the divisions. There were external groups that had a stake, such as academic researchers, BBC IT preferred suppliers, government and the licence fee payers.

7.3.4 Division of Labour

The primary means of labour classification was based on the CTO role because this role allowed the research to view the changes that happened in the IT function. The CTO's role was to find a vision for the use of technology in the BBC. He also needed to look

at the external pressures that drove change, and the value for money initiative was an external pressure from the Trust that led to the organisational change activity. When participating in the value for money work, the CTO was on the Director General's finance committee, and therefore his role was not only to look at the technology, but also the costs. The CTO believed that sitting on a finance committee was a sub-role, and not something most CTOs were party to, however in order to move forward with the IT outsourcing activity it made sense for the CTO to get the overview picture. It was useful for him to be involved at the beginning because the decisions made would affect the IT function, which was his responsibility.

7.3.5 Rules

The BBC must adhere to the documents provided by the Royal Charter and the Agreement. The Royal Charter is the constitutional foundation for the BBC, and it details the public purposes of the BBC, guarantees its independence, and outlines the duties of the Trust and the Executive Board. The Agreement sits with the Charter providing detail on BBC's funding and regulatory duties.⁵

The value for money initiative occurred due to the decreasing amount of money the BBC received from the government. There was a possibility that future funds would also decrease, therefore the BBC needed to take some action.

7.3.6 Mediating Artifacts

The mediating artifacts can be broken down to identify the essential mediating artifacts. The hierarchy is shown below.

Artifact Class	Primary Characteristic
What?	Contributes a means of achieving the object.
How?	Contributes to understanding how to achieve the object.
Why?	Motivates achievement of the object.
Where to?	Motivates evolution of all elements in the activity system.

Table 7.2 - Mediating artifacts hierarchy (Collins et al, 2009).

What Artifacts

The main artifact the activity centres upon was the licence fee renewal. It was the Charter that led to the value for money initiative, and not only did the document lead to

⁵ Both documents can be found at http://www.bbc.co.uk/bbctrust/about/how_we_govern/charter_and_agreement/index.shtml.

value for money activities but it was the framework for the BBC on how it should operate. In addition to the formal documents, there were formal meetings between the Board, Trust and MPs, and informal conversations between various stakeholders and computer mediated conversations.

How Artifacts

The BBC was aware in advance that the licence fee fund would not be sufficient to cover all areas of operation therefore various meetings surrounding outsourcing and redundancies occurred. As well as formal meetings discussing the outsourcing options, the legal team participated in the outsourcing process, and tender documentation. The HR team were responsible for all the legal documentation surrounding BBC staff and redundancies. All personnel involved in the outsourcing decision attended formal and informal meetings, and participated in computer mediated conversations.

Why Artifacts

Various formal documents on how to proceed with outsourcing were written, in addition there were various meetings between the Board, senior management in divisions, legal and HR teams. The formal meetings were supported by computer mediated and telephone conversations.

Where to Artifacts

This class is to envision the future state and potential evolution of the activity system's object (Collins et al, 2009). The seeds to outsource were planted before the activity took place, all the decisions required to outsource were made, primarily through various meetings (including presentations) with supporting documentation.

7.3.7 Outcomes

The key decision of the activity was a major reorganisation of the BBC, this included a number of outsourcing deals, restructure and redundancies. A high level organisation structure diagram was presented to the whole of the BBC, followed by a televised presentation by the executive management. The presentation did not go in to outsourcing and redundancy details, it was kept at a high level to inform staff of the changes that would be happening.

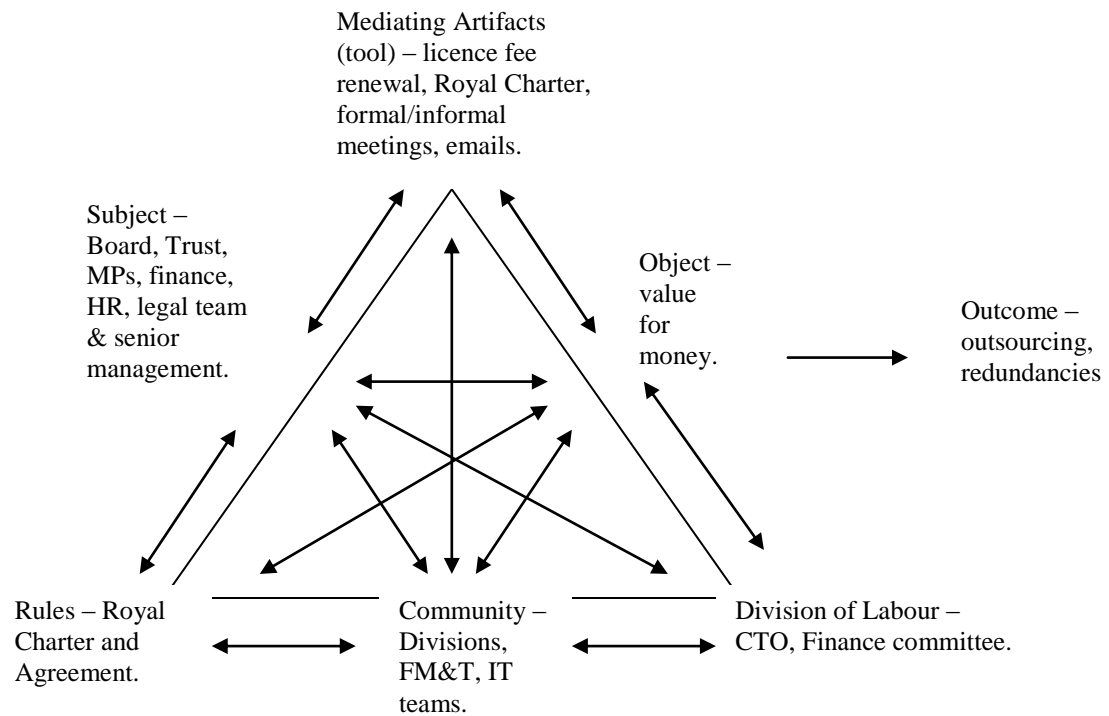


Figure 7.3 – BBC organisational level activity system.

7.4 Outsourcing Activity

The high level activity of reducing costs led to a number of outsourcing deals:

HR/professional services outsourced to Capita, medical arm of Occupational Risk

Management outsourced to Capita and BBC Technology outsourced to Siemens. This activity focuses on the BBC Technology outsourcing deal.

7.4.1 Object

The aim of the activity was to find an IT vendor for the BBC. The large IT outsourcing contract was the first of its kind in the UK media industry. The BBC was trying to find a vendor that not only saved the organisation money, but one with a close culture fit.

The way BBC staff work is different to traditional private sector organisations.

Working for the BBC is similar to working in the public sector, the annual leave is higher than most private sector companies, the pensions and benefits are good, flexible working hours and the environment is made comfortable for the staff, e.g. encourage training, learning and new skills, similar to university culture. Therefore, the BBC wanted their partner to have a similar culture fit for the staff that were transferred to the vendor.

7.4.2 Subject

Predominantly the subjects involved were the Board, finance committee, CTO, legal team and senior management in Future Media and Technology (FM&T).

7.4.3 Community

The main stakeholders affected by the outcome of the outsourcing decision were BBC Technology, as well as some members of FM&T, IT teams in departments and divisions, and in general all BBC staff (users of technology). BBC Technology staff were transferred to the vendor, some people's roles in FM&T changed due to the outsourcing, all IT teams were affected through redundancies, role changes or process changes, and BBC staff had to communicate with the vendor for IT support issues.

7.4.4 Division of Labour

The types of disciplines involved in this activity were varied: IT, finance, legal, HR and executives. These disciplines needed to find a technology partner that was a good fit for the BBC, not only in a financial sense, but also culturally. The culture fit was important, to have a good working relationship with the BBC, but also where transferred BBC Technology staff could be happy.

“The culture of the vendor was looked at, and finding someone who was close to the BBC was vital. Some staff (BBC Technology) did welcome it. They have more opportunities, good for personal growth and can move in to techie or other areas. Some staff have found it very hard with the culture, but it was more positive than initially thought” (BBC Account Manager). “The people brought in have to feel part of Siemens. We need to win the heart and minds of people” (Siemens Account Manager).

7.4.5 Rules

When outsourcing, organisations have to follow regulations. The BBC is obliged to operate within The Public Procurement Regulations which enact EU Directives that govern the purchase of supplies, services and works by public sponsored organisations. The bidding process was required to be open and fair, and in order to adhere, the BBC issued a notice in the Official Journal of the European Union.

7.4.6 Mediating Artifacts

What Artifacts

The notice issued to invite bidders was published. Prior to this there were number of meetings that took place between all the disciplines involved in the outsourcing procedure. The notice itself went through a formal approval/authorisation process before it was sent to the publishers. In order to go through the formal process the EU Directives and regulations required to be cross referenced. The Trust was part of this process as formal approvers.

How Artifacts

In conjunction with writing the notice, the BBC drew up a checklist of what they wanted in response from the bidders (to help short list vendors). This document was drawn up through various meetings, emails and approval processes.

Why Artifacts

The number crunching papers, the accounts, such as budgets and forecasts had to be produced. The reason behind the outsourcing activity was to provide value for money. The main incentive to outsource was financial, as with most outsourcing decisions.

Where to Artifacts

The aim of this activity was to find a technology partner for the BBC. The notice led to a number of bidders that were cross referenced against the accounts and the checklist so that the BBC could short list a number of organisations, and then select one vendor.

7.4.7 Outcomes

The output from the outsourcing activity was to find a technology partner. After the presentations, meetings and bidding process, the organisation selected was Siemens. The activity led to a number of other activities such as going through HR contracts of the BBC IT personnel. When Siemens came in to the BBC, this led to a number of activities across the whole organisation, namely restructures and redundancies. The outsourcing led to a number of activities throughout the BBC hierarchy and the activities that followed reflect what happened throughout the organisational hierarchy.

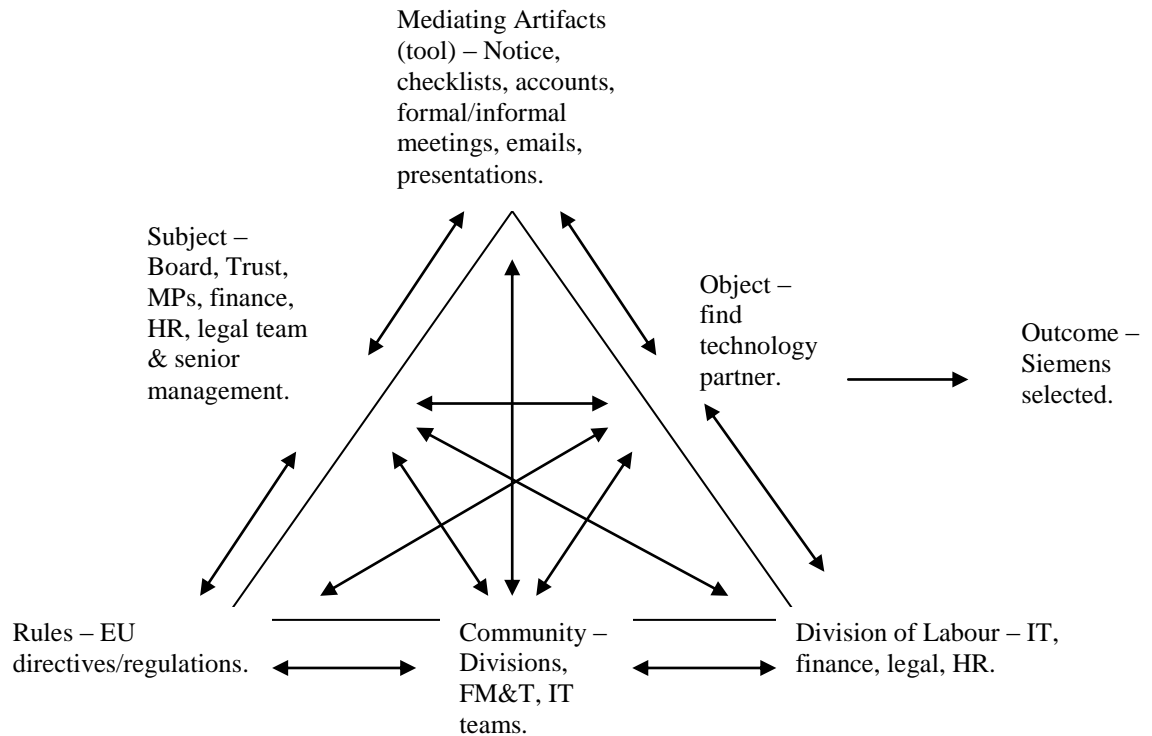


Figure 7.4 – BBC IT outsourcing activity system.

7.5 Siemens Account Manager Level Activity

Both Siemens and BBC Account Managers' roles came in to being due to the outsourcing contract. Siemens were new to the media industry, and had a great deal to learn concerning broadcasting technology. It was the broadcasting technology that Siemens needed to tap in to, as this was where the real money could be found. The culture of BBC was also very different to other organisations Siemens had contracts with.

7.5.1 Object

The primary object of the account management activity was to build a partnership with the BBC. As well as gaining trust of the BBC, the Siemens Account Manager had to try to win more work in the BBC, e.g. IT projects. The projects would allow Siemens to achieve extra revenue above the outsourcing contract. Aside from the BBC, the Account Manager was required to win more media contracts for Siemens.

“Siemens wants to be BBC’s technology partner... Siemens wants to build a world class relationship. We are a technology partner with BBC. The main task is to make sure technology is working for the BBC (support), and the other role

is, thinking, innovation/strategic thinking in terms of technology... If we can give value for money to the BBC, this will contribute to the trust relationship... It is hard to establish trust with the BBC because it's not a naturally trusting organisation. Also the BBC uses its brand to get what it wants, it has an arrogant attitude. Siemens is trying to create a partnership but it still has some way to go, there are many agendas, so Siemens must prove itself constantly."

7.5.2 Subject

Predominantly, the subjects were Siemens Account Manager, Siemens Account Manager's team, and also Siemens senior executive team.

"Subordinates see my role as one of the most challenging roles in the company. They realise how difficult the role is, I had to design it and make it work. It's difficult to please everyone. My managers are wondering how do we group and communicate with the BBC. I have to report to very senior people in Siemens. In all relationships there are ups and downs, but overall I think we are in a good place. People thought the relationship wouldn't last a year, but it has."

7.5.3 Community

There were many communities with a stake in the outsourcing relationship. These included the Trust, Executive Board, TD, divisions, IT teams, technology users (BBC staff), and transferred BBC Technology staff.

The BBC users had different feelings regarding the Siemens IT support. Some were not happy with Siemens at all, where as others believed it was a vast improvement from BBC Technology.

"Siemens relationship isn't managed well. It's like eating in McDonalds, there is a limited choice on what they will give you. If you go to a posh restaurant you will get a wider choice. And we've got a McDonalds situation... I want people that will give solutions and not just using online help, but those that are knowledgeable. I want someone to help me find a piece of software. I shouldn't have to become a software expert" (User, Compliance Executive).

“The help with Siemens is the same as before (BBC Technology), there’s no change” (User, Environmental Manager). “We say the word Siemens but we still think of them as BBC Technology, so things have not changed” (User, Deputy Head, Divisional Support).

Two other users in ORM made similar comments.

“Better service from them (Siemens) than before (BBC Technology)” (User, UK Security Manager).

“Can end up repeating the problem several times to various people, especially if the system involved is specific to the department. Siemens are not aware of all the BBC systems, I called up with problem on XDA active sync, but they don’t know anything about this. The ticket has gone through various support levels and they are researching, but need better communication” (User, Occupational Health Nurse).

Two of the users interviewed stated they did not use the Siemens helpdesk. Siemens needed to change people’s perception of the helpline. It was a tough period for Siemens, as morale in the BBC was low due to other outsourcing deals, redundancies and restructures. The relationship between Siemens and the BBC was more client supplier and both organisations wanted it to be a partnership feel. The higher levels of in the organisations wanted the relationship to be a partnership, but those lower in the hierarchy tended to view outsourcing relationships as client supplier, these views can be seen in the findings chapter. The users expected Siemens to be their IT experts and provide solutions for them, whereas the senior managers wanted to collaborate with Siemens.

“We want the relationship to be a partnership. It’s getting there but we need to build trust. My role is to encourage a partnership feel” (Senior IT Manager, Head of Services Assurance).

“We are in honeymoon period at the moment” (Senior IT Manager, Business Technology Analyst).

“Siemens are preferred suppliers but we won’t use them in all cases. We’ll do research and see if it works best with Siemens” (Senior IT Manager, Head of IT Strategy & Policy).

“Siemens have had a tough transition, they’ve taken on 1400 new staff, tried to please BBC, whilst doing the day to day work. BBC doesn’t really understand or appreciate the complexity of it” (Senior IT Manager, Controller, IT & Business Systems).

“Main change was the outsourcing to Siemens, a lot moved across without any thought, not thought through properly, the contract doesn’t seem tight. Whoever did it left before all of this was looked at. I don’t think this will work, the intellectual capital moved out of the BBC or is walking out of the door. This is one of the worst pieces of outsourcing I’ve ever seen. This has weakened the BBC, knowledge leaving... Siemens has been made the permanent employee, I have a 3 month notice period, so who is permanent, me or Siemens? No one else can say they will be here for 10 years. If they see Siemens as contractors, they should really look at this. May end up living with them for 10 years and it may be something we do not want” (Senior IT Manager, Head of Technology).

7.5.4 Division of Labour

The primary role was the Siemens Account Manager’s, and his aim was to partner with the BBC, and make the relationship a success, but he also had to obtain new clients for Siemens.

“My role title is Executive Director. I’m a member on the Board in Siemens and Account Manager for the BBC. My main role is to manage the relationship with the BBC, and ensure Siemens is well positioned in the market. I’m moving out of hands on role, but carrying on the strategy and relationship at a high level, now I’m Media Industry Director to get more work for Siemens... There is no text book on how to work with BBC. We had to create a relationship with the BBC that was a challenge because BBC is a conglomerate, complex and politically driven organisation. How do we understand the drivers as well as provide a service? Siemens had to work on huge change driving /transformation programmes. We are currently in the middle of this and they

allow the BBC to adopt and use technology to drive the business... We have monthly board meetings between Siemens and BBC to go through the challenges and making sure all is going fine, if not what can be done. Regular meetings with TD. Sometimes I might need to get in to meetings with the divisions in the BBC. It's difficult to work with BBC at present due to change and transformation happening in the BBC, it's never constant. We have to make sure people are continually aligned. We need to align to the corporate technology and this is difficult because divisions and nations and regions etc do what they want, they don't care what is happening centrally. Nobody wants to be centrally controlled."

The Account Manager was not alone in this activity, he had a team to act as a conduit between himself/Siemens and the BBC divisions.

7.5.5 Rules

The contract between BBC and Siemens was for 10 years with no breaks unless there was a failure. The core services Siemens had to deliver, and for some areas Siemens were preferred partners. The sale of BBC Technology was £150m, and the cost savings were of £27m per annum.

There was a detailed SLA structure. There was a need to keep track of all corporate key services, of which there were approximately 15, and Siemens produced monthly reports against them. There were regular polls of customer satisfaction, team meetings and governance meetings. The SLA is a contract Siemens need to adhere to and achieve the set levels. It is a number of promises they have made to the BBC, e.g. to feedback to the user within 1 hour of sending Siemens a ticket. If they fail to achieve the target, they will be penalised. Aside from the penalty it does not do their reputation any favours, and all organisations understand that to build up a fallen reputation takes a great deal of time and money.

7.5.6 Mediating Artifacts

What Artifacts

The regular meetings between Siemens and BBC viewed problems and tried to solve them, this was to help strengthen the relationship. Regular communication and updates

on what Siemens had actively done to assist projects would present them in a better light.

“BBC Scotland project was tough but it has worked well, and the Division Director has been happy with Siemens. We were aligned with them, so we need more successes like that... There have been tensions in other parts of the business, such as in News on the Jupiter project. It had lots of problems and we went through a difficult patch but did come out OK. If you please someone over here, doesn't mean you've pleased someone over there.”

The meetings were two way, the BBC had to show they were working as hard towards the goal as were Siemens. The BBC also had to prove that their staff were pulling their weight and keeping to the time frames. Regular good reports with the SLAs went a long way to show the BBC that Siemens were continually delivering, and the hard numbers showed whether Siemens had delivered or not.

How Artifacts

Siemens wanted to be BBC's technology partner. BBC did not need to worry about their desktops, their bread and butter, but Siemens needed to bring new thinking to help business and technology in order to move towards a partnership. Siemens had set up a team to look at innovation for the BBC contract, therefore the team needed to present new ideas. Technology is enabling the business change, there was a power shift in the BBC with technology becoming more important. IT enables the organisation to operate.

“I think the BBC needs more innovative thinking from us, we need to be more innovative, that success still needs to be defined.”

Why Artifacts

Siemens wanted a trust relationship with the BBC because it could provide them extra revenue. Siemens were preferred suppliers, but the BBC did not have to select them if they did not want to, and it is in these situations where Siemens could make money.

Where to Artifacts

There are no hard artifacts in this area. The Siemens innovation team had only been set up, therefore they had some brainstorming sessions or audits, but nothing concrete had been delivered. In addition to the actual work to be conducted, Siemens needed goals for the BBC account they would want to meet.

7.5.7 Outcomes

The relationship was in early stages, and although it was moving towards a partnership it was not there. The outsourcing led to other activities in the BBC, such as redundancies and restructure.

“BBC should be able to say it’s a success to date, it’s a 10 year relationship, so you’re not done until it’s done. Siemens would view it as a success.”

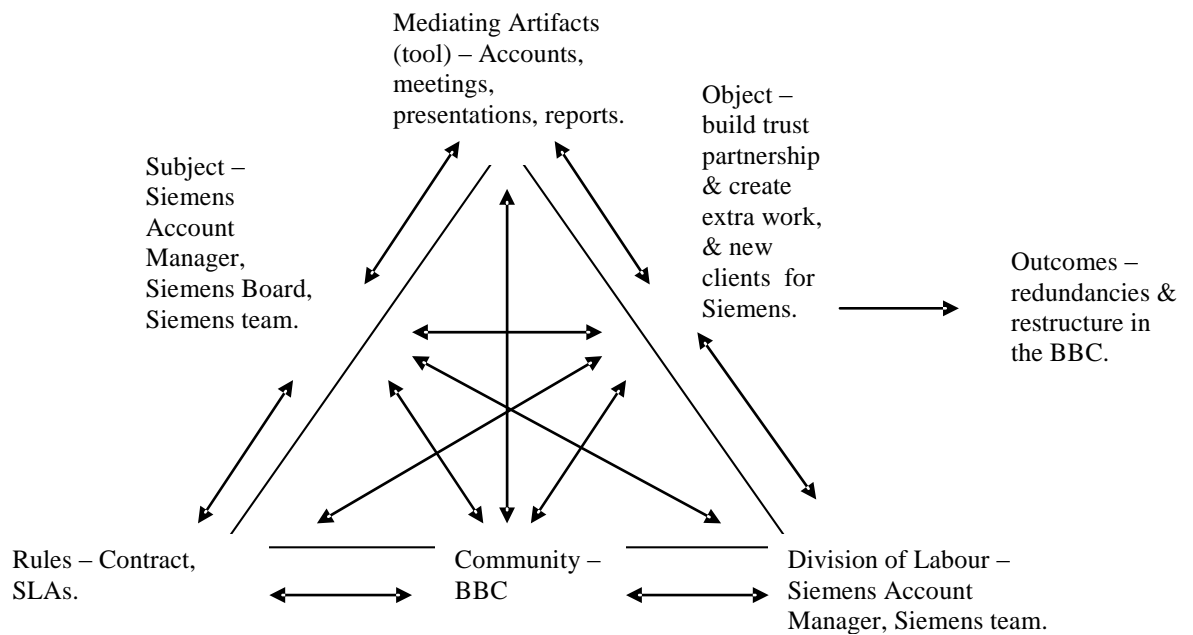


Figure 7.5 – Siemens Account Manager's activity system.

7.6 BBC Account Manager Level Activity

7.6.1 Object

BBC Account Manager had a number of objectives: to deliver large projects, set a 5 year strategic plan and manage the relationship with Siemens, but also to work towards a partnership with Siemens.

“Projects like DMI (strategy, business process change) need to happen and in order for them to happen we need to outsource commodity work such as PCs and desktops. We want a partnership but we are more client supplier at the moment. We have redefined the partnership, and changing attitudes. We need to deliver excellence and be creative. You have honeymoon period, get in to working and then some things start going wrong and then you question how do you start dealing with that? One way is to bring in the lawyers, but what we have chosen to do talk and make it work.

How we work with Siemens will result in the relationship with them and if they work in our best interest. They are serving two masters and it is difficult. In some cases there are joint negotiations between Siemens, BBC and suppliers, so it works like a partnership approach. At present we want Siemens to do more work and move more areas to them but the partnership is not at the right place where we can move things across.”

7.6.2 Subject

The BBC Account Manager, his team and the Board were the main subjects in the high level activity. His team did not fully understand his role, they only knew of the areas that affected them. The BBC Account Manager carried out a number of different roles; Internet distribution, strategy, and Siemens relationship manager. His team did not cover all his areas and therefore there were many gaps of knowledge as regards to his role. It was a similar story with his manager above him, they worked in different areas to achieve the same high level strategy, but little was known of each other's day to day tasks. His manager understood the realm of budgets and delivering the projects, he did a cross reference, what did we set out to do and did we do it.

7.6.3 Community

The community was constructed of Siemens, BBC Trust, Executive Board, TD, divisions, IT teams, technology users (BBC staff), and transferred BBC Technology staff.

There was a period of uncertainty for all transferring BBC staff, but the BBC Account Manager felt Siemens did a “good job” of integrating the staff. When the outsourcing partner was researched, the culture of the organisations was taken in to account. Some BBC staff welcomed the outsourcing deal as it could lead to career enhancement and new opportunities. Others found the culture tough, there was too much rigidity in Siemens in terms of processes than they were used to. The major problem over the transition period was the number of BBC staff leaving at early stages and taking specialised knowledge with them. The result of BBC staff retention problem was extra time and cost to hire someone new, and the costs associated with them going through the learning curve.

7.6.4 Division of Labour

The main areas of work for the BBC Account Manager was Internet distribution, delivery work owner and strategy for Internet distribution. Main tasks were to coordinate functions and groups.

A huge difficulty for him was the measure of success, there were no clear metrics particularly on large projects such as the iPlayer and Web 2.0, and it took the BBC too long to make up its mind on what needed to be done. For example, with the iPlayer, Channel 4, ITV and Sky all had an online player before the BBC.

“We struggle to stay relevant due to our response times to get in to the market”.

7.6.5 Rules

In terms of managing the Siemens relationship the BBC are bound by the contract, and general outsourcing conduct. The regular meetings with Siemens would assist in keeping up to date with the contract and projects. It was a set time for both parties to attend and clear any misunderstandings, issues and problems collaboratively. With regards to the project delivery and strategic planning, the manager was required to keep to the plans and budgets.

7.6.6 Mediating Artifacts

What Artifacts

In order to strengthen the relationship between Siemens and BBC, the BBC Account Manager attended the regular meetings in which projects were discussed and the best way to move them forward. These meetings produced agendas, minutes and actions. The strategy element also entailed attending meetings and the output would be a plan to move forward. The team produced the documents, such as plans and strategic reports.

“There is the formal monitoring, numbers and trends, where twice a year Mark Thompson and Siemens go through it. There are regular board meetings, and we have technology operations meetings twice a month.”

The BBC Account Manager was responsible for delivering large projects, but he did not have hands on role, he needed to attend the high level meetings, to plan and approve. He got involved in the critical meetings. As well as meetings, other tools utilised were documents, telephone conversations and computer mediation.

How Artifacts

To deliver large projects the manager had to understand and authorise the project documents – purpose of project, plan, and progress documents. In order to deliver the projects he needed a good project team. The BBC staff were going through many business courses, in particular project management and leadership skills.

The Siemens-BBC relationship aspect required the accounts, and SLAs, and in particular some benchmarking, so that progress could be reported.

Why Artifacts

The BBC managers did not want conflict with their outsourcing partner, it was easier if they could trust Siemens to “get on with it” and so that they could focus on other work, e.g. in the Account Manager’s case working on strategy and looking at the long term projection. A partnership was also important for the BBC externally, they were audited and they needed to justify the deal to the licence fee payer (via the Department for Culture, Media and Sport).

Where to Artifacts

To deliver the large projects which could lead to a better working relationship between the two organisations, the BBC Account Manager had to deliver the projects on time and budget. The delivery required applications/systems live and running smoothly, kept to budget and presentation of end of project reports. The key milestones on the strategy had to be checked off by the key performance indicators.

7.6.7 Outcomes

TD were trained in business skills and project management so that the staff could transfer from hands on roles to management roles. The hands on technical work had been transferred to Siemens, and the TD team was set up to be strategic and set governance structure. There was also the set up of metrics for the outsourcing and measurements. The basics of answering whether the outsourcing was a success was conducted via metrics. The metrics were a basic checklist for both parties. There was obviously more to answering the success question, however, the metrics was the foundation. Willcocks et al (1995) prescribed measurement systems to be in place before outsourcing. The academics pressed on setting up and running measurement systems on in-house IT function before outsourcing, so that the organisation has a comparison tool. The BBC had few measurements in place in various divisions and departments, and were contemplating metrics once in to the outsourcing contract.

“Is it a success? From finance perspective absolutely, is it better than BBC Technology, overall the answer is yes, it’s far from perfect, we’ve had problems but we are still in a better position than we were with BBC Technology.”

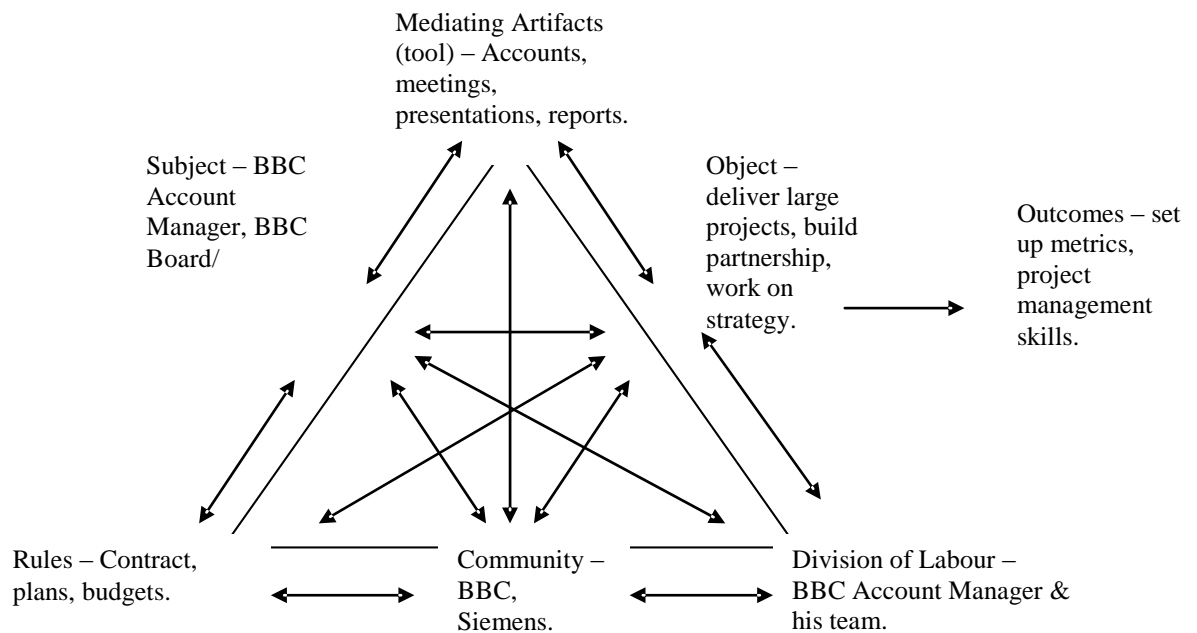


Figure 7.6 – BBC Account Manager’s activity system.

7.7 Senior IT Managers’ Level Activity

7.7.1 Object

The senior managers interviewed believed their roles were to build relationships with Siemens, and some managers had to maintain existing relationships with third parties and build new ones where appropriate. They also created governance structures. The CTO’s role was to create a vision for the use of technology. Many senior managers particularly in the TD group had to strategise, and had to ensure divisions were aligned to the BBC strategy.

7.7.2 Subject

All the senior managers except one were from TD. The one senior manager was in Professional Services division, but his role was undergoing redundancy.

7.7.3 Community

The activities at senior level affected many stakeholders: Siemens team, BBC Board, TD, divisions, IT teams, and BBC staff. All the groups mentioned were affected in some way (setting new processes, approving them and using them). The outsourcing

changed the way people had to work. Siemens were the preferred suppliers, and therefore in order for the BBC to save money, and for the outsourcing contract to be value for money, Siemens had to be the first point of contact for IT matters. TD had set up processes for BBC IT projects to follow, and the processes aligned to the outsourcing strategy. The outsourcing contract would fail if BBC staff continued to do as they pleased without going through the TD processes.

7.7.4 Division of Labour

The levels of senior managers interviewed were fairly wide. Those at the CTO and his subordinate level, their roles were to strategise, add governance structures and to build relationships with suppliers. The next level down the hierarchy had to build relationships with suppliers but through the operational process of delivering projects or services. Finally, the last set of managers had to deliver projects, and sat between divisions and TD. The executive level managers had many roles and sub-roles. They also participated in many meetings.

“My role is to find the vision for the use of technology inside the organisation and look at the external technology pressures convergence. Part of my role also includes supplier partnership work and managing partnership with Siemens. My tasks are to be involved in formal corporate process meetings (finance change, etc), visioning/strategy meetings, supplier partnership work. I get involved in a lot of issues, I don’t get in to the deep details, but I need to have the overall picture. My sub-roles are sitting on the DG finance committee, some might argue that sitting on a change steering group is a sub-role, getting involved in corporate processes, for example audit on any IT related work in any part of the BBC, union meetings, and HR issues” (CTO).

“My responsibilities are to manage the major contract technologies with suppliers. To make sure we have improved capabilities in key projects and to provide legal/contract support (45% of my time is spent on framework contract with Siemens) including SLAs/performance measures, delivery assurance (team is growing), project management office and to deliver high key projects, and client side support dealing with Siemens (making sure the business is happy and that everything is happening as it should). We look after baseline work, but not all projects, because the business can manage their own work with Siemens, we

come in to make sure the contracts are all correct. Daily tasks are to help the team if they need me, but I tend to work with difficult issues that are escalated or the relationships have broken down or projects gone pear shaped or complex contract issues. So I look after Pacific Quays project in Scotland. My sub-roles, the job description is so wide, and things can change quite a lot. I don't feel there are any sub-roles. At present I'm working with the audit office over the contract and this is taking 80% of my time, but I don't see it as a sub-role, these things come up" (Head of Technology Delivery).

"My role is pan BBC. I look after IT, the networks, desktops and pan BBC business systems, such as CMS (content management systems), SAP, and storage. I set strategy and direction for IT in the BBC and this includes governance, policy setting and technology leadership. My tasks are meetings and emails, which sums it up. These can be with suppliers, or to do with strategy, issue resolution, and managing governance of BBC. I need to manage and understand what's going on. My sub-roles are to look after information security, software compliance in the policy based areas, look after Professional Services division, but I also have a team to look after that, and to look at the supplier delivery area – contract with Siemens, PMO function, and enterprise architecture" (Controller, IT & Business Systems).

The next level down in the hierarchy were managed by the above interviewees.

"I sit between BBC and Siemens and the services it supplies to the BBC. I'm responsible for all the services, SLAs, type, and the perception of that service. There was a formal job description, but from day one it changed. I've set up the service assurance team. My tasks are to negotiate with service providers, negotiate with the BBC as a receiver of services and making sure they are both treated fairly. I also manage my staff (team of 5 and growing to 8). The services are everything from PCs/desktops to broadcasting services too. 10% – 15% per week is roughly spent on business continuity and this includes physically going to see Siemens and being in their face. We need to make sure we support them on getting it fixed, but they are also fixing it" (Head of Services Assurance).

“I’m responsible for making sure that we have adequate liaison between the primary business division representatives and to align their business strategies with the BBC strategy. Looking at the commonality and start looking at that in terms of work to do for the future and set up strategies. My tasks include attending meetings, to communicate and give awareness of strategies with senior management in the BBC, getting finance approvals, I have a lot of coals in the fire at any one time. I’m a sponsor on projects and sometimes problems are escalated to me. I’m looking at new tenders/contracts for the finance systems and I’m overseeing various governance groups. My sub-roles are to liaise with external parties, third party liaison where there is a technology overlap, and I end up doing some arbitration” (Head of IT Strategy & Policy).

“I help/support Head of Technology Services in Professional Services, but also work on strategy and governance. On a daily basis I direct projects, pan BBC IT infrastructure projects (60%), 20% doing the general Professional Services role, 20% focusing on real technology implications across the wider BBC – change work. I sit on the CTO’s 10 year strategy committee to make sure Professional Services technology fits in to the BBC vision. The big project at the moment is the roll out of electronic document management system in the BBC. I represent the sponsor of that project. My sub-roles, I’m pretty good at not taking stuff on not relevant to my role. I do spend a lot more of my time managing projects than directing them and get dragged in to detail. I’m helping to develop colleagues, and interviewing for the department. I get involved with R&D for divisions, so I go to Kingswood and create a work plan. I manage those relationships” (Business Technology Analyst).

7.7.5 Rules

The contract and SLAs with Siemens needed to be adhered to when working with Siemens on projects or tasks. The senior management were trying to set governance structures and policies, such as making first IT contact with Siemens, going through Siemens first to see if they could help before approaching other companies. The Head of Technology is *“trying to bring in quality standards and particularly with the projects and managing of them.”* BBC managers were going through the project management training.

New processes were brought in due to the outsourcing contract, *“new processes to work with suppliers, divisions will have to go through TD, because before people would go through backhands etc and that won’t be able to happen anymore”* (Controller, IT & Business Systems).

7.7.6 Mediating Artifacts

What Artifacts

The strategising and setting up of governance structures was conducted via meetings and work groups. The CTO’s vision meetings were essentially informal workgroups, where brainstorming sessions and discussions took place. The meetings produced artifacts that were finalised and approved by the CTO and his group. These approved documents were passed to the Board and finally filtered down to TD to create projects, and operationalise the strategy in to something concrete.

How Artifacts

The number of projects between BBC divisions and Siemens was low, and it was noted in the reports Siemens produced. The existing projects were having many issues and BBC could not deal with them. This highlighted the gap in the project management skills within the BBC that led to the project management and leadership skills training.

Why Artifacts

Strategies are part of every business. All organisations need long term goals to aim towards and achieve. The organisational strategies filter down through the whole organisation and the departments need to work towards these and in achieving them. This allows divisions and departments to be aligned and working towards a greater organisational goal.

The governance structures and policies were required because the outsourcing deal changed the way BBC purchased and used IT. The rule was any IT purchases and services should go through Siemens first because of the outsourcing contract and saving money. TD needed to help support the outsourcing deal. If they did not, the contract would not be value for money, and if the divisions continued to do what they liked, the contract would fail and it would be pointless. If the BBC continued to use its own method of going to whomever they preferred, the contract would fail, and ultimately the BBC would have to answer to the licence fee payer and UK government. The BBC is

funded by the licence fee and the government would want answers from the BBC as to why the huge contract was not successful. Failure of the outsourcing contract was not an option.

Where to Artifacts

The project management training should lead to projects delivered on time and be better managed. In terms of better management there should be various documents produced, such as plans and various phase reports. Projects need documents that anyone can pick up and know the status of the project, where the project documents are held, and can be passed from one project manager to another without a long handover period. These reports should be filtered up the organisation hierarchy and will contribute to achieving organisation goal(s). The policies and governance was working towards centralisation. This should have led to more work being sent to Siemens.

7.7.7 Outcomes

The BBC Technology engineers were transferring their skills to become business focused, and becoming project managers. The centralisation led to redundancies and organisation restructure.

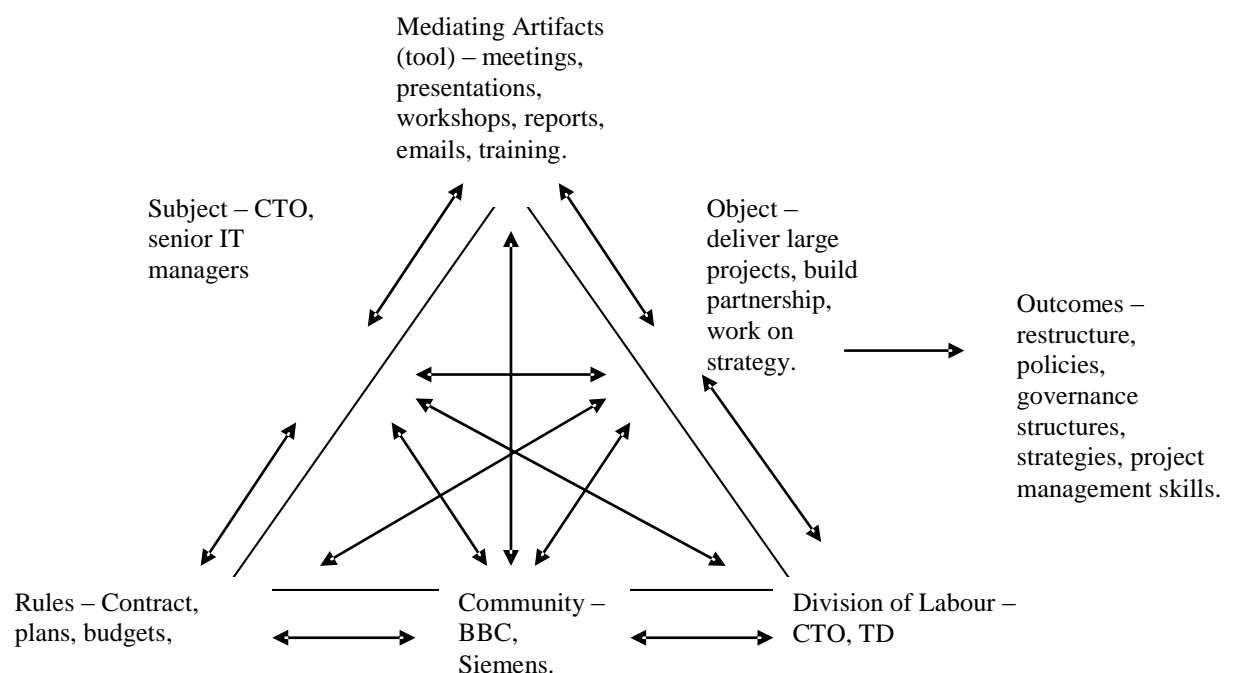


Figure 7.7 – Senior IT managers' activity system.

7.8 Middle IT Managers' Level Activity

7.8.1 Object

Middle IT managers in the interview group had a number of objectives. Their main role was to make the division/department strategy into something tangible and to implement solutions. For example, Professional Services division were implementing web applications to allow self sufficiency, reduce IT staff in the division, reduce HR staff and cut costs. In order to do this they needed to move towards becoming project managers, and managing teams. They needed to provide their team direction in order to help with the alignment of strategy and goals passed down from senior management, and to direct staff, as they were a little lost because of the outsourcing leading to role changes.

7.8.2 Subject

The middle IT managers had different titles but in essence they were project managers, implementation managers and consultants. Middle managers were the conduits between senior management and operational staff, and therefore their role was to coordinate and facilitate to ensure work was completed on time and to budget. The middle managers' role had seen a resurgence in the organisation because of the outsourcing. The roles become crucial to the success or failure of the outsourcing decision. It is the middle managers that are taking daily risks that senior management do not know of, and so a strong middle management team keeps the vendor in check.

7.8.3 Community

The stakeholders affected by the middle managers' activities were: their immediate teams, their managers (at divisional level and TD) and BBC staff because the solutions to be implemented were HR systems that all staff used. In some cases Siemens were involved.

7.8.4 Division of Labour

The middle management layer was going through a role redefinition exercise. The managers seemed to understand the overview of their work, however, they could not translate it into daily tasks. There was confusion on the role of some managers, and others were waiting for their role to kick start. The strategy they needed to follow was the changing of systems to web applications, and juxtapose the new TD project processes.

“I don’t know what my job totally is because it’s evolved. When I joined the job description was correct because I was looking after the HR intranet and its policies, but over the years I’ve moved through different departments. I’m in HR and my role has changed depending on where (in HR) I was working. I never had a formal job description update. It’s been sorts of project management. On daily basis I work on project based work and it’s a number of things, part of it is maintenance of current web sites and this is reducing, but I am supporting content writers for the Professional Services systems, and there’s a general move towards CMS. Working with the definitions of projects, how best we can take the best HR processes and moving it online, writing specifications, working with users and Siemens. My sub-roles are hard to distinguish because my role is not defined. I’m proactive so I’ll fix things on my own without someone telling me to do it, such as websites. I don’t tend to turn down work, if someone has a problem I’ll help them. I should say it’s not my job and go find someone else, but that’s not in my nature. I guess writing software and programming are sub-roles as my main role is project management. We have Siemens to code, and so I don’t really do it, but I do the odd things and deliver it. I don’t think I’ll be doing that for much longer as the guidelines with Siemens becomes clearer I won’t be coding. People that have known me for a long time probably see me as a fixer, can you do this for me and I do it – someone technical – any problems with excel, they see me as the technical bod”
(Project Manager, HR Intranet).

“I have no idea of my formal job description. It’s a mixture, operations and executive production, overseeing the systems. My routine jobs are one to one with managers, and day to day varies, support the team and make sure they are OK, if they have any problems to help them, keeping up with emails, and keeping abreast of what we do (surfing the net or reading blogs). There are no sub-roles because my job role has never been fixed. If there’s a problem I can help with I will do. I’m making the role up as I go along. I won’t do anything I don’t really consider not my job, but I do most things/requests. There are some people that call me up for technical advice, they have become dependent, but if I can help I will do. For my immediate reports I provide support of some sort in terms of provide direction on where we are going, what we should be doing, and

explaining, more of a coaching role. Sometimes I have to make decisions they don't want to make and sometimes it's backing them up. It's a supporting role really" (Learning Systems Manager).

"There is a job description but because it's a new role it is evolving. I'm implementing the me and my team work, and other HR services online, the implementation of solutions. There's a business management aspect of the role, looking across the division and see what's happening there and the projects going on. It's an overview manager role at the moment, planning, working with TD, looking at the broader plan of where we want to be, the if scenarios. The job description was through the ad for the role. Planning with my manager looking at the vendors, lots of research around that and the packages, it might be outside vendors or maybe Siemens. I also talk to TD and see how our HR functions/processes fits in to their centralised area. As we start the project it will get busy and I'll be more hands on, at the moment it's all talking to people" (Implementation Manager).

"I've written my own job description, but overall it's quite fluid, there's not really anyone to look over me. The role is to manage the IT state across the division. I get involved in the data management work, making sure people are doing it properly, project management, people following correct data policies, I use my knowledge of the business to coordinate between Capita, Siemens and Professional Services. Day to day varies, the project manager role is taking most of my time, being the middle person between Professional Services and Siemens. A lot of chasing to make sure forms are filled in and then chasing them up. I get pulled in to doing data analysis because I am data expert, so I could be pulling data, or going to data meetings with Siemens" (Consultant).

7.8.5 Rules

Project management processes were the biggest change for the middle IT managers, as well as working with TD's processes. The middle managers needed to follow the Prince 2 methodology for project management. The reason for Prince 2 was that everyone should be singing from the same hymn sheet, and it allowed the senior management to have conformity in the organisation. TD's processes reinforced the senior management decision on the methodology.

“We don’t really have any rules, although we have gone through project management training, but it’s difficult because all projects are different. We do follow certain rules but all projects are managed through experience. TD have started to formalise the way they work because of outsourcing, they’re also the central team that strategise. We can’t just go and buy a product like we could before, we can advise the team, but we can’t go ahead and buy it. It’s good that Siemens should find the right product, they’re the technical people with knowledge and they will be supporting/maintaining it” (Project Manager, HR Intranet).

“We’ve been used to making our own decisions, and now we have an outside company that’s involved in the decision making, a different dynamic, people you know are no longer in the same company as you. We will have to keep looking at the contracts, is something going to cost us more money if we want to do this or that. It’s a difficult thing to get your head around. TD are getting more monetary control of things and forms need to be signed off by them before you get your money, people will try and go around this. This will be the real shift of IT control. TD are good. It’s good to get them involved at the start, projects tend to go fairly well with them” (Implementation Manager).

7.8.6 Mediating Artifacts

What Artifacts

In order to deliver the solutions, the managers had gone through the project management training. The training was conducted through class room sessions, role plays and manuals. The project management skills gained were coordination, facilitation, planning and reporting. In order to deliver the solution, the project manager constructed a team to carry out the development work whilst they managed. The development team could be internal or external (Siemens and other third parties) depending upon the project.

The creative objective was fulfilled by surfing the Internet, reading blogs and keeping up to date with industry (via surfing, seminars and conferences). Social networking and keeping abreast of digital technology was important for the BBC, as they are a media organisation and their end users use their output for leisure.

“We like the experimenting, that’s things we really want to do, and being creative. It will change. I think it will get more constrained, but I will try and find a way to continue if we can, and if I’m still around” (Learning Systems Manager).

How Artifacts

Working with TD’s processes, the managers found it helped with the project management and the delivery timelines. IT projects with large budgets had to go through TD, the project manager had to fill out the forms and send them to TD. TD would research the form requirements and liaise with Siemens or other parties in conjunction with the project manager. Once the project began the vendor was answerable to TD, and this pressure helped the vendor to deliver on time. TD could enforce their policies and processes because they had weight and authority behind them from the executive management. TD had been given this responsibility to make sure the Siemens outsourcing contract is a success.

Why Artifacts

The outsourcing led to changes in the organisation. Siemens should be delivering the actual products, and therefore IT teams within divisions and departments were being made redundant. There was no need to have programmers, business analysts, designers, information architects and testers. The redundancies went through a formal HR process of meetings and letters.

“Team role has changed and the team is only 3 years old. We built the role up, but we will be disbanded next year” (Consultant).

“The restructure has affected my role which has become more pastoral. I’m more involved in people’s concerns and their personal issues. I’m a counsellor. I don’t mind doing that because it is part of my job” (Learning Systems Manager).

Where to Artifacts

Managers should not have internal development teams but project manage third party delivery, as BBC IT staff no longer existed internally in the organisation. It was

Siemens that should be developing or conducting hands on technical roles. The project documents would be the same as any other projects, e.g. meetings, plans and reports produced through the use of the project methodology and BBC project document templates.

7.8.7 Outcomes

IT teams were disbanding and being made redundant. Managers were trained in project management and Prince 2 methodology. TD started to enforce their formal processes.

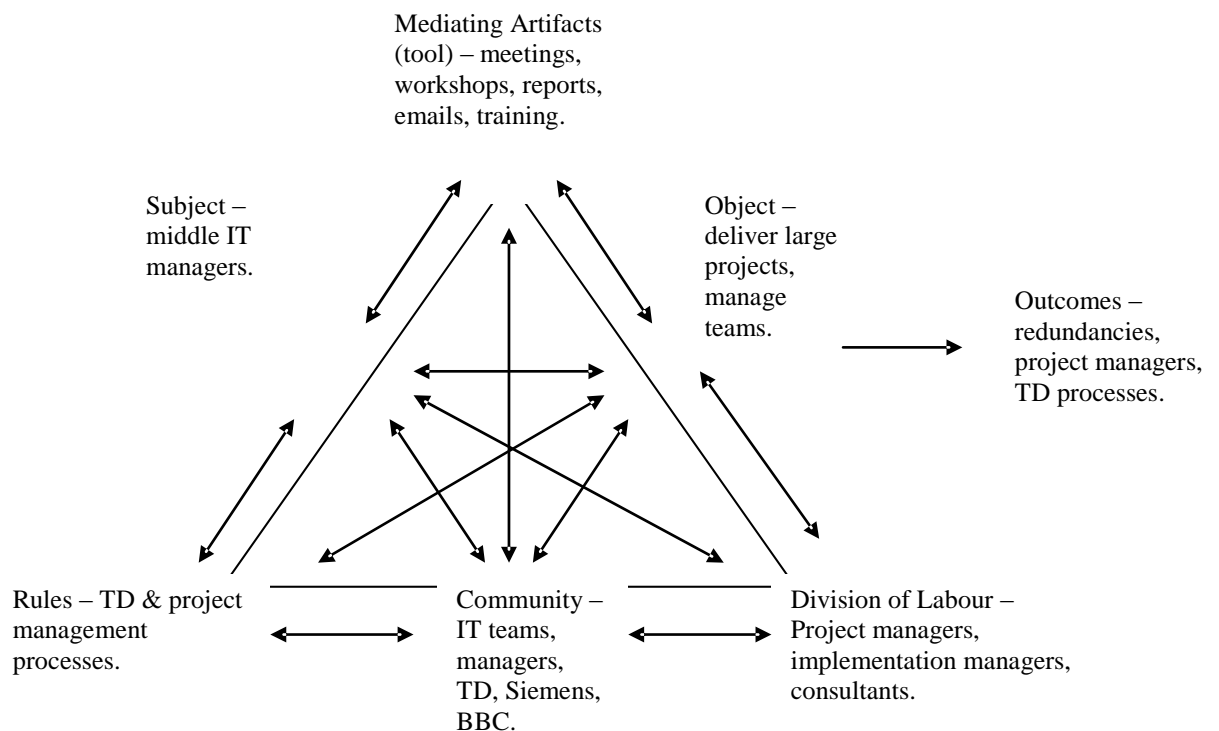


Figure 7.8 – Middle IT managers' activity system.

7.9 Policy Knowledge Management Team Level Activity

7.9.1 Object

The aim of the team was to work with Siemens to order software, hardware and accessories on behalf of ORM. The team developed and supported ORM systems for the users (ORM and general BBC staff). PKMT helped manage the content, and due to the outsourcing changes they were training ORM to write for the intranet.

They also carried out tasks that were not their jobs, such as assisting to train and advise ORM on technologies, e.g. working with XDAs. They also helped at meetings by setting up projectors and assisting with power point presentations. One member checked the quality of content to upload on the systems.

7.9.2 Subject

The team comprised of a middle IT manager, two developers (career path towards project managers), web editor, administrator and coordinator.

7.9.3 Community

The team worked with and for a wide range of people. The immediate client was ORM. The team worked with Siemens to order equipment for ORM staff. PKMT collected requirements from ORM and developed, and maintained systems for them. The end user was the general BBC staff that required occupational risk information from the intranet site.

7.9.4 Division of Labour

The individual roles of PKMT were quite different to each other. The team required to have a number of different roles in order to produce systems for ORM and BBC staff. The main roles required were project management, development, web editing, content inputting, testing, maintenance and support. Some staff had a number of these skills, for example, the developers carried out business analysis tasks to capture business requirements, project managed, they designed the systems, they coded, conducted testing (technical testing and user acceptance testing), produced technical and user documentation, and supported the system.

“I coordinate all the IT processes and communications, this includes software, hardware and mobiles. I order software and hardware such as computers, laptops and accessories, and I work on databases. I work with Siemens to make sure the process is followed, from putting a request in, for example for a PC, to completion. I’m part of ITC user group too. All the ICTs meet to figure out processes and budgets for the whole BBC. BBC has many preferred suppliers outside of Siemens. I have quite a few sub-roles. I support a helpdesk, anyone needing help regarding health and safety would call me and I would direct them in the right direction using the department systems, like HSS net, and intranets. I would also give administration rights to people. I’m getting involved in web

maintenance, html documents to go on the HSS net. I'm testing the advice line that will open to the BBC staff by following scripts. People think I'm their one stop shop, anything relating to IT is me" (ICT Coordinator).

"I guess it's to develop and maintain IT systems for ORM, and to ensure the requirements are met. My job description is actually a Senior Health & Safety Advisor, but my ICT Manager job description is verbal between me and my manager. On a daily basis I liaise with ORM managers on requirements and technology, or external party to get equipment, manage PKMT, and work on CORMS, finding solutions. The only sub-role I can think of is to set up meetings for other people and set IT equipment for them. Sometimes we train/advise people on certain technologies which isn't our job, such as with XDAs, I don't see it as my job but I'm happy to do it. I sometimes get dragged in to some meetings and get work out of it, it's because I have health and safety knowledge so it can be helpful. But now 3 or 4 years down the line there should be less reliance on me as a health and safety person" (ICT Manager).

"I oversee HSS net, edit documents to put up on HSS net, write clear guides, and compile user information for rebuilding architecture. I don't have sub-roles at the moment, I did, but not anymore. I used to do communications for CORMS which wasn't my role. I write user briefs, proposals, and reports, teaching people how to write for the web" (Online Editor).

"I carry out PA duties to PKMT manager, I have advice line duties and training of SHE system. I floated in to the role, I was drafted in through a restructure and was told verbally what the role was, but it has evolved. I'm also a database administrator, check data quality, carry out day to day finance, and assist people on intranets systems via phone or email. My sub-role is to train people out on the field and over phone. A lot of people see me as just a trainer or people think I'm a PA, so it's a mixed response. ORM managers see me more as a PA. Training was quite positive for users, they like having support. Some PA's didn't like that my role was above a normal PA. I like the training aspect, face to face communication. I don't like the day to day ordering bureaucracy, taking a number of phone calls to get order numbers and getting the orders" (Information Assistant).

“The main part at the moment is to manage HSS net on the content front, assist on the CORMS programme, on the tools, some development work on HSS net to expand the hostile environment site, supporting the manager and team. My role has changed over time. I got a job description 2 or 3 years ago, but it has changed and developed and so now the job description is out of date. On a daily basis I do something simple like fixing a broken link, to changing the behaviour of how a page works, populating content on to HSS net, liaising between content editors and team to make sure the right protocols are followed, making sure all the stakeholders are involved, and process mapping on the CORMS. The odd things would be a new project for development or creating a CD for the HSS net. My sub-roles are participating in upfront training sessions, HSS net helpline, and setting up for presentations, this is quite common, set up of laptop and projector, sometimes it includes getting all the different presenters power points and setting the whole thing up, assisting with presentation itself, and booking equipment. This has stemmed from my previous role” (Safety Web Coordinator).

7.9.5 Rules

PKMT were a departmental IT team and they built and maintained systems for ORM, therefore all the work they did was approved by ORM managers. *“In terms of things being signed off, they actually should be signed physically but no one will put their name to anything or to formally approve it” (Online Editor).* The BBC had a general problem with signing and approving, whether it be documents or systems. It was ingrained in the culture. The main reason was, no one wanted to be in trouble, by signing they had taken responsibility of it and if it broke or a problem occurred, then it was on their head. No one wanted this, hence many managers were risk averse and would not part with their signature. However, this changed when conducting business with Siemens. They would not continue any work unless it met approval and sign off occurred.

In terms of the intranet there were policies that needed to be followed and these were set up by the intranet team. *“Intranet has policies, styling guides and what you can say or not say and these are enforced. The documents are kept up to date and changed regularly” (ICT Manager).* The messageboards required moderation in order to stop

offensive language. The staff needed to bear in mind that although the BBC was more relaxed place of work compared to a private sector organisation, it was a place of work. The intranet policies were more like guidelines rather than strict rules, e.g. how to format a web page. The intranet was going through changes due to the outsourcing contract, it was to be created through a content management system (CMS). At the time of the interviews, IT teams such as PKMT built on the intranet, but these types of teams were being made redundant and therefore content for the intranet needed to be input by the departments themselves.

The outsourcing brought new policies and processes for ICTs across the BBC. Some staff liked to be kept up to date with the latest technology, and purchased new gadgets every few months. This type of extravagance could not continue in the age of austerity. The new policies tried to curb this type of expense.

“Siemens don’t allow users to order their own products, so they have to come through the ICT to order and be approved, ICT acts as a monitor and there is some control, a layer between user and Siemens so Siemens don’t have to do administration work. There have been cases where users have found the link to the order form and tried to directly order, but there are fields in the forms only the ICT can fill out, so there are preventive measures. The procedures have got stricter over time due to outsourcing, for example before if leases expired on equipment the user would automatically get a new piece of equipment, but that doesn’t happen any more, they need to use the equipment for longer. Siemens have come in and made changes in terms of items available and their costs, and so we had to change to support them. The number of products has increased and therefore increased our workload. Siemens are a commercial company, and their interests are commercial, where they make changes to benefit them they will and it should benefit the BBC because it’s latest technology and cheap. The products changed quickly, over night almost, you would look for them and can’t find them all of a sudden” (ICT Coordinator).

“There are TD key policies and documents required with engaging with Siemens, naming conventions, how to create websites, etc. and we should be using them, although they are not enforced. With some high profile or high

budget projects we need to go through TD to move forward and get authorisation from them” (ICT Manager).

The policies helped TD with the conformity issue. The main reason to achieve conformity was that the organisation was moving towards a centralised IT hub, and there were talks of utilising document management systems (DMS). If the documents were in the same format, when the DMS was installed, it would be easier to upload all IT projects and their relevant documentation in to the DMS, and have a central area. The central area also helps the organisation to understand the current IT projects, their statuses, but also to make sure the wheel is not reinvented. The BBC with its disparate IT teams had many systems with the same functions, with the new outsourcing contract and budget cuts, they could no longer afford to conduct business in that manner.

The developers were moving in to the project management realm because of the outsourcing. PKMT was being made redundant because all the development work would move to Siemens, but before that happened there was a transitional period where a CMS was put in place via the CORMS programme. It was through this programme the developers were moving towards project management and were trained in Prince 2.

7.9.6 Mediating Artifacts

What Artifacts

The project management training PKMT received was the same as the middle IT managers. The training was conducted via class room sessions, role plays and manuals. They had to carry out the project management skills of coordination, facilitation, planning and reports in the training sessions.

The ORM department were given guidelines on how to write for the web, e.g. short and punchy bullet points, and not long essays, from the PKMT Web Editor. Writing for the web is different to writing reports or manuals. The end user cannot read long essays on the browser, they need quick points or a facility to download/print long pieces of texts.

How Artifacts

Processes needed to be put in place for the content writers to make sure the guidelines were adhered to, and included data quality checks and approvals. This allowed PKMT developers to work on the systems and not be content editors. The processes also

allowed ORM to be their own content masters because once PKMT had gone, they would need to look after their own content and be self sufficient. The changes were all due to the centralisation of IT decision making and the concept of BBC staff being self sufficient through web applications. ORM had to become IT savvy and not rely on PKMT with technology issues such as how to use a XDA. Part of the problem was laziness because ORM knew they had an IT team at their disposal, however they had to start to change their behaviour.

Why Artifacts

The restructure of the ORM department was leading to redundancies and outsourcing. The medical arm of the department was to be outsourced to Capita in order to cut costs, and the PKMT team was going through dissolution due to the Siemens deal. The restructure order came from the Board, and filtered down through the hierarchy from HR, and this was conducted via meetings, presentations, formal letters and computer mediated tools.

Where to Artifacts

PKMT staff understood they no longer had jobs in ORM, however all the team viewed this in a positive light and were ready to move on. Some members were ready to leave the BBC and seek employment elsewhere, others wanted to become self employed and those that moved in to project management were ready to take the next step in their career. The team were fairly open of their future intentions in meetings with their manager.

7.9.7 Outcomes

CMS was brought in to ORM to allow self sufficiency, and self management of content. PKMT was going through redundancy.

“I’m surprised that ORM doesn’t think they need one IT person in the department after PKMT have gone. They need someone who has an IT overview to negotiate/liaise on their behalf. I don’t know if they’ve got another team somewhere and they haven’t told me. I think eventually a role will appear back in ORM” (ICT Manager).

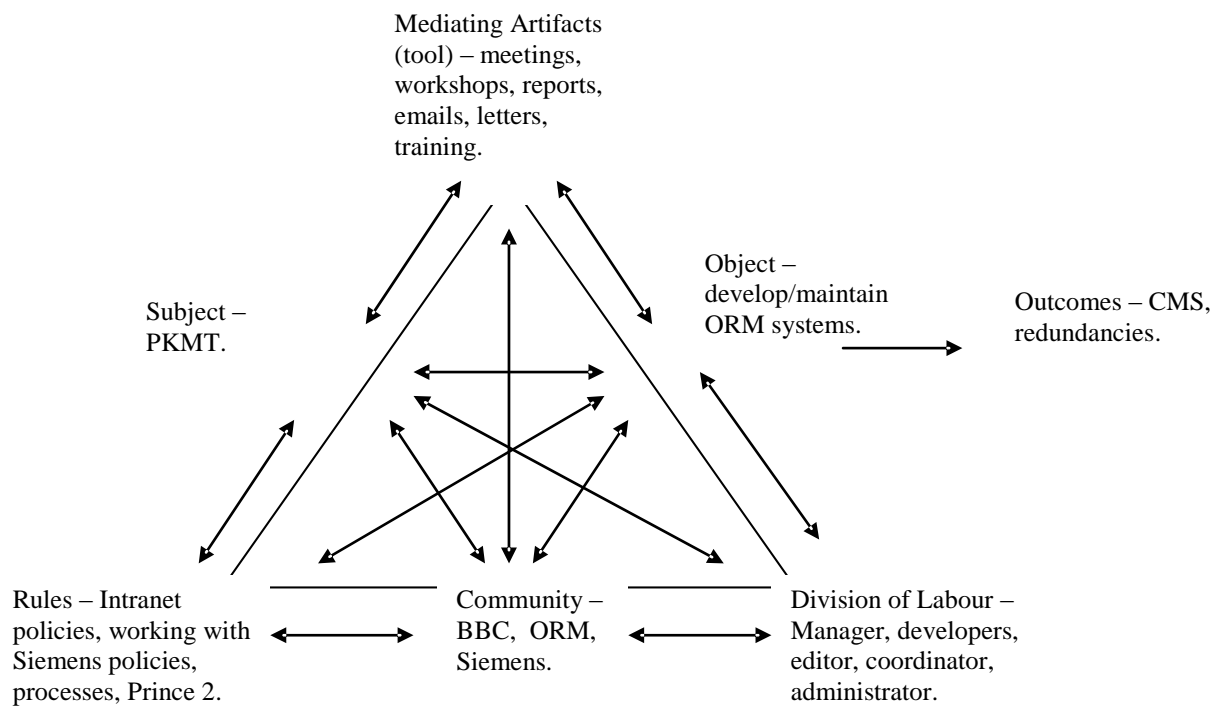


Figure 7.9 – PKMT’s activity system.

7.10 Users’ Level Activity

7.10.1 Object

The users wanted IT staff to support them in finding solutions. According to the users IT should find out what the users are trying to achieve and then provide a solution, and this includes identifying any training required.

“IT should be supporting me in finding IT solutions to my business needs. Finding new solutions. The solutions can be external or internal that should help me. See what I want to achieve and find me a product that can help me with that” (Compliance Executive).

From Siemens the users wanted knowledgeable support and a good service. They wanted working PCs, that did not constantly crash, and a stable network.

“I had a bad experience with trying to get a PC fixed, it needed to be rebuilt but at first it kept getting passed around from team to team, and then eventually

*Siemens fixed it, but it meant 4 days without a PC, and no work getting done”
(Environmental Manager).*

PKMT’s remit was to bring tools for the department, continually improve the systems and provide solutions to ORM’s problems. PKMT aligned business and IT for ORM. Sitting with ORM staff allowed them to pick up business knowledge, and apply IT to provide business solutions. The ICT Manager was the key person to create IT projects to help the business.

“The role of PKMT is to ensure we have the tools available to assist people in the occupational risk work. Advisors should provide content but PKMT should build the systems or get the solutions. It should be a two way process, PKMT should be able to help us continually improve our systems and PKMT should understand the business, which I think they do” (Deputy Head, Divisional Support). “PKMT act as specialists in advising managers and staff on how they work, and maintain systems, deliver the specification of the system the business might need and develop the systems. They are part of the team, it is important for me that the IT business solutions are integrated in to the business and not stand alone” (Head of Divisional Support, Occupational Health Safety).

7.10.2 Subject

The users were all from the ORM department. Their roles varied, the users included health & safety advisors, physiotherapists, nurses, doctors and managers.

7.10.3 Community

The IT community surrounding the ORM users was varied: PKMT built and supported local solutions for them, Siemens provided support and helped with solutions on large projects, Professional Services IT team was to replace PKMT and, there would be TD involvement on large projects/programmes. The TD involvement was part of the IT centralisation strategy to keep an overview of IT in the BBC. In addition, there was the Siemens helpline for IT support and issues.

7.10.4 Division of Labour

Overall the actual users’ roles did not impact the study. On the IT front, they all provided the requirements for the various systems required by the department. The managers were budget controllers and therefore determined the projects that could

happen. The users over the last 5 years in general have become IT savvy. Many used varied forms of technology for work: PCs, laptops, XDAs, and mobiles.

7.10.5 Rules

Majority of users understood that if there were any IT problems they should call the Siemens helpline. They liked the process with interacting with Siemens, the logging of calls and being kept up to date via emails.

With projects and IT solutions the managers realised there was an escalation process. The budgets had to be approved by the head of the department, and if large systems were involved, the escalation process went to the division level and TD.

7.10.6 Mediating Artifacts

What Artifacts

The helpline for the users was the main form of mediating artifact to receive information from Siemens. Once the initial contact was made via phone, there were emails or further phone conversations in order to provide an IT solution. If the solution was a new system, then it would go through the projects route, or if it was new hardware or software it needed to go through the ORM managers' approval route and then ICT Coordinator to place an order. The projects route was to contact TD and fill out a form with the business problem. TD responded to the form, either the project was small in value and the requestor could continue on their own, or there might have been a similar project/solution available for the requestor, or they should contact Siemens. TD for large value IT projects would oversee or assist the requestor. The ORM managers' approval route for new hardware or software was to cut down on costs, such as staff wanting new technology regardless of a valid business reason.

How Artifacts

The process of making a helpline call and escalation needed to be enforced. In terms of the Siemens support helpline this was done via formal organisation emails and leaflets on all staff desks, however the enforcement had to be supported by the PKMT team and specifically by the ICT Coordinator, who was usually asked to carry out the work.

The projects process had been made formal at senior level where TD was drafted in to help projects. The mandate was formalised via managers and documents available on the intranet.

Why Artifacts

The processes needed to be enforced by the department managers as the way forward, they needed to do this by email and talking to their staff. PKMT at the time of the study were going through redundancy and therefore the users needed to become self sufficient. The Siemens outsourcing deal was to cut IT costs and therefore large or expensive projects needed to be looked at in detail and be approved by TD, as they had general overview of IT in the organisation.

Where to Artifacts

Many processes were going towards the online strategy and were mediated through 'e' systems. The strategy for many systems, such as HR systems were to become 'e' systems and the naming convention for these were "my...". Everyone understood what 'my' systems were and users were encouraged to be self sufficient and responsible.

7.10.7 Outcomes

PKMT was disappearing, and therefore users had to go through the Siemens' helpline for IT support issues. ORM had to follow standards set by the Professional Services IT team. The Professional Services team had to adopt TD's processes and encapsulate them in to their processes.

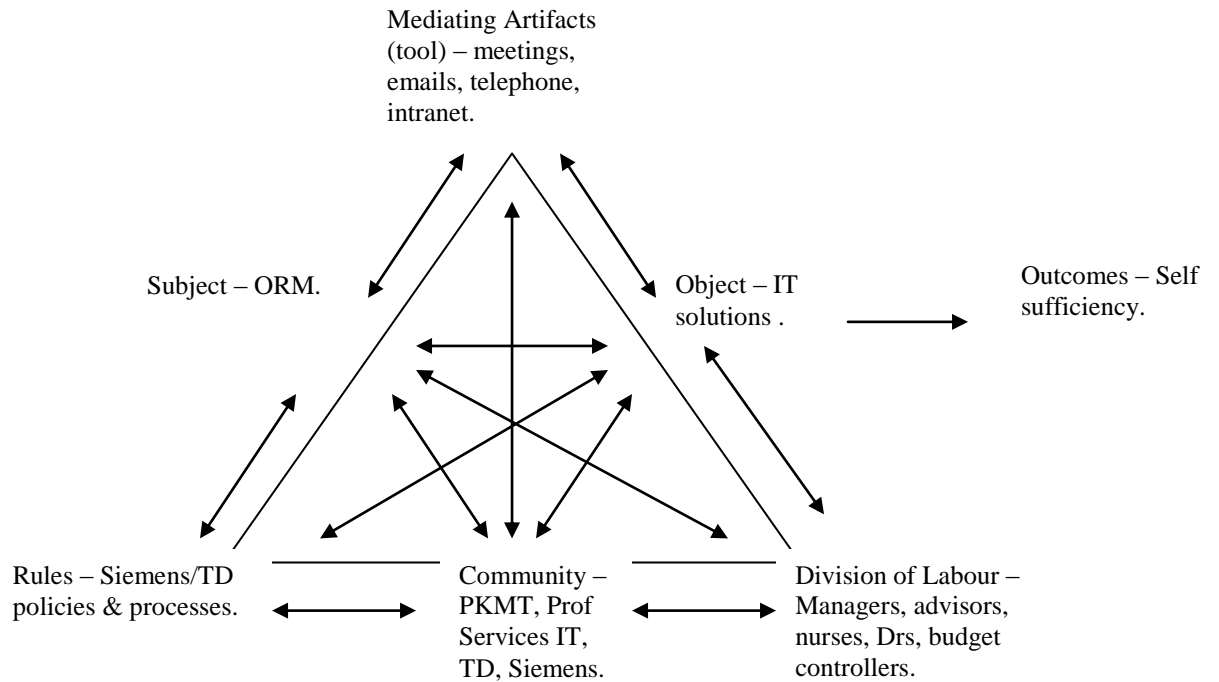


Figure 7.10 – Users' activity system.

7.11 Activity Theory Constructs and the Interviewee Groups

The aim of this section is to tie up Activity Theory and the analysis together. It is a summarisation of the theory and data. The constructs of the activity system are analysed against the interviewee groups to validate any key similarities, differences and problems of using Activity Theory as it was used within this research. The section is structured by the constructs and the groups interviewed are explored within the construct.

7.11.1 Object

Both the BBC and Siemens Account Managers had similar objectives. The main objective according to them both was to build the trust partnership and manage relationships between each other. The Account Managers also participated in other activities based upon strategy. Siemens Account Manager's strategy was to build Siemens' new media contract portfolio, and find additional revenue from the BBC contract, e.g. through new IT projects. The BBC Account Manager had to deliver large projects and set the 5 year strategy plan. The key problem with the Account Managers was that they were more focused on the other activities rather than the relationship building activity. They were interviewed three years in to the contract, and both managers stated the relationship was client supplier, rather than partnership. It should

have been partnership or close to achieving it, however there were no solid activities leading towards building a trust partnership. The key steps to achieving good relationships in outsourcing contracts is further investigated in the discussion chapter.

The senior IT managers' activities were similar to that of the Account Managers. They had to build relationships with Siemens and strategise. The key difference between the Account Managers and the senior IT managers building relationships was that the senior IT managers had greater daily contact with Siemens. The senior IT managers relationship building was based on projects and support, hence the regular contact with Siemens, it was at a more operational level. The BBC senior managers did not put their eggs in to one basket, they also built relationships with external third parties to maintain supplier competition. The senior IT managers wanted the outsourcing contract to succeed, and therefore, they implemented IT governance structures for the whole BBC, to align with the outsourcing strategy.

It was at the middle IT manager level and below that the outsourcing shook IT personnel's world. Senior managers roles changed to include relationship building, however below them, the IT staff roles changed dramatically from being technical to managerial or being made redundant. The governance structures set by the senior IT managers were implemented by the middle IT managers, as they operationalised them, e.g. using Siemens as first point of contact for IT projects and implementing web applications instead of desktop applications. The key problems for middle IT managers was confusion over their roles and learning to be managers.

PKMT (IT teams within departments) were made redundant, but before they left, they implemented web applications for the ORM department. The aim of these systems was to allow the department to be IT self sufficient and masters of their own intranet site. The web applications allowed the IT team redundancies to happen. Provisions for the department were set up, they had an IT team at the divisional level and Siemens for general support. The users wanted dedicated IT help and advice, however they were to learn that they would become more IT proficient.

The objects section highlights the cascading waterfall effect the outsourcing was having in the organisation. The reader can clearly see the impacts of the outsourcing, and how strategy was operationalised and its effects throughout the whole of the BBC.

7.11.2 Subject

In many activities the subject was not usually one person, as it may take team participation to lead to an outcome that satisfied the objective. This was the case with the Account Managers, both managed teams of people and required the support of their Boards to help build a partnership at a high organisational level.

The senior IT managers also managed teams, however they in their own right were instrumental in their activities. Many of them as individuals built relationships with Siemens and other third parties and their teams would help reinforce them. The senior IT management owned the governance structures, and the implementation of them was carried out by staff below them in the hierarchy.

Many of the senior and middle IT managers had titles that could not reveal what their actual work entailed. In essence senior IT managers were strategists and high level stakeholder relationship managers, and the middle IT managers were project managers, implementation managers and consultants. The middle IT managers' types of roles were introduced due to the outsourcing contract with Siemens, as the technical work was to be conducted by Siemens but a coordination/facilitation role was required within the BBC. PKMT's members were following similar roles to the middle IT managers, the developers within the team started to project manage. However, the project managers in PKMT were short lived as the team was made redundant.

The users were all occupational risk professionals such as health and safety advisors, nurses, doctors, physiotherapists, and health and safety managers. They relied on PKMT to help with their IT needs.

7.11.3 Community

The different stakeholders in each interviewee groups are webbed throughout the individual activities. The interviews present the levels of complexity between the activities, as there are many stakeholders involved in many activities across many levels. The senior managers (Account Managers and senior IT managers) had executive level, external and the BBC stakeholders. The middle IT managers, PKMT and users had localised stakeholders, such as their teams, Siemens and BBC staff.

7.11.4 Division of Labour

It is within this section the strong link between subject and division of labour within this particular case study is exhibited. The Account Managers and senior IT managers are organisational IT leaders, and their roles were centred on strategising and high level stakeholder relationship building. The middle IT managers and PKMT members were mainly hands on technical, but moved in to the standard middle management roles of project management and consultancy. Many project managers believed that to have a technical background is advantageous as it is helpful with informing project managers. Some technical staff had difficulty moving in to a management role, as the skills required for management are softer skills, e.g. communication, motivation of staff, and good stakeholder management. It was the first time these people had to manage others. There was some confusion at the middle IT management level as to what their roles entailed, one manager was waiting to start the work, and the transition period was slow and boring for him.

7.11.5 Rules

The Account Managers' and senior IT managers' main rules were to adhere to the legal outsourcing contract and SLAs. The legal framework of the contract and SLAs was formal, but in addition they should have also followed informal rules, such as regular meetings. The face to face communication via meetings was a key to achieving a partnership.

The cascading effect of the outsourcing contract and SLAs were the governance structures created by the senior IT managers. The processes on IT purchasing and projects were rules set by TD for the whole BBC to follow. The main reasons were to improve the relationship between Siemens and BBC, and to ensure the outsourcing deal was successful. This could only occur if the BBC stopped using other third parties without involving Siemens first.

For the middle IT managers the rules set by TD were incorporated in to the project management processes. Project managers had to follow TD's processes and use Prince 2 as the formal project methodology, as this allowed conformity throughout the organisation. All the above highlights the concept of IT centralisation.

At the time of the interviews the governance structures set by TD had not trickled down in to the departmental IT teams, they were in a period of transition. PKMT started using Prince 2 as their project management methodology, however the ORM department had a culture of not approving work formally. The Siemens processes had to be followed by all when purchasing IT equipment. PKMT had to comply to BBC intranet guidelines before they could put their content online, and this was approved by the intranet team.

The ORM users were also going through the formal IT transition. They had to follow the strict IT equipment purchasing guidelines put in place by Siemens. Many users' norm was to lean on the ICT Coordinator for IT queries/issues, rather than phoning the Siemens helpdesk. This would have changed when the PKMT team was made redundant.

7.11.6 Mediating Artifacts

All interviewee groups attended meetings in some form or another. Formal meetings tended to produce agendas and minutes, in particular with many meetings held between BBC and Siemens. As well as standard type meetings, people attended training, workshops and brainstorming sessions. Products of these meetings were systems, processes, guidelines, reports and various other documentation. For example, after project management training, the project managers produced plans, budgets and progress reports. Similar to other office environments all interviewees mediated through emails, phone, messenger, internet and intranets. In the mediating artifacts sense, BBC was similar to most modern organisations.

7.11.7 Outcomes

The overarching outcomes from the outsourcing were restructure of organisation and mass redundancies. These outcomes affected the entire organisation. At an individual level, various staff roles changed to project management, new working processes and guidelines were introduced. Staff were to become more IT skilled than before, as the systems introduced led to self sufficiency and greater responsibility of their intranet sites.

7.12 Concepts of Emotions, Mood and Legitimacy

The interviews highlighted the ideas of mood and legitimacy. During the time of the interviews, there were many activities centred around restructure and redundancies, and

therefore there was a natural atmosphere of mood at the interviews and within its contents. Emotions were running high, and not all emotions were as expected, for example, the PKMT was going through redundancy, however, all the members of the team were happy as the redundancy meant new adventures – joining new organisations, step up the career ladder⁶, and in some cases moving towards self employment.

A recent study by McGrath (2006) focused on the role of emotions in IS and organisational change within the National Health Service, it summarised that many organisation studies focused on management and forms of organising, but omitted the emotions. Some recent IS studies have shown that systems are used in ways not expected, and touched on perceptions and behaviours however little reference was made to the emotions involved. The nature of emotions is unexplored and hence the role they play in IS research is unclear. McGrath researched a new ambulance system based on emergency phone calls that had to follow government process of first in, first out basis and the priority of emergency based on the queuing system. The staff could not work by following the government's rules, as personal ethics and emotions ruled the way the staff worked, and that the processes implemented were incorrect. The staff felt that personal judgement was required on prioritising the importance of the callers' illnesses, and sending the ambulance to those at greater risk.

An individual's rational and emotional performance is formed within the society's systems of power, knowledge and morality (Focault, cited in McGrath 2006). Focault researched social practice and revealed rational actions and emotionally charged behaviours relating to illness, insanity, criminality and sexuality. These works do not reveal universal truths of human nature or society, rather they expose knowledge that are viewed as truths and humans efforts for moral conduct under power in specific historical conditions. Moral conduct is socially constructed and power constituted. Focault reflected on his work and argued that society is the main field of morality and it is human feelings that are the most relevant for morality (ibid).

Ciborra (cited in McGrath 2006, p282) studied the concept of mood in his work. He noticed you could study a situation, "a way of encountering the world", through a mood. Moods can change, however humans are never without one. He noticed that some

⁶The redundancy triggered the developers' roles that changed from hands on technical to project managers.

intense moods occur during periods of emptiness or boredom, however, when the moods are not so intense, people engage in everyday activities to drive a mood away. In some cases the mood continues to lurk. Ciborra took Heidegger's notion of situatedness to be constructed of the actor's inner situation, in other words, disposition, mood, emotion and affectness, as well as the actor's surrounding world. The actors are within situation, not outside of it (Ciborra, 2006). Moods are presuppositions to human doing and acting, they are a medium for them (Ciborra, 2001). Interpreting the mood as well as the words spoken add more to the detail of the study. The mood can bring some clarity as to why someone may have said something particular. The Knowledge Management Director was scathing of his manager, and part of it could be letting off steam because he and his team were going through redundancy.

Legitimacy is "the belief that authorities, institutions, and social arrangements are appropriate, proper, and just" (Tyler 2006, p.376). Humans are influenced by others because they believe the decisions and rules enacted by others are correct and proper, and should be followed. The central concept of legitimacy is the belief that decisions or rules made by authorities are valid, and ought to be obeyed. Within this, the concept of status and dominance also comes in to play. Legitimacy also has social influence induced by the emotions of 'should' or 'ought to' attached to it by appealing to an internalised norm or value (Tyler, 2006). This was evident in the case study, the IT governance structure set by TD were followed without hesitation by the middle IT managers and PKMT. The reasons (outsourcing contract and cost of outsourcing in order to be successful) for the processes were valid to the IT staff. In addition to TD having authority, the staff within the IT function had great mutual respect for each other. IT staff that used TD's processes or had experience with working with them found it to be beneficial, e.g. TD had influence that not all IT teams in the BBC had, they had a number of networks and experience of large IT projects.

The roots of the modern approach to legitimacy are in Weber's (1968, cited in Tyler 2006) writings. He argued that social norms and values become part of the person's internal motivational systems and guide their behaviour. Those that internalise social norms and values become self-regulating, and they take on the obligations related to the norms as aspects of their own motivation. Obligation is a key element within legitimacy. It presents voluntary deference to the directives of legitimate authorities and rules.

The concrete influence of legitimacy happens with people that make rules that are designed to shape the behaviour of others. The decision makers need to be backed up with credible coercive potential or some promise of rewards. In organisations the ability to secure compliance is viewed as the litmus test of effective leadership (Tyler, 2006). The examples of this within the case study can be seen via the TD governance structures, highlighted above, but also with PKMT and ORM users. PKMT carried out many activities outside their work remit, e.g. setting up projectors for meetings. It was the ORM users that enforced this rule on them, and altered PKMT's work activities. Further, the ICT Manager was influenced by the ORM users, and his subordinates saw him carrying out those activities, and therefore, his subordinates had no choice in the matter but to carry out those tasks outside their work remit.

Authorities and institutions lose legitimacy when they do not adhere to fairness. In organisations the legitimacy of leaders is related to the fairness of procedures they utilise to make decisions affecting the work place (Ibid). TD's governance structures were followed because the IT staff thought they were fair. In order to help the organisation during its troubled period, it made sense to try and make the outsourcing contract a success, and the only way that could happen was if people stopped using third parties when not required. PKMT also thought it was fair that their jobs were going because it did not make sense to have them if the organisation had Siemens.

Emotions, mood and legitimacy are all interesting angles to add to the research, however it goes beyond the scope of the study. It is hoped that McGrath's and Ciborra's work will lead to more IS studies of this nature. The data is rich full of emotions, moods and legitimacy and hence the data mapped across these concepts should be considered for further research.

7.13 Activity Theory and its Limitations

The theory in the IS/IT field has changed quite dramatically from its origins. The roots of the theory are in psychology and human development. It detailed the mental processes and drilled in to neurology. Although IS/IT field holds some characteristics of the original theory such as tools and culture, the theory has become high level similar to Actor Network Theory. The IS academics, such as Engestrom and Kuutti have moved the theory away from its beginnings and changed it in to another theory.

Although it has changed from its roots, the use of the theory works well in the IS/IT field and this can be seen in computer supported cooperative work (CSCW) areas. Outside of CSCW studies, Activity Theory has not been applied much. This study shows that it complements other IS fields. The outsourcing phenomena and its activities within the IT function can be seen. It is natural in IS academia to use theories that have their roots outside of IS, particularly those studies focusing on social aspects. Many IS academics borrow theories from sociology, psychology, or philosophy.

Activity Theory's position is that learning emerges from the performance of the activity. There is a reciprocal feedback between knowledge and activity. As one acts, knowledge is gained, it affects one's actions, that leads to changes in knowledge and so on. The notion of learning is important in Activity Theory (Leont'ev, cited in Jonassen & Rohrer-Murphy 1999). Jarzabowski (2003) takes the social aspect further by investigating shared activity, handing knowledge from one generation to the next. The concept of learning is shown in the case study, there are many examples of it littered in the BBC. One example is the transference of middle and senior IT managers from technical staff to project managers. In order to become a project manager, the manager needs to manage projects. Real experience of project managing far outweighs anything that could be taught in a classroom setting. When project managing, the managers will gain experience and lessons learned that can be applied to their next project, in order for it to be successful. Another example is outsourcing contract experience. The more one participates in outsourcing contracts, the more they learn. Again through experience, staff gain lessons learned and knowledge in order to make the next outsourcing contract process smoother and recognise what not to neglect. The outsourcing contract experience fits Cullen et al's (cited in Lacity & Willcocks 2006) outsourcing organisations generations thought, the more organisations participate in outsourcing contracts, the more they learn to compose the next contract in a knowledgeable manner. Both examples allude to Activity Theory's learning feedback loop between activity and knowledge, and the latter example to the notion of shared activity.

Leont'ev (cited in Kouzlin 2001) declared activities are dependent upon motives. Activities in work settings show that subject's true motives can also shape the activity. Motivation does not emerge from an individual but through participating in socially constructed activities (Laufer & Glick, 1998; Worthen, 2002). The case study highlighted this area, for example, some ORM staff would not use the Siemens helpline

for issues outside of general desktop, and would approach PKMT instead. The reasons for doing this according to PKMT is that it is easier and quicker for ORM to ask PKMT than to go through the helpdesk. ORM user does not know when Siemens might help them and how long it might take, and this would stop them from working. Another example was the PKMT developers participating in the CORMS programme, the subject's true motives were to become project managers, to help them move up the career ladder, and to gain industry project management qualification (Prince 2 certified).

Every subject participating in an activity has a different view and interpretation of the aim depending on the subject's position in the division of labour, history of the activity, training and experience. Certain subjects can be powerful in the activity, but no one individual can completely impose their view on others in the activity. This was seen in the case study at an organisational level. The TD team were trying to impose governance structures on IT projects and investments. They were trying to force the BBC to use Siemens as the first point of contact for new IT projects, however whilst those interviewed followed TD's instructions, there were divisions that would bypass TD and Siemens according to senior IT management. The divisions that did this had a great deal of autonomy, budget and influence behind them, however, the BBC Board was trying to clamp down on this as the success of outsourcing contract was of greater importance than any individual IT project.

Human activities are embedded in a social matrix constructed of people and artifacts, therefore, the activity's subjects should be analysed in the context of the performance (Vygotsky, cited in Jonassen & Rohrer-Murphy 1999). However, the early Activity Theory adopters used the theory to observe one subject. The case study used the theory to observe activities through a number of subjects, to analyse the activities of an organisational hierarchy layer. The reason for this was to observe the impact of the outsourcing on the IT function, and in order to explore the outsourcing phenomenon in a reasonable manner, it made sense to group a number of staff together. The alternative of analysing each individual in the IT function would have been challenging and would not have produced a coherent analysis. The aim of the study was to show high level views. This has moved the theory away from its origins and has changed from examining individuals to a framework where one can observe groups. Activity Theory focuses on mental processes of individuals, but this was not the remit of this particular

study. Again, it would have been feasible to investigate the mental processes of one subject, but the study was not structured to detail one individual.

The change has altered the theory from being rather prescriptive to fairly loose. One example of this type of change is history. When examining a GP's patient, the patient records have the history of the person and the observer can follow this history, however when observing at a meta level the history becomes rather fuzzy and it is difficult to follow which activity led to what. It becomes difficult to trace and understand what is happening, the history is entangled. It would have been impossible to cover the historical aspect in detail, however, the case featured a previous occasion of outsourcing decision, and what the outcomes were. The previous experience gained from the decisions would have participated in the recent outsourcing decisions, and played a part in the views of the staff. Figure 7.2 illustrates the notion of history in a simplistic manner, the decision to outsource led to various activities throughout the organisation, and the ripple effect can be seen. Note that the illustration is to show one activity leading to other activities, and the full diagram cannot be shown as it goes beyond the boundaries of the study. It exhibits the notion that an activity does not emerge out of the blue.

Humans have different ways of thinking and have different tools provided by society, however they use the tools in different ways (Tulviste, cited in Chaiklin et al 2002). This was apparent in the case study with the ORM staff. They were meant to call the Siemens helpline for all IT issues and matters, however many of them would use PKMT for IT help. They used the helpline for typical support issues, but would use PKMT for support of XDAs, for example. Tulviste's thought holds true not only for tools in Activity Theory, but also in modern technological life. For example, there have been many studies conducted where technology was not used in the way it was anticipated, Orlikowski and Gash 1994 being one such study. Tools can only be understood in the context of human activity. Observing the way it is utilised by people, the needs it serves and the history of its development. Tools not only change the process, but are also changed by the process (Jonassen & Rohrer-Murphy 1999). The analysis (activity systems) confirms how much computer mediated tools are employed. The email has changed the modern work place. It has become a formal and popular method of communication. A decade ago, one could not authorise/sign off using email,

they would have to physically sign a contract, however, at present an email is seen as an acceptable form of authorisation.

The theory is viewed as a powerful socio-cultural and socio-historical lens for analysis. The theory scrutinises the rules and norms that define the activity. Both aspects can be seen in the study. The cultural aspect was applied by the BBC when selecting an outsourcing partner. The culture fit between the two organisations had to be similar, and once the contract began, Siemens tried to fit in with the BBC's environment as closely as it could. Initially the transferred staff were located within BBC premises. However, the differences in cultures could also be seen, for example, some of the ORM staff used the support line and believed the service was greatly improved once Siemens entered. The “German efficiency” could be seen by some staff. The differences in culture could also be seen at the senior level: BBC senior management wanted a partnership with Siemens, and this could only be attained if Siemens provided some innovation to the business. This was a difficult proposition for Siemens, as it is viewed as a traditional organisation and it was new to the media industry. However, they needed to collaborate with the BBC on a large successful innovative project in order to move in to a partnership, and also to increase their revenue.

Contradictions within an activity can occur, and they are the basis for change. They can transpire in tool, objects and subjects. An example of a contradiction can be where an individual feels part of a collective group, but also needs to act as an individual (Bodker & Gronboek, 1998). Similar examples were observed in the BBC. Interviewees were concerned with their own roles first and then the role of their teams/colleagues. The ORM users that were to go through their own outsourcing, did not know that PKMT were going through redundancy.

Strategic activities emerge from social interactions between organisational elements. Practices materialise from tensions and contradictions between the organisation's past and future leading to organisational change (Jarzabowski, 2003). This was the case with TD group in the BBC. They were implementing governance structures in the BBC to cross over the divisions using old methods of installing technology to the new ways because of the Siemens outsourcing contract. The old methods would not be sustainable for the organisation, as it contradicted the value for money initiative that led to the outsourcing.

Figure 3.4 demonstrates that activities can be broken down further in to ensembles, actions and operations. The analysis of the data did not go in to these details, for the reason that the thesis would have become unmanageable and the thesis is concerned with higher general activity level. Investigating minute detail would not have added any useful knowledge to the study, in fact it would only have added confusion.

Engestrom's activity system (figure 6.1) worked well for his studies, however, the looseness of the theory did not work quite as well for the case study. For example, the processes set up by TD, should they be rules or tools, as they were documented. Again the clarity between subject and division of labour did not work well with the case study, they worked better as one heading. The subject and their function is meaningful under the label "role". Splitting the subject and division of labour did not help the activity, people's title and their function should sit together, particularly in an organisational setting. The title on its own is meaningless, titles on their own do not enlighten the reader on what the subject does. IT industry has generic titles that do not suggest much, e.g. consultant can mean developer, business analyst or project manager. The literature does not discuss behaviour as part of subject or division of labour, and this notion can add an interesting angle to the study, e.g. one senior IT manager came across quite bitter in the interview, and the reason behind this could be that he was going through redundancy. This explains his blasé comments of his manager in the interview. Rules and tools have not been merged as one heading due to items such as norms not being an external tool, they are not written down, they are inherent in the organisation. The definition of object worked well for the study, the aim of the activity. Figure 6.2 illustrates the notion of the object driving the activity, and its outcome leading to another activity object. The community construct is important in the activity system, it follows Activity Theory's principle of not isolating the context when focusing on an activity. The subject does not live or work in isolation, and therefore other influences in the environment must not be overlooked.

The existing literature gives examples of standalone activities. The researcher required much tighter and prescribed use of Activity Theory, although in reality it would be difficult to pin down the theory to be accessible to all areas. In order to work for roles and the interactions in the organisation, the model alters, as shown below:

- Object – aim of the activity.

- Outcome – the result of the activity.
- Mediating artifacts – the tool to facilitate the activity, e.g. documents, letters, emails, meetings, written/trained in processes, policies etc.
- Community – stakeholders, society, colleagues etc. Role perception of the community can influence the activity.
- Rules – laws, conventions, norms, culture etc. Culture is an important aspect to the context of the activity.
- Role – the title (subject) and function (division of labour). The role is central to the activity, it defines who carries out the activity and what the activity is. It is pertinent as it sets the boundaries of the activity the role can transmit. Role behaviour can feature in this section, e.g. PKMT staff carried out tasks not related to their roles.

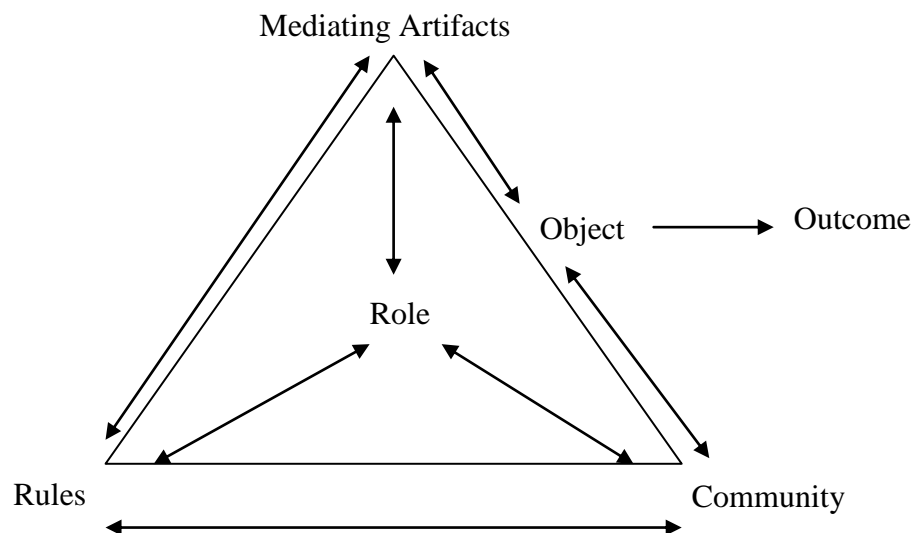


Figure 7.11 – New altered activity system.

7.14 Summary

The chapter analysed the findings through Activity Theory. It has shown how far and deep reaching IT has become in the organisation. Every member of staff is affected by IT, and therefore any decisions made regarding IT has far reaching implications. The Siemens outsourcing contract meant that all staff (except certain divisions, such as News) had to use the helpline. Any projects that required establishing had to go through the central IT hub, TD, and Siemens in the first instance. New operational processes were implemented that had to be followed. IT teams were facing restructure and role changes, or they were going through redundancy. Those IT staff whose jobs

were safe were finding their roles were transforming from hands on technical roles to managerial type roles.

The relationship between Siemens and BBC varied depending on the area focused upon. The desktop support service overall was very good, expect for a few hitches during the early transfer period. The BBC senior and executive management were happy with the general day to day support and maintenance of the systems. The problem areas were on large projects. In some cases the BBC were working well with Siemens, such as the Pacific Quays (BBC Scotland) project. However, in other cases, such as innovation, the BBC and Siemens felt they were lacking ideas to move technological systems forward. Overall due to the projects, both parties felt the relationship was client-supplier, however both were looking forward and enthusiastic the relationship would become a partnership.

At the end of the chapter, Activity Theory as a framework for the study was scrutinised. Overall the theory worked seamlessly with the case study, but it was not a perfect fit. The constructs that worked well were detailed, such as community, but those that did not fit quite as well were analysed, for example, subject. The slight changes led to a minor modification of Engestrom's activity system to assist studies of a similar nature.

The next chapter will draw out the main discussion points found in the analysis, and relate them to academic field – the current academic literature found in the literature review chapter. The chapter takes the findings of the study, and pulls it out of the study in to the general academic realm found in chapter two. The aim of the next section is to present to the academic world what the thesis has uncovered, and what it can add to the current body of knowledge. Discussion is one of the most important chapters in the thesis, the study is conducted to add to IS management knowledge.

8. Discussion

“A new word is like a fresh seed sown on the ground of the discussion.” Ludwig Wittgenstein

8.1 Introduction

This chapter draws out the general pertinent points of the previous chapters. The findings gave a general sense making account of the data collated, the analysis chapter explained the findings through the Activity Theory lens, and this chapter will bring out the important points the case study revealed to add to the outsourcing and IT function fields' body of knowledge. It is important to note in this chapter the author's views are given, in some cases with similar views to academics studied in the literature review.

The chapter begins with the relationship between the concept of role and activity. It then proceeds on to Rockart et al's (1996) and Feeny and Willcocks' (1998) IT function role prescription. The description of the role is cross referenced with the case study to analyse if the role persists and continues to be important. The next section focuses on the BBC roles based on the interviewee groups, and these are scrutinised in detail. These roles coincide with the academics' description of the role within the IT function. The recommendations on the role enactment are presented. Finally, total domestic outsourcing is discussed. The output from the case adds to the current body of outsourcing knowledge. The author compares the case study data to some of the academics studied in the literature review. Have things changed over time? Is the earlier literature still relevant? How? Why? All these questions are answered in the section.

8.2 Concept of Role and Activity

The concept of role in majority of the literature was used to mean function, however the literature review delved further in to the meaning of role, and teased out its various constructs. The history of the term goes back to ancient Rome to mean parchment rolls, however it was in the sixteenth and seventeenth centuries the modern term of roles was born, where part (as in an actor) becomes a component of the term role. Moreno (cited in Thomas & Biddle 1966) opened the term with two stages of role perception and role enactment. Role perception was the idea of what the role may entail, and was created by previous experience, knowledge and script. Role enactment was the actual

performance of the role. Moreno's work focused on the individual in the role, however sociologists such as Oeser and Harary (cited in Thomas & Biddle 1966), and Goffman and Stryker (Fincham & Rhodes, 1988; Reitzes & Mutran, 2002) opened the term to include society and the social.

Activity is defined as a natural or normal function (Merriam-Webster Dictionary, 2004). Hence, role enactment and activity fit together neatly as they both cover the aspect of carrying out some task(s). The activity through Activity Theory was deconstructed by the individual elements that composed the activity; object, subject, mediated tools, division of labour, community, rules and outcome (see figure 3.2, Engestrom's model of an activity system). All the constructs of activity overlap the concept of role in some fashion. The constructs exhibit the notion of social, the activity can comprise of number of roles or people (subject), the different types of tasks they carry out and bring together to move the activity forward (division of labour), the number of stakeholders involved and their perceptions (community), and the social norms and culture (rules).

Activity Theory's tenet of history, affects and leads to the activities that occur. In order to understand what is currently happening and why, one has to understand the past events that led to the activity. In the case study, the BBC signed a 10 year contract with Siemens in a total domestic outsourcing deal. There were many events that led to that point, but the main triggers were previous research in to possibly outsourcing, however, the decision was made to keep IT in-house, with a small section of IT outsourced to a third party. The second event was to create BBC Technology as a separate company that was responsible for its own income. The culture and institutionalisation of BBC Technology changed. Both activities affected the IT function, and led to the Siemens outsourcing decision. The division was originally part of the BBC, and they did not have to worry about finances as they received their income through the licence fees. When it became a separate company, there was some pressure to produce income from outside the BBC through external contracts. The mind set of the senior IT management and BBC Technology had to change to view the world in a similar fashion to the private sector. Once BBC Technology was bought by Siemens, they were 100% private sector company, and therefore had to produce enough profits to keep the Siemens board satisfied.

Activity Theory's original constructs of subject and division of labour are separate, however with this particular research where the activity is at a higher level, it made sense to combine the two, as the title (subject) did not make sense without the actual performance (division of labour). The two constructs were united under the term role in the analysis chapter. The new term "role" in the activity system is the role enactment and performance. The role perception and social aspects of role continue to exist under the constructs of community and rules.

8.3 Roles within the IT Function

The IT function has moved on from servers, networks, PCs and software to including the Internet, new media, social networking and mobile technologies. The IT function not only consists of techies, but also creative types working in the newer technologies, such as designers. Many organisations have seen growth or change due to the Internet and the technologies rooted from it. The main influence was the Internet itself, and in addition the mobile technologies that have pervaded modern human lives, allowing people to be connected through technology 24 hours a day. The lines between work and social are becoming ever blurred. Over the past decade people have seen leaps that have led to the modern life.

Rockart et al (1996) and Feeny and Willcocks (1998) prescribed the roles that should be present in IT functions of organisations. The prescribed roles were cross referenced with the BBC case study to observe if they continue to be of value in today's organisations. The holistic view of the academics' roles persist in today's large organisations. The details may have changed slightly, but the general recommendations by the academics continue to be important.

The outsourcing altered the size of the BBC IT function in terms of the number of people. Majority of the IT staff were transferred to Siemens, decentralised IT staff were made redundant and a small percentage remained in the BBC to become part of the central IT hub. Those that stayed within the BBC, their roles changed from hands on technical to management roles. The IT function within the BBC became centralised, and decisions concerning IT were made by few at the top. Prior to the outsourcing, IT in the BBC was decentralised and sprawled across departments and divisions, with no central control. There were many systems with the same functions and huge amounts of money being thrown away due to duplication.

Senior Management (Rockart et al, 1996)/IT Leadership (Feeny & Willcocks, 1998) – Effective leaders should design organisational arrangements to address each challenge area, and to manage the interdependencies. The prescription is a general statement and continues to be true in organisations. In the case study the senior IT managers were attempting to carry this aspect of the role, however, due to the outsourcing contract in its infancy, the managers' roles were overlapped and each of them were trying carve their new roles. TD (Technology Direction, the central IT hub) in its umbrella role was designing new processes for all IT projects in BBC.

Senior management/IT leaders should build strong business-IT relationships at the board level. They should have knowledge of the board's strategic and tactical thinking. In order to do this, the CIO should be a board member and be involved in business strategy debates. The IT and business alignment should be a two-way process. The BBC were aligned with the advice given by the academics, however, its organisation structure was slightly odd compared to other organisations. The Director of Future Media and Technology sat on the board but his background was business rather than technology. The CTO was technology focused and did not sit on the board, but contributed to selected strategy committees. The Director and CTO role should be one role covering both business and technology aspects, and it would make sense under the CIO role. The recommendations put forward by Feeny, Willcocks and Rockart et al, over 10 years ago continue to be important in today's organisations.

Business Managers (Feeny & Willcocks, 1998) – Business system thinkers understand the connections and interdependencies of business activities. They communicate the holistic views of the organisation and activities as a base for envisioning potential new patterns. It is their responsibility to have a view of business development projects. These managers existed in the BBC, they were the budget holders and business sponsors of the IT projects. Their background was business, however they visioned changes (which should have aligned with the organisation strategies set by the board) in their areas that led to IT projects. There were some cases where IT implemented systems that led to changes in the business, e.g. the implementation of web applications in the BBC was first installed in IT areas, and then spread like wild fire throughout the organisation. However, most large IT investments occur due to business changes.

Project Managers (Rockart et al, 1996; Feeny & Willcocks, 1998) – Project managers should have both IT and business experience. They should focus on critical functionality. In an ideal world the project managers' can focus on critical applications, but in reality they are brought in to manage a project that has already been given the green light and budget, they do not hold that much authority. Not all projects are critical, however, it is not the project manager's role to concentrate on the project's importance but to implement it on time and budget. The high level managers should be the project leader, or known as project sponsor in industry. The project sponsors should ensure the business staff use the system and they take the full responsibility for the implementation of project. The project sponsors should have influence in the business, and the project should meet the users' requirements. The greater the fit between systems and requirements, the easier the adoption of the system. The users should be kept up to date on the progress of the system, the more they are involved, the closer they will feel to the system, and this also helps with the adoption of the system. The case highlighted that project managers require soft skills to manage staff. The project manager requires hard skills of understanding technology, but also softer people skills, such as motivating staff and communicating with stakeholders.

Developers (Feeny & Willcocks, 1998) – IT developers need to keep up to date with the rapidly changing technology industry, from new technologies to new processes. Organisations demand new skills and capabilities from their IT function. The prescriptions continue to be true in today's modern organisations, however, the developers may not be in-house. Developers may be employed through an outsourcing vendor (as with the BBC, development was outsourced to Siemens), third party organisations (e.g. digital agencies) or freelancers (employed for pieces of work). In some cases full development or customisation of off-the-shelf products may be required, and the organisation implements out of the box solutions. Regardless of where the developers are employed, the sentiment of keeping up to date with new technologies is critical.

Fixers (Feeny & Willcocks, 1998) – The maintenance and support staff that rapidly troubleshoot problems. They identify business needs that are not properly satisfied by standard technical approaches and either resolve them or know how to resolve them. They understand IT fundamentals and are the core IT capability. This group of staff continues to be important for organisations, although their status has changed from

being technical staff to call centre workers, in a sense their roles have become similar to Carr's (2003) definition of IT, it has been downgraded. The fixers can be in-house, but are commonly outsourced in large organisations.

Contractors (Rockart et al, 1996) - Many organisations enlist the help of outside resources. Some contractors are specialists in application development, and others tend to have expertise in packages. Rockart et al's description of contractors continues in today's world. Many organisations employ contractors for many reasons and in different parts of the organisational hierarchy. In the media industry, many digital agencies have sprung up, and they carry out all aspects of the projects for organisations, from designs to implementation. The digital agency can employ the full project team and manage the project on behalf of the client.

Outsourcing Team, if outsourcing occurs (Rockart et al, 1996; Feeny & Willcocks, 1998) – The team consists of various roles. Staff from IT, business, and the legal departments are required to handle the service level agreements (SLAs). The legal personnel carry out work on the contracts; IT personnel monitor the agreements; various IT and business managers build relationships. These roles can be seen in the case study. The legal team conducted work on the contracts and senior IT management were building relationships with Siemens but also other third parties. The team should consist of leaders, skilled negotiators, and informed buyers. They need to be able to recognise the vendor relationship, contractual or strategic. The BBC and Siemens management teams recognised that they wanted to have a strategic partnership, however they had not achieved it. The team strategise IT's role in business, they oversee the best practices in IT management, and develop and review the required scope. The CTO and TD were strategising and implementing new governance structures to get the most value out of IT and the outsourcing contract. When outsourcing, the original IT function becomes business centred, advisory, and managerial, as was the case with the technology department of the BBC (CTO, senior IT management and TD). The IT manager's role changes to ensure line managers understand IT's potential and how they can leverage it effectively, and provide advice and expertise to ensure effective implementation.

8.3.1 Account Managers

The Account Manager is responsible for the contract, maintaining the SLA levels and relationship building. The SLAs seemed to be adhered to in the case study. Numbers do not tell the whole story, they require some context. Users voiced that Siemens wanted to close the support tickets quickly, and this was due to SLA compliance, they cannot have issues unresolved for long periods of time. In order to have a trust partnership, vendors need to satisfy the SLAs, and keep IT costs down but move in to the successful projects arena, particularly where large publicity projects are concerned. Siemens had the Pacific Quays project under their belt, however they required more successful projects. The better they help BBC users through the helpdesk, and have BBC staff singing their praises, the quicker they can move towards their goal. Whilst the projects are underway, any improvements on efficiency, cost saving and processes they could bring, the faster they would move towards a trust partnership.

The Siemens Account Manager's role was to build a trust partnership with the BBC and to become Siemens champion for outsourcing in the media industry by winning more IT contracts in the industry. The media industry has not seen much traditional IT outsourcing in the way of large 10 year deals, and therefore this was the first of its kind in the UK. He was trying to conduct both roles in parallel, when in fact they should be more linear. Once the partnership was formed, the Account Manager would have gained knowledge of the industry that would strengthen the vendor's position in the market. The Siemens' Account Manager took on more responsibility early in the outsourcing contract as Siemens' media expert. His focus was on getting new contracts, rather than the BBC. Siemens aim was to be profitable, however the Account Manager should have continued to build the partnership with BBC rather than looking for new contracts. The relationship was in the early stages, it required strengthening, and the Account Manager should have focused on the relationship 100% before moving on to new clients. It would also have helped Siemens if any new media contracts were signed, as they could have used their experience with the BBC to strengthen the relationship sooner with the new client. However, from Siemens point of view they probably wanted to gain market position as soon as possible.

The BBC Account Manager should be building the relationship with Siemens. This was happening but not as well as it could have been. The manager had too many distractions to focus on the relationship. One of the main activities the BBC Account

Manager was steering, was strategy. There seemed to be many senior IT managers in the BBC that were strategising, but were they all in the same group or was there overlap between the activity? The CTO was also strategising. Or was this a different form of strategy for a different area? Again it seemed as though there was duplication and overlap of roles. Everyone working on strategy should have formed a group to communicate what was happening in the organisation, so not to create duplication or reinvent the wheel.

One of the issues hindering the partnership with Siemens was the role of the BBC Account Manager. He participated in many activities. He had responsibility from his old role (Internet distribution), working on strategy, managing his team, account managing and project managing. If he focused on the Account Manager role only, that would have assisted in speeding up the partnership. An Account Manager should only be working on strengthening the relationship between organisations. It is a full time job one should focus on. It was not widely known or publicised in the BBC that an Account Manager existed and who it was. Even his team knew little of his role. BBC staff were knowledgeable that a contract of this size required an Account Manager, but they did not know who it was. The staff redirected people to TD as the conduits between BBC and Siemens. The BBC Account Manager was not fulfilling the role due to his other work commitments. His role should have been high level relationship building between BBC and Siemens and not day to day activities of Internet distribution. The role needs to be 100% relationship building, and it is due to the role being carried out half hearted that led to a great deal of senior IT management activities overlapping.

The BBC and Siemens staff need to be co-located in order for real innovation to happen. The Siemens Account Manager mentioned he set up a team to help the BBC innovate. Would this activity work? Innovation tends not to appear from “innovation teams” but from people working in the environment. If Siemens sat next to the BBC and understood the business and how people work, then they may come up with better ideas and processes to help the BBC work more efficiently. As the number of projects between the organisations increase, so too will the ideas. The significant change innovative ideas tend to come after partnerships have formed. Siemens had to provide some innovation to the BBC swiftly. BBC were happy with the bread and butter service, but the projects and new innovation was required to move the relationship to

the next level. BBC Account Manager should make sure the SLAs are adhered to by Siemens, but he also needed Siemens to stick to the contract of delivering projects on time and providing innovation. In order for Siemens to do this, the BBC needed to assist them, and the BBC Account Manager should have been helping Siemens achieve this, e.g. by co-locating staff and making sure the BBC staff were pulling their weight too.

The executive management meetings between BBC and Siemens happened twice a year, that was the only occasions executive managers in both organisations had face to face meetings. If things were going well, then executives did not get involved, but if things were rocky then the number of meetings would increase. This tends to be the norm in most outsourcing deals, however it showed the lack of interest for both parties moving towards a partnership. If executives did not meet regularly, they could not become partners. Both organisation's executives had to be seen together in order to promote the relationship because this would have a cascading effect in both organisations. The Siemens Account Manager and his team were producing reports for the BBC executive management and Siemens, so that both organisations could view what was happening with the outsourcing deal – were Siemens delivering, and what projects were happening. Outsourcing needs publicity, BBC staff should be kept up to date on a regular basis.

The BBC executives created the same problem as the Siemens' Account Manager, once the contract was signed they took a step back. The Director General should have held regular meetings and focused on the relationship. The CTO and BBC Account Manager did not focus enough on the relationship building. The BBC Account Manager's role should have been 100% on the Siemens contract. If both Account Managers' worked with each other 100%, the relationship could have moved to the partnership level much earlier. At a lower hierarchy level in the BBC organisation structure, it seemed as though many managers were working with Siemens and trying to strengthen the relationship. Although this was a good idea, it seemed that too many managers were working on this, and they were not talking to each other. There should be one route that managers should be taking and it required to be headed by one person, namely the Account Manager.

8.3.2 Senior IT Managers

Outsourcing deals can be disappointing when senior management take a step away from the outsourcing activity, and from managing it. Outsourcing is about managing IT, but in a different way. Management needs to use different skill sets, if the organisation wants to retain control of its own destiny. Client organisations and their CEOs expect a great deal from vendors, and not enough from themselves. This could be seen in the case study, BBC did not have good project management skills and had to train managers. As well as individuals in specific roles, a high performance IT function requires the members to work as a team. The team should consist of a high calibre, a centre of excellence, leadership, and retainment of the correct roles. The roles and responsibilities need to be formally defined. The people in the roles need depth of commercial and technological experience.

The senior IT management in the BBC seemed rather fragmented. There were many senior IT managers working with Siemens to build a partnership and on the outsourcing contract. The interviewees came across as if they were all doing very similar roles, was there too much of an overlap in the roles of these managers? Did they all know what they were doing? It came across in the interviews that the senior managers were not talking to each other. Handy (1985) stated, the higher one is in the organisation, the less their role is defined. This is true of the role ambiguity within the senior IT managers' group.

CEOs need to get involved in outsourcing deals, particularly because in outsourcing, strategic risk mitigation is vital. Opting for an operational, cost reducing outsourcing approach can reduce costs but often at expense of other benefits. The result can be strategic and operational inflexibilities. Outsourcing should not be viewed as a goal in itself but as a management technique to achieve a wide range of business goals.

Whether outsourcing is achieving these goals needs to be constantly monitored. The BBC Director General must be involved in creating strategy for influencing and creating incentives for the supplier to go that "extra mile". In the case study the Siemens Account Manager wanted the contract to be a success, and in order to make it successful he built a team to align with the BBC, started to build an innovations team, and wanted every project to be successful. The outsourcing contract allowed Siemens to enter a new market, and the opportunity for knowledge transfer of broadcasting systems was there to be taken.

The Director General should have been involved in selecting and managing the supplier. Whilst some organisations view outsourcing as an opportunity to pass on the risk, in practice such risk placement is largely illusory. An organisation can be exposed if it chooses the wrong supplier. The CEO is responsible for superior supplier performance (Willcocks et al, 2007). At the BBC, the Director General was involved in the early stages, however once the supplier was in place the responsibility was passed to the senior IT management team (BBC Account Manager and TD). Externally the Director General was responsible for the overall affect of the outsourcing, but internally he had a hands off role. He was not participating enough as Willcocks et al (2007) have suggested is required for the relationship to mature and move towards the partnership phase. The supplier's willingness to deliver the capabilities is also dependent on their perception of the desirability of the customer. Clients assume, and falsely that all suppliers are fighting for their business. The supplier's willingness to go that "extra mile" depends on:

- Prestige of the customer.
- The degree to which the client CEO is personally involved.
- The size of the contract.
- Potential of additional revenue and profit margins.
- Opportunity to enter new markets.
- Opportunity for knowledge transfer to supplier.
- Perceived risks.
- Supplier sales targets or other financial considerations (Willcocks et al, 2007).

The BBC CTO's role was the most senior technical role in the organisation reporting to the Director of Future Media and Technology. The CTO was involved in the outsourcing selection decision making. It was a good idea to have the CTO as part of the outsourcing selection team, he understood technology and would have helped create the contract and SLAs. The difficulty with understanding the CTO role was how it worked with the Director's role, usually the CTO would be directly connected to the board, however this was not the case with the BBC. Also the CTO was building the IT strategy for the BBC, therefore what did the Director do? The CTO also had many sub roles, such as sitting on the Director General's finance committee, was it required? It made sense if the committee had strong IT aspects to decision making, but if it did not, then the CTO could be spending his time on something more meaningful. The CTO

like the Director General had taken a hands off approach once the Siemens contract was in place. This is not considered as a good idea, even though the BBC Account Manager and other senior IT managers were involved. The CTO could have strengthened the relationship between the two organisations at a much earlier stage. The CTO role within 3 years in to the outsourcing relationship was changed from CTO to CIO. This made sense as technology had been outsourced to Siemens. A technology focus was not required as much as a business IT role. This led to traditional technologists moving to managerial roles. The activities pre and post outsourcing for the CTO changed. After outsourcing, an understanding of technology was required, however a managerial aspect was also required, the role became business focused.

TD were setting up many new processes to help the projects and outsourcing transformation to work smoother. Any substantial sized projects set up within the BBC had to follow TD's project processes. The processes included someone from TD giving advice to steer the project in order to have a good start. If the project sets off on a good footing, then the need for the TD staff throughout the project disappears and allows the BBC staff to feel in control of their own project. As well as assisting internally, the policy helped strengthen the ties between Siemens and BBC. The project initiator had to seek help from Siemens first, if they could not help, then a third party could be contacted. The processes/policies tried to restrict the backhands that occurred in the BBC. The BBC Siemens deal is huge, and if old practices continued within the BBC, the deal would not be value for money, and nor would the relationship move towards a partnership. Most BBC staff interviewed were happy to get TD involved in their projects and had great respect for the group.

In the senior IT manager level there were many activities taking place. The main one that repeated was setting up a governance structure, and this was used as an umbrella term for the processes and policies. The largest activity seemed to be training managers in project management skills. Many senior IT managers were going through this training, however traditionally project managers are middle managers, and therefore once someone has reached senior IT management level, they would have been trained and had experience of project management. It seemed that the BBC senior IT managers lagged in project manager skills and project experience. Project management is most valuable after having several years experience, all projects are different and need

different skills in order for the project to be successful. It is not something one can be good at simply by attending a training course.

The main issue seemed to be the role rules – what was everyone's role/job? Many senior managers were talking to Siemens over a number of things, and it seemed as though on some occasions the roles overlapped – the rule on who needed to talk to Siemens about what, required clarification. Also the BBC senior managers should have been talking regularly to each other to learn from mistakes and issues.

Scott Morton (1991) stated managers should evaluate the emerging role and implications of IT for strategic management, and this continues to ring true for most organisations at present day. The CTO was envisioning IT and trying to build the organisation strategy. He was using people throughout the organisation to vision the future, create strategy from the workshops and present the strategy to the board. The CTO should have participated in the business strategy meetings with the board, as identified by Rockart et al, 1996. IT in the BBC is extremely important and will continue to be so in the near future, the new media department had grown and this was due to the Internet and mobile technology. Carr (2003) stated IT was losing its value in a strategic sense does not strictly ring true today. IT has changed and has become complex and large, its definition constantly changing. For example, desktop support is typical bread and butter for most organisations, however IT still features heavy in strategy. In the BBC, the Internet, mobile technology and broadcasting technology are dynamic, all are part of business strategy.

Scott Morton's (1991) role for IT in organisations, technology push and competitive pull was seen in the case study. The cost performance trends led to the BBC outsourcing their technology division to Siemens, and to build innovative IT, such as the iPlayer, was a competitive pull. A modification on Scott Morton's rule was the BBC also hoped Siemens would help with the competitive pull technology to merge in to the IT strategy. Five years ago the BBC would have looked at the competitive pull internally, but now they are happy to discuss with external organisations and merge with competitors on IT applications, such as the recently shelved TV broadcasting project Kangaroo (player used by ITV, BBC, and Channel Four among others). It is better to be with your competitors, than not to be there at all.

Willcocks and Cullen (2007) created a contract scorecard to evaluate outsourcing success in service quality, finance, relationship and strategy. This scorecard with the BBC's value:

Dimension	Description	BBC's and Siemens' outsourcing evaluation
Service quality	Measures of all aspects of service delivery.	The standard SLAs were met. However, if any tasks outside the standard were requested then BBC were not overly happy with Siemens' response.
Financial	Monetary measures to compare costs at different fiscal points.	Initial saving was met when Siemens bought BBC Technology, however the yearly savings were not reaching the expected targets.
Relationship	Measures of how the parties see and behave towards each other.	At the time of the study the relationship was more contract management rather than partnership. Both organisations were working towards partnership.
Strategy	Higher level issues that go beyond the letter of agreement, e.g. innovation.	There was no innovation. Siemens did well in particular projects, but overall they needed to be more innovative and creative.

Table 8.1 – BBC's Willcocks' and Cullen's scorecard (Willcocks & Cullen, 2007).

Malone's and Zuboff's (1988, cited in Scott Morton 1991) views on IT coordinating and informing overall are still true in the case study. BBC utilised IT to coordinate work between teams, such as the ORM (Occupational Risk Management department) systems, the Health and Safety Advisors could upload their health assessments and share them with others in the department. The e systems provided information to the staff, such as HR systems allowed BBC staff to view their records and update some fields. Malone's and Zuboff's statements were general sweeping statements, however could be considered true today.

8.3.3 Middle IT Managers

The main role for the BBC middle IT managers was to project manage and deliver projects. They were building relationships with Siemens at a lower level in the hierarchy, as the TD processes stated that Siemens should be the preferred supplier. The senior IT management laid out the processes for the middle IT managers to follow.

The middle managers would be closely involved with TD at the beginning of the project, as well as with Siemens and other technical roles. Middle IT managers were positive with TD's processes. They liked the idea of having TD involved in their projects and have the offer of advice/support. Many middle IT managers were happy the processes were streamlined, and a centralised approach implemented. They wanted structure. It seemed the middle IT management layer downwards was aligned and moving towards centralisation, where as the senior IT management level seemed to be in a state of flux and not aligned with each other.

The managers had undergone project management training and many of them had a delivery focus prior to the outsourcing deal, therefore it would not have been a difficult transition for them. They moved to staff management, and needed to bring out the best/motivate their staff (whether internal or external) to deliver projects. Many middle IT managers' roles were undefined. Majority of them did a variety of work, they were project managers, coaches, and some continued to participate in technical work. The middle management layer was going through a transition, hence the roles were not completely defined. They all seemed to be moving away from their old roles, and towards project management. Many middle IT managers previously managed technical teams, and were technical themselves, however the outsourcing meant they moved away from technical hands on role, to project management. The role enactment changed.

Project management included creating plans and writing reports but creating documentation does not make a good project manager. The role requires soft skills as well as the hard skills. Project manager needs to understand how to get the best out of their team, e.g. through artifacts such as having the progress chart displayed to motivate the team to do better, it could involve taking the team out for drinks or lunch when milestones are completed.

The outsourcing transition made financial sense, there was no point in having development teams in the BBC when they had Siemens as their technical knowledge, however this could hinder BBC's creativity. Creativity usually came from people working in the technical teams. They would come up with new ideas or improve existing systems. As part of the BBC culture, staff were allowed to research new technologies and play with them, which then would lead to the technology brought in to the organisation. This could not continue, Siemens worked in a different sector and

therefore the culture of creativity was not inherent within Siemens. Interviewees touched on the subject that BBC could lose its creativity due to the outsourcing. One middle and one senior IT manager saw themselves and their teams as creative types, not developers. There seemed to be a divide appearing in IT where staff in the Internet realm did not want to be considered as IT staff, but saw themselves as digital or media staff. The word “digital” is fashionable at the moment.

8.3.4 IT Teams

The roles within PKMT (ORM’s IT team) were well defined, although the team was going through a transition period. Each member had their own distinct area they worked in, and the members knew each other’s roles. PKMT members worked fairly independently of each other, therefore this resulted in the team members not knowing detailed tasks of each other. Was this a good working practice? It could be argued that a team should not work so independently of each other, however for PKMT it did not seem to have adverse affects. The ICT Manager had the overall picture of the whole team and knew what tasks they were carrying out. The team were transitioning in to other roles such as project managers, so that new self sufficient systems could be put in place before the team was made redundant. The users of the systems would have to become more self sufficient.

The team was co-located with their users. This was an advantage and disadvantage for the team. Being co-located helped with the development of systems, projects were delivered faster, and also the user requirements were fulfilled. The users were on hand if any questions needed answering, something that may take a few days over email was happening within 30 seconds. Much research in Agile methodology presents the notion of co-location, that it leads to the systems meeting the business requirements and that systems tend to be completed much quicker. The down side for the team meant they were carrying out jobs not in their remit, e.g. quality checking information to be put on the intranet, setting up projectors and being the first point of call for anything technical. The users felt that it was characteristic of PKMT to do all technical jobs, it was obligatory. However, the users’ perception was not rejected because PKMT behaved in certain ways and carried out the activities asked of them even though it was not their role. PKMT reinforced the users’ behaviour. PKMT were made redundant, but before they left they had to put self sufficient systems in place for the users. The users also had to stop relying on the team as their helpdesk. PKMT was due to disappear soon after

the interviews. The users would have to quality check their work before they could place it on to the intranet, and they would also need to understand how to set up the projectors. PKMT had become a crutch for many users, and they would need to let it go.

Pettigrew in the 1960s wrote the IT department should be kept separate from the organisation because “they were too different”. This has changed in many organisations where departments have their own IT teams, and the team is co-located with its users. When centralisation occurs, the IT team will become a central team (division level rather than department level) away from the users, which may lead to a difficult adjustment period for the users. The central IT team will be new faces the users have not encountered, therefore the relationships will be built from scratch.

Things have changed in the techie world too, a slight change from Pettigrew’s idea of IT staff separation, the new divide within technology teams is digital vs. technology. Those working in digital see themselves as creative, hip types as opposed to the old sandal wearing boring techies. Digital staff are seen as geek chic. Digital staff see themselves different from IT staff. In the BBC the new media staff sat in a different area to the technology staff. In the 1980s-1990s there was a divide between technical staff and the rest of the organisation, the technical staff were kept separate from everyone else. The divide now is between the technical staff themselves. The digital staff do not like to be clumped as technology. They want to work with new leading technology constantly and work in creative projects. The digital concept has become norm within the media industry, roles are advertised as “digital” and “digital experience required”.

8.3.5 Users

The role of the IT function in organisations differs depending on whom you ask. In the BBC, IT at the executive level was important, the BBC Internet attracted a huge audience. The level of IT importance was high in the programme making areas too; the new editing suites, radio technology, and their related Internet sites. In departments such as ORM it was not regarded as overly important, IT allowed ORM to conduct their work, they did not need to worry about its strategic importance. Users wanted easy to use and working IT. How and by whom it did not concern them, they wanted to get on

with their job and wanted systems to be simple and working when they needed them. This is true for most IT users.

Compared to other Occupational Risk staff outside of the BBC, the ORM department was large and had greater support (e.g. a dedicated IT team). Due to this they were more IT savvy than most of their counterparts. Users in general were more IT savvy than 15 years ago, however, anything that required them to carry out detailed IT work they did not participate in. They wanted the IT teams to do the IT research work for them. This could be seen through the lack of knowledge of the PKMT team that sat with them. The users did not know the individual team members' title, they had a vague idea, but their title meant nothing to the user. The users had to become more IT knowledgeable with the PKMT team disappearing. Siemens may only do some of the work for them when projects are initiated, the users may have to conduct majority of the ground work themselves, if they do not and Siemens does the research, than they will be expected to be paid handsomely for it. This will be difficult for some users to get used to, however they will probably learn more from trying to solve their own problems before contacting Siemens.

The users used IT to help them carry out their role. The occupational risk advice they gave was put on the intranet, they used word processor software to create documentation, and they used email as a way of conversing, all their work was mediated through some form of IT. This is nothing new as majority of white collar work is conducted through the use of IT. Butler and Gray (2006) stated organisations have become dependent on IT to provide services and capabilities. Interviews with the ORM users has shown how IT dependent they are. Almost 80% of their job is reliant on IT. The Compliance Executive said he was dependent on IT, and his tone suggested that it was not a good thing.

The self sufficient systems had become the norm in the BBC, as an organisation strategy, all systems were moving towards intranet/Internet systems. These systems were easier to maintain and flexible to change, it also allowed the users to have control over their own data. It allowed the data to be available effortlessly and seamlessly. These points followed Rockart et al's (1996) all eight imperatives for the IT organisation.

Users do not think about IT unless it stops them from working or if it changes their routine. IT is not thought about, it is part of the users' daily life. Overall the users were happy with Siemens helpdesk service, and a couple thought it had not changed. It was when the users had an issue out of the norm that Siemens did not get a good review. For example, Siemens could not help with XDAs, or with advising on a solution. The users did not want to become IT experts, they expected Siemens to do all the IT thinking for them.

Due to the outsourcing, the IT teams within departments were made redundant because the work was to be carried out by Siemens. This made logical and financial sense, however in ORM's case they were getting rid of the whole IT team. ORM required someone with IT and business skill to help them move forward with their IT systems. ORM needed to compete with other departments for the IT division team, and they were disadvantaged immediately because they were a small department compared to others in the division, but also they did not have any IT knowledge. The power was with ORM, however the changes that were taking place could potentially mean that ORM would not have as much power as they did.

8.4 Outsourcing

The BBC decided to outsource to provide the licence fee payer value for money. The value for money initiative was a programme instigated by the fact that the BBC was not going to get as much funding from the government as they had hoped. Was the IT outsourcing contract value for money? Was it a success? These questions cannot be answered until the full contract term has passed, 2015, and whether Siemens continue to be BBC's IT partner. In the mean time, BBC received £150m at the beginning when BBC Technology was sold to Siemens. Year 1 savings were of £22m, 38% less than expected. The BBC finance team also estimated that the savings would be anywhere between £21.8m to £40m per annum. Thus, so far, in financial terms the contract has not been as successful as the BBC forecasted. The staff involved at the executive level have continued with their roles, although the contract has not been financially successful as forecasts predicted, heads have not rolled. All the executives involved have kept their jobs to date.

Hirschheim et al (2003) wrote the main problem with the role of IT has been management's lack of IT understanding. In the case of the BBC, the researcher

believed the executives did understand the power of IT and what it could harness, but they did not know how IT happens, they left this to the IT staff. In the outsourcing period the Director General took a step back and allowed the IT staff deal with the relationship. This was probably due to not understanding IT fully, but also IT continues to be on the periphery of non IT executives and not their focus.

Using Willcocks' and Craig's (2007) IT function tasks, the BBC have commenced in carrying out the tasks in some capacity, however the activities were occurring at different levels of IT function:

- Governance – The senior IT managers in TD, in particular the Controller of IT and Business Systems, CTO and BBC Account Manager were the drivers to set strategy and direction for IT. Controller's role included setting up governance structures and policies. TD's processes and policies once set needed to be followed by the whole organisation undertaking IT projects. Some processes were in place, however they were not mandatory at the time, but many departments followed them as good practice. There were some divisions that believed they had huge budgets and therefore could go around the policies and processes, however they were to find out that they would have to follow the same rules as everyone else. TD were held in high esteem and were respected throughout the organisation.
- Business and function vision – The organisation understood that business and IT should be aligned, and there were many examples of this. One such example was PKMT within the ORM department, they built business systems for ORM, and in addition they also understood the business. The BBC was undergoing a restructure, the premise of business/alignment was to be retained, however the IT teams were going to sit at a divisional level rather than departmental. In a bid to cut costs, the restructure may not work well, as the IT team would have to understand the whole division's remit, therefore initially there would be a knowledge lag, but also small departments such as ORM would not be able to shout as loud as the HR department, and may struggle to get IT systems. They may not be able to get the IT systems to align to their business needs as there was no IT person that fully understood their business.
- Architecture planning and design – The CTO focused on the architecture in view of a long term strategy. He focused on the organisation's key task; how best to produce TV programmes. He was researching modern broadcasting systems,

e.g. desktop editing, and whether it could be sourced through Siemens or another partner. It was the CTO's role to look to the future, 10 years ahead, to vision where the BBC and technology would be.

- Delivery of service – The sourcing strategy was set, Siemens were preferred suppliers, but BBC could select another organisation to supply if they were cheaper or more experienced. Many senior and middle IT managers were managing external suppliers, however as the Controller stated there were new processes to be followed to stop backhands and personal agendas.

One problem of the outsourcing was that people retained in the BBC IT function seemed to be covering many roles. For example, the BBC Account Manager's role was to strengthen the relationship between BBC and Siemens, deliver large key projects, strategise, and manage the Internet distribution contract (part of his old role). Another example was the Controller, his role was to look after the IT (networks and desktops), set strategies, build relationships with suppliers, set information security, software compliance, and look after the Professional Services division. Studies in outsourcing have shown that organisations need to appoint leaders to contract facilitate, contract monitor and build relationships, and that should be 100% of their role (Willcocks & Craig, 2007).

As discussed by Lash and Sein (1995) when outsourcing occurs the organisation should retain technical expertise in-house, and the internal and external roles should be separated. In BBC's case, they kept TD as the in-house experts, however the main problem was staff retention when the outsourcing occurred. BBC experts were leaving in droves. The TD staff roles changed from being hands on experts to management. This has been written about in much outsourcing literature (Lacity et al, 1996), however becoming hands off can lead to limited knowledge of what is happening in industry, therefore TD requires to keep up to date with new technology and understand how the BBC could harness it.

Many businesses have moved away from hierarchical function based organisations towards project based models of working. In order for this to happen successfully, project management skills need to be spread throughout the organisation. Project management should be viewed as an organisational core capability. Within the BBC there was a major shift towards project management training due to the outsourcing and

restructure. Senior and middle IT managers attended project management training sessions, as their roles changed from technical specialists with hands on roles, to managing projects and suppliers. The BBC's capabilities using Willcocks and Craig (2007) are shown below:

Capability	Primary agenda	Was the BBC doing this?
IT leadership	Integrate the IT effort with business purpose and activity.	✓ Governance, processes and restructure of organisation were put in place.
Business systems thinking	Ensure that IT capabilities are envisioned in every business process.	✓ The Professional Services team and TD were business problem solving, applying strategic development and delivering e business.
Relationship building	Get the business constructively engaged in operational IT issues and the potential that IT offers.	✓ Many senior and middle IT managers were developing relationships with suppliers, but also internally within the BBC. The only area where they had good relationship builders within the business was PKMT in ORM which was being made redundant. The relationship building with IT had to start from scratch between ORM and Professional Services IT team.
Architecture planning and design	Create the coherent blueprint for a technical platform that responds to present and future business needs.	✓ The CTO along with his team were anticipating technology trends for the BBC. The CTO wanted Siemens to deliver the long term strategy. Siemens also set up an innovation team to help deliver innovation to the BBC.
Making technology and process work	Rapidly troubleshoot problems being disowned by others across the technical supply chain.	X ORM users did not feel that Siemens helpdesk helped/advised them on business solutions. The users did not want to become IT experts, they wanted Siemens to provide the IT knowledge. Siemens needed to get their helpdesk to understand the BBC's business.

Informed buying	Manage the IT sourcing strategy to meet the interests of the business.	X TD, senior and middle IT managers had relationships with suppliers, however they did not have intimate knowledge of their suppliers. They seemed to be addressing this issue, for example each member of the Professional Services IT team had to maintain relationships with various suppliers.
Contract facilitation	Ensure the success of existing contracts for external IT services.	✓ TD started to address contract facilitation by recruiting Head of Services Assurance. It was a new role and it was likely to take some time before it was perfected.
Contract monitoring	Protect the business' current and future contractual position.	✓ The overall SLA with Siemens was managed by the BBC Account Manager and senior IT managers, but it seemed as though there was an overlap in roles and did not come across as well thought out.
Vendor development	Identify the potential added value from IT service suppliers.	✓ The Head of Services Assurance, BBC Account Manager and other senior IT managers wanted the relationship with Siemens to be a win-win situation and a partnership, but there was still some way to go before this could happen.

Table 8.2 - BBC's capabilities (cited in Willcocks & Craig 2007).

In terms of the actual Siemens' service, the feeling within the BBC was fairly positive. Most users were happy with the helpdesk. They liked the fact they were kept up to date with their ticket. However, the service was not so good when Siemens dealt with something outside of the norm. Siemens needed to impress the BBC in these areas in order to make money, but also to move towards gaining a foothold in the broadcasting arena and becoming BBC's IT partner.

Costa (2001) stated the reasons to outsource were; vendor supply expertise, provide leading edge technology, and eradicate problems associated with technology obsolescence. Whilst these are true, things have taken a slight twist. Siemens should provide the above to the BBC, but there was something they wanted for contracting with BBC. Siemens wanted to enter the broadcasting industry and wanted to provide innovation to its clients too (gain income above the contract sum). Outsourcing is a two way deal, not just in terms of finances, but also what parties want from each other.

The Siemens BBC relationship was moving from contract management to supplier management phase. At the user level, the view was contract management, they only focused on the helpdesk, as this was the main situation where they were involved with Siemens. At the middle and senior level, the relationship was supplier management. Siemens were involved in large projects such as Pacific Quays, and seemed to be delivering. Senior management wanted the relationship to move in to the collaborative innovation phase. In order to move in to collaboration innovation, BBC and Siemens had to work towards a common goal. This phase can happen when close partnering behaviour has developed over the long term. There needs to be high trust, flexibility, risk sharing, and investment of resources (Willcocks & Craig, 2009). Siemens have to be perceived as proactive for BBC to take note and move the relationship in to the next phase. BBC needs to trust Siemens, and this is the key to building a partnership. One reason for having an IT outsourcing partner was to bring IT innovation in to the BBC. The BBC had not seen any innovation from Siemens. The reason for this was the relationship was in its infancy, however Siemens had to prove they could be creative. Siemens set up an innovation team, but whether it was the solution remains to be seen. A start could be to make processes and business efficient for the BBC, and then they could get an understanding of BBC's business and add creative/innovative systems, and move towards collaboration.

Much outsourcing literature (Elitzur and Wensley, 1997; Fowler and Jeffs, 1998) suggests the contract should have negotiation periods within the term. Much has been written about organisations becoming locked in and dependent on the vendor, and negotiations prevent this from happening. However, in BBC's case there are no negotiation periods within the contract. The BBC have left themselves in a weak position, their saving grace seemed to be their non-trusting nature and they could seek external partners if required, therefore still keeping Siemens on their toes.

The BBC got on the outsourcing bandwagon in the early 2000s and started outsourcing many functions simultaneously. They were in the early stages of having BBC Broadcast outsourced to Red Bee, and within 2-3 years of that contract they decided to outsource their IT and HR functions. They had very little experience of outsourcing and were moving huge functions to third parties. IT and HR are both large functions, and for executive management to cover both contracts would have been difficult. Organisations should gather insight, test expectations and collect market intelligence before outsourcing (Cullen, 2007). The BBC's IT outsourcing decision was unique in the UK media industry, however they should have gathered insight from government departments and agencies, and researched general outsourcing lessons learned. Cullen et al (cited in Lacity & Willcocks 2006) has suggested that it takes an organisation and its staff to go through a number of outsourcing contracts before the process becomes smoother. They suggested the organisation and staff should become second or third generation outsourcing contracts before they are knowledgeable in outsourcing. There are outsourcing consultancies that can assist organisations in the outsourcing process. No contract is the same but experience assists in the complex outsourcing processes and to create a successful relationship between the parties (Lacity & Willcocks, 2006).

Outsourcing can help control the problems of end user computing as suggested by Angell and Smithson (1991). The reinventing of the wheel and backhands could be controlled by the outsourcing processes set up in the BBC. The Controller believed the processes set up by TD could reduce the backhands. Small IT teams dispersed throughout the organisation had gone and centralised IT teams in divisions were created. TD was the main central IT hub, and they tried to control the number of systems being built and shared throughout the BBC.

Lacity and Hirschheim (1993) wrote that outsourcing can save huge amounts of money tends to be a myth. This seems true of the BBC Siemens deal so far. BBC made huge amounts of money when initially selling BBC Technology to Siemens (£150m), but the year on year savings have not matched up to the forecast. The forecast was not realistic and was far too optimistic. Organisations need to forecast savings in order to outsource, however many organisations do not forecast accurately. They tend to be over optimistic if the organisation is pro-outsourcing. The forecasts should not be carried out by a general staff in the finance department, it should be conducted by someone who is a

financial outsource specialist in conjunction with a full cost benefit analysis. This is a generic problem with outsourcing in all industries as many academics, such as Lash and Sein (1995) have shown. The organisations do not predict accurately and are disappointed when they are in the contract.

Cullen (2006) wrote a paper on Auditing Outsourcing Deals and it contained a checklist on auditing both parties in the outsourcing contract. Cullen (2006) stated that organisations should carry out a profile of the work to be outsourced. The profiling reduces risks and cost. In the case study, BBC wanted Siemens to carry out projects and bring creativity in to the organisation, but this was never detailed. What did the BBC mean by creativity? This should have been defined. Profiling helps both parties understand what is required, it is a solid basis for future discussions and strategies, and provides baselines.

The world of outsourcing has changed in recent years. Over 5 years ago the vendor's aim was to keep the client happy, and the vendor tried to oblige to every whim of the client. In other words the client was seen to have the upper hand, but today the relationship is seen as a two way deal, the vendor also wants something out of the contract. It's not so much that the vendor was not getting anything before, but it was hidden, today the vendors want a two way deal and are open about it, and it is not viewed in a bad light. Currently, outsourcing should be seen as a partnership, and before it was viewed as a supplier relationship.

In addition to the concept of a partnership the vendor and clients should be co-located. There can only be true partnership if the two parties are working together and barriers are brought down. The view should not be "them and us." If the two parties sit together the barriers will eventually come down, the two parties will mix, and this will also help with innovation. Agile methodology has shown the co-location helps the systems to be developed faster but also to requirements, and it has also led to innovation.

The structure of IT has changed dramatically since Clark et al (1997) wrote their paper. They were correct that organisations do not follow one model but tend to be hybrids, however the hybrid has become more complex. In the BBC there was a move towards centralisation of IT through TD, they provided governance for the distributed IT teams.

The IT teams managed IT but it was developed through Siemens or some external organisation. There were innovative teams scattered throughout the BBC at various hierarchy levels and also within Siemens dedicated to explore innovation for the BBC. The structure was more web like rather than flows or linear structures. The BBC continued to change its organisation designs as prescribed by Agarwal and Sambamurthy (2002). The BBC changed its IT organisation in to new media, technology (outsourced to Siemens but managed by BBC) and broadcasting, the reason behind this was to focus on the core activities of the organisation and the ability to innovate with them. This could work if the management of it was good as Feeny and Willcocks (1998) suggested. The organisation was becoming more formal due to the outsourcing contract, but they did not put a strangle hold on the processes, and compared to many other organisations, the BBC worked in a fairly loose and informal manner. The staff were allowed to use their own initiative if it helped the organisation. The above academics are all correct in their writings suggesting that IT structures cannot fit in to a mould, and must be dynamic, the reason for this is that IT is changing. Today we have ensembles of IT; traditional desktop IT, huge servers, infrastructures, and Internet together with the digital world (players, social websites). An organisation such as the BBC utilises all the mentioned forms of IT, and therefore it would be extremely difficult to prescribe one way of organising IT, it would not be possible for one size to fit all.

8.5 Summary

The first section of the chapter focused on the concept of role and activity, and the relationship between them. It went on to details aspect of roles within the IT function. In the literature review Feeny and Willcocks (1998) and Rockart et al (1996) prescribed generic roles that should be present in the IT function. The role definitions were detailed and cross referenced with the roles in the case study. It was concluded that Rockart et al's (1996) and Feeny and Willcocks' (1998) holistic terms and definitions are as important today as they were in the 1990s. The finer details have changed, however the essence of their work is just as relevant today as it was then. The section moved on to the organisational hierarchy IT function role labels used in the study, e.g. Account Managers, Senior IT Managers, and Middle IT Managers. The discussion explored these labels in detail and offered detailed prescriptions of the roles. The prescriptions were cross referenced with the academics from the literature review and also new particulars were presented.

The next section focused upon the total domestic outsourcing topic. General information from the case study was presented, and the study results were scrutinised against the literature review. The section presented what continues to be true, what is not relevant anymore and why. The chapter gave academia and practitioners advice and guidance on the domestic outsourcing process, the relevant people that need to be in place and general pitfalls that can be avoided.

The final chapter concludes and summarises the study. An overview of the whole study will be presented through the various chapters and their outcomes. It will move on to the contributions of the research. Finally, the limitations of the thesis and ideas for further research required will be given.

9. Conclusion

“Now this is not the end. It is not even the beginning of the end...” Sir Winston Churchill

This chapter summarises and concludes the thesis. The challenge was to investigate what happened to the IT function, how outsourcing influenced it, and where has the story meandered? Early literature focused on end user computing, centralisation vs. decentralisation and outsourcing aspects of the traditional IT departments, however there was very little written on modern IT functions. The dissertation is the product of an extensive and in-depth investigation of a contemporary IT function through its activities. From the outset, the aim was to explore and uncover the complexities of this real life phenomenon from an academic point of view. The motive throughout the research was to delve in to this phenomenon and delayer it through the human activities to bring to light the pertinent points related to the activities and its impact on the IT function.

Firstly, a brief synopsis of the entire thesis and its key arguments are presented. Following this, the contributions made so far are outlined. In the next section the study limitations and suggestions for further research are discussed. The contributions, limitations and further research recommendations are stressed through categories of literature, theory, methodology and practice. Finally, a few concluding remarks are given.

9.1 Thesis Synopsis

Chapter one, the introductory chapter in which the structure of the thesis was outlined by addressing the fundamental research issues which confronted the study. The issues consisted of the past and contemporary precursors upon which the objectives for this research were derived, and the rationale for embarking on the study, as well as the inspiration for engaging in the research endeavour. A brief history on the role of the IT function over a forty year period was presented leading to the scope of the study and the main question of *how does total domestic outsourcing influence the role of the IT function in a user organisation*. The chapter entailed a brief introduction of the empirical case and outlined the research objectives.

In chapter two, a comprehensive review of the relevant literature of the vital areas was undertaken – definition of role, role of IT, the changing role of the IT function and IT structure – the foundations upon which an understanding of the problem could be derived. The chapter presented detailed commentary on role and role behaviour. The history and the current issues of the role of IT by various researchers was reviewed in order to build an overall picture of what IT had become. The IT structure and the old debates of centralisation vs. decentralisation were explored. This led on to the changing role of the IT function literature, again to gain insight to this key area, the history and current issues were detailed, along with the principal fields of outsourcing. The literature further highlighted the problem, what was happening in IT within organisations at the time was under researched. The real world required to be reviewed under current conditions.

In chapter three, the analytical lens applied to addressing the empirical and theoretical aspects of the study were reviewed. The perception of roles and the roles leading to IT function changes were viewed as human activities and therefore Activity Theory was adopted as an analytical lens to conduct the research. It highlighted the roles within IT functions. Later in the chapter Activity Theory was presented, and the current use of it within IS studies was detailed. Engeström's model of an activity system depicted constructs within an activity and its suitability as a theoretical framework for analysing the empirical and theoretical findings of this study. In the later section, the mapping between roles and activities were exhibited.

Chapter four was the methodology chapter in which was detailed how the empirical study was approached and operationalised. It justified the choice for following the interpretive philosophical strand of scientific inquiry. Following this, the research design structure for the study was explained. The design consisted of justifications for a case study approach, qualitative evidence and data collection techniques, such as interviews, observations and documents. Finally, a brief introduction to the host organisation was given.

In chapters five and six the findings of the empirical study were presented – outsourcing and organisation restructure through the IT roles and their activities. A detailed representation of the relevant data from the case study conducted within the BBC of IT professionals and their users was presented. The story told of the happenings within the

IT function of the organisation triggered by outsourcing, through the different hierarchy structures. The organisation was going through a period of dramatic change – outsourcing, redundancies and reorganisation. The changes in the organisation and roles led to activities that were not leading to successful outcomes. Following this, the key findings – IT centralisation and working with an outsourcing vendor – which largely contributed to a state of flux in the senior IT management structure was presented, and led to the analysis.

The analysis of the data is reflected in chapter seven. The analysis began with an overview of the findings within the Activity Theory principles. It then went on to dissect the data within the Activity Theory model for the activities at each level of the hierarchy in the organisation and make sense of it. The analysis presented the sense making in each hierarchy and demonstrated how they all constructed to present the organisational view.

Chapter eight was the discussion section. With respect to the findings and analysis chapters vis-à-vis the research question, it was imperative that the problems of the role activities be thoroughly teased out at an abstract and general level of discussions. *What is the role and what should be their activities* became the pervading problems underpinning the discussions. Due to the changes occurring in the organisation there was much confusion over senior IT managers and their roles that led to potential activity overlaps and gaps. In the discussion several arguments, submissions and propositions on roles and Activity Theory were presented to serve as the key contributions to advancement of Management of Information Systems.

9.2 Research Contributions

This section summarises the aspects of the research that are considered to be original and novel, they satisfy the criterion of original thought, and henceforth are subject to verification and inspection. Please note that “original” under no circumstances suggests non reliance upon the knowledge that other academics and researchers prior to this study have built. The term “original” in the context of this study denotes new knowledge contribution made, and has an implicit concept of furthering existing knowledge.

9.2.1 Theoretical Contributions

The amount of knowledge available on the thesis' key areas of total domestic outsourcing, organisation structure and management practices is abundant, however not much of it is recent. Outsourcing literature has moved forward from domestic outsourcing to offshoring, and not much has focused on what happened to domestic outsourcing, what changed, how it changed, and were the lessons learned applied.

The thesis highlights that the definition of IT is constantly changing. In the 1980s, Earl (1989) encapsulated automation technologies, computers and telecommunications to mean IT. In today's definition, IT has grown to include media and social networking technologies. IT is dynamic and therefore academics have moved away from universally defining it. It is easier to define what technology they will focus upon and its nature, rather than prescribing the definition of IT. The study reveals the definition of IT is also undefined in the real world, when users were asked what they meant by IT, the answers were all different, senior IT management also had differing views. In many cases users view anything technical as IT. Differing technologies has led to changes in the role of the IT function. Many organisations encapsulate new media and mobile technologies in their IT functions. The influence of the change has been the usage of the technologies, and over time they have integrated deeply in to people's lives.

The issues mentioned above have led to a change in the skill set of staff within the IT function. New skills to develop and design new media, Internet, mobile and social networking technologies have become part of many organisations. In some cases the new skill set sit in a different department to technology, usually termed as new media or digital, as can be seen from the case study. The technology division was named Future Media (referring to new media) & Technology (referring to traditional technology).

The concept of role was defined in the research, and was used with its rich meaning. The word "role" is used a great deal in IS literature, however it mainly was applied through its high level meaning of function and rarely defined. The researcher felt compelled to dig a little deeper in to the definition and uncovered its richness. The concepts of enactment, behaviour and perception fitted the study seamlessly and produced some depth to it. Role crossed over to the theoretical framework, Activity Theory, and was juxtaposed to the theory's constructs. The enactment, behaviour and

perception elements integrated in to the subject, division of labour, community and rules constructs of the activity system.

The research contributes that in huge outsourcing contracts, executive management of both organisations need to be involved, not only up to the point of signing contracts, but also the full contract term. The CEOs and the board need to have regular meetings with the vendor to understand and rectify any issues. If the executives are seen to be taking an interest in the contract, then staff will lead by example. If staff believe the executives are not participating fully, then they will also believe the same, and problems in the contract can stem from non-participation. As well as executive managers, both organisations require account managers to act as conduits between the two organisations. These leaders are required to facilitate, monitor and build the relationship between the two organisations, and as Willcocks and Craig (2007) stated it should be 100% of their roles. The study results concurs with Willcocks and Craig, in order to move in to a partnership and successful contract, both account managers are required to spend 100% of their time to work towards it and maintaining it.

Cullen et al (cited in Lacity & Willcocks 2006) declared that successful outsourcing contracts occur at the fourth or fifth generation outsourcing deals. The study aligns with Cullen et al's views. Organisations should not outsource huge functions simultaneously, as they would not be able to learn from mistakes. Outsourcing is a complex phenomenon, and in order for it to be successful requires outsourcing experience. Experienced staff learn from past mistakes and correct the processes.

Activity Theory is widely used in human computer interaction, and computer supported cooperative work studies, however not so much with IT management and organisation research. The thesis exhibits the theory's versatility. It fitted well in to the study's objective of understanding what was occurring in the IT function by the human activities performed within it. The study also drew upon the theory's concept of time and how one activity can lead to other activities. Overall the theory was a good fit, and the research presented a novel use of the theory and its use in the context of outsourcing and role of IT function. The researcher hopes it interested the reader.

The thesis demonstrated the rich definition of role working in unison with the activity system's constructs, and the theory was an informative lens for exploring the changing

role of the IT function within an organisation. Chapter three presented the benefits and flexibilities of Activity Theory, but the study highlights the ambiguity of the theory, that it was not easy to use Engestrom's activity system constructs. The researcher felt that the activity system model could be slightly altered to provide a closer fit to organisation studies. The constructs of subject and division of labour could be amalgamated in to one construct of role. The term role encapsulates the title (subject), performance (division of labour), enactment (division of labour) and behaviour.

The tenet of history can be seen working, how and why particular decisions were made. There are many activities that lead to a particular activity, and Activity Theory demonstrates the history of activities leading to other activities. Using the theory in the case study prompted the researcher to view the past, and it uncovered previous outsourcing decisions that directly related to the Siemens outsourcing contract in 2004.

Critique of Activity Theory

Overall it can be said that Activity Theory was a compatible lens to view the data. The constructs of the activity system model by Engestrom (1999) mapped on to the activities within the case study seamlessly. However, theories are a way of seeing and not seeing things. By using boundaries certain interesting aspects of the findings are missed or lost. This section allows those interesting lost points to be resurfaced, and highlights some of the pitfalls of Activity Theory.

Activity system model contained the norms and rules construct, and this allowed the concept of culture to be surfaced, however not in its entirety. Culture is significantly richer than rules and norms. In a sociological perspective, culture is defined as the ideas, customs, and social behaviour of a particular people or society and the attitudes and behaviour characteristic of a particular social group (Oxford Dictionary, 2011). With the case study based within an organisation such as the BBC, the rich culture of such an institution required more than a scratch on the surface, more than the rules and norms. The culture of the BBC exhibited notions of institutionalisation, creativity and nurturing of employees. To extract the richness of the culture it would have been sensible to utilise approaches from cultural studies, in order to seek understanding of the ways in which meaning is generated, disseminated and produced through various practices, beliefs, institutions or social structures within a particular culture.

The interviews displayed an array of moods and emotions, and Activity Theory did not take these into account, they cannot be focused upon or explained. The BBC was going through outsourcing, restructuring and redundancies, which led to new job roles, roles lost, employees' transfer of departments, and confusion. All these activities led to an atmosphere, and a number of moods and emotions within the organisation. For example, an interesting story was that many of the Policy Knowledge and Management Team (PKMT) were happy to go through redundancy and were looking forward to it, usually one would not expect this to be the case. There were a number of reasons for this: 1) in the public sector when more than 100 staff are made redundant there has to be a consultancy period, and this can take up to 3 months. By the time the employees had to leave, it was a period of 1 year. Therefore the staff had ample time to look for new jobs; 2) many employees in the BBC had been working for the organisation for a long period of time and the redundancy pay for majority of the employees was a healthy sum; and 3) the developers underwent project management training due to the outsourcing, therefore they wanted new roles that reflected their new skills. As McGrath (2006) and Ciborra (2001, 2006) pointed out that these moods and emotions can play a significant part in the story which are usually lost.

Activity Theory states that people's personal motives and agendas affect the activity, however it can be difficult for interviewees to reveal personal agendas and motives, and it can be complicated for the interviewer to extract these topics. Activity Theory discusses the theoretical aspects of such matters, however it does not state how these can be fully explored. The researcher had not seen any cases where these types of political topics can be extracted and investigated. In one of the interviews, a senior BBC IT manager came across a little bitter because he and his team were going through redundancy, and he felt his team had an important role in the organisation, but this could not be investigated in further detail. It would have been interesting to find an Activity Theory study where ideas of personal motives/agendas were further explored.

The theory pointed out that the history of activities can be viewed, the notion of one activity leading to another that activities do not emerge out of the blue. It touched on what has happened, but how can it help with future decisions/activities? How can it prescribe good decision making? Activity Theory seems to be a good tool for retrospective, but how can it assist in lessons learned and taking them in to future decision making? Further development of this aspect of Activity Theory would be

useful for practitioners. The theory is viewed as a practical theory and therefore assisting practitioners would be constructive. The topic requires further discussion among Activity Theory academics.

As discussed in the discussion chapter, the idea of role and the activity system model constructs of subject and division of labour made sense to combine the two constructs in to one, under the label “role” (figure 7.11). The “role” label defined the person carrying out the activity and the division of labour required. In the study the activities were viewed from an organisational perspective, and from a high level observation the two constructs separated did not work well, it was meaningless. Therefore, the researcher suggested when examining studies of this nature, it could be beneficial and meaningful to utilise the role construct.

9.2.2 Methodological Contributions

The case study was a little different from the standard case study definition. The researcher used the case study approach although she worked in the organisation during the time of her fieldwork phase. She stated the reasons why she did not adopt the action research approach. The study was not a commissioned piece of work by the organisation, her study did not focus entirely on her working area but other quarters of the organisation, and she was not a research consultant for the organisation. She felt more comfortable adopting the case study methodology, with semi action “researchness” through the data collation method of interviewing colleagues. Being within the organisation allowed the researcher to interview varied types of staff because she had access to different stakeholders through her networks, that an outsider does not always have, to be able contribute to a comprehensive study.

The researcher collated rich narratives, as seen in the findings chapters, through semi structured interviews, but also because she had some knowledge of the organisation, its history and the changes taking place to probe the interviewees. Allowing the interviewees to talk of their experiences and stories led to rich data. The notion of interviewing peers was highlighted and explored in the thesis. The interviews tried to draw out the strengths of interviewing peers, and to present it as an acceptable data collection method.

The thesis produced a contribution from the rich data that was formed from the in-depth case study in a distinctive organisation with an abundant history and culture. There are few institutions that have this British uniqueness, and to study them in such a manner does not occur often.

The aim of using the case study methodology was to provide some generalisable conclusions. Each case is interesting and has its own uniqueness, however, the conclusions should be generalisable, e.g. a practitioner can understand the situation of the case study, and take the lessons learned from it to apply to a similar situation in his or her own organisation. A researcher can take lessons learned from the author of the thesis and apply them to his or her own research.

The BBC was a unique organisation however the issues they faced due to the reduction in income that led to the outsourcing were general. The problems that occurred in the outsourcing contract and transition were fairly common and have been written about by many academics, such as Lacity and Willcocks. There have been many cases where organisations have not conducted a thorough analysis of their IT before outsourcing, or have not clearly thought through the contract terms. There have been many cases where the savings forecast have fallen short in reality. There have been cases where Account Managers have not focused 100% on the outsourcing contract and relationship.

The skill set of IT staff within the BBC had to change. TD had to shift from being hands on to managerial. The engineers' role titles changed to reflect their new management role. The staff in TD became strategists, facilitators, coordinators, managers and project managers. This type of a change is common when outsourcing occurs. There is no need for hands on technical people as the vendor takes on the IT "doing" role.

In terms of the users of IT, the case study focused on the ORM team. ORM was used because the researcher had good access to the department. The main reason behind collating data from them was because they used "typical" IT that most offices were presumed to utilise, and therefore, it was generalisable. They used standard desktops, with the usual Microsoft operating systems and general office software tools. The periphery departments in the BBC, such as ORM, HR and Finance used typical office systems that majority of the office workers utilised. It was deemed that this allowed the

conclusions to be generalisable. The BBC's main role was to broadcast, however to focus on broadcasting departments and their users would not have resulted in generalisable conclusions.

9.2.3 Practical Contributions

The contributions for practitioners are based on an empirical study of a real world organisation, and its roles and activities. They can serve as viable guidelines when considering outsourcing or organisation restructure, the thought and adoption required for the changes to their business and employees.

The research explained that the size of the IT function should reduce in outsourcing contracts. Large percentage of the IT staff are transferred to the vendor, and a small percentage remain in the organisation to manage the outsourcing relationship and strategise. If the IT function increases in the outsourcing organisation during the contract period, it should send alarm bells ringing to the executive management. The reason to outsource was to keep IT costs down, if the IT function increases in the outsourcing areas then the costs will increase.

The thesis reveals that sustained executive and senior management participation and commitment is important over a long term project. Executive management need to be seen heavily to participate in the outsourcing contract, not only in the early stages, but throughout the contract term. If they are not seen to be participating and promoting the contract, than those lower in the organisation structure will not participate either. The executive committee must lead from the front. The both organisations' executive committees must meet regularly together to iron out issues and understand what is happening, they must be on top of the contract and to push it towards a successful contract. In order to have a partnership and a successful contract takes constant time and effort to maintain it. Key IT policies and processes should be implemented by senior IT management, but pushed by executive management to ensure they are successful, e.g. the vendor should be first point for all IT matters, and if the vendor is not selected, the decision maker has a solid reason for opting to use a different third party.

The account managers role should be publicised in both organisations. The staff should know who the conduits are as a point of reference. The account managers role should

be 100% dedicated to the outsourcing contract, and improving relations between the two organisations. It is a full time job to understand, and rectify issues and problems, read and write reports, promote successful work, programme manage, fire fight, and implement strategies and governance structures.

Cullen et al's (cited in Lacity & Willcocks 2006) suggestion of gaining outsourcing experience in order to create successful outsourcing contracts is excellent advice to practitioners. Their research states that it is better to start with small contracts and then move on to larger contracts, rather than going from in-house directly to total outsourcing. This research presented parallels to Cullen et al's work. It is not a good idea to have three huge outsourcing deals with different vendors at the same time. The executive committee were spread thin over all the contracts, and also they could not use lessons learnt from previous experience.

The research acknowledges that if organisations are not experienced in total outsourcing, it could be beneficial for them to use outsourcing consultancies to assist them. The consultants from the consultancies are expensive, however the amount they could save organisations far outweighs the consultancy costs. The consultants have experience of outsourcing contracts and the best practices on how successful agreements can be attained.

The study recognises that a key problem with many outsourcing contracts is the outsourcing saving forecasts organisations produce. The actual figures rarely match the forecast figures, and organisations feel disillusioned by outsourcing. Organisation finance departments need to learn to create outsourcing forecasts accurately. When deciding to outsource, the organisation should hire finance analysts that have experience of creating realistic outsourcing forecasts. Alternatively, large organisations would find it beneficial to train their finance department in outsourcing forecasting.

Interesting Findings

The BBC are not considered IT outsourcing experts, in order to be outsourcing experts they would need to be fifth generation outsourcing (Cullen et al, cited in Lacity & Willcocks 2006), whereas the BBC were second generation. Three years in to the contract, the BBC were not organised, as can be seen with the senior IT management that were in a state of flux. One senior IT manager commented that no thought or

planning was involved in the outsourcing decision or contract. He stated that Siemens was in a permanent position compared to the permanent BBC staff, as the contract with Siemens was 10 years, and his notice period was only 3 months. The contract had no breaks, and the senior IT manager felt that it was not thoroughly scrutinised.

One reason cited that Siemens were selected as BBC's partner was because of a culture fit. The findings highlighted that the two organisations are not similar. The most obvious reason was because Siemens was in the private sector and the BBC was in the public sector, but the two industries (media and IT vendor) were disparate. The BBC wanted Siemens to help with the creativity in the organisation, and Siemens wanted to do this, but how they could assist was difficult, as the cultures of the organisations were not the same. Siemens had never participated in creative projects, whereas the BBC were experienced in them. One way that Siemens could become creative was by being co-located with the BBC. They needed to understand the business, and then would be able to participate more with the BBC, that could lead to creativity. The topic of creativity was an important topic with senior and middle IT managers, one senior IT manager felt that the outsourcing contract could constrict the creative work the BBC produces.

The outsourcing led to two differing views within the BBC. There were those that believed the outsourcing was necessary and overall a good strategy to save the BBC money, vs. those that did not like the outsourcing decision and would bypass the system and use various other third parties to work with. The BBC staff did not have a common approach to utilising Siemens resources.

Two to three years in to the outsourcing contract the BBC continued to have a CTO rather than a CIO. When the outsourcing contract has been signed the most important IT role in the organisation moves away from the hands on technology role, to more of a technology facilitating business role. In the case study the CTO was focused on the broadcast technologies rather than the desktops because he felt he has passed that baton on to Siemens. The BBC was slightly different that as well as a CTO, it had a Director of Future Media and Technology that the CTO reported to. This arrangement is out of the norm, usually the CTO would be the most important technology role in the organisation.

The Siemens Account Manager believed that the BBC had an “arrogant attitude”. He believed that the organisational structure of the BBC was huge and complex. The BBC

according to him was also a political conglomerate. He found communicating with the BBC difficult because the BBC did not like to be aligned and therefore he had to communicate via different channels. This was an interesting open view, and it demonstrates the recent literature of outsourcing. In the past 10 or 20 years, no vendor manager would have been so outspoken of their client. However, the current literature and outsourcing programmes are more open, both parties need to be happy with the contract and the outcomes. The partnership that both parties portray and need, cannot happen if both organisations are not happy during the contract period. Interestingly, one BBC senior IT manager also quoted that the BBC had an arrogant attitude, and it needed to change.

The findings showed that the BBC staff in the lower levels, middle IT management and department IT teams were generally more organised than the senior IT management level. The lower levels reorganised themselves, went through project management training, and were using Technology Direction's (TD) processes and getting on with the work. In contrast, the senior IT managers were trying to figure out their new roles and the roles overlapped when it came to creating and building relationships with Siemens. There was an official BBC Account Manager, however, his role continued to be his old role with limited time spent on the Siemens relationship, which should have been 100% of his role. He spent a great deal of time on fire fighting, project management and sitting on various committees. Very few people in the BBC knew who the BBC Account Manager was. The Siemens Account Manager was in a similar position, he had to focus on getting new media clients rather than the BBC account and relationship.

In general the middle IT managers were happy with TD centralisation of IT, even though the centralisation led to shifts in power away from divisions and departments towards TD. The middle management were happy to align to the central hub, it made complete sense to them. They understood that the outsourcing contract saved the BBC money, and they were willing to align to TD's IT policies and processes.

At the time of the interviews, the findings clearly highlighted that some areas were closer to Siemens, similar to a partnership and in other areas the relationship was more client supplier. This paradox was particularly significant to the BBC organisation structure. The BBC senior IT managers were close to forming partnership with Siemens, however lower in the organisation, such as the IT user department

Occupational Risk Management (ORM) users that utilised the Siemens support service described the relationship as client supplier.

PKMT's remit changed as soon as they were co-located with their users, the ORM department. The teams' titles were fuzzy and the boundaries of their roles were altered. Many of the PKMT members were carrying out tasks outside of their role, e.g. setting up projectors and being the first line IT support. PKMT were set up to create and maintain occupational risk systems specifically for the department, however the users started to view them as a dedicated IT team for any purpose they wished. The outsourcing contract led to PKMT being made redundant, therefore ORM went from having a dedicated departmental IT team to having no IT person at all. Many ORM senior managers and the PKMT manager were worried about the prospect of having no IT liaison person. The IT team for ORM was due to move at the divisional level and they would have to compete with other departments to get the IT team's attention. The problem with ORM was that it was a fairly small department compared to others and would have to shout in order to be heard against other departments such as HR.

Redundancies and restructures within the BBC occurred due to the outsourcing contract. This is common when a large outsourcing contract is signed, however, the slight oddity in the case study was that the PKMT were happy to be made redundant. An explanation for this behaviour was that the BBC worked in a similar manner to other public organisations, therefore the staff had one year between finding out they were being made redundant to actually being made redundant. This was ample time to find a new role and adjust to the thought of being made redundant. The redundancy they received was generous compared to private sector, and also some staff had been with the BBC for a long length of time. The developers due to the outsourcing moved in to the project management arena, they received training and professional certification, they worked on self-sufficiency projects as project managers, and were ready to take the next step in their careers.

Majority of the ORM users did not mind using Siemens as their first line IT support, they understood the financial reasoning behind the contract. The users believed that IT was non-core business, and therefore they did not care who actually carried out their support. It highlighted Pettigrew's argument regarding business vs. IT, and how IT can be viewed as insignificant to users. At the same time different forms of IT were core to the BBC business, e.g. BBC online. One user felt that the outsourcing led to a

McDonald's situation. The choice of IT support had decreased and the user believed choice had disappeared. He said that he had to become an IT expert if he wanted to order any form of IT, his role was to not to become an IT expert, but Siemens should provide him options.

All interviewees gave a different definition of IT, and size of the IT group. With regards to the definition of IT, it establishes the academic problem of trying to define IT. Academics have stopped trying to specify IT because it is dynamic and continually changes. The case study highlighted this very issue, there is not one definition in one organisation, and therefore trying to universally define it would be a fruitless endeavour.

9.3 Research Limitations

Despite the effort that went in to the achievement of the contributions above, the inescapable deficiencies of the research require to be honestly recognised. There were many issues and situations that were not ideal, however it is part of reality, and they are the researcher's lessons learned. It is important to identify the limitations of the study.

9.3.1 Theoretical Limitations

Activity Theory is the same as any other theory, it is a lens to view data, however by using a lens, various aspects of the data is omitted. It is impossible to detail everything in the research, and to provide some meaning to it. Boundaries needed to be drawn and various aspects were investigated.

Theories are not perfect, and cannot be a perfect fit to all situations. In the activity system, the subject (title and person) and division of labour (role performance and enactment) constructs did not work well as two separate elements in the case study. Whilst detailing the concept of role, it was noticed the two constructs worked better as one, and under the label of role, see figure 7.11.

9.3.2 Methodological Limitations

The first limitation is derived from utilising the case study approach for the inquiry. There usually tends to be too much data to analyse. Some interviews are given in more details than others, and furthermore, even the most detailed of interviews are a simplification of what is told. The quotes are taken out of the context of which the data was part. It is possible that re-visitation of the interviews would reveal other issues that

are as interesting and relevant as those chosen for analysis. However, case studies do retain more of the real life “noise” compared to other forms of research. The “noise” can be a highly significant part of the story (Stake, 1995).

“What we call our data are really our own constructions of other people’s constructions of what they and their compatriots are up to” (Geertz, cited in Walsham 2006). It is difficult to present accessible and realistic analysis of the complexity that case studies examine. Writing is linear with a beginning, middle and end, but what the research reveals is not as simple. When writing about one issue, other aspects are unintentionally concealed. There are several ways of representing one set of issues, each of which would be different in its approach and emphasis. It makes research difficult to summarise (Stake, 1995).

Case studies are not generalisable in the conventional sense, they cannot make any claims to be typical. There is no way of knowing, empirically, to what extent the research is similar or different from other organisations in the UK. Furthermore, the sample is small and idiosyncratic, and the data is predominantly non-numerical, there is no way to establish the probability that the data is representative of a larger population. However, where new thinking has been generated, it has a validity that does not depend upon the case from which it is drawn (Ibid). For example, the technical delivery staff moving to managerial positions, the BBC faced issues described by Rockart et al, 1996. The findings ring true in other settings, the professionals can empathise with the study because they should be able to recognise the situation described. The studies can facilitate the exploration of the unexpected and unusual. The interviews allow flexibility in the questioning to follow these paths.

The research is at its strongest when the researcher expertise and intuition are maximised, but this can cast doubts about their “objectivity”. The researcher decides what questions to ask, how to ask them, what to observe and what to record. They draw out the interesting points and construct stories – what data/issues to focus on and include, and what to exclude. The researcher is continually making judgements regarding the significance of the data. Regardless of how rigorous the researcher aims to be, it cannot be completely objective.

The studies are easy to dismiss by those that do not like the messages it contains – the sample was too small, it is not like that elsewhere, the researcher is biased, etc. Case studies help understand complex interrelationships between the different stakeholders within the situation context. The study revealed the relationships within the organisation being web like, for example the users commented on Siemens, the departmental IT team and organisation politics.

The study does not contain any data at board level. The study lacked the richness provided by the very top level of management, and it would have been ideal to capture the General Director's and the Director of Future Media and Technology's stories. The interviews would have allowed the study to slice right through the organisation structure and provide stories at all levels of the organisation. Both were too busy to take time to participate in the study.

9.3.3 Practical Limitations

In tackling the issue of the changing role of the IT function, another ideal scenario would have been to analyse the impact of outsourcing outcomes. One may argue that the long term view would have served better in describing the outsourcing phenomenon. The outcome of the outsourcing aspect was to be determined in the long term future and not within the time frame of this study. The outcome would have been measured against the outsourcing success criteria, such as savings per year against projected savings per year, Siemens receiving increased projects from BBC, and the partnership. These criteria are long term yardsticks and not short term. As far as the long term aspect is concerned, the time frame of it is some distance away, some three years from now.

9.4 Further Research

When conducting research, it is evitable that further research questions arise, or further areas of research require investigating. There are lines of questions that crop up, that necessitate exploration. This section outlines further work required in the IS field, and the researcher looks forward to the outcome of the further research.

9.4.1 Further Theoretical Research

Activity Theory has been utilised in IS research, however majority of its application has been in the human computer interaction and computer supported cooperative work realms. It would be interesting to see it applied in other diverse areas of IS, e.g.

organisation and management studies. Engestrom et al (1999) believed Activity Theory was becoming a new type of theory, and leaving its origins, therefore it would be interesting to see what the theory has achieved and what has happened to it.

In similar cases to the one studied in this thesis, the use of the altered activity system vs. Engestrom's (1999) activity system would be a good test to conduct. The test would show the generalisation of the altered activity system and if it could be adopted in IS management and organisational research.

9.4.2 Further Methodological Research

The interviewing of peers will become popular due to the economic climate and its affect on universities. Not all PhD students can remain in academia because of the shortage of posts, and therefore will enter industry, but in order to continue in research, many may conduct it in the organisations where they are employed. The academics in the health sector have researched the methodological implications of interviewing their colleagues, however there is not enough work conducted in this area, and strangely not through action research methods either. Research on this area will become important as researchers are faced with the idea of having to interview peers.

9.4.3 Further Practical Research

In order to provide a more holistic picture of the IT function, the new media/digital departments require to be studied. This new age department has not had any studies conducted on it, what is it, and what makes it different from traditional IT. The perceptions around this require to be focused upon. This study touches on many salient points that should be delved in to, the idea of new geeks, the user perceptions of new media staff and the growing dominance of this department within organisations.

Furthermore, the challenge regarding the impact of outsourcing and its outcomes can also be studied. Again, the true picture of the outsourcing can only be obtained through a study of the both the process and the outcomes of the contract term which is a more comprehensive task. Future researchers of outsourcing should focus on new SMEs vendors that have infiltrated the market, and are winning contracts over the larger well known organisations. These new vendors are doing particularly well in the public sector. As well as the offshoring studies, this adds a new angle to the outsourcing phenomenon.

The research touched upon moods and emotions, as written by Ciborra (2001, 2006) and McGrath (2006). These are significant concepts when focusing on human activities and behaviour, however not much has been written about them in IS academia. It would be highly interesting and momentous if these ideas were brought to the forefront of an IS academic study.

9.5 Concluding Remarks

The limitations and future research points leave many issues unaddressed, however, much time has been spent to detail and stress the main points which represent the achievements of the objectives set at the beginning of the study. Unfortunately not all the angles could be studied, but the unavoidable shortcomings of the thesis are fully admitted. The arguments and submissions are no more than a few steps in understanding the journey of the IT function. In unearthing the issues inherent in organisations going through changes such as outsourcing and restructuring as a central problem in contemporary settings, there has been significant contribution to progress within this area. The thesis is not beyond criticism. The ideas in the study are open to scrutiny by all readers and critics. Whilst the arguments in the thesis may be reproached, it is not something that is dreaded. The findings have been grounded in objective interpretation and scientific analyses.

Appendix 1

A1.1 IT Teams

1. What is your job title?
2. What is your formal job description?
3. What activities do you carry out on a daily basis, and how?
4. Who do you interact with (sketch diagram)?
5. What are your sub-roles?
6. What is the role perception of your job by end users/managers?
 - a. Is the perception positive or negative in your opinion, and why?
7. What you like/dislike about your role?
8. Recall an incident good or bad which affected your role or the role of the team.
9. What are your future hopes and fears?
10. What is the role of your team?
11. What is the role perception of your team by end users/managers?
 - a. Is the perception positive or negative in your opinion, and why?
12. What are your manager's multiple roles?
13. How has the role of the IT team changed in the last 5 years?
 - a. What influenced this change?
 - b. How was the change implemented?
14. What is the size and skill set of staff within the IT team?
 - a. How is the IT team structured?
 - b. How have the skills changed in the last 5 years?
 - c. How are the relationships with users and vendors managed?
15. What do you believe the key problems are, in terms of your role or that of the team's?
16. Do you see any future shifts in power, either through your role or the role of the team's? Please expand.
17. What are the key norms and rules?
 - a. How have they changed in the last 5 years?
18. What are the key processes, policies and activities?
19. How have they changed in the last 5 years?

A1.2 End Users

1. What is the role of the IT team?
2. What are the individual team members' job titles?
3. What IT personnel do you interact with (sketch diagram)?
4. What does the role of the individual members entail?
5. What is the size and skill set of staff within the IT team?
 - a. How have they changed in the last 5 years?
 - b. How are the relationships with users managed?
6. How has the role of the IT team changed in the last 5 years?
 - a. What influenced this change?
 - b. How was the change implemented?
7. Recall an incident good or bad which affected you due to the actions of the IT team.
8. What are the key norms and rules with interacting with the IT team?
 - a. How have they changed in the last 5 years?
9. What are your future hopes and fears with regards to the IT team and its effects on you?
10. Do you see any future shifts in power in the IT structure? Please expand.

A1.3 Middle IT Managers

1. What is your job title?
2. What is your formal job description?
3. What activities do you carry out on a daily basis, and how?
4. Who do you interact with (sketch diagram)?
5. What are your sub-roles?
6. What is the role perception of your job by subordinates/managers?
 - a. Is the perception positive or negative in your opinion, and why?
7. What you like/dislike about your role?
8. Recall an incident good or bad which affected your role or the role of the team.
9. What are your future hopes and fears?
10. What is the role of your team?
11. What is the role perception of your team by subordinates/managers?
 - a. Is the perception positive or negative in your opinion, and why?
12. What are your manager's multiple roles?
13. How has the role of the IT team changed in the last 5 years?

- a. What influenced this change?
 - b. How was the change implemented?
- 14. What is the size and skill set of staff within the IT team?
 - a. How is the IT team structured?
 - b. How have they changed in the last 5 years?
 - c. How are the relationships with users and vendors managed?
- 15. What do you believe the key problems are, in terms of your role or that of the team's?
- 16. Do you see any future shifts in power, either through your role or the role of the team's? Please expand.
- 17. What are the key norms and rules?
 - a. How have they changed in the last 5 years?
- 18. What are the key processes, policies and activities?
- 19. How have they changed in the last 5 years?

A1.4 Senior IT Managers

- 1. What is your job title?
- 2. What is your formal job description?
- 3. What activities do you carry out on a daily basis, and how?
- 4. Who do you interact with (sketch diagram)?
- 5. What are your sub-roles?
- 6. What is the role perception of your job by subordinates/managers?
 - a. Is the perception positive or negative in your opinion, and why?
- 7. What you like/dislike about your role?
- 8. Recall an incident good or bad which affected your role or the role of the team.
- 9. What are your future hopes and fears?
- 10. What is the role of your team?
- 11. What is the role perception of your team by subordinates/managers?
 - a. Is the perception positive or negative in your opinion, and why?
- 12. What are your manager's multiple roles?
- 13. How has the role of the IT function changed in the last 5 years?
 - a. What influenced this change?
 - b. How was the change implemented?
- 14. What is the size and skill set of staff within the IT function?

- a. How is the IT function structured?
 - b. How are they split between the central IT function, user departments and contractors?
 - c. How have they changed in the last 5 years?
 - d. How are the relationships with users and vendors managed?
15. What do you believe the key problems are, in terms of your role or that of the team's?
16. Do you see any future shifts in power, either through your role or the role of the team's? Please expand.
17. What are the key norms and rules?
- a. How have they changed in the last 5 years?
18. What are the key processes, policies and activities?
- a. How have they changed in the last 5 years?

A1.5 BBC Account Manager

1. What is your formal job description?
2. What activities do you carry out on a daily basis, and how?
3. Who do you interact with (sketch diagram)?
4. What are your sub-roles?
5. What is the role perception of your job by subordinates/managers?
 - a. Is the perception positive or negative in your opinion, and why?
6. What you like/dislike about your role?
7. What are your future hopes and fears?
8. What is the role of your team?
9. What is the role perception of your team by subordinates/managers?
 - a. Is the perception positive or negative in your opinion, and why?
10. How has the role of the IT function changed in the last 5 years?
 - a. What influenced this change?
 - b. How was the change implemented?
11. What is the size and skill set of staff within the IT function?
 - a. How is the IT function structured?
 - b. How are they split between the central IT function, user departments and contractors?
 - c. How have they changed in the last 5 years?
12. What do you believe the key problems are, in terms of your role or that of the

team's? Please give examples of occasions when these problems were particularly difficult.

13. How did your role change from before the outsourcing to after?
14. Why did the BBC decide to outsource?
15. Were the BBC staff moving to Siemens seemed generally happy to do so?
 - a. How was the move handled?
 - b. Please give examples of particular problems.
16. Has the BBC started to see cost savings from the outsourcing?
17. How is the relationship with Siemens managed (strict SLAs, or some informality)?
 - a. Does the BBC have a partnership with Siemens or is it strictly contractual?
 - b. Is there a trust relationship?
 - c. Does the BBC feel that Siemens is acting in the BBC's best interests?
 - d. Please give examples of how the relationship has evolved, including examples of service/cost improvements and problem areas.
18. Do you see any future shifts in power, either through Siemens role or the BBC? Please expand with examples.
19. Does the BBC feel locked in the contract?
20. Has there been contract negotiations at various intervals of the contract? If so, what?
21. What monitoring do the BBC carry out?
22. Has the outsourcing decision been a success?

A1.6 Siemens Account Manager

1. What is your formal job description?
2. What activities do you carry out on a daily basis, and how?
3. Who do you interact with (sketch diagram)?
4. What are your sub-roles?
5. What is the role perception of your job by subordinates/managers?
 - a. Is the perception positive or negative in your opinion, and why?
6. What you like/dislike about your role?
7. What is the role of your team?
8. What is Siemen's role?
9. What is the size and skill set of staff within the BBC support function?
 - a. How is the IT function structured?
 - b. How are the relationships with the clients managed?

10. Were the BBC staff happy to move to Siemens?
 - a. How was the move managed/structured?
 - b. Do you think the BBC staff gained an advantage to moving over to Siemens?
 - c. Please give examples of any particular problems.
11. How is the relationship with the BBC managed (SLAs, informal)?
 - a. Do you have a trust partnership with the BBC?
 - b. Please give examples of how the relationship has evolved, including examples of service/cost improvements and problem areas.
12. Do you see any future shifts in power, either through Siemens role or the role of the BBC's? Please expand with examples.
13. Has the outsourcing contract led to the BBC saving money?
14. Has there been contract negotiations at various intervals of the contract? If so, what?
15. Has the outsourcing decision been a success?

Appendix 2

The interviewees were asked to depict with whom they interacted with regards to IT on a daily basis to draw out the notion of subjects, and to highlight the number of activities one person can be part of simultaneously. Where names were entered on the diagrams, they were replaced with job titles for ethical purposes.

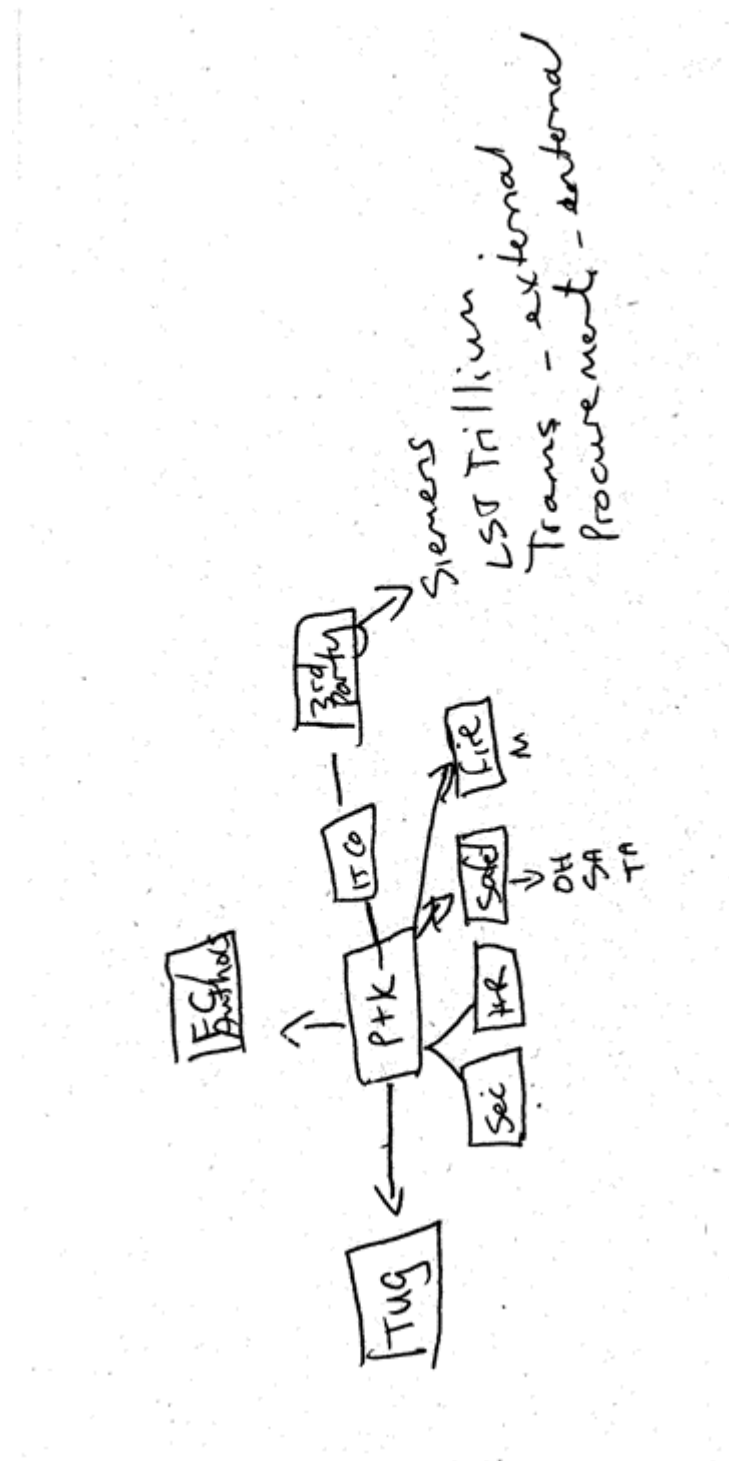
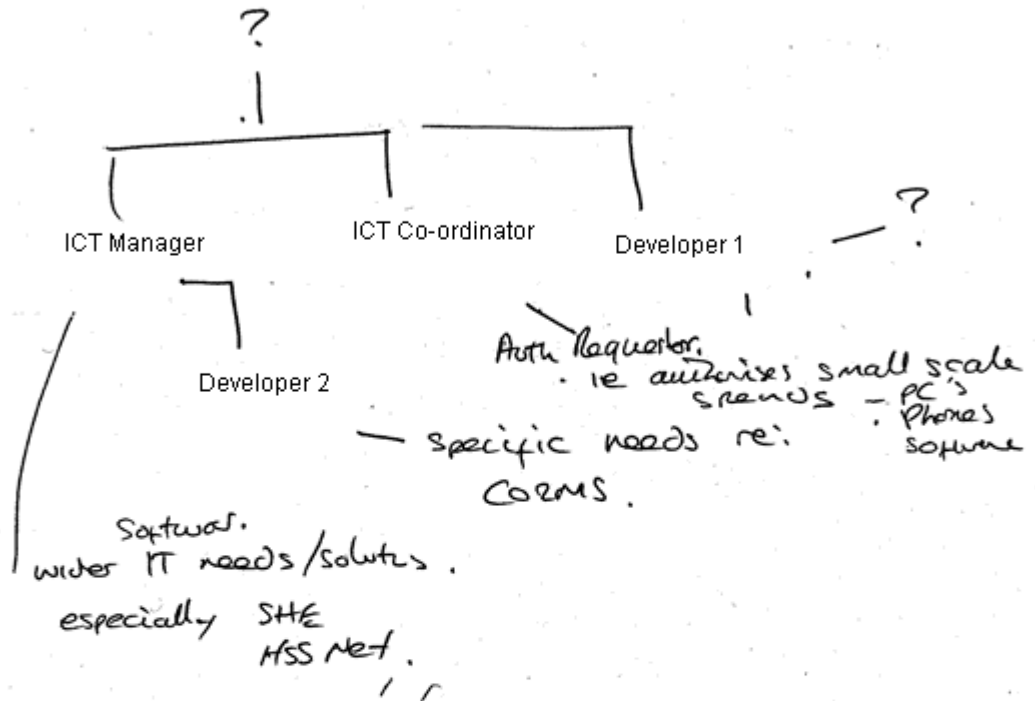


Figure A2.1 – IT team, Policy Knowledge Management (PKMT) ICT Co-ordinator.

IT Structure USER VIEW.

Parameters.



Corporate.

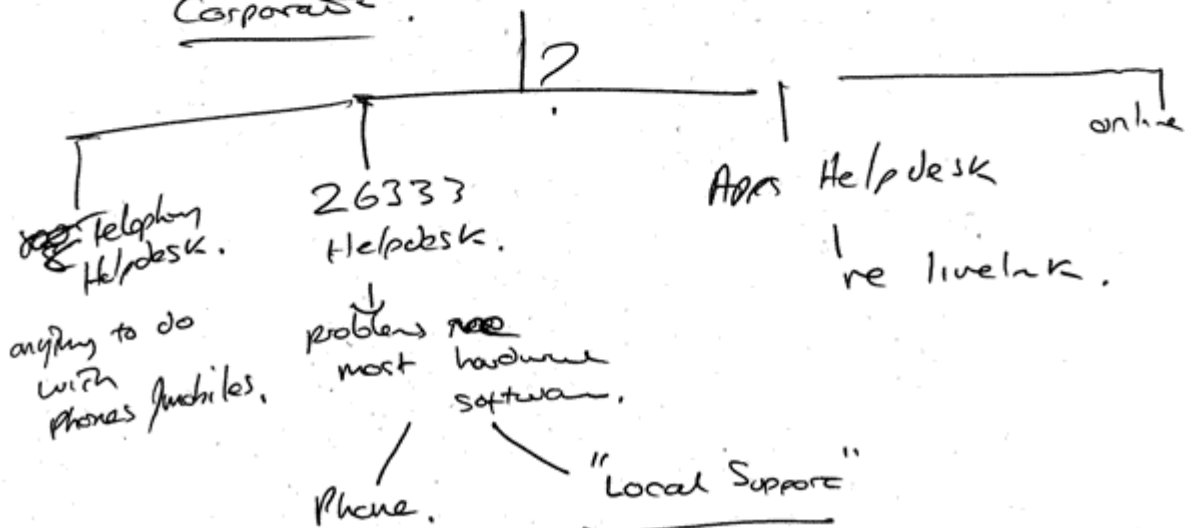


Figure A2.2 – User, Occupational Risk Management (ORM) Compliance Executive.

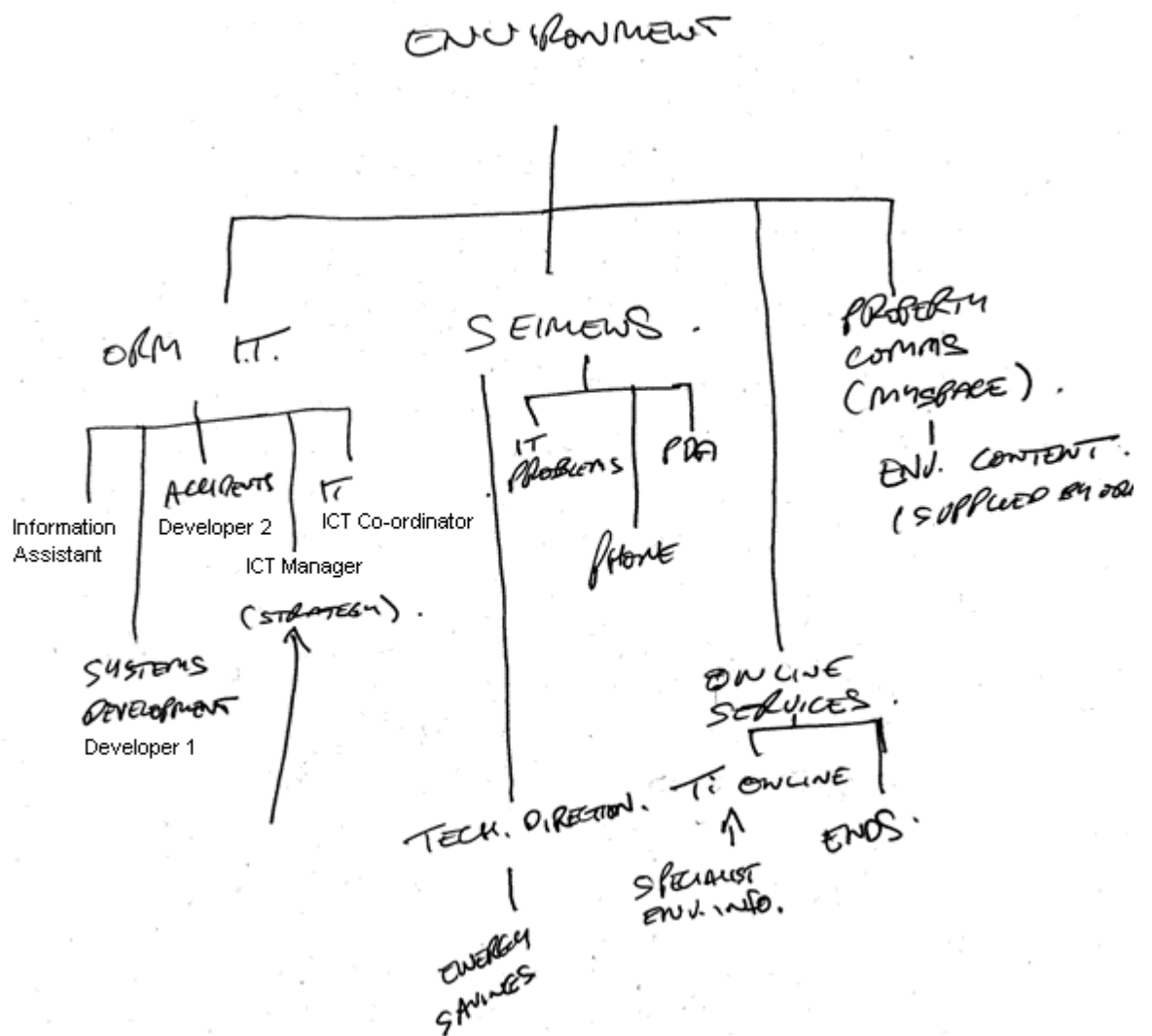


Figure A2.3 – User, ORM Environmental Manager.

Tools

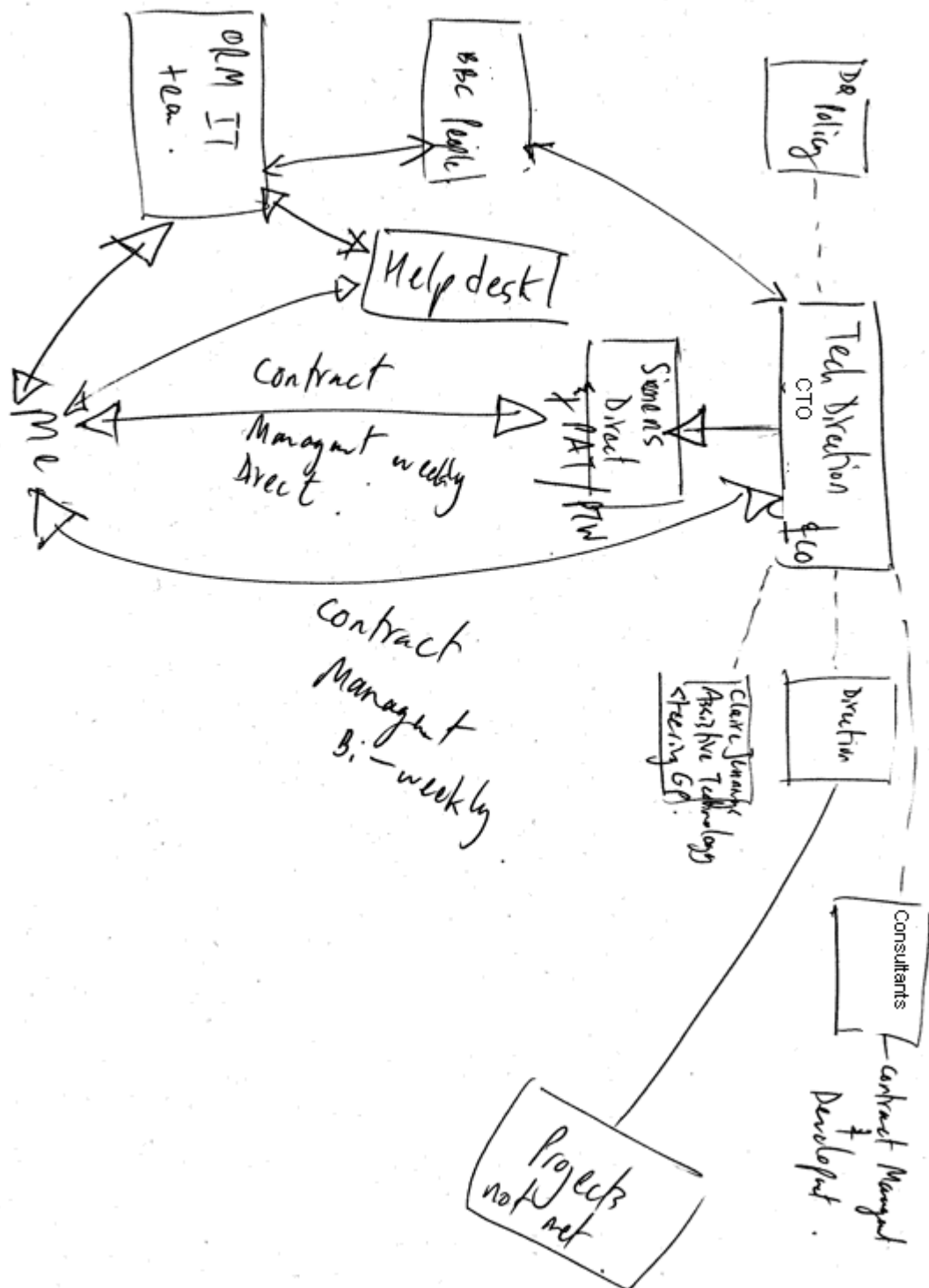


Figure A2.4 – User, ORM Deputy Head, Divisional Support.

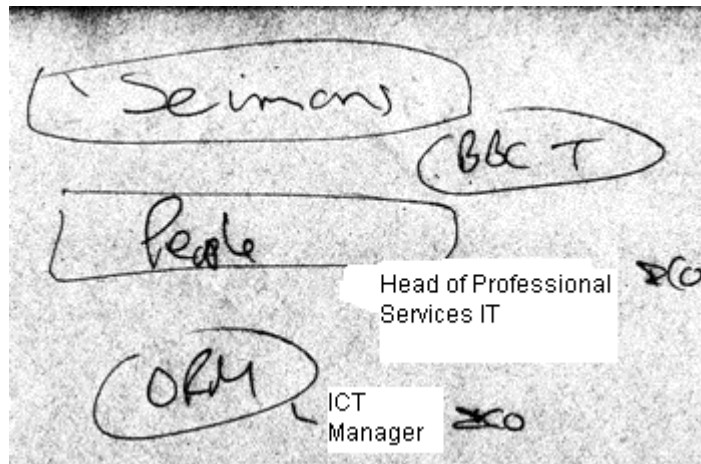


Figure A2.5 – User, ORM Head of Divisional Support, Occupational Health Safety.

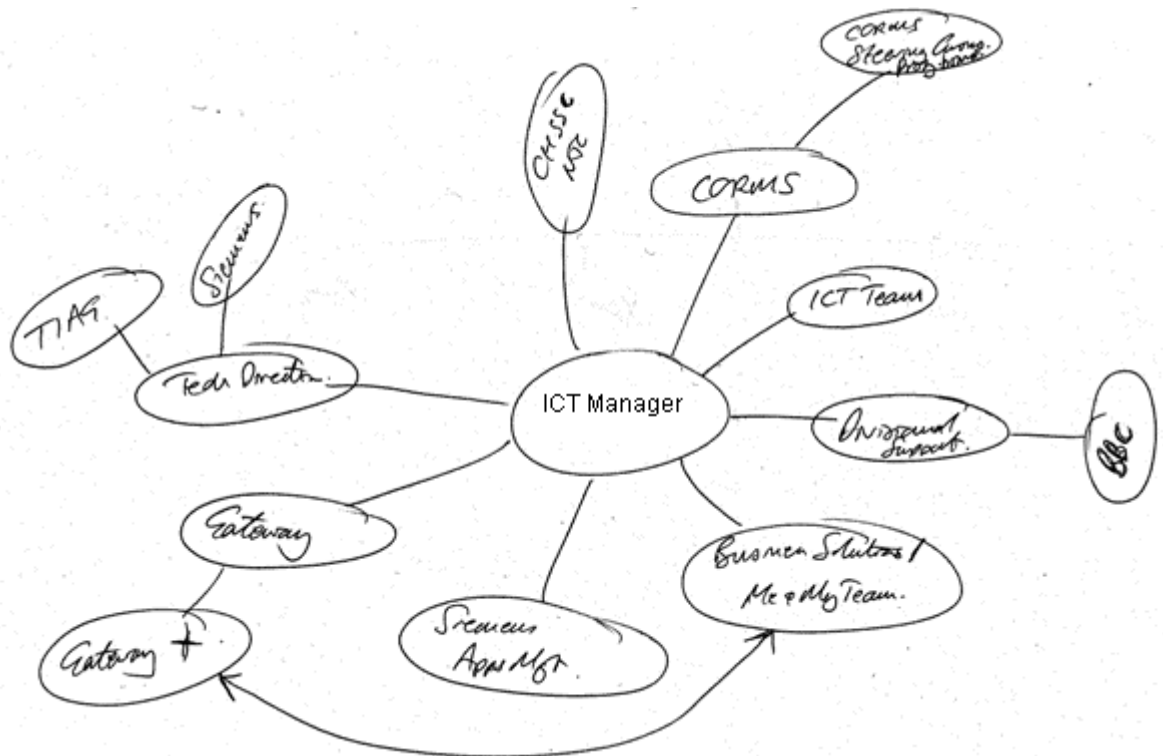


Figure A2.6 – IT team, PKMT ICT Manager.

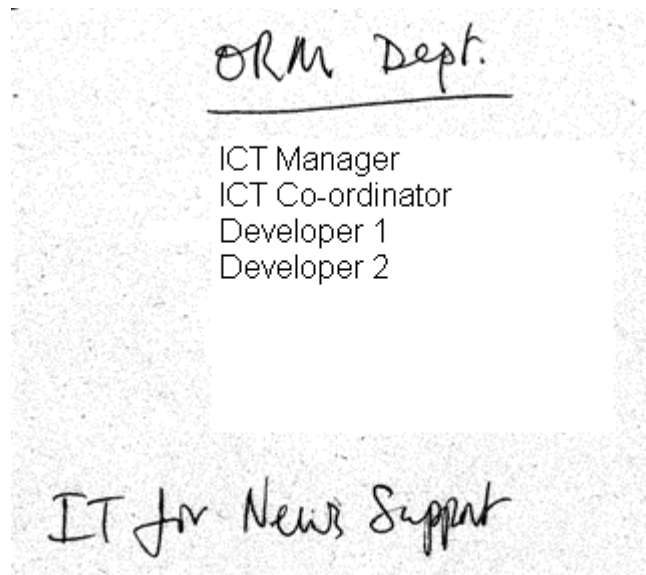


Figure A2.7 – User, ORM Health & Safety Advisor.

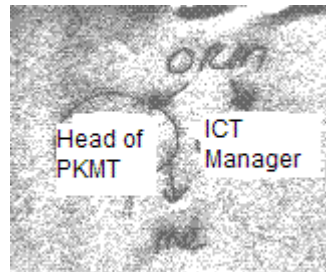


Figure A2.8 – IT team, PKMT Online Editor.

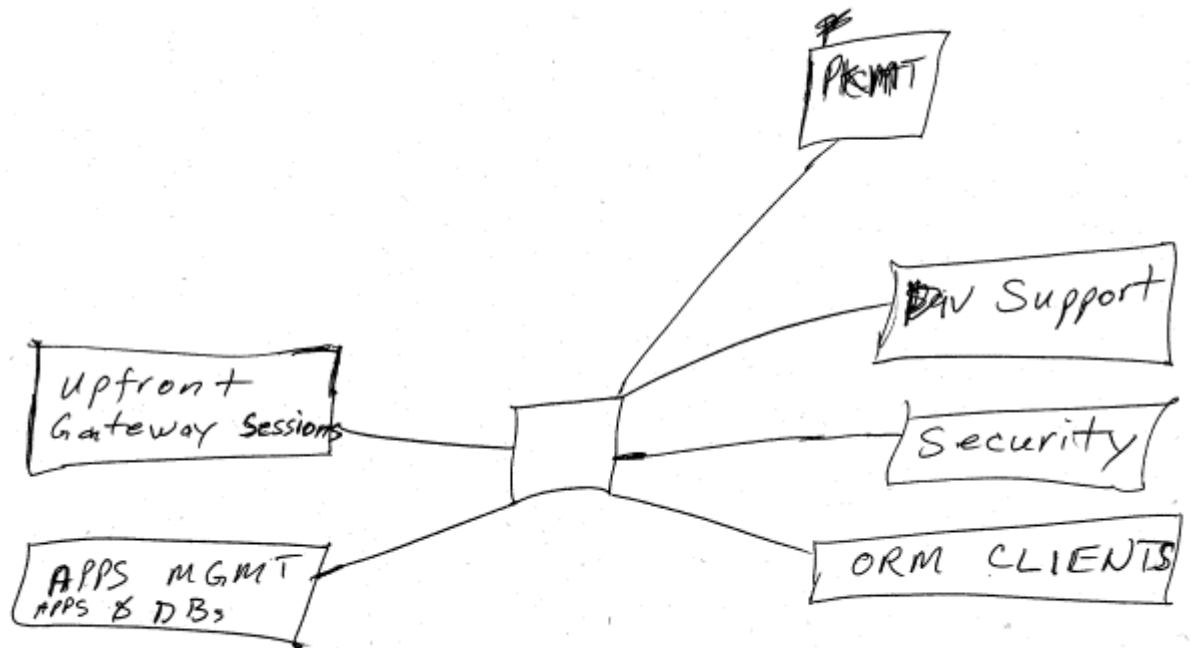


Figure A2.9 – IT team, PKMT Safety Web Co-ordinator.

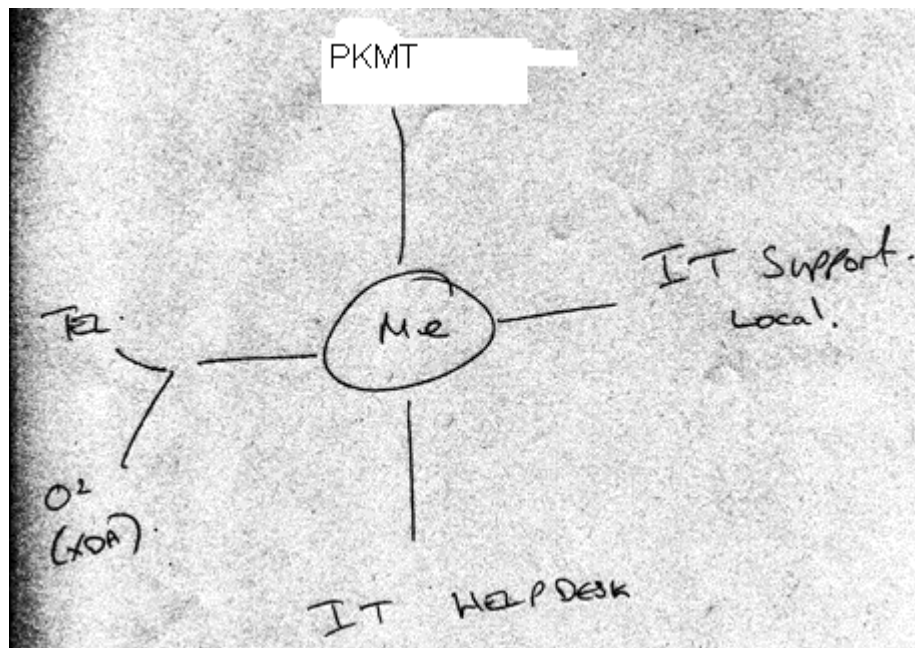


Figure A2.10 – User, ORM UK Security Manager.

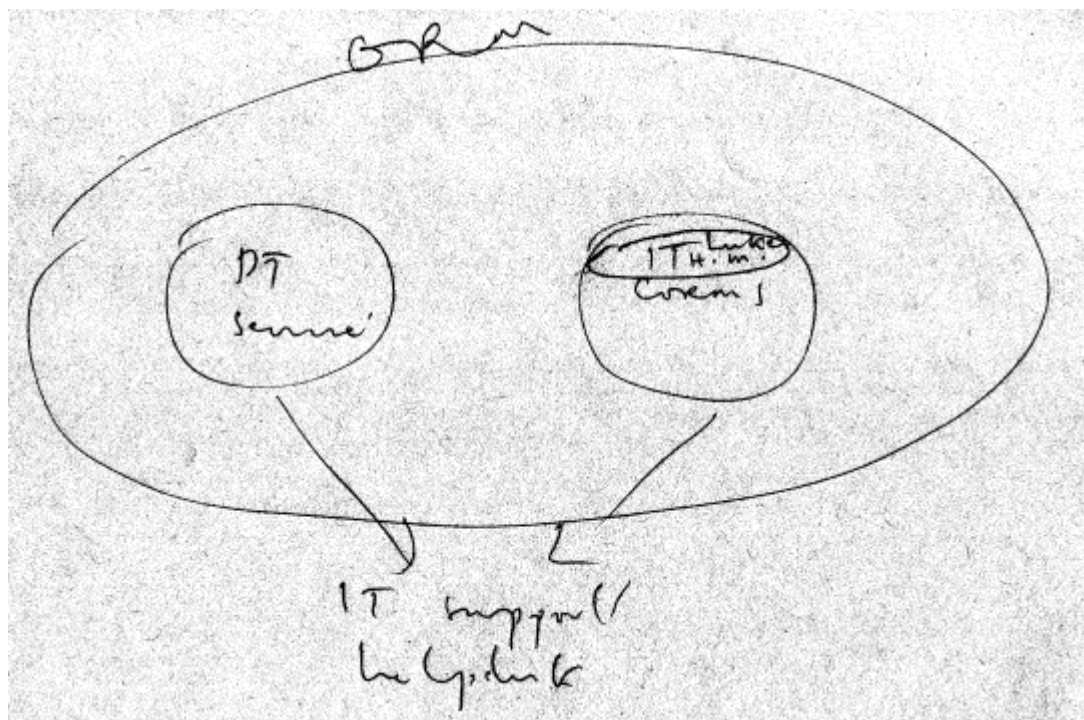


Figure A2.11 – User, ORM Physiotherapist.

(12)

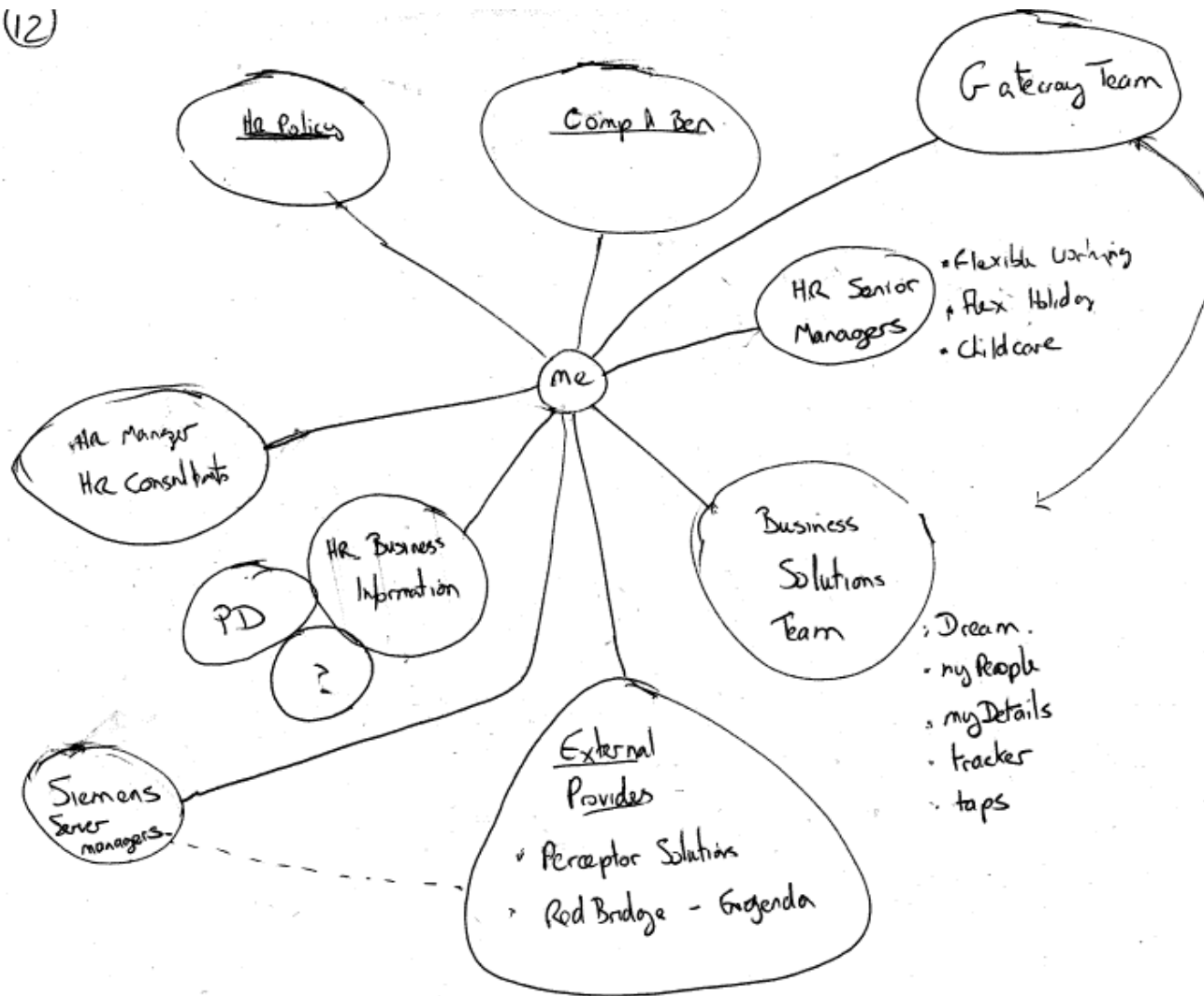


Figure A2.12 – Middle IT Manager, Project Manager, HR Intranet.

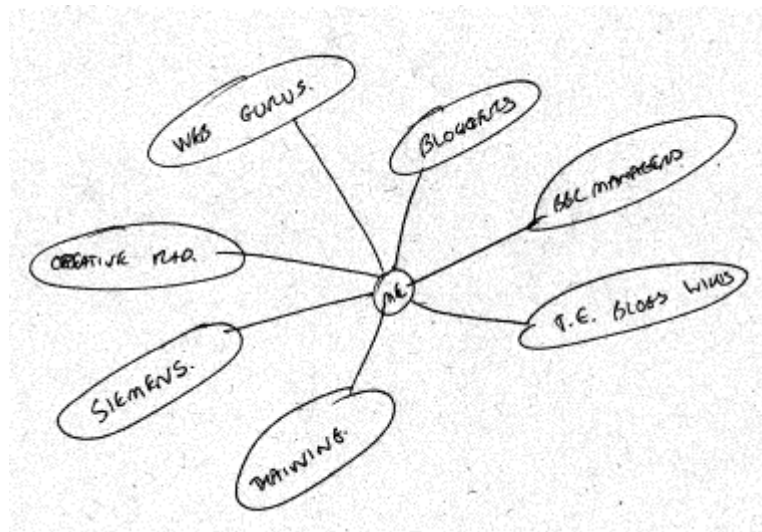


Figure A2.13 – Senior IT Manager, Director of Knowledge Management Solutions.

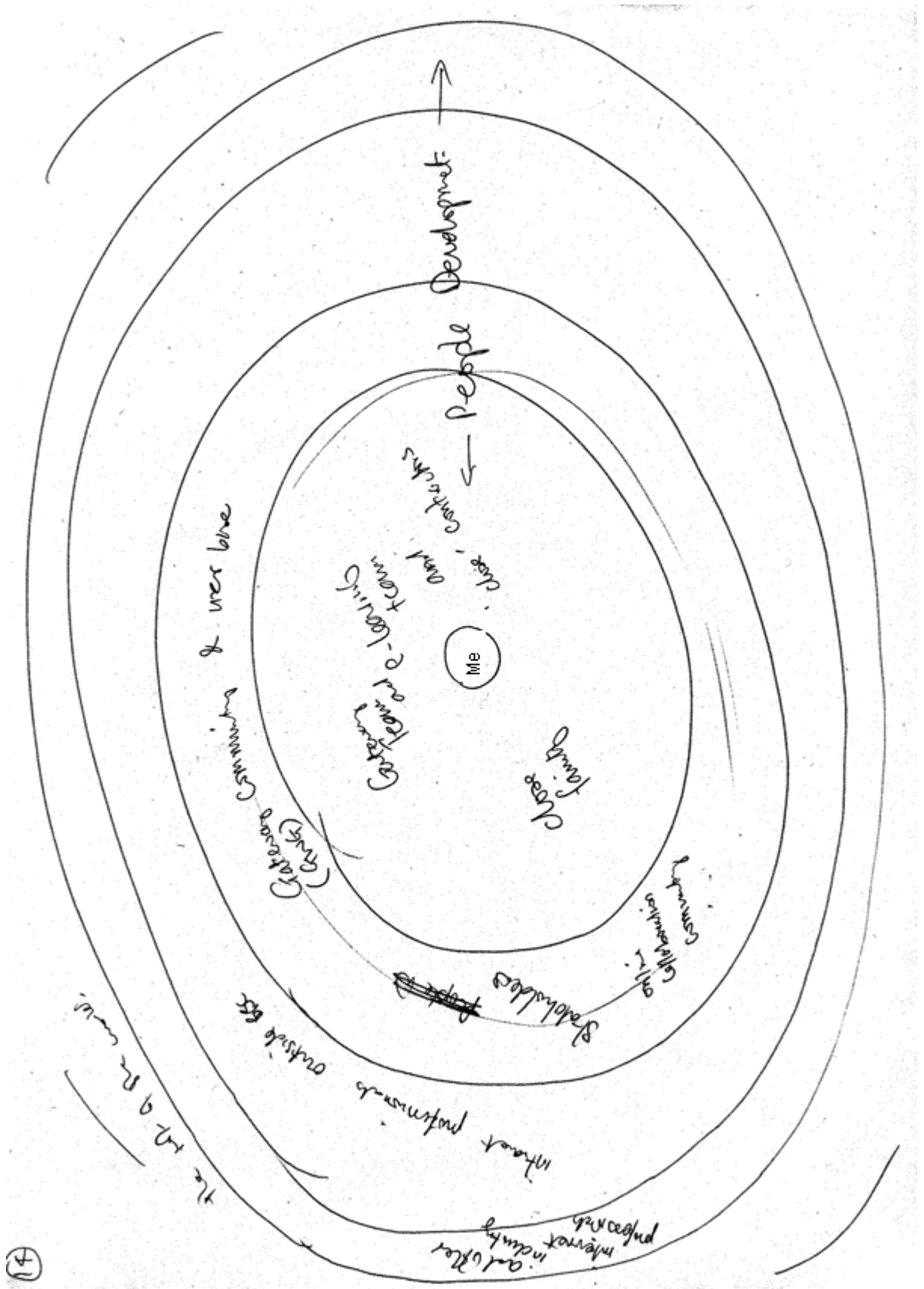


Figure A2.14 – Middle IT Manager, Learning Systems Manager.

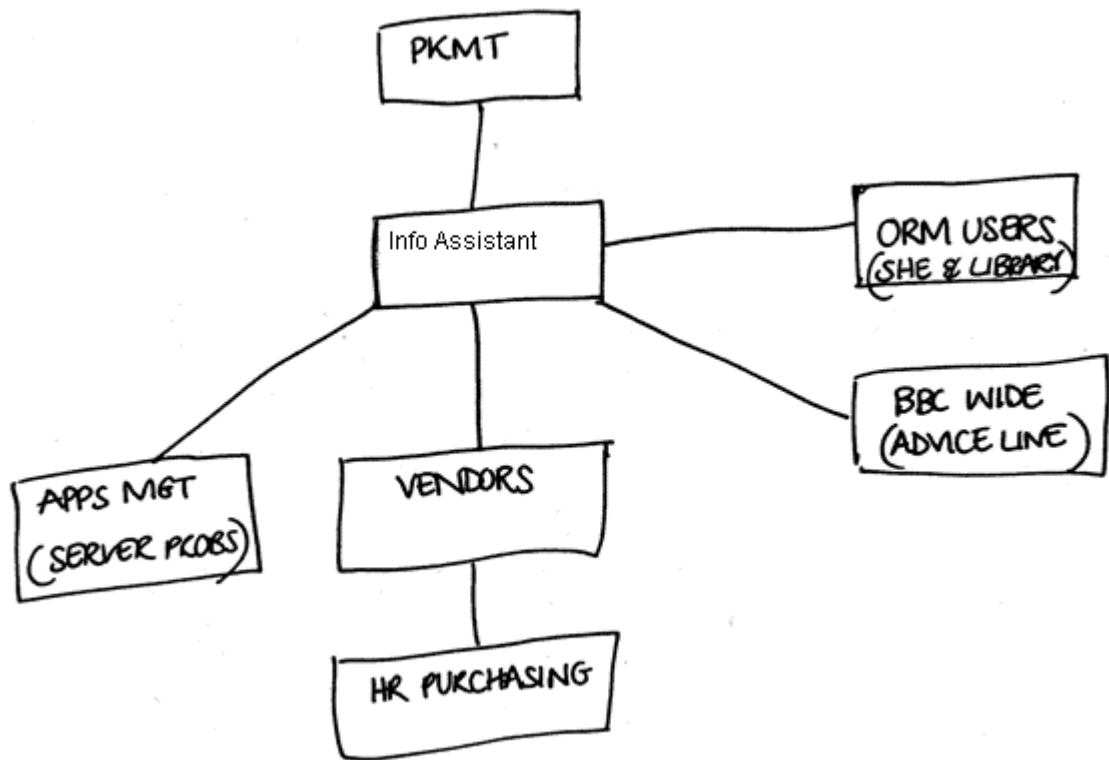


Figure A2.15 – IT team, PKMT Information Assistant.

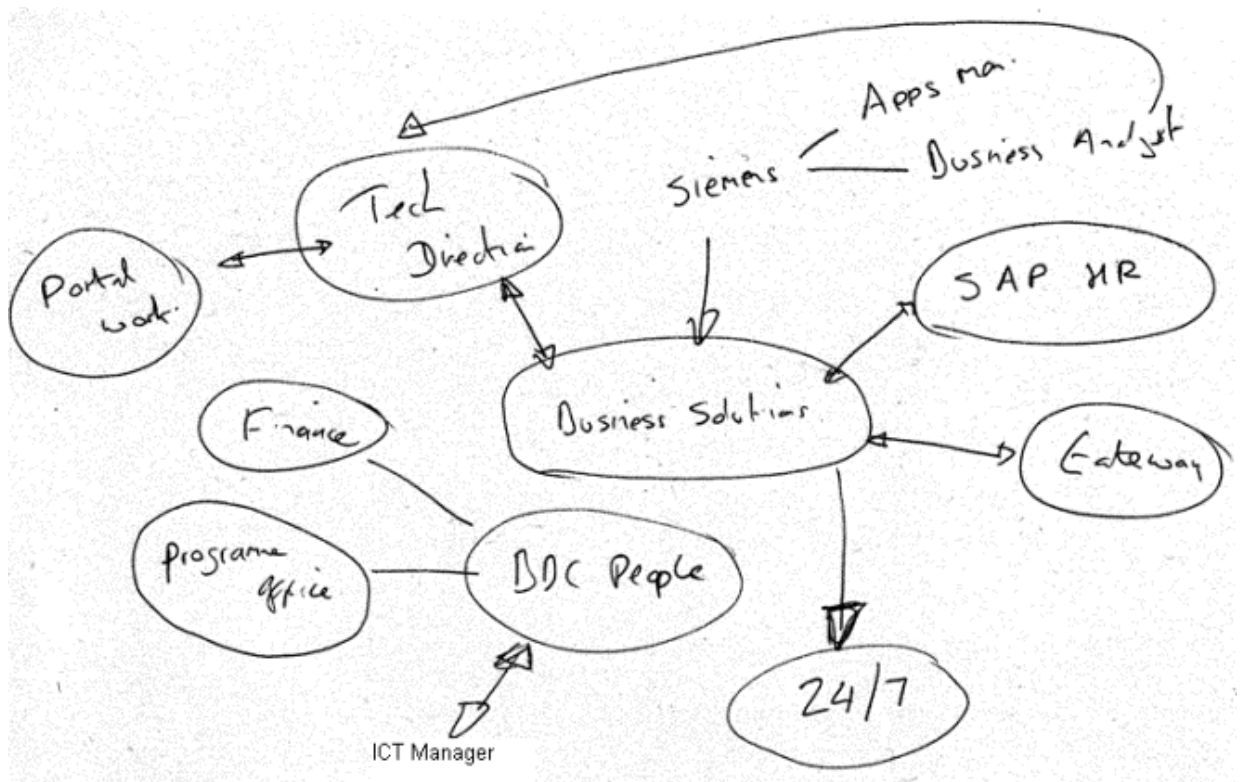


Figure A2.16 – Middle IT Manager, Implementation Manager.

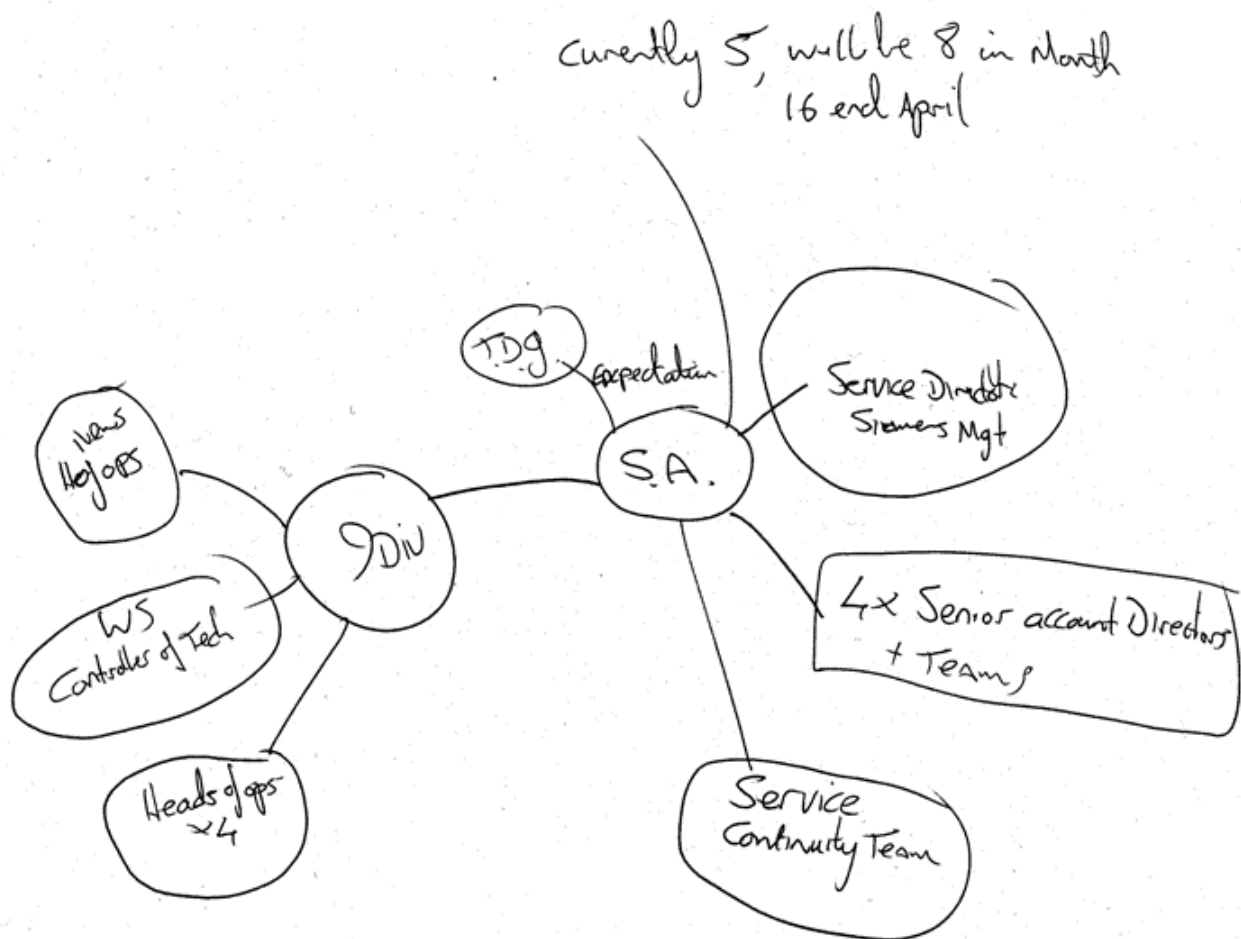


Figure A2.17 – Senior IT Manager, Head of Services Assurance.

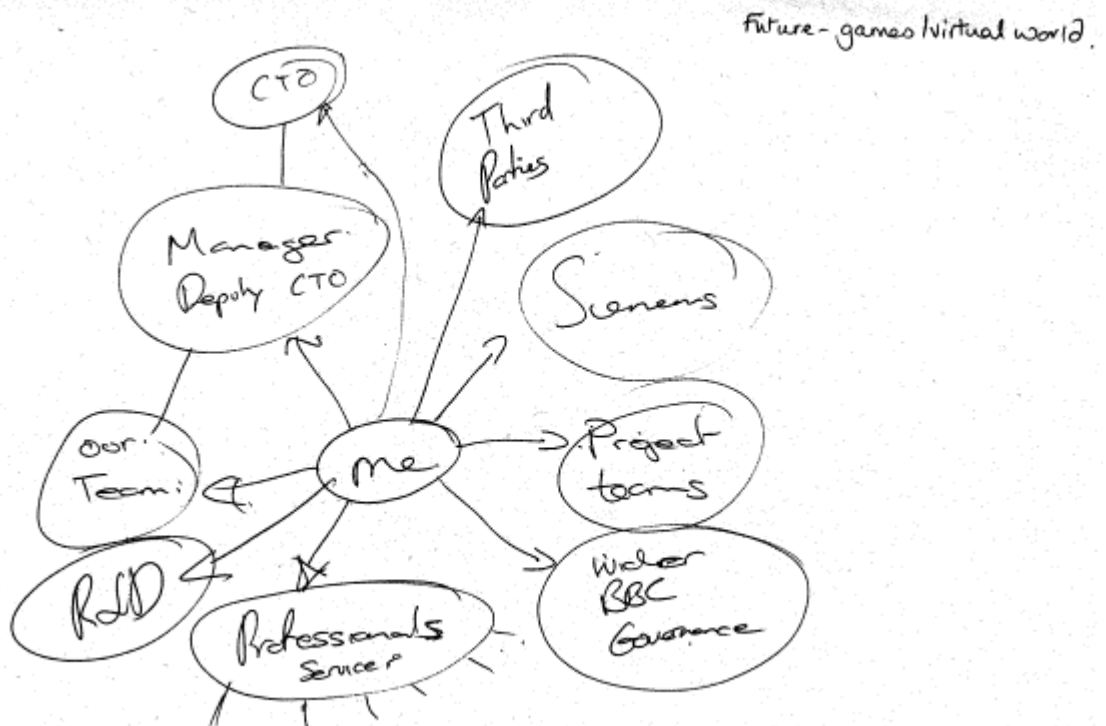


Figure A2.18 – Senior IT Manager, Business Technology Analyst.

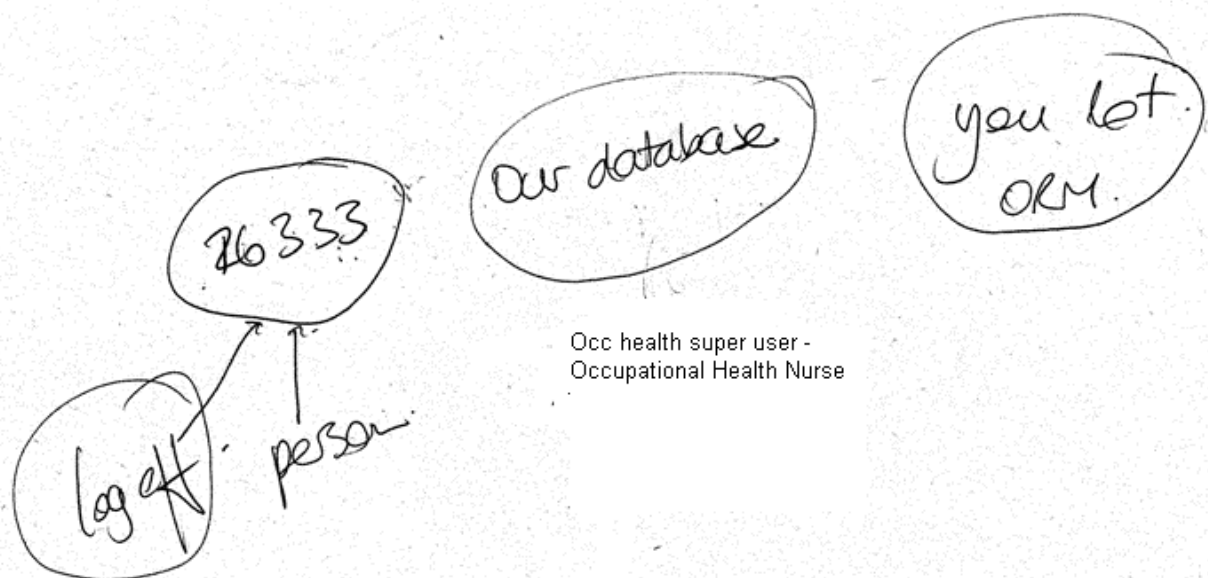


Figure A2.19 – User, ORM Occupational Health Nurse Specialist.

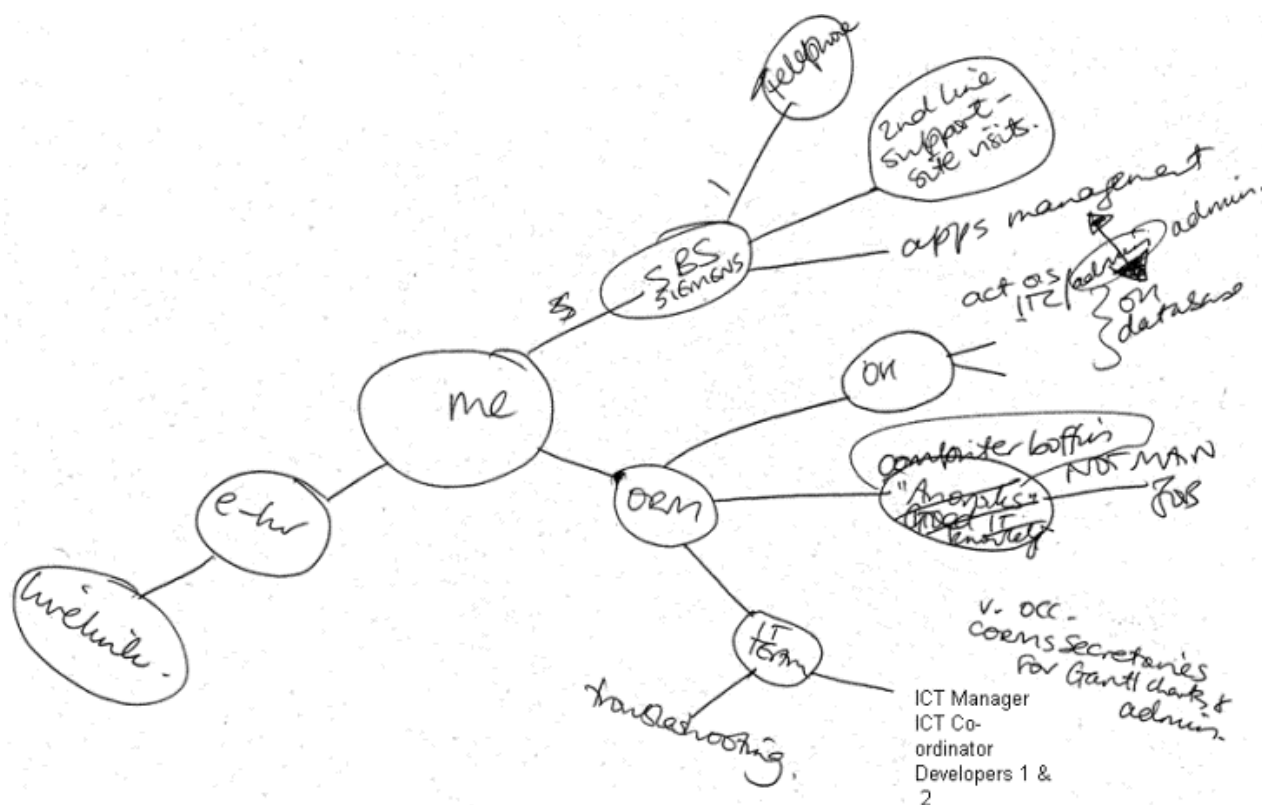


Figure A2.20 – User, ORM Occupational Health Nurse.

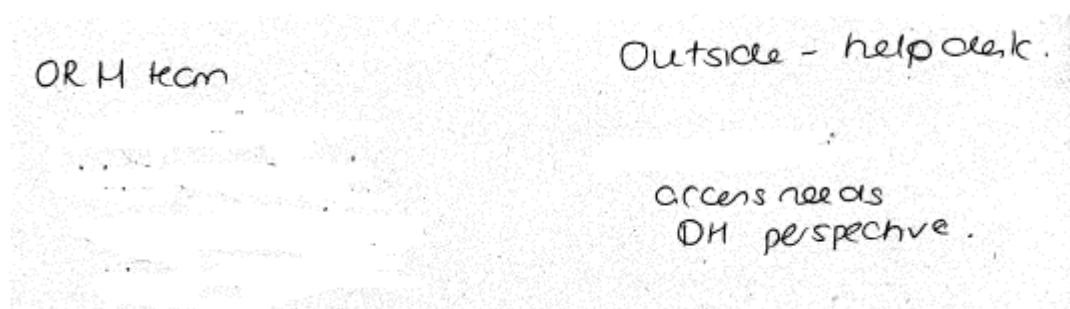


Figure A2.21 – User, ORM Consultant Occupation Physician.

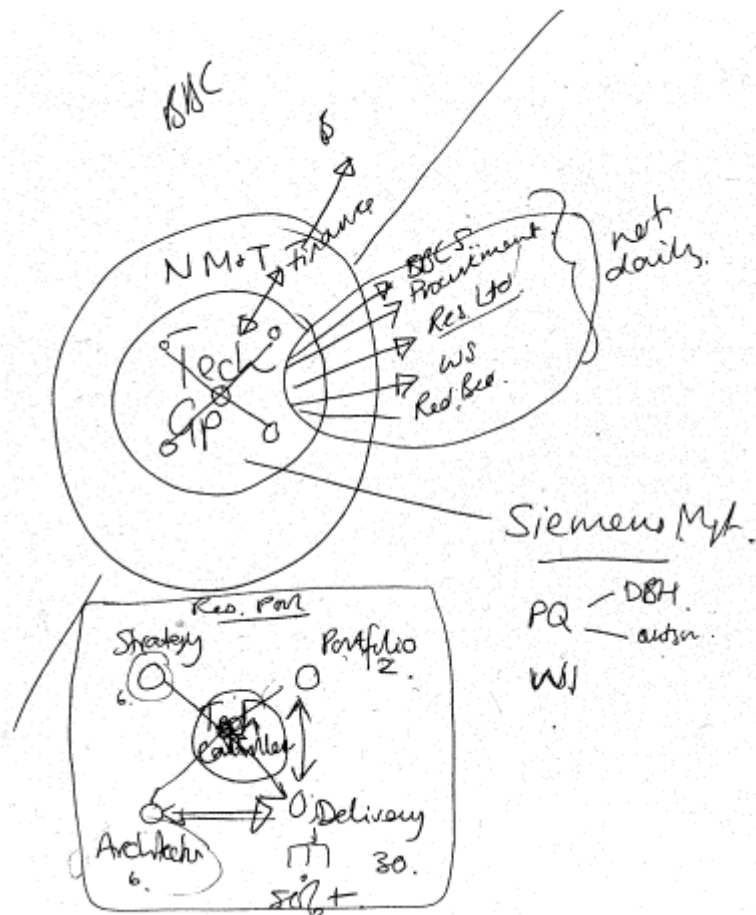


Figure A2.22 – Senior IT Manager, Head of Technology Delivery.

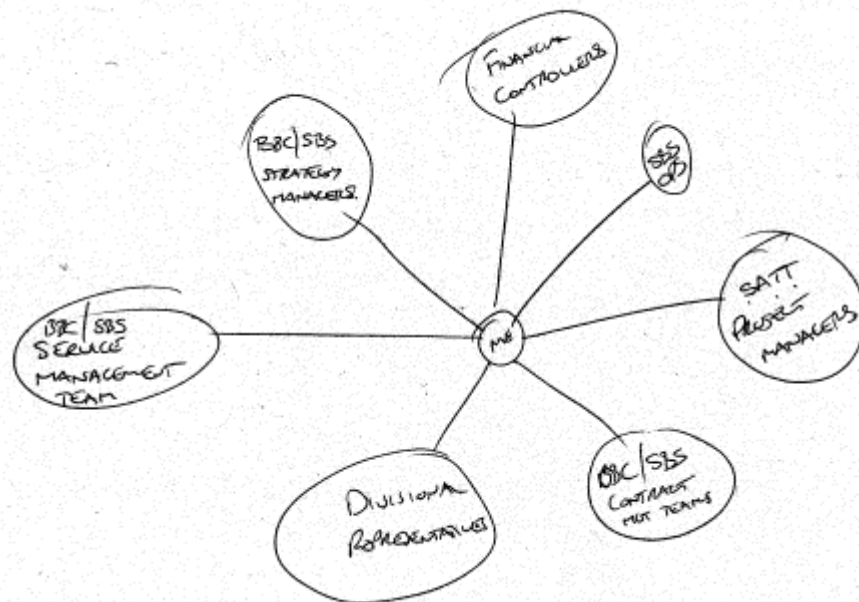


Figure A2.23 – Senior IT Manager, Head of IT Strategy & Policy.

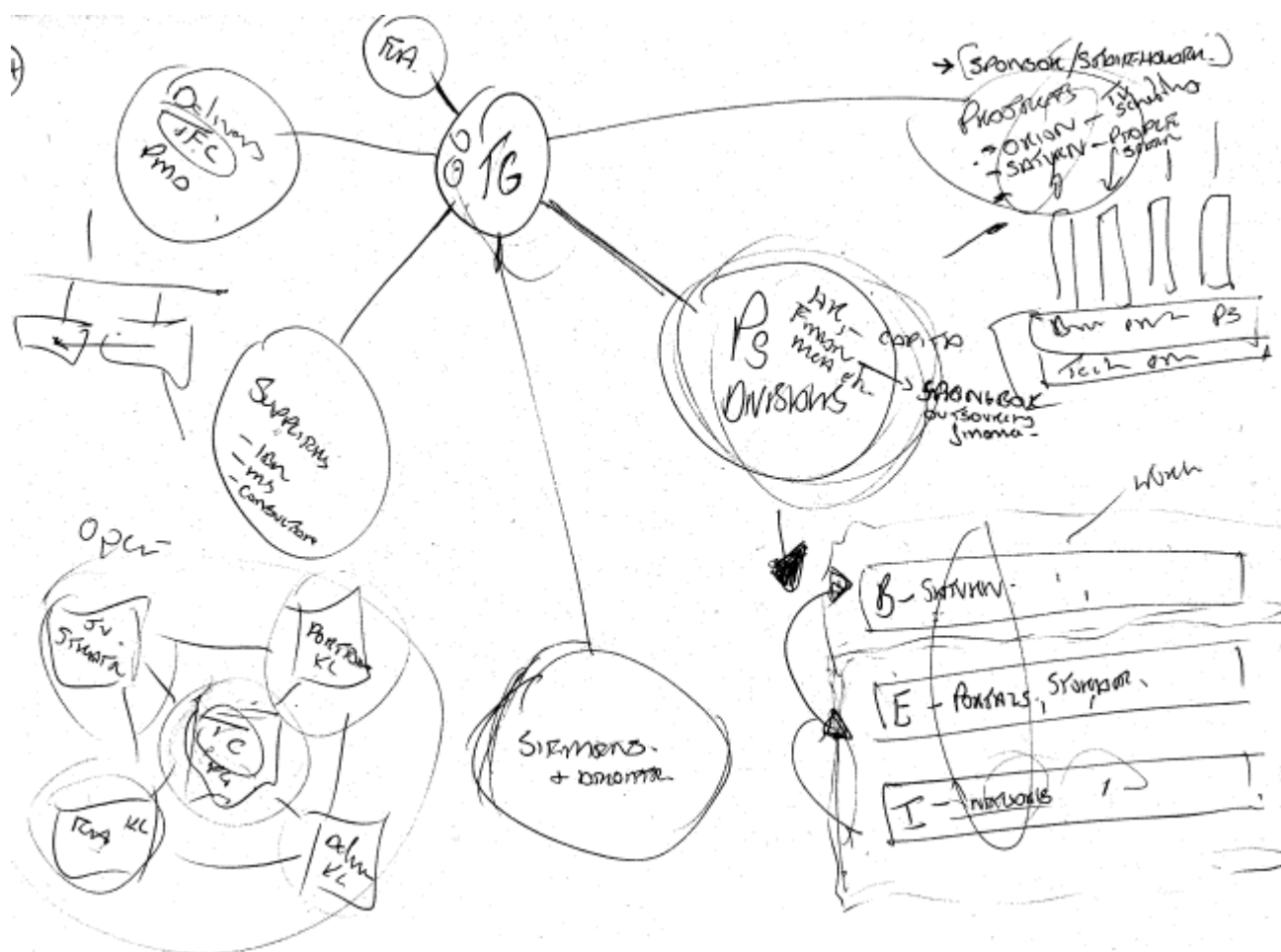


Figure A2.24 – Senior IT Manager, Controller, IT & Business Systems.

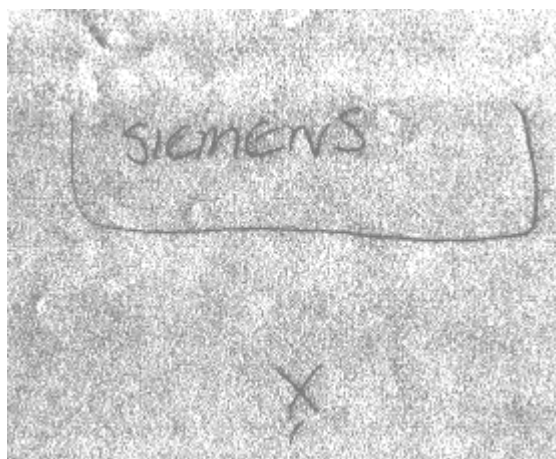


Figure A2.25 – User, ORM Occupational Health Nurse.

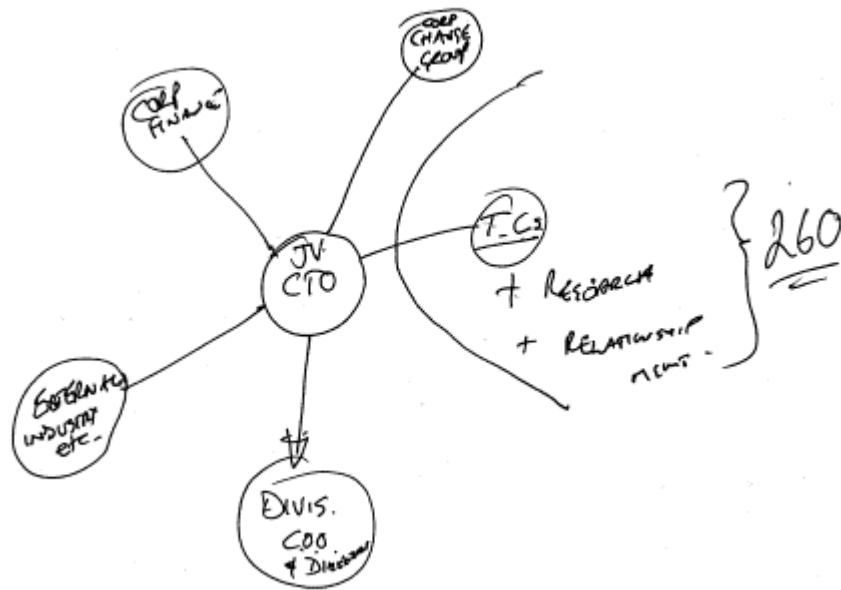


Figure A2.26 – Senior IT Manager, Chief Technology Officer.

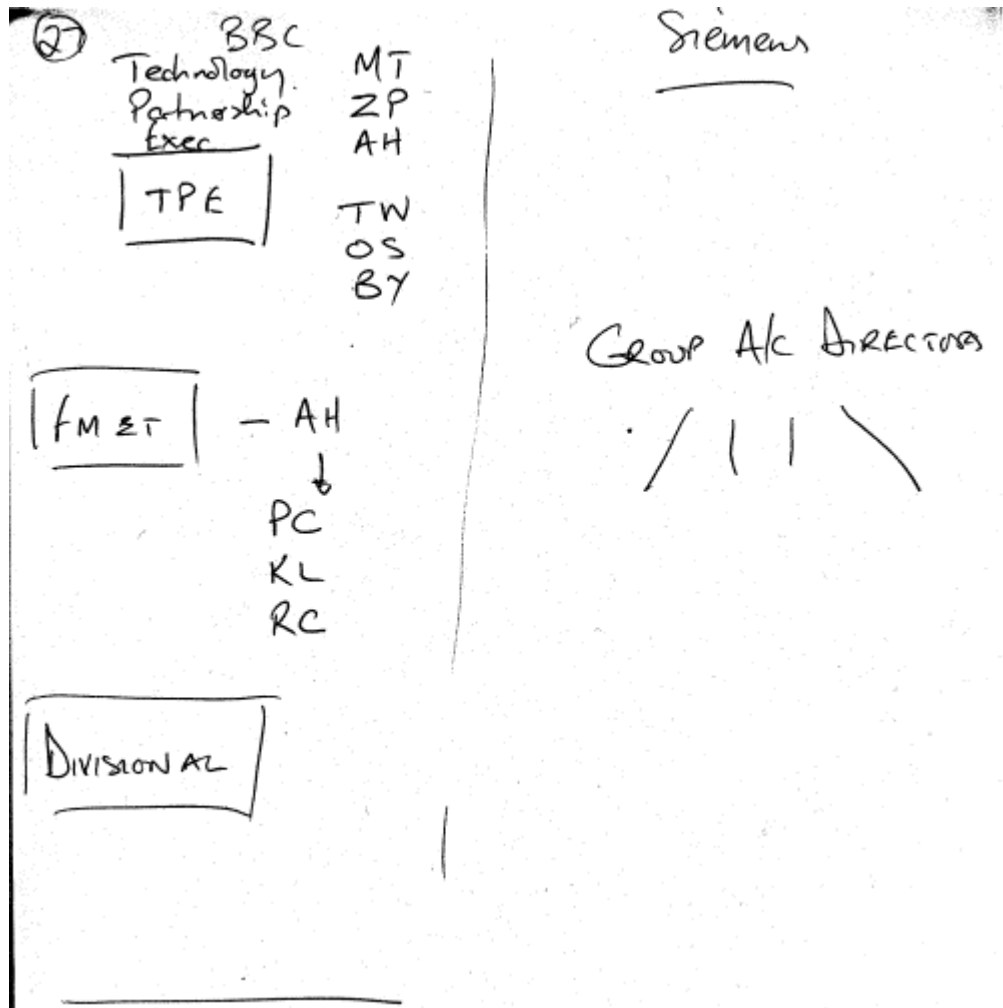


Figure A2.27 – Executive Manager/Siemens' Account Manager.

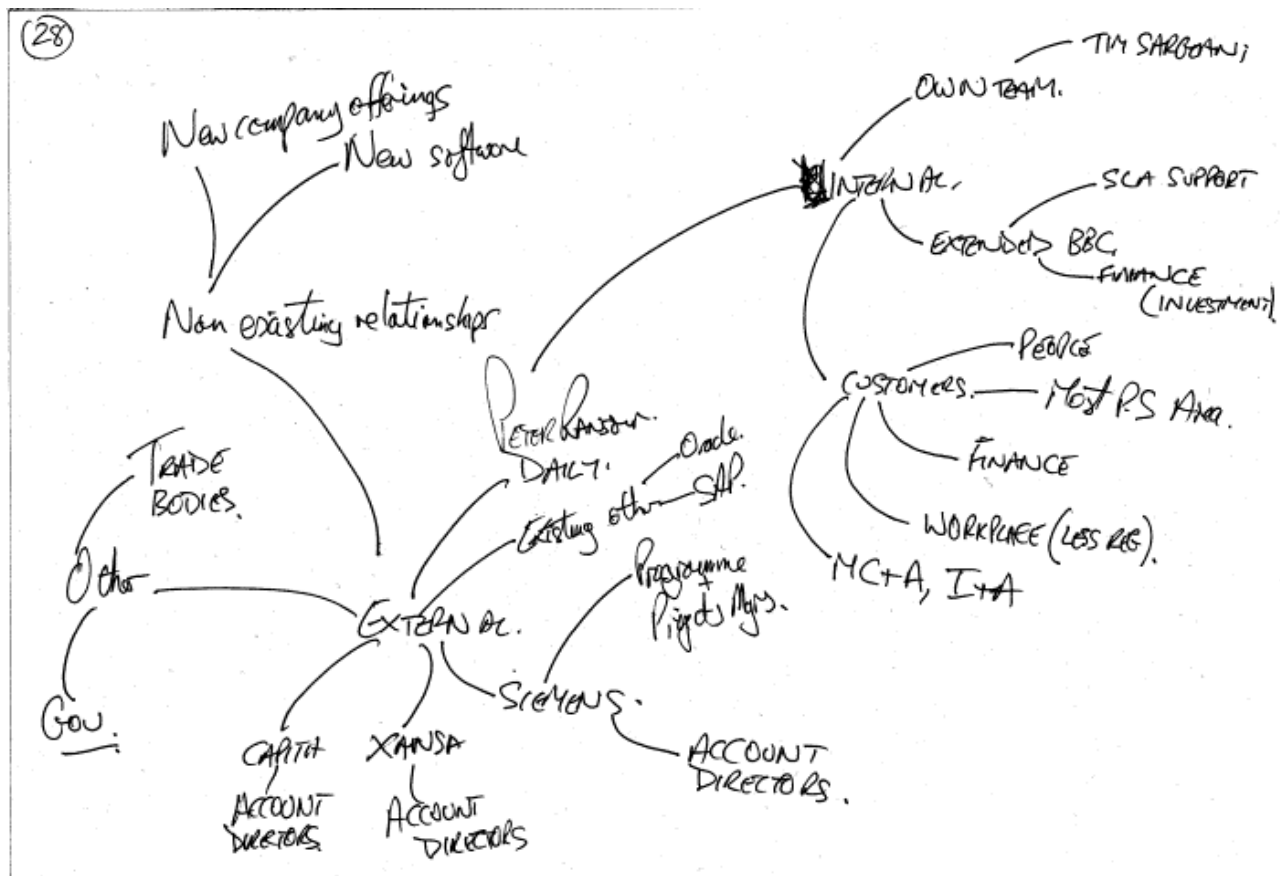


Figure A2.28 – Senior IT Manager, Head of Technology.

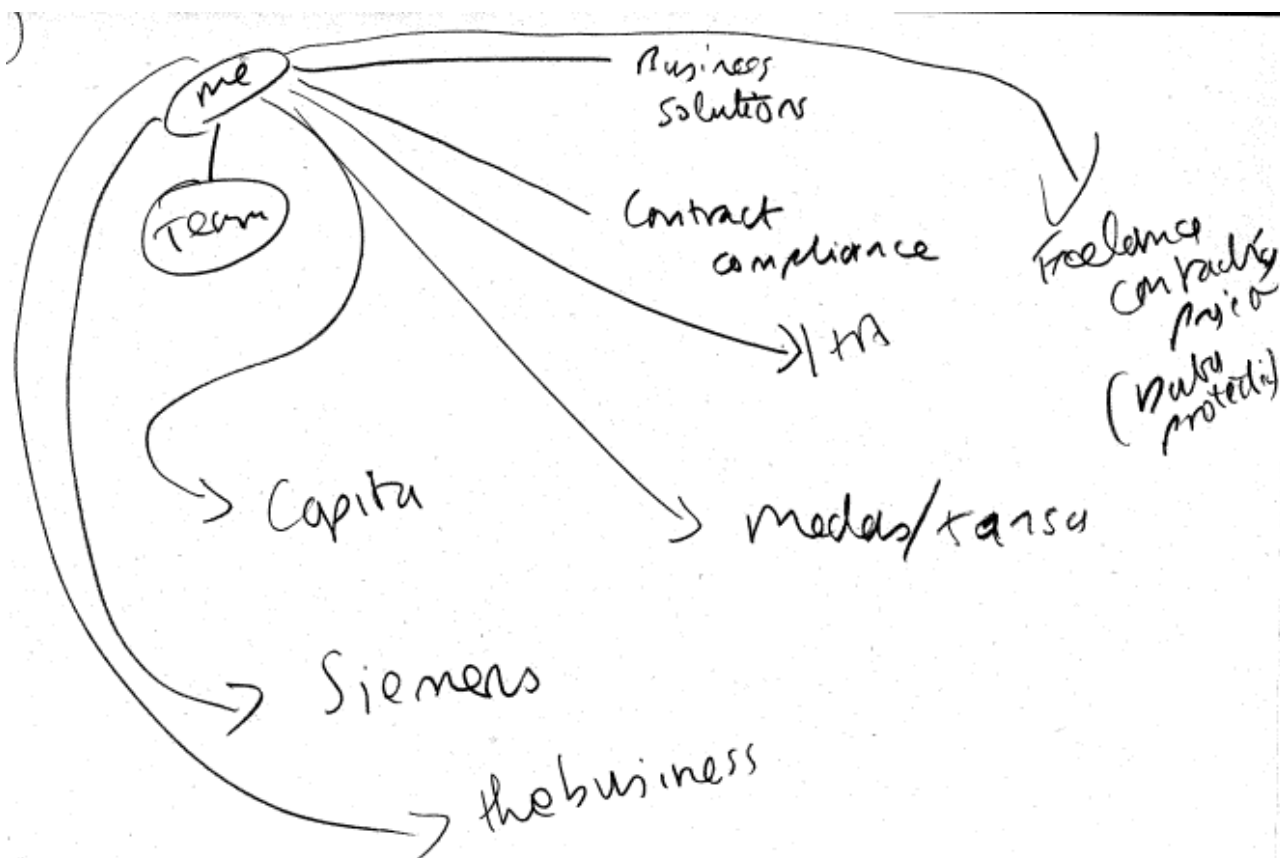


Figure A2.29 – Middle IT Manager, Consultant.

Bibliography

Agarwal, R & Sambamurthy, V (2002). "Principles and Models for Organizing the IT Function." MIS Quarterly Executive 1(1): p.1 - 16.

Akhutina TV, Glozman JM, Moscovich L & Robbins, D (2005). "A.R Luria and Contemporary Psychology: Festschrift Celebrating the Centennial of the Birth of Luria." Nova Science Publishers, New York.

American Heritage Dictionary of the English Language (2011). "Realism definition." <http://dictionary1.classic.reference.com/help/ahd4.html>.

Ang, S & Straub, D (1998). "Production and Transaction Economies and IS Outsourcing: A Study of the U.S. Banking Industry." MIS Quarterly 22(4).

Angell, I & Smithson, S (1991). Information Systems Management: Opportunities and Risks. Basingstoke, Macmillan.

Avgerou, C (2000). "IT and organizational change: an institutional perspective." Information technology and people 13(4).

Banton, M (1965). Roles An Introduction to the Study of Social Relations. London, UK, Tavistock Publications Ltd.

Barthelme, P & Anderson, K.M. (2002). "A View of Software Development Environments Based on Activity Theory." Computer Supported Cooperative Work 11: p.13 - 37.

Baskerville, R (1999). "Investigating Information Systems with Action Research." Communications of the Association for Information Systems 2(19).

BBC (2003). "Values and mission statement." <http://www.bbc.co.uk/aboutthebbc/purpose/>.

BBC (2006). "BBC Purposes." http://www.bbc.co.uk/info/purpose/public_purposes/index.shtml.

BBC (2009). "About the BBC." http://www.bbc.co.uk/info/statements2009/future_media/bbccouk.shtml.

Benbasat I, Goldstein D & Mead M (1987). "The Case Research Strategy in Studies of Information Systems." MIS Quarterly 11(3): p.369-383.

Bergh, D & Holbein, G (1997). "Assessment and Redirection of Longitudinal Analysis: Demonstration with a Study of the Diversification and Divestiture Relationship." Strategic Management Journal 18(7): p.557 - 569.

Bodker, S & Gronboek, K (1998). Users and designers in mutual activity: An analysis of cooperative activities in systems design. Cognition and Communication at Work. Engstrom, Y & Middleton, D. Cambridge, Cambridge University Press: p.130 - 156.

- Boguslauskas, V & Kvedaraviciene, G (2008). "Strategic Outsourcing Plan and the Structure of Outsourcing Process." *Engineering Economics* 3(58).
- Brancheau, J & Brown, C (1993). "The Management of End-User Computing: Status and Directions." *ACM Computing Surveys* 25(4): p.439 – 477.
- Brown, C & Magill S (1994). "Alignment of the IS Functions With the Enterprise: Toward a Model of Antecedents." *MIS Quarterly*: p.371-400.
- Bryman, A (1984). "The Debate about Quantitative and Qualitative Research: A Question of Method or Epistemology?" *The British Journal of Sociology* 35(1): p75-92.
- Butler, B & Gray, P (2006). "Reliability, Mindfulness, and Information Systems." *MIS Quarterly* 30(2): p.211-212.
- Callon, M (1986). *Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay. Power, action and belief: a new sociology of knowledge?* Law, J. London, Routledge: p.196-223.
- Carr, C (2006). "Reciprocity: The Golden Rule of IS-User Service Relationship Quality and Cooperation." *Communications of the ACM* 49(6): p.77-83.
- Carr, N (2003). "IT Doesn't Matter." *Harvard Business Review*: p.5 - 12.
- Chaiklin S, Hedegaard M, & Jensen U J (2002). *Activity theory and social practice*. Aarhus: Aarhus University Press, 2nd ed.
- Chan, Y (2002). "Why Haven't We Mastered Alignment? The Importance of the Informal Organization Structure." *MIS Quarterly Executive* 1(2): p.97 - 109.
- Ciborra, C (2001). *In the Mood for Knowledge: a New Study of Improvisation*, Department of IS, LSE.
- Ciborra, C (2006). "The mind or the heart? it depends on the (definition of) situation." *Journal of Information Technology* 21.
- Clark C, Cavanaugh N, Brown CV & Sambamurthy V (1997). "Building change-readiness capabilities in the IS organisation: Insights from the Bell Atlantic experience." *MIS Quarterly* 21(4): p.425 - 455.
- Coar, L & Sim, J (2006). "Interviewing one's peers: methodological issues in a study of health professionals." *Scandinavian Journal of Primary Health Care* 24.
- Cole, M & Cole, S (1979). "The making of mind : a personal account of Soviet psychology." Harvard University Press, Cambridge, Mass.
- Collins P, Shukla S & Redmiles D (2009). "Activity Theory and System Design: A View from the Trenches." <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.84.719&rep=rep1&type=pdf>
- Computer Economics Report (2010). *IT Organizations Shift More of Total IT Spending Toward Purchasing Outsourcing Services*.

Coghian, D (2001). "Insider Action Research Projects: Implications for Practising Managers." *Management Learning* 32(49).

Costa, C (2001). "Information technology outsourcing in Australia: a literature review." *Information Management & Computer Security* 9(5): p.213 - 220.

Coverdale, A. (2011). "Phd Wiki." from <http://sites.google.com/site/andycoverdale/texts/activity-theory>.

Crawford, K & Hasan, H (2006). "Demonstrations of the Activity Theory Framework for Research in Information Systems." *Australasian Journal of Information Systems* 13(2).

Cross J, Earl M & Sampler J (1997). "Transformation of the IT function at British Petroleum." *MIS Quarterly* 21(4): p.401 - 423.

Crotty, M (1998). *The Foundations of Social Research*. London, Sage Publications Ltd.

Cullen, S (2006). "Auditing Outsourcing Deals." *Enterprise Risk Management & Governance Advisory Service Executive Update*, 3(14).

Cullen, S (2007). "Getting Smart Before You Start: Outsourcing Choices with Foresight." *Enterprise Risk Management & Governance Advisory Service Executive Update*, 4(7).

Cullen S, Seddon P & Willcocks L (2006). *Managing the sourcing process: A life cycle perspective*. Global Sourcing of Business and IT Services, Palgrave Macmillan Ltd.

Currie, W (1995). *Managerial strategy for new technology*. Aldershot, Avebury.

Dibbern J, Goles T, Hirschheim R & Jayatilaka, B (2004). "Information Systems Outsourcing: A Survey and Analysis of the Literature." *The DATA BASE for Advances in Information Systems*, Fall, 35(4).

Dictionary, Merriam Webster (2004). "Role definition." from <http://www.merriam-webster.com/dictionary/role>.

Dictionary, Oxford (2011). "Culture definition." from <http://oxforddictionaries.com/>.

Dictionary, Oxford (2011). "Epistemology definition." from <http://oxforddictionaries.com/>.

Dictionary, Oxford (2004). "Role definition." from <http://oxforddictionaries.com/>.

DiMaggio, P & Powell, W (1991). *Introduction. The New Institutionalism in Organizational Analysis*. DiMaggio, P & Powell, W. London, The University of Chicago Press Ltd.

Ditsa, G (2003). *Activity theory as a theoretical foundation for information systems research. Information management: support systems & multimedia technology*. Ditsa, G. USA, IGI Publishing Hershey.

- Ditsa, G & Davis, J (2000). Activity Theory as a Theoretical Foundation for Information Systems Research. Challenges of Information Technology Management in the 21st Century, Information Resources Management Association International Conference.
- Earl, M (1989). Management Strategies for Information Technology. UK, Prentice Hall International (UK) Ltd.
- Earl, M (1996). "The Risks of Outsourcing IT." Sloan Management Review Spring.
- Elitzur, R & Wensley, A (1997) Game Theory as a Tool for Understanding Information Services Outsourcing. Journal of Information Technology, 12, 45-60.
- Engstrom Y, Miettinen R & Punamaki R (1999). Perspectives on Activity Theory. New York, Cambridge University Press.
- Esterberg, K (2002). Qualitative Methods in Social Research, McGraw Hill.
- Feeny, D & Willcocks, L (1998). "Core IS capabilities for exploiting information technology." Sloan Management Review 39(3): p.9 - 21.
- Feeny, D & Willcocks, L (1998). "Re-designing the IS Function around Core Capabilities." Long Range Planning 31(3): 354-360.
- Fincham, R & Rhodes, PS (1988) The Individual, Work and Organization. Weidenfeld and Nicolson, London
- Finnemore, M (1996). "Norms, Culture, and World Politics: Insights from Sociology's Institutionalism." The MIT Press 50(2).
- Fitzgerald, G & Willcocks, L (1996). Relationships in Outsourcing: Contracts and Partnerships. ICIS.
- Fowler, A & Jeffs, B (1998). "Examining information systems outsourcing: a case study from the United Kingdom." Journal of Information Technology 13: p.111 - 124.
- Galliers, R & Sutherland, A (1991). "Information systems management and strategy formulation: the 'stages of growth' model revisited." Journal of Information Systems 1: p.90-112.
- Gallivan, M (1994). "Changes in the management of the information systems organization: an exploratory study." SIGCPR '94 Proceedings of the 1994 computer personnel research conference on Reinventing IS : managing information technology in changing organizations: managing information technology in changing organizations.
- Goo J, Huang D & Hart P (2008). "A Path to Successful IT Outsourcing: Interaction Between Service-Level Agreements and Commitment." Decision Sciences 39(3).
- Gonzalez V M, Nardi B & Mark G (2009). Ensembles: Understanding the Instantiation of Activities, University of Manchester & University of California.

- Gottschalk, P (1999). "Strategic management of IS/IT functions: the role of the CIO in Norwegian organisations." *International Journal of Information Management* 19: p.390 - 391.
- Greenwood, R & Hinings, C (1996). "Understanding Radical Organizational Change: Bringing together the Old and the New Institutionalism." *Academy of Management* 21(4).
- Halverson, C. (2002). "Activity Theory and Distributed Cognition: Or What Does CSCW Need to DO with Theories?" *Computer Supported Cooperative Work*(11): p.243.
- Han H S, Lee J N & Seo Y W (2008). "Analyzing the impact of a firm's capability on outsourcing success: A process perspective." *Information & Management* 45.
- Handy, CB (1985) *Understanding Organizations*, 4th ed. Facts on File Publications, New York, US.
- Harman, J (2007). "An Activity Theory approach to surfacing the pedagogical object in a primary school mathematics classroom." *Critical Social Studies*, 1.
- Harrison, R & Wells, M J (2004). *Emergent Behaviour of Human Activity Systems*. School of Computer Science, University of Reading: p.1-3.
- Hasan, H (2002). *Relating Knowledge Management to Business Strategy by means of an Activity Theory Framework*. 3rd European Conference on Organizational Knowledge Proceedings. Athens.
- Hirschheim, R, Porra, J, & Parks, MS (2003). "The Evolution of the Corporate IT Function and the Role of the CIO at Texaco: How Do Perceptions of IT's Performance Get Formed?" *Database* (34:4), Fall, pp. 8-27.
- House of Commons Committee of Public Accounts (2007). "BBC outsourcing: the contract between the BBC and Siemens Business Service." <http://www.publications.parliament.uk/pa/cm200607/cmselect/cmpubacc/cmpubacc.htm>.
- House of Commons Committee of Public Accounts (2007). "BBC outsourcing: the contract between the BBC and Siemens Business Services: The response of the BBC Trustees to the Committee's Thirty-fifth report of Session 2006–07." <http://www.publications.parliament.uk/pa/cm200607/cmselect/cmpubacc/cmpubacc.htm>.
- Intranet, BBC (2004). "BBC Technology Intranet." from <http://technology.gateway.bbc.co.uk/about/about.htm>.
- Jarvinen, P (1983). "A Role of a User in the Development and Maintenance of an Information System: empirical and theoretical findings." *ACM*: p.135 - 142.
- Jarzabkowski, P. (2003). "Strategic practices: An activity theory perspective on continuity and change." *Journal of Management Studies* 40(1).

Jonassen, D. H. R.-M., L (1999). "Activity Theory as a Framework for Designing Constructivist Learning Environments." *ETR&D* 47(1).

Katila, R & Ahuja, G (2002). "Something Old, Something New: A Longitudinal Study of Search Behaviour and New Product Introduction." *Academy of Management* 45(6).

Katz, D & Kahn, RL (1978). *The social psychology of organisations* (2nd ed.). New York. Wiley.

Kern, T (1997). *The Gestalt of an Information Technology Outsourcing Relationship: An Exploratory Analysis*. ICIS.

Kettinger, W & Lee, C (2002). "Understanding the IS-User Divide in IT Innovations." *Communications of the ACM* 45(2): p.79 - 84.

King, J L(1983). "Centralized versus Decentralized Computing: Organizational Considerations and Management Options." *Computing Surveys* 15(4): p.320-349.

Koh C, Ang S & Straub D (2004). "IT Outsourcing Success: A Psychological Contract Perspective." *Information Systems Research* 15(4).

Korpela M, Mursu A, Soriyan A, Eerola A, Hakkinen H & Toivanen M (2004). *Information Systems Research and Development by Activity Analysis and Development: Dead Horse or the Next Wave?* IFIP Working Group 8.2, Manchester.

Koschmann T, Kuutti K & Hickman L (1998). "The Concept of Breakdown in Heidegger, Leont'ev, and Dewey and Its Implications for Education." *Mind, Culture, and Activity* 5(1): p28 - p30.

Kozulin, A. (2001). *Vygotsky's Psychology*. Cambridge, Massachusetts, Harvard University Press.

Kranakis, E (1988). "Technology Assessment and the Study of History." *Science, Technology, & Human Values* 13(3/4): p.290 - 303.

Kuutti, K. (1995). *Activity Theory as a potential framework for human-computer interaction research. Context and Consciousness: Activity Theory and Human Computer Interaction*. B. Nardi. Cambridge, MIT Press: p.17 - 44.

Kuutti, K & Arvonen, T (1992). Identifying potential CSCW applications by means of activity theory concepts: a case example. *CSCW '92 Proceedings of the 1992 ACM conference on Computer-supported cooperative work*.

Lacity, M & Hirschheim, R (1993). "Information Systems Outsourcing: Myths, Metaphors and Realities." Wiley, Chichester.

Lacity M, Khan S & Willcocks L (2009). "A review of the IT outsourcing literature: Insights for practice." *Journal of Strategic Information Systems* 18.

Lacity M, Willcocks L & Feeny D (1996). "The Value of Selective IT Sourcing." *Sloan Management Review* Spring.

- Lacity, M & Willcocks, L (2006). Transforming back offices through outsourcing: Approaches and lessons. Global Sourcing of Business and IT Services, Palgrave Macmillan Ltd.
- Lash, P & Sein, M (1995). "Career Paths in a Changing IS Environment: A Theoretical Perspective." ACM: p.117 - 121.
- Latour, B (1996). On actor-network theory. A few clarifications plus more than a few complications, *Soziale Welt*.
- Latour, B (2005). Reassembling the Social. Oxford, Oxford University Press.
- Laufer, E & Glick, J (1998). Expert and novice differences in cognition and activity: A practical work activity. *Cognition and Communication at Work*. Engestrom, Y & Middleton, D. Cambridge, Cambridge University Press: p.177 - 197.
- Law, J (1992). "Notes on the Theory of the Actor-Network: Ordering, Strategy, and Heterogeneity." *Systems Practice* 5(4).
- Law, J (2007). Actor Network Theory and Material Semiotics, Lancaster University.
- Law, J & Hassard, J (2005). Actor Network Theory and after. Tyne & Wear, Blackwell Publishing.
- Lee, A (1989). "A Scientific Methodology for MIS Case Studies." *MIS Quarterly* 13(1): p.34-41.
- Lee J N, Huynh M Q, Kwok R C & Pi S M (2003). "IT Outsourcing Evolution - Past, Present, and Future." *Communications of the ACM* 46(5).
- Lee J N, Huynh M Q & Hirschheim, R (2008). "An integrative model of trust on IT outsourcing: Examining a bilateral perspective." *Information Systems Front* 10.
- Lee J N, Miranda S M & Kim Y M (2004). "IT Outsourcing Strategies: Universalistic, Contingency, and Configurational Explanations of Success." *Information Systems Research* 15(2).
- Lee, J N (2001). "The impact of knowledge sharing, organizational capability and partnership quality on IS outsourcing success." *Information & Management* 38.
- Lee, J N & Kim, Y G (1999). "Effect of Partnership Quality on IS Outsourcing Success: Conceptual Framework and Empirical Validation." *Journal of Management Information Systems* 15(4).
- Lee, N & Hassard, J (1999). "Organization Unbound: Actor-Network Theory, Research Strategy and Institutional Flexibility." *Organization* 6(391).
- Loh, L & Venkatraman, N (1992). "Determinants of Information Technology Outsourcing: A Cross-Sectional Analysis." Working Paper.
- Luria, A. R. (1966). Human Brain and Psychological Processes. New York, Harper & Row Publishers Incorporated.

- Markus, M & Benjamin, R (1996). "Change Agency - The Next IS Frontier." *MIS Quarterly* 20(4): p.385 - 401.
- Markus, M & Robey, D (1988). "Information Technology and Organizational Change: Causal Structure in Theory and Research." *Management Science* 34(5): p.583-595.
- Mason R, McKenney J & Copeland D (1997). "Developing an Historical Tradition in MIS Research." *MIS Quarterly* 21(3): p.257 - 273.
- Mason R, McKenney J & Copeland D (1997). "An Historical Method for MIS Research: Steps and Assumptions." *MIS Quarterly* 21(3): p.307 - 318.
- McGrath, K (2006). "Affection not affliction: The role of emotions in information systems and organizational change." *Information and Organization* 16.
- Mehta, N & Mehta, A (2010). "It Takes Two to Tango: How Relational Investments Improve IT Outsourcing Partnerships." *Communications of the ACM* 53(2): p.163-164.
- Miettinen, R (2000). "The Riddle of Things: Activity Theory and Actor-Network Theory as Approaches to Studying Innovations." *Mind, Culture, and Activity* 6(3).
- Miller, D & Friesen, H (1982). "The Longitudinal Analysis of Organizations: A Methodological Perspective." *Management Science* 28(9): p.1013 – 1030.
- Moon J, Swar B, Choe Y C, Chung M & Jung G H (2010). "Innovation in IT outsourcing relationships: Where is the best practice of IT outsourcing in the public sector?" *Innovation: Management, Policy & Practice* 12(2): p.217 - 226.
- Mursu A, Luukkonen I, Toivanen M & Korpela M (2007). "Activity Theory in information systems research and practice: theoretical underpinnings for an information systems development model." *Information Research* 12(3).
- Nardi, B (1996). "Context and consciousness: activity theory and human-computer interaction." MIT.
- Nee, V (1998). *Sources of the New Institutionalism. The New Institutionalism in Sociology*. Brinton, M & Nee, V. New York, Russell Sage Foundation.
- Neiderman F, Brancheau J & Wetherbe J (1990). *Information Systems Management Issues in the 1990s*. Minneapolis, Management Information Systems Research Center, University of Minnesota: p.1 - 28.
- Nellore, R & Soderquist, K (2000). "Strategic outsourcing through specifications." *The International Journal of Management Science Omega* 28: p.525 - 540.
- Nolan, R (1973). "Managing the Computer Resource: A Stage Hypothesis." *Communications of the ACM* 16(7): p.399-403.
- Olson, M (1984). "Impact of Information Technology on Work Organization: A Positive View." *International Conference of the Government of the Federal Republic of*

Germany in Cooperation with the OCED "1984 and After: The Societal Challenge of Information Technologies." Germany.

Orlikowski, W & Baroudi, J (1991). "Studying Information Technology in Organizations: Research Approaches and Assumptions." *Information Systems Research* 2(1).

Parlett, B. (1990). *To Outsource or Not to Outsource?* MTS, London.

Peppard, J & Ward, J (1999). "'Mind the Gap': diagnosing the relationship between the IT organisation and the rest of the business." *Journal of Strategic Information Systems* 8: 32-53.

Peppard, J & Ward, J (2004). "Beyond strategic information systems: towards an IS capability." *Journal of Strategic Information Systems*(13): p.168 - 169.

Pettigrew, A (1990). "Longitudinal Field Research on Change: Theory and Practice." *Organization Science* 1(3): p.267 - 289.

Platt, J (1981). "On Interviewing One's Peers." *The British Journal of Sociology* 32(1).

Ramakrishna, H V & Lin, X (1999). "Perception of the role of information technology function in organizations: toward the development of a measure." *ACM SIGCPR Computer Personnel* v.20(n.4): p.39-54.

Reitzes, D & Mutran, E (2002). "Self-Concept as the Organization of Roles: Importance, Centrality, and Balance." *The Sociological Quarterly* 43(4): p.647 - 652, 659, 665.

Rieber, R & Wollcock, J (1987). "Vygotsky's crisis and its meaning today." R. Rieber & J. Wollcock (Eds). *The Collected Works of L. S. Vygotsky*, vol. 3. *Problems of the Theory and History of Psychology*. New York, Plenum.

Robertson, I & Cooper, C (1983). *Human Behaviour in Organisations*. UK, Macdonald & Evans Ltd.

Robey, D (1977). "Computers and Management Structure: Some Empirical Findings Re-examined." *Human Relations* (30).

Rockart J, Earl M & Ross W (1996). "Eight imperatives for the new IT organisation." *Sloan Management Review* 38(1): p.43 - 54.

Rockart J, & Short J (1989). "IT in the 1990s: Managing organizational interdependence." *Sloan Management Review*, Winter: p.7-17.

Roth, W M & Lee, Y J (2007). "'Vygotsky's Neglected Legacy': Cultural-Historical Activity Theory." *Review of Educational Research* 77(2).

Rustagi S, King W & Kirsch L (2008). "Predictors of Formal Control Usage in IT Outsourcing Partnerships." *Information Systems Research* 19(2).

Sambamurthy, V & Zmud, R (2000). "Research Commentary: The Organising Logic for an Enterprise's IT Activities in the Digital Era - A Prognosis of Practice and a Call for Research." *Information Systems Research* 11(2): p.1 - 7.

Sarbin, T R & Allen, V L (1968). *Role Theory. The Handbook of Social Psychology*, Addison-Wesley Publishing Company. Volume one.

Schendel, D (1996). "Editor's introduction to the 1996 Summer Special Issue; Evolutionary perspectives on strategy." *Strategic Management Journal*, Summer Special Issue (17): p.1-4.

Schultze, U & Leidner, D (2002). "Studying Knowledge Management in Information Systems Research: Discourses and Theoretical Assumptions." *MIS Quarterly* 26(3): p.213-242.

Scott Morton, M (1991). *The Corporation of the 1990s. Information Technology and Organizational Transformation*. Oxford, Oxford University Press.

Smith AB, Taylor NJ & Gollop MM (2000). "Children's voices: Research, Policy and Practice." Auckland, Pearson Education.

Somogyi, E & Galliers, R (1987). *Towards Strategic Information Systems*. Kent, Abacus Press.

Spinuzzi, C (1996). "Pseudotransactionality, Activity Theory, and Professional Writing Instruction." *Technical Communication Quarterly* 5(3): p.295 - 308.

Stake, R (1995). *The Art of Case Study Research*. London, UK, Sage Publications Ltd.

Star, S L (1998). *Working together: Symbolic interactionism, activity theory, and information systems. Cognition and Communication at Work*. Engestrom, Y & Middleton, D. Cambridge, Cambridge University Press: p.296 - 313.

Stone-Romero E F, Stone D L & Salas E (2003). "The Influence of Culture on Role Conceptions and Role Behaviour in Organisations." *Applied Psychology: An International Review* 52(3): p.331-354.

Strassmann, P A (1995). "Outsourcing: a game for losers." *Computerworld*, 21(75).

Strauss, A & Corbin, J (1998). *Basics of Qualitative Research*. London, Sage Publications.

Suchman, M (1995). "Managing Legitimacy: Strategic and Institutional Approaches." *The Academy of Management Review* 20(3).

Swanson, E & Beath, C (1990). "Departmentalization in Software Development and Maintenance." *Communications of the ACM* 33(6): p.659 - 667.

Tanriverdi, H (2000). *Construing corporate diversification and the role of information technology for diversified firms in the knowledge economy. Proceedings of the twenty first international conference on Information systems, Brisbane, Queensland, Australia*.

Tatnall, A & Gilding, A (1999). Actor-Network Theory and Information Systems Research. 10th Australasian Conference on Information Systems.

Taylor D S, Goles T & Chin W (2000). "Normative Perception of the Role of IS within the Organization: An Empirical Test of Measuring Student Learning." AIS Electronic Library.

Thomas, E & Biddle, B (1966). Role Theory: Concepts and Research. USA, John Wiley & Sons, Inc.

Tyler, T (2006). "Psychological Perspectives on Legitimacy and Legitimation." Annual Review Psychology 57.

Van de Ven, A & Johnson, P (2006). "Knowledge for Theory and Practice." Academy of Management Review 31(4): p.802-821.

Virkkunen, J & Kuutti, K (2000). "Understanding organizational learning by focusing on "activity systems"." Accounting Management and Information Technologies 10: p298 - p301.

Vygotsky, L. S. (1987). The Collected Works of L. S. Vygotsky. Volume 1 Problems of General Psychology. New York, Plenum Press.

Walsham, G (2006). "Doing interpretive research." European Journal of Information Systems, 15(3), p.320-330.

Wang L, Gwebu K, Wang J & Zhu D (2008). "The Aftermath of Information Technology Outsourcing: An Empirical Study of Firm Performance Following Outsourcing Decisions." Journal of Information Systems 22(1): p.125 - 159.

Welke, R J & Konsynski, B R (1982). "Technology, Methodology & Information Systems: A Tripartite View." Data Base: p.48-51.

Whittle, A & Spicer, A (2008). "Is Actor Network Theory Critique?" Organization Studies 29(611).

Willcocks L, Fitzgerald G & Feeny D (1995). "Outsourcing IT: The Strategic Implications." Long Range Planning 28(5).

Willcocks L, Lacity M, & Fitzgerald G (1995). "Information Technology Outsourcing in Europe and the USA: Assessment Issues." International Journal of Information Management 15(5).

Willcocks L, Petherbridge P & Olson N (2006). Making IT Count Strategy, Delivery, Infrastructure, Elsevier.

Willcocks, L & Craig, A (2007). Building core retained capabilities. Whitepaper, Logica.

Willcocks, L & Cullen, S (2008). The CEO role in delivering strategic advantage. White paper, Logica.

Willcocks, L & Craig, A (2009). Outsourcing in difficult times: Releasing cost but maintaining control. Whitepaper, Logica.

Willcocks, L & Craig, A (2009). Step-Change: Collaborating To Innovate. Whitepaper, Logica.

Willcocks, L & Fitzgerald, G (1993). "Market as opportunity? Case studies in outsourcing information technology and services." *Journal of Strategic Information Systems* 2(3).

Willcocks, L & Fitzgerald, G (1996). *IT Outsourcing and the Changing Shape of the Information Systems Function*. Information Management. Earl, M. Oxford University Press.

Willcocks, L & Griffiths, C (2010). "The Crucial Role of Middle Management in Outsourcing." *MIS Quarterly Executive* 9(3).

Windrum P, Reinstaller A & Bull C (2009). "The outsourcing productivity paradox: total outsourcing, organisational innovation, and long run productivity growth." *Journal of Evolutionary Economics* 19.

Worthen, H (2002). "Studying the workplace: considering the usefulness of activity theory." Retrieved 19/08/2004.

Wu, I (2002). "Understanding senior management's behaviour in promoting the strategic role of IT in process reengineering: use of the theory of reasoned action." *Information & Management* 41: p.1-9.

Yin, R (1981). "The Case Study Crisis: Some Answers." *Administrative Science Quarterly* 26(1): p.58-63.

Yin, R (1993). *Applications of Case Study Research*. London, UK, Sage Publications Ltd.

Yin, R (1994). *Case Study Research*. USA, Sage Publications Ltd.

Young, P & Hood, J (2003). "Risk and the Outsourcing of Risk Management Services: The Case of Claims Management." *Public Budgeting & Finance* (Fall): p.109 - 119.

Zucker, L (1987). "Institutional Theories of Organisation." *Annual Review of Sociology* 13.