



University of Bradford eThesis

This thesis is hosted in [Bradford Scholars](#) – The University of Bradford Open Access repository. Visit the repository for full metadata or to contact the repository team



© University of Bradford. This work is licenced for reuse under a [Creative Commons Licence](#).

The implications of organizational context for Information Systems and Technology strategy formulation

A study of socio-political factors in global corporations

Anil Vishnu Vaidya

Submitted to the School of Management
of Bradford University
in partial fulfilment for the degree of
Doctor of Business Administration

Dissertation

2010

Abstract

Information systems and technology strategy has been discussed by many researchers and authors over last three decades. The concepts of business alignment, competitive advantage, value generation etc. have been elaborated and still similar discussions continue. While the advances in IS/IT strategy formulation were being made, the businesses were changing their operating models. More specifically they became global businesses active in multiple geographies at the same time.

This research aims to provide deeper understanding of IT developments in global organizations as manifested in the changing social and political environment of the organization and the reciprocal effect of social and political changes on IT strategies. Further it aims to investigate whether the relevant theories and concepts can be integrated to develop a new model that can incorporate the socio-political aspects into IS/IT strategy formulation.

To achieve this objective the literature survey was conducted to explore available published papers in the sphere of IS/IT strategy formulation. Considering that the applicability of information systems and technology falls into the sphere of social sciences, the research design focused on the qualitative approach. The primary method of data collection was through semi-structured interviews with IT managers. This was complemented by interviews with business managers and consultants. Further the experiences of the researcher in the earlier role of practitioner were taken into account.

Using grounded theory approach the information collected through interviews, own experiences and the data gathered from literature survey were used to develop a new model of IT strategy formulation. The model addresses the context part of IT strategy formulation process. This model development is aimed to counter and account for the political and social aspects of strategy development and deployment in global corporations characterised by diversity of cultures, attitudes and behaviours.

Table of Contents

1. Chapter 1: Introduction	1
1.1 Chapter 1: Section 1	1
1.1.0 Situating the problem.....	1
1.1.1 Managing for shaping - 'IT shapes organizations'	3
1.1.2 Techno-social development – the change	4
1.2 Chapter 1: Section 2	5
1.2.0 The Research – grounding the problem.....	5
1.2.1 The institutional school	5
1.2.2 Linking IT Strategy to the organizational processes.....	5
1.2.3 From the world of political science	6
1.2.4 My own experiences	7
1.3 Chapter 1: Section 3	8
1.3.0 The Proposal.....	8
2. Chapter 2: Literature Review	13
2.1 Chapter 2: Section 1	14
2.1.0 The Multi-National Corporations	14
2.2 Chapter 2: Section 2	18
2.2.0 The IT perspective of MNC.....	18
2.2.1 The IT Organization and its decision making.....	18
2.2.2 IT Strategy formulation approaches.....	19
2.2.3 Reported studies in IT strategy formulation	20
2.2.4 IT Strategy formulation - Consulting company practices	28
2.3 Chapter 2: Section 3	32
2.3.0 The Social perspective.....	32
2.3.1 Institutional perspective.....	35
2.3.2 Structuration Point of view	37
2.4 Chapter 2: Section 4	40
2.4.0 MNC from Political standpoint.....	40
2.4.1 Partisan politics	42
2.4.2 Collibration	44
2.4.3 Coalitions.....	45
2.5 Chapter 2: Section 5	48
2.5.0 Synthesis.....	48

3.	Chapter 3: Research Methodology	53
3.1	Chapter 3: Section 1	54
3.1.0	Qualitative approach of my research	54
3.2.	Chapter 3: Section 2	56
3.2.0	My research design	56
3.2.1	Methods	58
3.2.1	Interviews with the IT managers, business managers and consultants.....	58
3.2.2	My own experiences in global companies and reflections on those experiences	65
3.2.3	My impressions from a field research that I conducted for another project	69
3.2.4	Relevant industry examples gathered from secondary data	69
3.3	Chapter 3: Section 3	71
3.3.0	Data Analysis and Theory Development	71
3.3.1	Generalisability.....	73
3.4	Chapter 3: Section 4	74
3.4.1	Overall approach	74
4.	Chapter 4: Findings.....	75
4.1	Chapter 4: Section 1	75
4.1.0	Interview spread.....	75
4.1.1	Interview summary	80
4.2	Chapter 4: Section 2	118
4.2.0	My own experiences and observations: MyCompany 2001-2009	118
4.3	Chapter 4: Section 3	129
4.3.0	IT's recognition of people involvement – some corporate examples.....	129
4.4	Chapter 4: Section 4	132
4.4.0	My impressions of my recent research with IT project managers	132
4.5	Chapter 4: Section 5	133
4.5.0	Overall findings.....	133
5.	Chapter 5: Discussion.....	137
5.1	Chapter 5: Section 1	138
5.1.0	Themes summary	138
5.2	Chapter 5: Section 2	143
5.2.0	Themes discussion.....	143
5.3	Chapter 5 Section 3	172

5.3.0	Interconnected themes	172
6.	Chapter 6: Synthesis and Conclusion	175
6.1	Chapter 6: Section 1	175
6.1.0	The Synthesis	175
6.1.2	The Political aspect of people involvement	175
6.1.3	The strategy formulation.....	177
6.1.4	Model development – vital decisions	192
6.2	Chapter 6: Section 2	199
6.2.0	Conclusion and direction for future research	199
7.	Chapter 8: Appendix.....	203
8.	Chapter 8: Bibliography	206

List of figures

Figure 1-1: The proposal.....	11
Figure 2-1: McKinsey IT Survey.....	30
Figure 4-1: Interview respondents by type.....	76
Figure 4-2: Interview respondents by type of industry.....	77
Figure 4-3: Interview respondents by type of company.....	78
Figure 4-4: Strategy-Execution relationship.....	89
Figure 4-5: Cascading model of objectives.....	92
Figure 4-6: Integrated solution.....	93
Figure 4-7: Trust, confidence and IT delivery.....	96
Figure 4-8: MyCompany in 2001.....	119
Figure 4-9: MyCompany in 2003.....	121
Figure 4-10: MyCompany in 2008.....	124
Figure 4-11: Organizational responsibilities.....	125
Figure 4-12: MyCompany in 2009.....	126
Figure 5-1: Local IT governance model.....	161
Figure 5-2: Early adopters and laggards.....	165
Figure 5-3: MyCompnay: IT organization goal changes.....	166
Figure 5-4: Interconnected themes.....	174
Figure 6-1: Rational and Contextual model of IT Strategy.....	179
Figure 6-2: Images of managing	181
Figure 6-3: People response.....	184
Figure 6-4: Political component of response.....	185
Figure 6-5: Business criticality and political component.....	187
Figure 6-6: The collibratory intervention.....	190
Figure 6-7: The IPCRC model.....	194

List of Tables

Table 2-1: IT Strategy papers.....	23
Table 2-2: The success factors.....	26
Table 2-3: The objectives.....	26
Table 2-4: Characteristics of methodologies.....	27
Table2-5: Summary of theories.....	51
Table 3-1: Interviewees.....	58
Table 4-1: Interviewee codification.....	79
Table 4-2: Initial categories.....	133
Table 4-3: Regrouped Themes.....	134
Table 5-1: Themes - quotations.....	138

Acknowledgements

I dedicate this work to my late parents
Dada (Vishnu Sakharam Vaidya) and Aai (Sudha Vishnu Vaidya)
and Vahini (Vidya Ashok Vaidya).

My wife Ashwini supported me with unflinching trust, care, affection and push.
I thank my supervisor Clive Smallman, my associate supervisor Zahid Hussain
and Eva Niemann for their continued guidance and advice.

My family lovingly encouraged me in this endeavour,
my elder brother Baba (Dr. Ashok) and little sister Alka (Sampada Shidhore),
my beloved children Anirudha, Purva, Kaustubh and Prachi,
blessings from Aaji (Usha Dixit) and Ajoba (Shankar Chitale)
and my relatives and friends who cheered and patted me all these years.

Special thanks to my English editor Gayatri Gadgil.

The Supreme God showered his blessings through
Guruji Sri Sri Ravishankar, Shri Gajanan Maharaj,
Shri Swami Samartha and Shri Saibaba
and my motherland India

I bow to all of them

Anil Vishnu Vaidya

1. Chapter 1: Introduction

This introductory chapter is written in three sections:

Section 1: Situating the problem

Section 2: The research

Section 3: The Proposal

1.1 Chapter 1: Section 1

1.1.0 Situating the problem

Organizations have attempted a number of ways to formulate information systems and technology (IS/IT) strategy to meet business expectations balancing demand and supply opportunities; weaving around themes like business alignment, competitive advantage, knowledge management and value addition. Business responses to the dynamics of globalization and the cross-border movement of labour and capital combined with fast changing consumer tastes and behaviour, have led to rapidly changing demands upon IS/IT. Instability and uncertainty of demand challenge the process of developing sound IS/IT strategy. To maintain simplicity I will use the generally understood abbreviation IT to represent IS/IT in the rest of this thesis.

Over the last several years, exponents like Earl (1988, 1993, 1996), Galliers (2004, 2006) Peppard (2004), Levy (1999, 2000), Lederer and Sethi (1988) and many others have contributed to the research on IT strategy processes. One notices in the literature the usage of various terms like techniques,

methods, methodologies, frameworks and approaches. While some authors use these terms interchangeably, there are differences in the way these terms are interpreted. The terms method and technique stress on specific procedural aspects. They narrate activities and tasks that are carried out in a particular sequence. The term methodology incorporates the philosophy behind a particular way of working. The term framework implies an outline model of how IS can potentially fit with firms' objective of gaining competitive advantage. How IT can gain strategic gain for the organization and where opportunities can be found, provide frameworks for analysis. Earl (1988 p. 34) referred to the strategic purpose of IT and information systems while offering 'framework of frameworks'.

The term 'approach' connotes a broader spectrum. Earl (1996, P. 140) explains 'approach' as the interaction of method, process and implementation, as well as the variety of activities and behaviour upon which the respondents had reflected. An approach may comprise a mix of procedures, techniques, user-IS interactions, special analyses and random discoveries. The elements of an approach can be seen as the nature and place of method, the attention to and the style of process, and the focus on and probability of implementation (Earl, 1993 p. 7).

Furthermore, IT implementations invariably bring in work practice changes; which in turn herald structure changes. Khan and Azmi (2005 p. 59) reported that "the dramatic advances are happening as IT begins to transform our lives in profound ways and envelops us in its distinctive culture". It is difficult to understand organizations without understanding technology; on the other

hand it is challenging to understand technology without knowing the organization.

There is every reason to expect that organizations will continue to change as newer generations of information technology emerge. Hence information technology deployment is more correctly conceived of as an ingredient of a more complex process of social change.

1.1.1 Managing for shaping - 'IT shapes organizations'

Palmer and Dunford (2002 p. 244) have offered a model of change

approaches incorporating two images of managing and three images of outcome. The authors referred to the managing themes as 'management for controlling' and 'management for shaping'. The 'management for controlling' follows conventional concepts of the tasks of management i.e. planning, organizing, commanding, coordinating and controlling. The initial implementations of IT, more commonly known as data processing and MIS, can be related to managing changes from a controlling perspective. In the last two decades, information technology has advanced rapidly, especially with the advent of the internet and personal computers. The IT/IS strategies that get implemented in the current era owe more to the 'shaping' image of management, wherein specific actions are designed to enhance organizational capabilities. Orlikowski and Barley (2001 p. 145) acknowledge that technological changes and the institutional context are 'reshaping' economic and organizational activity. Peppard and Ward (2004 p. 169) proposed another era moving towards organizational IS capability.

Information technology is commonly viewed as holding significant potential for organizational transformation. The importance of technology as a driver

for organizational change is a dominant theme in the literature (Pettigrew, 2000 p. 23). Each new generation of technology and each major advance in technology has been claimed to have fundamentally and radically altered the organizations. Changes in world economies have been brought about by globalization and are influenced by technology.

1.1.2 Techno-social development – the change

The evolving organization is an amalgam of systems, processes and people linked to each other through high speed and real time information.

Organizational systems and culture evolve gradually, taking root over time.

Their gradual adoption also enables managerial practices to adapt to evolving culture (Khan and Azmi, 2005 p. 60).

In a way one can see the techno-social aspect in the IT strategy formulation phase as well as in the execution phase. In large organizations, the strategy formulation involves resolving conflicts between many different interest groups through social interactions. Hence, borrowing from the political arena, I will elaborate the concepts of Lindblom's partisan mutual adjustment, Dunshire's collibration and Sabatier's advocacy coalition framework in the next section.

1.2 Chapter 1: Section 2

1.2.0 The Research – grounding the problem

The literature published in this sphere leads me to believe that IT-led changes need to be studied along the social factor, with the definite interactive theme between the people behaviour guided by their assumptions and values and technology as guided by IT and business strategy. Structuration (Riley, 1983 p. 414) offers connection between human actions and structural explanation in social analysis. It is the production and reproduction of social systems. It is interesting to view this in light of IT deployment.

1.2.1 The institutional school

The institutional school views technology as an opportunity for change. They believe that social structures evolve to use the technology; people's behaviour determines the use of technology rather than its intended use by the designer (DeSanctis and Poole, 1994 p. 124). Institutional influences enable as well constrain the vision. An institutional perspective would offer IT researchers a vantage point for conceptualizing the digital economy as an emergent, evolving, fragmented and provisional social construction that is shaped as much by the cultural and structural forces as by technical and economic ones (Orlikowski and Barley, 2001 p. 153).

1.2.2 Linking IT Strategy to the organizational processes

IT strategy formulation and execution requires the involvement of various parties from businesses, IT specialists as well as vendors and IT users, necessitating agreement amongst various parties during the formulation as well as the execution phases. The IT users also happen to be at different levels in terms of organizational hierarchy; in large companies they are

spread over disparate locations in multiple countries that are bounded by their own culture, behavioural norms and attitudes. In effect, the users themselves exhibit various personas that many IT specialists strive to fit into finite types. In the majority of cases the IT strategists follow the standardization path forcing homogeneity in processes and work life across various cultures and people groups. In real life such a drive is considered a high-handed approach of fitting all pegs in square holes and is as such resisted in various ways. It is vital for the IT strategists to consider the human side of people and the social groups and structures that come into play. We can easily learn from the practices and direct/indirect ways of handling such diversities. I want to visit some concepts from politics here.

1.2.3 From the world of political science

The strategy formulation process itself gets influenced by the groups of people connected with its development and unfolding of various the social and political interests of these groups. I have reviewed here the publications from the field of political science to bring forth the political aspects of the IT strategy formulation setting; I believe these have important implications on the evolution of IT strategy in organization.

I would like to draw a parallel to the IT Strategy formulation in large global organizations. Various divisions of such corporations have their own interests; in addition they constitute parts of a larger corporate structure compelling them to arrive at a common vision. While the product divisions equal political participants in the democratic system, the IT organization of corporation is comparable to the bureaucracy-the execution wing.

In corporations, senior management member bodies like management councils intervene when formulating IT Strategy, through democratic buy-in processes pose a challenge. Dunshire's 'collibration' (Dunshire, 1993) as intervention process is evidenced in such cases. In the strategy formulation the coalition actors (Sabatier 1991), like product divisions, exhibit shared values at higher levels while there are differences at lower levels. It will be interesting to know the relative proportion of 'partisan mutual adjustment' (Lindblom, 1965) versus the 'collibration intervention' (Dunshire, 1993). I would expect that in founder-driven organizations and in senior management influenced organizations the intervention would make up a higher proportion of IT strategy formulation.

1.2.4 My own experiences

My experiences in a multi-national corporation match the concepts of 'collibration', 'partisan mutual adjustment' and the 'advocacy coalition framework'. It is a multi-division global organization with team of divisional CIOs led by the Corporate CIO. The CIO team, making up the 'IT Policy Board', acts as a coalition working towards IT policy making. I have witnessed the CIO deploying 'collibration' concepts as an intervention process. The 'partisan mutual adjustment' could be noticed in gaining agreement on overall global IT strategy. The IT Policy Board showed strong support to the overall strategy though at secondary levels members had differing opinions, aligning with the ACF principles (Sabatier 1991). During the Global IT Conference in 2008 the IT community had experiences matching three theories.

1.3 Chapter 1: Section 3

1.3.0 The Proposal

Without claiming to be exhaustive or definitive, I have reviewed here various approaches for IT strategy development; rarely there has been a development methodology that takes into consideration the role IT plays in the social environment and the way it gets affected by the social environment. On the IT implementation side, the sociological material on structuration theory (Giddens, 1995) and the institutional theory (Scott, 1987) throw light on evolving patterns of usage and the organization's formal and informal structures and functioning that are shaped by it.

Grounding in the above theoretical framework, I have analysed the findings from the outcome of data gathered through face-to-face meetings and telephonic interviews with several leading IT managers as well as Business leaders and Consulting experts.

There is more and more awareness of social factors and the influence they can exert on IT strategy development as well as implementation. During my initial informal chats with business leaders and IT managers it became apparent that the business leaders seemed to be more aware of these ingredients rather than the IT community. The study findings published by Kerney (2006 p. 59) corroborate this view of senior business leaders. They recognized that IT alignment has to move towards integration of business and technology. The consulting and experts world seem to be concentrating more on procedural aspects of the strategy development process, although I must admit that they do exhibit awareness of the people factor in their proposed models. Still there is need to bring a greater recognition and

incorporation of socio-political influencers in the overall strategy formulation process.

This research aims to provide deeper understanding of IT developments in large global organizations as manifested in changing social order/organization and the reciprocal effect of social changes on IT strategies. I intend to explore some strategies to effectively negotiate this process of change. It is argued that the people groups, the 'body politics', affect IT progress in the organizations right from its inception stage. On the other hand the IT deployment in the organization restructures the social order of the organization through its implementation stages. 'Politics of Technology' introduced by Berg (1998) pointed to the interrelationships of "technology" and "work practices" and the "type of worlds" they evolve. I will examine the analytical and political power of this approach.

An important and relevant fact is that the people who order technologies are not the people who use it; also that people who gather requirements are often not those who design technologies. In a large organization there are groups of people at different levels who are entrusted with different responsibilities. This brings out the vital point that technology strategists themselves although may be users, do not happen to be the prime individuals to decide how technology is used in actual practice.

Bartunek (1984 p. 357) model supports the relationships among interpretive schemes, emotional reactions and actions of organizational members and the organizational restructuring. Shared interpretive schemes are shared fundamental assumptions and the ways the organizational members are

drawn together. Technology affects structure through mediation of powerful organizational members (Bartunek, 1984 p. 355).

The IT strategy emanates from business requirements that are pronounced through business strategy. It is equally true that the IT strategy on its own influences the business strategy. The IT strategy guides various projects and roll-outs of technology and tools in the organization. The implementations in turn affect processes and then the social order and structures. It is the practice that determines the effectiveness of technology rather than its intended usage. Actual usage of technology in the real world results in evolving new structures that shape the future of the organization. The importance of the social factor has been addressed by number of researchers like Orlikowski (2006), Davenport (2005), Pettigrew (2000).

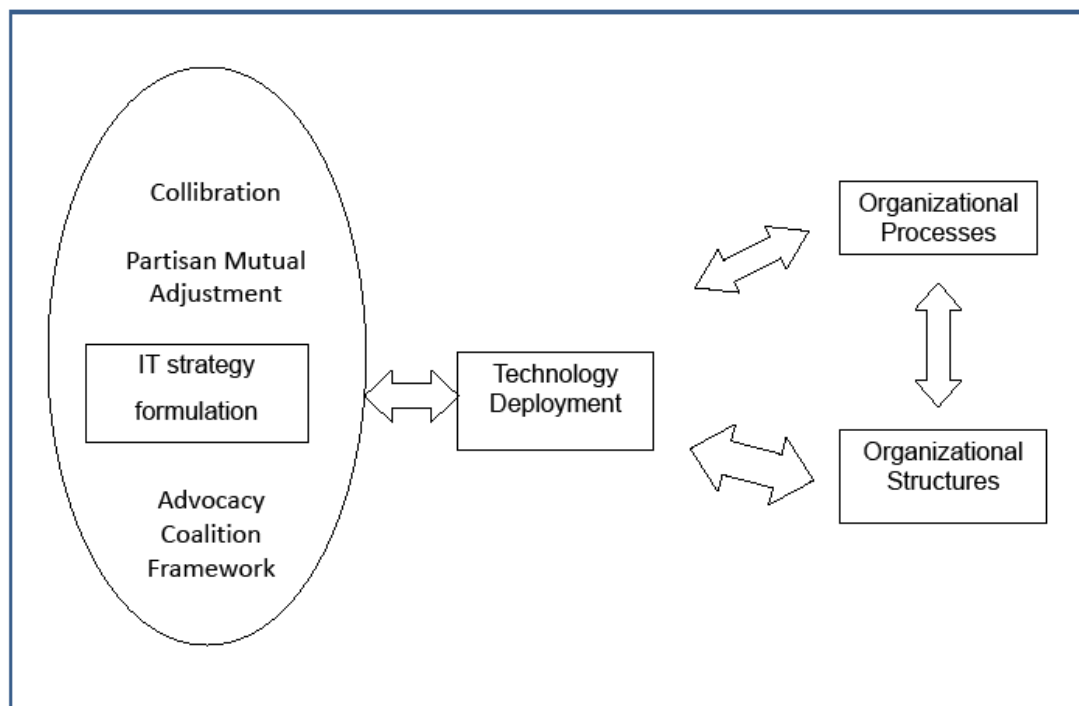


Figure 1-1: The proposal

The model depicts the changes that take place in the organization, intended or unintended, while formulating strategy and implementing technology. It also shows the interactivity amongst the technology, the processes and the

structures. It is necessary that the IT strategy formulators embed the end result of organizational structure changes in the criteria for effectiveness of IT strategy. I propose that:

1. IT strategy formulators consciously consider the social and political factors, through interaction with various groups, during the formulation process.
2. The IT strategy formulation process accounts for organizational work practice changes and includes planning for structure change implementation, if any.

Research question

What process of IT strategy formulation do global organizations adopt to make the intended organizational work practice and structural changes happen?

Thesis Organization

This thesis is organized into the following chapters, followed by appendix and bibliography:

Chapter 1: Introduction

Chapter 2: Literature Review

Chapter 3: Research Methodology

Chapter 4: Findings

Chapter 5: Discussion

Chapter 6: Synthesis and conclusion

2. Chapter 2: Literature Review

Introduction

The preceding chapter identified some important components of the literature review. I have devoted a major portion of this review to the IT strategy formulation approaches and the social and political elements that come to the fore in global corporations. It is important to visit the character and business of geographically spread multi-national corporations (MNCs), especially the challenges posed by the diversity to the IT strategy formulation and its deployment. Initially I have dealt with the overview of the changing scenario of multi-national corporations (MNCs), followed by the IT perspective of MNCs and have then moved on to discussion on the IT strategy approaches.

I have structured this chapter by reviewing literature in following sequence:

Section 1: Multi-National Corporation – the globalisation trend and its effects

Section 2: The IT perspective of MNC – IT strategy in global corporations

Section 3: The social perspective of MNC

Section 4: MNC from political standpoint

Section 5: Synthesis

2.1 Chapter 2: Section 1

2.1.0 The Multi-National Corporations

Over the last 3 decades, the businesses have gone global in the true sense.

We have witnessed the growth of large corporations across continents and in multiple businesses. As the companies went global, their competition intensified; they not only competed with large companies but also with smaller companies in local markets with local resources and technologies.

As the new economic scenario unfolded over the last two decades, the multi-national corporations faced new challenges like internationalization, advances in technology, turbulent political environment and downsizing (Stiles, 1994 p.132). With cost reduction as one of the motives, companies adopted strategies to place their manufacturing centres in locations that give strategic advantages. From the parent company's local manufacturing, the business leaders moved the production facilities to lower cost countries.

Coupled with out-sourcing and off-shoring, the manufacturing concepts underwent a complete overhaul. The same principles were followed in the services sector with many services being either out-sourced or moved to low cost countries. As an example I cite here IT transformation at Accenture and Groupama that brought in significant cost reduction (Curtis *et al*, 2006 p. 53, 54). The internet and the communication technologies made such a transition smoother.

Contingency theory of organization proposes that design of the organization and its subsystems must fit with the environment and that the effective organizations not only have proper fit with the environment but also between its subsystems. No 'one best way' of organizing exists; organizations must

be designed according to their specific situations (Herbert and Matthews, 1977 p. 2). Fiedler's theory asserts that group performance is contingent upon the leader's psychological orientation and on three contextual variables: group atmosphere, task structure and leader's power position.

Contingency moderators specify the circumstances in which leader behaviour is likely to be effective (House, 1997 p. 323). Wetherbe and Whitehead (1977 p. 20) offered the contingency theory based data processing management model proposing that the best way to manage is the way that fits organizational constraints and contingencies. They further proposed that the EDP manager must contingently balance structure and relation orientation. Luthans and Stewart (1977 p. 194) offered the General Contingency Theory (GCT) as a conceptually pragmatic, research-based framework.

As 'globalization' got firmly rooted as a business tenet, the companies started growing through acquisitions and mergers besides organic growth. The different cultures, perspectives and attitudes got together under a single umbrella of global companies. While such transition encompassing globalization, outsourcing and off-shoring was taking place, little attention was being paid to people factors. With the spread of multi-national corporations (MNCs) the importance of the socio-political dimension of practices, strategies and activities comes into play (Geppert and Mayer, 2006 p. 4). Morris *et al* (2009 p. 973) reported that though common practices can lead to competitive advantage, global firms often struggle to replicate them among their culturally and geographically dispersed subsidiaries because of complexity and contextuality. Faced with mounting pressures to

globalize operations MNCs, irrespective of home country, are increasingly developing a global perspective in formulating and implementing strategy (Morrison and Kendall, 1993 p. 105).

To achieve maximum synergies as well as economies of scale, the actions of subsidiaries are tightly linked or integrated across countries. The process of knowledge transfer between parent and subsidiaries carries typical characteristic of ease of flow from parent to subsidiary while the reverse flow is far more challenging. The subsidiary may be motivated to transfer knowledge to strengthen their strategic position in the whole organization but the parent would be interested only in the beneficial part (Yang *et al*, 2008 p. 885).

The challenge to the leader of 21st century corporations is to maximise productivity and profit without losing sight of the process. Focus on enhancing employee value through various means will help the leader to face the challenge (Ricardo, 2010 p.16)

Organizations were being considered as institutionally formed entities which were expected to survive only by complying with the institutionally formed expectations. In a way, such expectations were also considered contributing to the structure of organizations. Over the last few decades it has been increasingly realized that diffusion of practices contributes heavily towards organization structuring. However, in such a view, the way practices are adopted or interpreted is nearly ignored (Geppert *et al*, 2006 p. 1452).

As firms move towards transnational strategy coordination, complexities increase, emphasizing the dependence of subsidiaries on HQ and

interdependence among peer subunits and between subunits and HQ
(Farndale *et al*, 2010 p.47).

2.2 Chapter 2: Section 2

2.2.0 The IT perspective of MNC

2.2.1 The IT Organization and its decision making

In an MNC spread over multiple countries, the IT services are strategized and delivered through an IT organization that carries the responsibilities of ensuring the requisite level and cost of such services. In a divisionalised organized company, the global CIO also has counterparts in the form of divisional CIOs who look after the IT interests of their individual businesses. Depending on the degree of autonomy awarded to a division, the divisional CIO may carry a lean or fat team of IT professionals to bolster the IT services of the division. Barton (2003 p. 12) has identified such variants of IT organizations based on the forces between demand and supply in global firms, from totally centralized to totally decentralized structures. He has described IT organizations in Philips, Nestle, Novartis, Toyota and UBS elucidating the principle that IT organization structure follows the business structure of divisionalisation, regionalization and complete centralization.

The complexity of divisional structure invariably leads to a matrix structure with most senior employees having at least one hierarchical and one functional manager. The diversity of business perspective, geographic reach, technological availability and economic considerations makes a challenging composite for the CIO to iron out the IT strategy for the corporation. A key governance issue hovers around the concept of local versus centralized control of IT decisions. Giving the sprawling IT operations a common agenda, while providing companies with sufficient independence in their local market, then realigning and consolidating their service-delivery

capabilities turns out to be a major transformation challenge (Curtis *et al*, 2006 p. 50).

2.2.2 IT Strategy formulation approaches

The literature review shows that over the past three decades, practitioners and researchers have proposed and attempted various approaches towards IT/IS strategy formulation. The Information Systems Planning concepts have been in usage since the businesses turned to information technology. The initial usage was more towards assisting senior management in their planning and forecasting exercise. Some generally implemented common ideas were financial accounting, reporting, and resource planning. With strategic alignment and competitive advantage coming to the fore, the concept of SISP, the Strategy Planning Information Systems arrived on the scene.

Over last three decades, the focus of IT has changed from being a purely technical function to a business supporting function and now more towards a business value adding role. In financial institutions as well as some other service sectors like BPOs and call centres, the IT is completely integrated as a business ingredient. In the last fifteen years, it has been realized that business strategies drive IT strategies and IT strategies show a much higher business orientation. Some recent literature also points to the influence of cultural and organization factors (Kanungo *et al*, 2001 p. 33).

Strategy-as-practice

Practice is concerned with the work of strategizing including the way the strategists act and interact, comprising of arbitrating, advocating, analyzing and advising. The day-to-day interactions are being referred by Jarzabkowski (2003 p.24) as practices. The practice perspective of strategy shifts the focus from core competencies of corporation to the practical competencies of the strategists. The craft skills become as important as the technical (Whittington, 1996 p. 732). The strategy-as-practice focuses on the strategists themselves and on the way their day-to-day interactions continue their act of strategizing. Strategy cannot be distinguished from day-to-day running of the firm (Sminia, 2005 p. 286). Thus the practicing managers need skills to read between the lines and pick up meaning from every discussion.

2.2.3 Reported studies in IT strategy formulation

Many researchers have examined practices in industry and have reported their observations in the area of SISP. Segars *et al* (1998 p. 306) defined SISP as a process conducted within the previously defined scope, perspective, timeframe and level of abstraction while Lederer and Sethi (1988 p. 445) defined SISP as the process of deciding the objectives for organizational computing and identifying potential computer applications which the organization should implement. Lederer and Sethi (1988) investigated problems in SISP implementation in 80 organizations to examine difficulties in implementing a methodology. They have reported the top ten problems of the four most frequently used methodologies advising

practitioners to examine problems and attempt to anticipate some in their own organizations.

Two of the most significant issues were (Lederer and Sethi, 1988 p. 459):

1. Top IS executive's reporting relationship
2. Organization's business planning sophistication

Raghunathan and Raghunathan (1991) reported the analysis of 192 responses of IS executives. They added to the above list five key design dimensions of IS planning:

1. Planning system capability
2. Link to organizational concern
3. Internal considerations
4. Organization specific environmental considerations
5. General environmental considerations.

Raghunathan and Raghunathan (1991 p. 133) reported that the long-run viability of organization could be closely tied to its ability, through the strategic use of IT, to respond to external and internal factors. Earl (1993) proposed taxonomy of five SISP approaches: Business-led, Method-driven, Administrative, Technological and Organizational. He advocated that the technique of SISP was only one element; for completeness one needs to consider process and implementation. Earl (1996 p. 153) reported the re-examination of original data and confirmed 'the organizational approach' to be the best SISP approach. Galliers *et al* (1994) observed the executive workshop proceedings and proposed a process comprising of sponsor

meetings, participants interviews, strategic planning workshop(s), action and finally follow-up and review.

Galliers (2004 p 256) suggested an inclusive framework for information systems strategizing comprising of Exploitation strategy, Exploration Strategy, Information infrastructure strategy and Change management strategy, interacting with Collaborative business strategy. He further revised the framework with Exploitation, Exploration and Change management strategies within overall knowledge creation and sharing infrastructure (Galliers, 2006 p 236). Such a framework would facilitate the exploration and exploitation of knowledge with the flexibility necessary to enable appropriate responses to changing business imperatives.

I have tabulated here papers from various researchers on IT strategy:

Table 2-1: IT strategy papers

Sr. No.	Year	Paper	Author	Samples size studied
1	1988	Implementation problems for SISP	Lederer and Sethi	80 organizations
2	1991	IS planning dimensions and its effectiveness	Raghunathan and Raghunathan	192 responses
3	1994	SIP Workshop	Galliers <i>et al</i>	3 workshops
4	1993 & 1996	5 Approaches to IT strategy making	Earl	27 firms – 6 case studies and 63 executives from 21 firms
5	1997	Team Approach	Mentzas	1 case study
6	1998	SISP Success measures	Segars and Grover	253 responses
7	1999	Integrated SISP methodology	Min <i>et al</i>	1 case study
8	1999	Profiles of strategic information planning	Segars and Grover	253 responses
9	1999	ISS for SMEs – framework analysis	Levy, Powell and Galliers	4 case studies
10	2000	IS Strategy for SMEs: refined model	Levy & Powell	42 organizations
11	2002	Four cycles	Salmela & Spil	Based on 18

				organizations
12	2004	3 Domains for implementing integrated information systems	Wainwright & Waring	Based on previous studies
13	2004	IS capability	Peppard & Ward	Based on previous studies
14	2005	Stages in SISP	Grover and Segars	253 responses
15	2007	Effectiveness of SISP in environments of heterogeneity and hostility	Newkirk and Lederer	220 responses

From the reported research on practices and the IT/IS strategy formulation themes proposed by various authors, it is quite clear that there are multiple approaches that are followed in reality. Every approach is considered appropriate in the context and the temporal setting of the situation and the organization. However, there are certain types that are followed more frequently than others. Ward and Peppard (2007, p.134) suggest that there is no single prescriptive methodology for conducting IS/IT strategy formulation and planning. Rather a framework and tool box of techniques can be proposed that can be deployed in a wide spectrum of environments.

Doherty *et al* (1999) reported their findings of an empirical study based on the responses of 267 companies. They concluded that there was strong empirical evidence that SISP was a multi-faceted approach, rather than being simply a uni-dimensional method or a technique. Given the unique

circumstances of each individual organization, it is unlikely that there could be a single prescription that is universally appropriate. Doherty *et al* (1999) proposed that while under certain conditions an 'organizational' approach may be appropriate; it may be further modified to incorporate further principles like that of enhanced participation.

Some significant aspects noticed in the literature review have been about:

1. The various methodologies, approaches and frameworks for IT/IS planning
2. The objectives of IS planning
3. The success factors for IS planning
4. The effectiveness criteria

There are few articles that show how the use of techniques leads to success. Further very few organizations measure the success (pers. comm.. Ward, 2010). I cite here some examples of variation in views held by researchers

Table 2-2: The success factors

<p>Item measures for planning success by Segars and Grover (1998 p.150):</p> <ol style="list-style-type: none"> 1. Planning alignment – 6 items 2. Planning analysis – 6 items 3. Planning cooperation – 7 items 4. Planning capabilities – 7 items 	<p>Earl identified these success factors for SISP (Earl, 1993 p. 6):</p> <ol style="list-style-type: none"> 1. Top management involvement 2. Top management support 3. Business strategy available 4. Study business before technology 5. Good IS management
---	---

Table 2-3: The objectives

<p>Earl (1999 p. 3) follows these objectives for SISP:</p> <ol style="list-style-type: none"> 1. Aligning IS with business needs 2. Seek competitive advantage from IT 3. Gain top management commitment 4. Forecast IS resource requirements 5. Establish technology path and policies 	<p>IS planning objectives by Raghunathan and Raghunathan (1991 p. 128)</p> <ol style="list-style-type: none"> 1. Predicting future trends 2. Improving short-term IS performance 3. Improving long-term IS performance 4. Improving decision making 5. Avoiding problem areas 6. Increasing user satisfaction 7. Improving systems integration 8. Improving resource allocation
--	---

Lederer and Sethi (1988 p. 449) tabulated the characteristics of different methodologies aligning MIS objectives with organizational goals or having an impact on organizational strategies by providing competitive advantage (column 2). Column 3 shows focus of methodologies, column 4 shows provision in methodologies to support development of data structures from study and column 5 indicates automated storage, manipulation and presentation of data collected in the SISP process.

Table 2-4: Characteristics of methodologies

Methodology	Impact or alignment	Focus	Defines data architecture	Automated support
Business Planning Systems	Primarily alignment	Data	Yes	No
Strategic Systems Planning	Primarily alignment	Data	Yes	Yes
Information Engineering	Primarily alignment	Data	Yes	Yes
Method/1	Alignment	Projects	No	No
Critical Success Factors	Can be both	Decision information	No	No
Customer Resource Life Cycle	Impact	Customers	No	No
Value Chain Analysis	Impact	Internal Operations	No	No

2.2.4 IT Strategy formulation - Consulting company practices

The following information was collected from relevant company websites; the website details are included in the bibliography.

IBM

IBM (2009) offers technology strategy services comprising of SOA (Service Oriented Architecture) strategy, application support strategy, governance models and innovative technology strategy. It believes that business and technology integration is essential to innovation. There has been a lot of stress on innovation capabilities of technology. It is the technological change that impacts businesses most by efficiency drives, customer orientation, new business trends etc. Two of the important factors that emerge from IBM strategy services are in the areas of:

1. Enhancing competitiveness
2. Creating new sources of economic value from technology

IBM's model includes three phases of insight, blueprint and investment. It considers this approach as providing the business process-driven IT vision, competitive position, future oriented assessment and business-driven project priorities.

IBM also is an exponent of transformation and change processes; it offers consulting services to help the client envision and transform businesses. Under the banner of IT strategy, IBM focuses on the business value of technology and the processes associated with it. While there has been a mention about change processes, there is no mention of the social and political environment that exists in the organizations.

Gartner

Effective enterprises gain competitive advantage from many sources including IT. However, IT often understates its contribution by concentrating on delivery and assuming that business executives know what else it can contribute. This assumption must change (Gartner, 2004). In Gartner's view, the IT strategy is integral part of business strategy. It has scripted 'contribution strategy' as an important element of overall strategy which it believes has been missing from most strategies (Gartner 2009). The other part that Gartner concentrates on is delivery; in effect Gartner IT strategy has two important parts:

1. Contribution strategy
2. Delivery strategy

The contribution strategy links IT to business performance through multiple frameworks. It addresses the question 'what is the contribution of IT to enterprise competitive advantage?' The delivery strategy addresses 'how IT delivers that contribution'. Gartner suggests frameworks like the return on capital employed (ROCE), the return on equity (ROE) to link shareholder value to IT capabilities and Porter's framework to strategic positioning to IT capabilities. It believes that IT needs more business competencies in IT to work with business in developing a contribution strategy. It also advises two essential elements towards success of IT strategy viz. level of IT credibility and maturity of IT governance.

McKinsey

The following picture shows an outcome of a McKinsey survey on IT strategy. The shift to the next level of IT strategy will require changes in management and budget priorities, as well as multiyear planning. Most IT strategists agreed that IT Strategy is shaped through cooperation with their business counterparts (McKinsey, 2007).

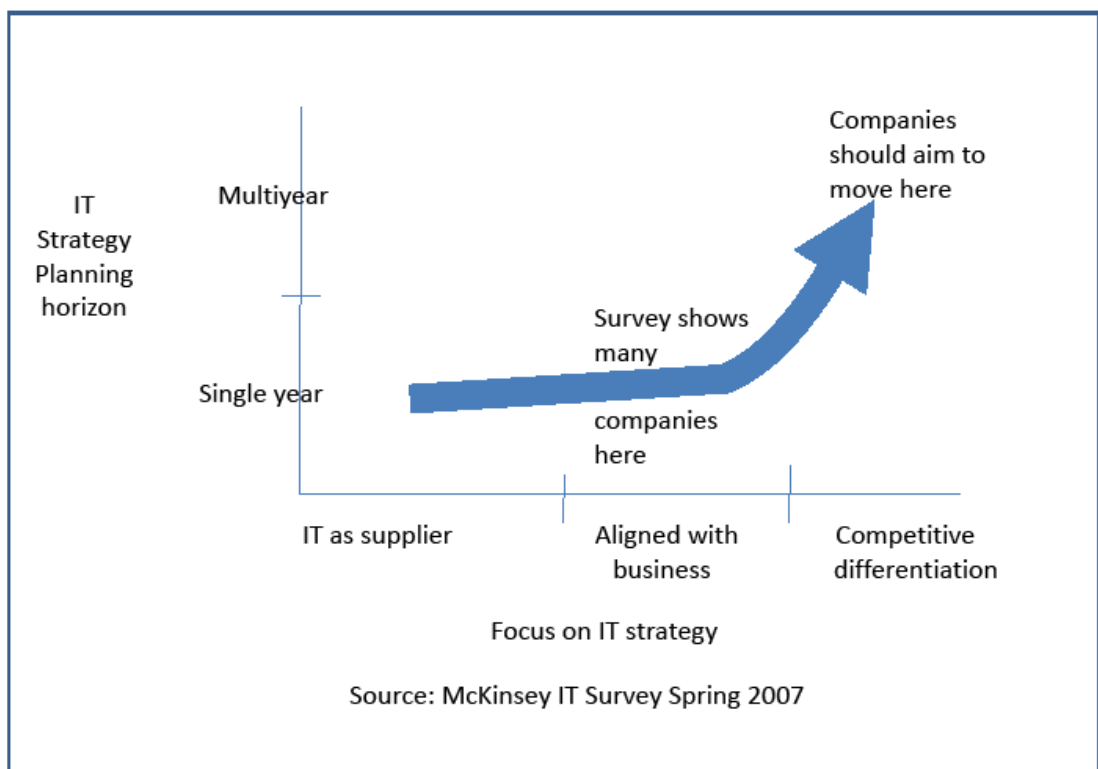


Figure 2-1: McKinsey IT survey

IT strategy in most companies has not yet reached its full potential which involves exploiting innovation to drive constant improvement in the operations of a business and to give it a real advantage over competitors with new products and capabilities (McKinsey, 2009).

Accenture

Accenture research indicates that high-performance businesses view IT as a strategic asset – a source of both operational excellence and competitive advantage (Accenture, 2009). Accenture offers services to tune the top management mindset to IT as a strategic asset concept and it claims to have professionals with a keen eye on the value-creating approach for IT.

2.3 Chapter 2: Section 3

2.3.0 The Social perspective

Frames of reference held by organization members impact the reactions of members to the changes in their environment introduced by organization management and external factors. Interpretations awarded by members based on their reference frames result into the actions of members.

Orlikowski and Gash (1994) introduced the term Technological Frames to the assumptions, expectations and knowledge of technology members hold about technology. It is important to understand the technological frames of managers, technologists and users to understand the use of technology, development of technology and the organizational changes (Orlikowski and Gash, 1994 p. 174). People's technological frames will influence their actions towards technology. Deeper understanding of such influencing factors helps in bringing the successful organizational changes. TFR framework is positioned as a complementary perspective to studies of power and politics in organizations. Davidson (2006 p. 35) has proposed that the technological frames of reference have provided a valuable perspective on IT and organizational change. She has identified six generic frame categories dealing with information technology. Moving beyond frames, framing is an important process during IT related change programs, as interaction between IT and organization has a temporal aspect. Framing becomes a dynamic process as frames shift over time. Additionally, Orlikowski and Yates (2006 p. 130) have suggested that usage of systems depends on the materiality of technology and on what people do with technology i.e. practice. Every practice is shaped by technological and institutional conditions and consequences.

Karahanna *et al* (1999) studied the differences between pre-adoption and post-adoption beliefs and attitudes related to technology usage. They concluded that the antecedents of adoption and usage are indeed different; while the normative component dominates the behavioural intention to adopt it is the attitudinal component that determines behavioural intention to continued usage (Karahanna *et al*, 1999 p. 199). Use of social pressure may be useful for the quick adoption of technology. The change agents may market new technology much faster; similarly marketing efforts, training and other inputs help quicker adoption. Post-adoption continued usage will be largely influenced by the attitude developed through beliefs of usefulness and perceptions of image enhancement (Karahanna *et al* 1999 p. 204).

Structural changes are often undertaken as an important strategy for exercising power, the linkage between power and structure. People also lose power when they do not change their approaches or styles to accommodate changes in organizational environment (Daniel, 1993 p. 339). The ICT development and the organization imperatives have a reciprocal effect. The management intentions of improvement sought through IT implementations impact the social ordering of the organization while social systems in the organizations affect the implementation. Such reciprocity has been noted by researchers like Constantinides and Barrett (2006 p. 77). It is also argued that people's ability to gain power over others undergoes significant changes as they get access to more resources. In effect, ICT implementations bring about changes in the social structure of organization as well. Constantinides and Barrett (2006 p. 80) discussed the concept of 'boundary formation' and standardisation as vital to success of IT implementations. Boundary

formation refers to the process of creating common means for collaboration between various parties while standardisation refers to the process of creating universal meaning and understanding through standard tools, activities and formats. The boundary formation process offers common ground for negotiations rather than enforcing common meaning all over. The awareness of the effects of body politics and step-by-step deployment through self-motivated user groups have been suggested strategies.

Similar ideas were put forward by Wagner and Newell (2006 p. 41) using terms such as “organization by common aims” or “reciprocity”, where ultimately the organization changes successfully through resolution of conflicts and acceptance of a new social order. Instead of IT driving or enabling the change, a complex reciprocal relationship exists between IT and the organization which brings about ultimate change. Individuals do not create change; instead it is brought about by the coordinated actions of many individuals. A savvy manager has to recognize the needs and motivations of other parties and negotiate a compromise to deliver a solution that is satisfactory. Wagner and Newell (2006 p. 55) proposed the reciprocity as the basis for production of social order, although not ideal. One needs to integrate multiple perspectives while allowing for different goals. In case of ERP implementation, it may be useful to carry out a certain level of customization to achieve a workable solution.

2.3.1 Institutional perspective

The focus of institutionalists is more on social evolution of structures within human institutions and less on structures within technologies.

Institutionalism expects that there are social structural features that exist for some time period i.e. stability. Institutions affect behaviours of members, formally or informally, members also carry shared meaning and values.

In political science, Peters (1999 p. 19) has identified approaches of institutional theories.

1. 'Normative Institutionalism' suggests 'logic of appropriateness' as a means of shaping behaviours of institutions.
2. 'Rational Choice Institutionalists' believe that behaviours are a function of rules and incentives.
3. Proponents of 'Historical Institutionalism' believe that initial policy choices, and the institutionalized commitments that grow out of them, determine subsequent decisions.
4. 'Empirical Institutionalists' argue that structures make a difference in the way policies are processed and choices are made.
5. 'International Institutionalism' refers to the theoretical place assigned to structures in explaining behaviours of states and individuals.
6. 'Societal Institutionalism' relates to structuring of relationships between state and society.

The sociological standpoint rejects the rationalistic analysis of organizations while often assigning a role to politics in shaping the institutes (Peters, 1999 p. 21). Researchers have resorted to the institutional theory to explain the observation in the information technology domain. Robey and Boudreau

(1999) explained the technology resistance offered by organizations using the institutional theory. Information technologies may be adapted to institutional practices or used to reform them, as the institutionalized patterns and practices sustain an organization's legitimacy and are unlikely to change (Robey and Boudreau, 1999 p. 173). Information systems may take institutional character themselves instead of changing them, in spite of the clear advantages new technologies may offer. A technology implementer needs to be aware of deeply embedded institutional practices in structure and bureaucratic notions. Information technology is required to be viewed as an ingredient in a more complex process of social change, in which forces for transformation are frequently offset by forces for persistence (Robey and Boudreau, 1999 p. 182). Schultze and Orlikowski (2004 p. 105) declared that challenges and unintended consequences are likely to emerge whenever firms deploy IT without considering micro-level practices and social interactions that enact their macro-level business strategies and network relations. Such implementation could seriously affect a firm's viability where one or more vital character of firm's operations undergoes changes under IT implementations, without due consideration of underlying benefits of existing work practices.

For institutionalists, the creation, design and use of advanced technologies are inextricably bound to the form and direction of social order. The pure institution approach underplays the role of technology in organization change. A more complete view needs to account for the power of social practice without ignoring the potency of advanced technologies in shaping

the interactions and thus bringing about organizational change (DeSanctis and Poole, 1994 p. 124).

Institutional features of environments are important determinants of organization structures; they shape the organization structures.

Organizations exist in an institutional environment that defines and delimits social reality; organizations are not just technical systems (Scott, 1987 p. 507).

2.3.2 Structuration Point of view

Giddens used the term social theory to ascertain how human interaction could be conceptualized and its relation to institutions. In the structuration theory, structure has been distinguished from system. The 'structure' is regarded as being made of rules and resources. Institutional features of social systems have structural properties as relationships are established over time and space. Systems comprise of the situated activities of human agents. Structuration are the conditions governing the continuity of transmutation of structures and therefore reproduction of social systems (Giddens, 1995 pp 25). All social changes are contextual. Human social activities are recursive in nature, that is, these are recreated by human actors over a period of time. Through such activities, humans create conditions that make such activities possible.

The duality of structure is manifested in that the rules and resources which produce and reproduce social actions are the means of system reproduction. Structuration theory is based on the proposition that structure is always both enabling and constraining, in virtue of the inherent relation between structure and agency (Giddens, 1995 p. 169). Structure is to be conceived of as a

property of social systems, carried in reproduced practices embedded in time and space.

DeSanctis and Poole (1994 p. 122) theorized adaptive structuration theory integrating decision and institutional perspectives. It is argued that technologies trigger adaptive structuration processes, which over time can lead to changes in rules and resources used in social interactions.

Technologies differ in the social structures they provide and groups can adapt technologies in different ways, develop different attitudes towards them and use them for different social purposes (DeSanctis and Poole, 1994 p. 143). Orlikowski (2000 p. 405) extended the structuration perspective on technology by proposing a practice-oriented understanding of the recursive interaction between people, technologies and social action.

While technology implementation processes have their own structuration properties, the development of technology also has undergone changes through the incorporation of social meaning and interpretations. Technology is developed through a socio-political process which results in structures being embedded within technology (Orlikowski, 2000 p. 405). Technology designers sculpt their vision of structures while on the drawing board and expect presumed outcomes on implementations. In reality, users refine and modify the meaning, properties and application of technology after implementation; structures are instantiated in practice and not embodied in artefacts.

Hussain and Cornelius (2009) provide evidence that the application of Giddens' duality of structure can be profitably deployed in IS implementation.

The authors highlight the vital role of human interaction and social structure in the field of Information Systems. Humans draw upon their interpretive schemes to make sense of actions and in doing so, they produce and reproduce structures of significance. Success of IT management depends on the senior management's ability to legitimize their actions as legitimation is linked to dominance (Hussain and Cornelius, 2009 p. 219). Legitimation of implementation results in dominance of IT department.

Interpretive schemes operate as shared fundamental (implicit) assumptions about why events happen as they do and how people are to act in different situations (Bartunek, 1984 p 355). Changing interpretive schemes are both affected by and modify organization structure. The relationship between interpretive schemes and structure is mediated by the actions organization members take. First order changes relate to the incremental modifications while the second order changes are more fundamental in nature like the shift in the organization's strategy. The second order changes in interpretive schemes result from and are also impacted by changes in organization structure.

2.4 Chapter 2: Section 4

2.4.0 MNC from Political standpoint

Lindblom (1997 p. 265) announces 'change is not initiated in inert society'.

Change initiation is not like a text-book sermon of policy making process, it is more like warfare. Initiating change almost always inflicts injury on some. There is invariably resistance to change for various reasons.

While following the social strand, it is true that IT management needs to work in a politically astute manner to gain success (Hussain and Cornelius, 2009 p. 219). Berg (1998 p. 477) pronounced that political danger lies in limitations of approaches that insist on dualism of human and machine. When technologies are considered as supporting or facilitating the work, their transforming potential is curtailed. It is the transformational character of technologies that has to be addressed rather than impact of technologies on work practices and social order. One needs to realize that full-fledged realization of technology is a crucial, never fully predictable and potentially creative force. Construction of technology is a process of endless negotiations (Berg, 1998 p. 478).

An organization is an extension of individual entity and thus socialised or contractualised with certain structures and goals and with multileveled principle-agent relationships. The corporation is either the aggregate of individual units or a collective entity as a naturally existent entity (Letza *et al*, 2008 p. 22). As a business process, corporate governing cannot be isolated from social and other non-economic conditions and factors such as power, legislation, culture, social relation and institutional contexts (Letza *et al*, 2008 p. 26). The IT strategizing and implementation processes directly cast into

this mould as the IT management needs to align with all these factors, for successful and sustainable IT progress.

Tsebelis (1995) examined 'veto system' for its ability to produce policy change identifying two categories of veto players viz. institutional and partisan. It is interesting to draw a parallel with the parties involved in strategizing and implementing IT in organizations. Tsebelis (1995 p. 324) concluded that systems with multiple veto players are likely to have cumbersome bureaucratic procedures. Birkinshaw and Fry (1998 p. 54) have cited examples from MNCs of the collective resistance to subsidiary initiatives, termed as 'corporate immune system'. The examples have been from GE, HP and Pharma which support the opposition identified by Tsebelis. Large corporations spread over multiple geographies and in multiple businesses are known to resort to many processes in managing their IT. It is interesting to note that Tsebelis (1995 p. 324) concluded that policy stability leads to inability of governments to change even when such changes are desirable or required. In the IT domain, changes in the business environment as well as on the technological front necessitate frequent assessment of strategies and policies. Salmela and Spil (2002) have proposed 'Four Cycles' method suggesting even quarterly adjustments to the IT plans, besides others proposing regular review of IT strategies. Tsebelis (1995) also noted that bureaucratic procedures should not be confounded with independence; those might have been included for protection from political interference.

Organizational politics contributes to the decision making in organizations and the sub-unit power influences decisions (Pfeffer and Salancik, 1974 p.

149). Organizational models have been defined as bureaucratic, coalition and political depending on the management principles. Organizations operate as coalitions in many decisions and the decisions are based on relative political strengths as well as bureaucratic criteria (Pfeffer, 1974 p. 137). It is common to see the IT organization in geographically spread units all around world with matrix reporting structure. These units with their own power bases influence the IT decisions and the policy changes. An individual's influence in the organizational change process depends on the availability and applicability of power bases and on the vested interests of his/her opponent (Blazejewski and Dorow, 2003 p. 205).

2.4.1 Partisan politics

In workplaces different people and technologies come together to form different bodies. They exercise politics through different rules and resources. The tools and activities of the work place get integrated with various bodies. Berg and Bowker (1997) studied medical records and coined the term 'body politics'. These body politics have their own interests and objectives and often influence processes of negotiation.

In democratic processes, various political parties interact and formulate policies. Such interactions are expected to result into more intelligent outcomes than analytical or autocratic processes. This claim may be questioned by many as the democratic governments do not seem to be making obvious choices. The root of this observation has to be experienced in the fact that political parties/participants are partisans, in that they pursue their own interests rather than a common purpose. In such a system, action is undertaken when the majority reaches an agreement with each other.

Strategic analysis and mutual adjustment among political participants are the underlying processes by which democratic systems achieve a level of intelligence (Lindblom and Woodhouse 1993 p. 31). All human activities are 'partisan' in the sense that expectations and priorities shape interpretation and application of information. Lindblom (1993 p. 32) declares "Information seeking and shaping must intertwine inextricably with political interaction, judgment and action". In the large boundary-less organizations today, we notice that many cultures, attitudes interact to make global systems work. The mere geographical spread introduces factors that influence organizations operations. At the policy making stage, senior management needs to consider such factors and accommodate diversities through an intelligent process, where many adopt the democratic system rather than autocratic decision making. In the IT domain, such processes get visible as the systems touch the work lives of all the individuals in the organizations and the other stakeholders.

Lindblom coined the term 'partisan mutual adjustment' to depict a form of political decision making process in government. He argues that the mutual adjustment with central coordination makes it possible to obtain consistency and social agreement (White, 1965 p. 935). In the political world, policy formulation takes place in a crowded arena, with numerous groups trying to influence policy and each undertaking partisan analysis. Ultimately, the policy emerges as a compromise between interested groups. The policy makers have little control on their environment and are constantly pressured by people trying to influence policy making. In this context, good policy does

not necessarily meet its goal but is accepted and agreeable to all relevant parties.

Lindblom and Woodhouse (1993 p. 31) pronounce that in the democratic system, strategic analysis and mutual adjustments among political participants are underlying processes. These participants pursue their own private purposes and their own visions of public interest. In the social process of negotiation, they script a common vision that includes at least some part of their own private purposes. Bureaucracy plays an interesting role, especially where democratic processes fail to arrive at a common policy in a reasonable amount of time. There have been instances when bureaucracy creates its own policy and pursues it (Lindblom and Woodhouse, 1993 p. 61).

2.4.2 Collibration

Continuing this train of thought, I quote Smallman (2006 p. 777) “majority of my management time is spent in resolving tensions between individuals and groups”. It supports the above argument about the human content of the management roles and the effort and time that senior executives need to manage diversities. Dunshire (1993 p. 7) introduced the term “collibration” to represent the government’s intervention in self-balancing processes to achieve policy aims. Managing social tension can take three forms viz. changing variables, changing its values and changing relationships (Dunshire, 1993 p. 12). I have witnessed such an act of intervention in an organizational setting from the CEO, who intervened in the IT strategizing process. He found an opportune occasion in the form of a ‘Global IT Conference’ where he announced new rules to set at rest political

aspirations of influential parties. I observed the CIO seeking similar intervention from senior management in more than one conference. There is distinct separation between intervention processes and regulatory processes. The management choice of processes takes root from the guiding principles of the organization like centralized or distributed decision-making or strictly hierarchical or matrix form of organization.

For managing social tension, Dunshire (1993 p.12) coined the concept of 'collibration' as the government intervention process. Governments are known to adopt 'tip-the-scale' strategy, when necessary, without directly participating in the social process. Drawing upon this concept in the political field, one can easily witness "social tension management" at the organization level through changing variables, values and relationships. It is different from direct intervention as a participant. Sabatier (1991b p. 151; 1991a p. 146) refers to the 'Advocacy coalition framework' (ACF) developed earlier. The coalition actors share common beliefs and show substantial consensus over core policy though they may agree on secondary aspects to a lesser extent.

2.4.3 Coalitions

In the public policy arena, researchers have followed various approaches, of which those focusing on 'policy processes' are considered most fruitful (Sabatier, 1991a p. 144). The 'policy process' study includes the factors affecting policy formulation and the subsequent effects of policy. Such a focus helps in applying and integrating accumulated knowledge to the political behaviour in various institutional settings. Though Sabatier's observation is from the political field, the process aspect of policy formulation

can be directly applied to the IT strategy area. People participate in political life to influence the decisions and ultimately effect changes in some way.

The major theories of policy processes can be listed as:

1. The open systems model
2. An institutional rational choice approach
3. Policy stream approach
4. Advocacy coalition framework

Understanding policy process requires looking at policy community or subsystem – composed of bureaucrats, legislative personnel, interest group reporters as a basic unit of study (Sabatier, 1991b p. 148). Political behaviour of such units varies across policy types like distributive, redistributive and regulatory. Sabatier's (1991b p. 151) 'Advocacy coalition framework' (ACF) views policy changes over time as a function of three sets of factors:

1. The interaction of competing advocacy coalitions within a policy subsystem/community - an advocacy coalition consisting of actors who share common beliefs and who seek to manipulate rules to gain advantage. Conflicts among coalitions are mediated by 'policy brokers'
2. External events in socioeconomic conditions
3. Stable parameters like basic social structure and constitutional rules on the resources and constraints of various actors

The coalitions are organized around common core beliefs which remain stable over a period of time. Actors show substantial consensus over core policy though they may agree on secondary aspects to a lesser extent. Coalitions also make efforts to alter institutional rules to achieve their objectives. While citing working at the university, Pfeffer and Salancik (1974 p. 137) argue that organizations operate as coalitions in many decisions, where sub-units contend for resources and resources are allocated on the basis of relative political strength of sub-units. The units exhibit and exercise power to win their own interests; power being on account of many attributes like size, relationships with others, involvement with external agencies and so on. They conclude that organizational decision making has elements of political power.

2.5 Chapter 2: Section 5

2.5.0 Synthesis

Development of IT strategy has undergone changes over last few decades.

From early days, various frameworks, models and approaches have been proposed and tried. The process seems to be ever evolving. In the last two decades, with globalization and opening of economies taking root, the corporate strategies as well as IT strategies have changed their objectives. The information technological advances and communication facilities have made an impact on businesses processes which in turn have created newer opportunities. We notice multiple changes through the publications of Lederer, Segars, Levy, Earl, Peppard, Grover, Galliers and many others:

1. From technology orientation to business orientation
2. From implementation focus to impact focus
3. From IT led strategy development to business led development
4. From geography/consolidation to global principles

Galliers has been one of the authors for the paper on ISS frameworks in SMEs. It is very interesting to see that Galliers came up with a number of newer frameworks over a period of 15 years or so. In a way, he kept renewing the frameworks in keeping with business evolution. In his 1999 paper on SMEs, the emphasis was on finding a suitable framework for small and medium scale businesses based on research in UK. The paper addresses an important gap left by other researchers in IS/IT strategy arena since most research work concentrated on larger businesses.

The consulting companies developed their own models and offered services in developing IT strategies. Last year I witnessed 'accelerated' strategy

formulation technique being deployed by a consulting firm in my organization. Over the last two years, most consulting companies have moved their focus from IT managers to business managers. Many of their methodologies rely on inputs received from business managers through workshops, meetings, interviews and so on. In a way, the methodologies ensure 'buy-in' of businesses through intense interaction and participation of managers.

The literature review reveals the 'technology-in-practice' concept of Orlikowski in various ways. The interaction between technology and the social world results in practices, that differ from those envisaged by technology developers. The 'institutional' practices well- ingrained in the members of the organization give way to newer structures. The structuration theory proposes the enabling as well as constraining feature of structures. The reciprocity has been dealt with at length by some researchers. Daniel (1993) suggested that structural changes are often undertaken as an important strategy for exercising power, the linkage between power and structure. People also lose power when they do not change their approaches or styles to accommodate changes in organizational environment (Daniel, 1993 p. 339).

In the political world, the concepts of partisan politics, veto systems, collibration and coalitions have been coined and visited by researchers like Lindblom, Dunshire, Tsebelis and Sabatier. I find these concepts extremely relevant in the current global organization environment. I have witnessed the various interest groups of IT managers pushing for policies that make them more powerful or resourceful. There have been negotiations to agree on

base guidelines and principles. The unofficial, informal veto system has been used by people to iron out differences. As an example, I know of data centres placement decision being negotiated; similarly the off-shoring decision being changed to near-shoring.

To summarise, I have reviewed here three aspects of IT strategy;

1. the first exhibited various methodologies reported to develop IT strategy;
2. the second related to impact of technology on organization at social level
3. the third concerned with the IT Strategy formulation that takes into consideration political and social undertones

In a large global corporation the politics of disparate cultures, attitudes and interests has dominant presence and makes a considerable contribution to the ultimate decisions on different technology deployment and usage. Ash and Smallman (2008 p.19) contend that the decision making in emergency services can be applied to all organizations. The leaders must become aware of informational cues and personal values in decision making. The notion of leadership needs to include a full understanding of the interrelationships of people, their interconnectedness and appreciation of their values. I will cite examples from my own experiences as well as views of business leaders and technology managers. I propose that the concepts of partisan mutual adjustment, collibration and advance coalition framework need to be acknowledged and consciously embedded in the IT strategy formulation. Researchers need to appreciate how technological systems

interact with political actions and human choices to produce complex phenomena (Orlikowski and Barley, 2001 p. 159). The following table briefly summarises the various approaches mentioned in this chapter:

Table 2-5: Summary of theories

	Theory	Weaknesses
1.	Content based rational models	The frameworks, approaches and methodologies proposed by many researchers like Galliers, Earl, Lederer, Sethi, Peppard, Ward and many others tackle the IT strategy formulation from the rational angle. Such attempts ignore the setting and circumstances in which the strategy would be derived and deployed. They do little to address the interdependence of context and content.
2.	Contingency theory	Developed in 70's it brought in focus the external and internal factors. However in today's complex globalization context it offers little on the people actions and responses of organization members, leaving it to the organizations to fit with the environment. In the hyperdynamic environment of diversity the contingency approach needs further development.
3.	Institutional Theory	Institutional theory focuses on norms, assumptions and circumstances ignoring the interests people hold to their heart. The behaviours in the organizations are shaped by the way actors pursue their interests to fulfil their own goals. It is also argued that 'people interests' are institutionally defined. While granting that institutions may influence the actors to an extent, the theory falls short to explain ego and interests driving people behaviours in complex global corporations. Institutional theory has informed a small amount of research on IT and does not fully explain the disconnection between the reason for adoption and reason for use of technology (Robey and Boudreau, 1999 p. 177).
4.	Structuration theory	Giddens structuration theory offered little to address the vital technological component of organizations. Orlokowski (2000) and DeSanctis and Poole (1994) adapted structuration concepts to explain changes taking place on introduction of technology, bringing in focus the

		embodied and emergency structures. While the adaptations are useful to understand the emergent and situated use of technology, the theory offers little to explain the behaviours in complex multinational corporations.
5.	From political world 1. Partisan Mutual Adjustment 2. Collibration 3. Advocacy Coalition Framework	Each of the three theories helps to explain the behaviours in the diversified multi-cultural, multi-geography organizations. However none of them fully addresses the experiences and the results arising from dealing with disparate groups of people. The theories were proposed to explain the processes in governments. There has little research to show their application for phenomena observed in global corporations.

Sensitivity to context is important for theories based on experience. While theories visited in this chapter have certain merits to address one or more components of the IT strategy formulation, a more comprehensive model is required to anticipate and respond to the context of strategy development and deployment. Drawing cues from various theories and recognizing gaps I have developed new model for IT strategy formulation that acknowledges the socio-political aspects of global corporations and offers ways to respond to them. This model named as IPCRC model is shown in the concluding chapter of this thesis.

3. Chapter 3: Research Methodology

Introduction

In this chapter I have discussed the research design and the methods adopted during the research.

The chapter carries following major sections.

Section 1: Qualitative approach of my research

Section 2: My research design

Section 3: Data analysis and theory development

3.1 Chapter 3: Section 1

3.1.0 Qualitative approach of my research

During my literature survey, I came across discussions about the research methodologies for Information Systems discipline (Mathiassen, 2002: 330).

Galliers and Land (1987 p. 901) have offered a taxonomy of IS research approaches listing a variety of observation and interpretation approaches.

The authors here had considered IS as an applied discipline and not as pure science and in keeping with this line of thinking they included 'interpretation' approaches in the taxonomy.

The American information systems research generally is characterised by a methodology of formulating hypotheses that are tested through controlled experiment or statistical analysis (Kaplan and Duchon, 1988 p. 572). This approach was based on the pre-conceived notion that computer systems were major components of information systems, and those being technology driven could be always be quantified in some way. The assumption underlying this methodological approach was that the research design should be based on positivist viewpoint on controlling variables and testing hypotheses.

Now there is more recognition for context dependent research; immersion in context being the hallmark of qualitative research methods and the interpretive perspective on the conduct of research. Over a period of time the human and organizational aspects of information systems area have been recognized as being as important as the technical aspects. Effects of organizational and human factors on the process for IT strategy (Villiers,

2005: 143) have been well recorded. In view of this, information systems (IS) research relates to social science research.

Qualitative research may be done with a positivist, interpretive or critical stance (Klein and Myers, 1999 p. 69). I have opted for qualitative strategies that emphasize an interpretive approach using data to pose and resolve research questions. The interpretive researchers attempt to understand the way others construe, conceptualise, and understand events, concepts and categories, in part because these are assumed to influence individual behaviour (Kaplan and Duchon, 1988 p. 572). My qualitative strategies underline an interpretive approach. The same institution, artifact or an action can have different meanings for different human beings and that the observing social scientist must interpret this reality in terms of what it means to the observed people (Lee, 1991 p. 347). Qualitative investigators tend to describe social processes rather than social structures (Maanen, 1979 p. 520). Following this strand and the earlier discussion I undertook a primarily qualitative approach to study the process of IT strategy formulation as it allowed studying issues in depth; not limiting data collection to pre-determined categories. Qualitative approach is contextual research that makes a substantive contribution to empirical knowledge (Ambert *et al*, 1995 p.883).

3.2. Chapter 3: Section 2

3.2.0 My research design

The importance of research design increases with the acknowledged complexity and dynamics of the organization under study. Grunow (1995 p. 102) has proposed that the importance of research design also increases with the multitude and heterogeneity of data sources available and the scientific steps taken from exploration and description to analysis, inferences and interpretation in context of organizational studies. Robson (2002 p. 165) has illustrated the research tradition based on “Grounded Theory” as one of the influential qualitative study designs besides case studies and ethnography. The grounded theory approach espouses derivation of theory from data collected through research.

During my years of work in the industry, I had experienced the development and deployment of IT strategy. Having been associated with the senior IT personnel for the last several years, I decided to find their views. I argue that to understand the strategy formulation process it was vital to get insight into the IT managers’ views and their ways of operationalising it. I considered the alternative of sending questionnaires to them. The questionnaire survey would have been more appropriate if I had to reach a larger population with a firm set of questions. The topic of my interest of IT strategies being in the realm of management, I decided to personally approach a select set of senior managers to get a complete picture. I zeroed in on conducting direct face-to-face interviews.

This thesis is grounded on the views of the IT managers of global corporations through the use of semi-structured interviews. I considered it

important to have supporting strands in the research method by introducing between method triangulation (Stiles, 2001 p. 631). I have followed ideas of within and between method triangulation suggested by Snow and Thomas (1994 p. 464). The method chosen included

3.1 Interviews with the IT managers, business managers and consultants

3.2 My own experiences in global companies and reflections on those experiences

3.3 My impressions from a field research that I conducted for another project

3.4 Relevant industry examples gathered from secondary data.

In effect I used a blend of semi-structured interviews, observation and narratives in my research. I have used narratives as a supportive or supplementary method to complement data obtained through semi-structured interviews (Robson, 2002 p. 312). In taking this approach, I followed the convention established in the work of Orlikowski and her various collaborators, but also seen in the wider world of organizational studies. She and her colleagues have illustrated the use of case studies, narratives, observations and literature review in various ways in the published papers (Orlikowski, 2000, 2006; Orlikowski and Barley, 2001; Shultze and Orlikowski, 2004; Orlikowski and Yates, 2006).

3.2.1 Methods

3.2.1 Interviews with the IT managers, business managers and consultants

3.2.1.1 Sampling frame

I had decided to interview at least 10 senior IT managers from global companies. It helped to gather views from the IT perspective; however it was also vital to see how the business managers perceived the IT contribution. I followed up by setting up meetings with some senior business leaders as well. The consulting community has been quite active in the IT field and the companies, especially multinationals, draw upon their advice and guidance quite a lot. I made contact with the people in consulting practice and succeeded in meeting some of the leading consulting company representatives. In summary through 21 semi-structured interviews I collected views from:

Table 3-1: Interviewees

1. IT managers	- 13
2. Business managers	- 3
3. Consultants	- 5
Total	- 21

All the interviewees were with senior professionals who worked for large multinational companies. As identified in my previous chapter on literature survey, the challenges in multidivisional, multinational companies have been unique. I managed to get a mix of Asian multinationals as well as European and American multinational companies. It is known that more and more Indian companies are taking on a multi-country character in recent years

while some European and American firms have been active in diverse geographies for a much longer period. Some of the factors in selecting organizations were their size in terms of employee strength, their multi-business character and the complexity that they introduced in formulating IT strategy for corporation. Such a selection without particular focus on specific industry type allowed me to better generalize the outcome of my research.

Essentially my interviewees represented a mix of:

1. American companies
2. European companies
3. Asian companies

Having myself worked in a parent company as well as a subsidiary company I am aware that the views and the actions of both sides differ significantly. I made a conscious attempt to collect views from:

1. Parent companies
2. Subsidiary companies.

Such a mix gave me a wider coverage of data gathering. Further I also managed to get views from managers based in different continents:

1. Asia
2. Europe
3. North America

I interviewed managers from five countries viz. India, Singapore, Australia, Netherlands and USA. Most of the Indian interviews were conducted face-to-face. One from Europe was through video conference while those from other

countries were telephonic interviews. I found that the telephonic interviews were as informative as the face-to-face interviews. I attribute the reason to the seniority of the managers who were quite accustomed to expressing their views; almost all contributed to strategy formulation exercises in their respective companies and domains in some way. They were also open to sharing their thoughts and opinions, probably knowing that the interviewer was also an experienced IT manager from a multinational company. I found it was very easy to relate to their experiences and thoughts. They seemed very comfortable in responding to my queries.

3.2.1.2 Design of interview schedule

I followed a phased approach; in the first phase I had informal discussions with some of my IT colleagues in my own organization. I also spoke to some of my counterparts, mainly in the IT field, in other companies to get a view of how they worked on their IT strategy. I wanted to gain a wider coverage of industry practices. The informal discussions had helped to validate the seed questions for my semi-structured interviews. Based on inputs received I prepared a guideline. While designing this guideline for semi-structured interviews, I followed the style prescribed by Robson (2002 p. 270).

The interview planning was scripted in three parts. The first was aimed to provide information on my background, my DBA programme and the research. The second part showed the questions posed to the interviewee and third part involved expressing gratitude for sparing time and seeking permission for any clarification that might be required later.

The interview schedule was aimed at allowing the managers to express their views and perceptions on various aspects surrounding IT strategy formulation. After preliminary discussions and informal chat with some of IT managers a schedule of 13 questions was firmed up. It was divided into four sections:

1. Warm-up questions
2. Core questions
3. IT strategy formulation
4. Any other information.

The warm-up questions related to the company and the IT division, gathering background information that the interviewee liked to provide. The core questions related to the role of IT, process changes and impact of IT. The IT strategy formulation dealt with the formulation processes followed in the organization. Beyond these three areas the interviewee was free to give his/her views and any other information that he/she thought was relevant.

3.2.1.3 Pre-interview preparation

As part of my research I was going to interview senior managers from other companies. There was always a possibility that they may have had contacts with senior managers in my own company. As a part of keeping my own company managers informed I met four senior managers individually. Being in the matrix multinational company I had more than one reporting managers. I also included the relevant HR managers in this list. I explained to them my full DBA programme; I presented my research idea and conveyed to them that I would be making contacts in industry for interviews.

Such a presentation helped to keep my managers pre-informed; two of them even promised to get me additional contacts in industry.

It was heartening to find that three of the inter-continental interviewees showed tremendous understanding and patience even though interrupted by repeated line disconnections. I attribute such an understanding to the fact that I followed a well structured procedure of reaching each the interviewee through a series of preparatory steps:

1. **First level contact** - As the first step I reached each of the prospects through direct contact or through a mutually known person. I approached unknown prospects via a mutually known contact to whom I wrote and discussed the purpose of the interview. In some cases I met the mutual contact and explained in detail. Such a meeting helped a lot in acquiring full cooperation from the interviewee subsequently. I reached the known prospects directly through an introductory mail.

2. **Second level contact** – I wrote about myself as a student clarifying that I had joined a DBA programme and that research was part of my DBA. I explained the reason for the meeting. I made it a point to declare the position I was holding along-with the name of my employer. This was especially important as I hailed from an IT background similar to that of the interviewee and held a responsible position in a large company. In a way I clarified my role as a student and as a working professional IT manager.

3. **Third level contact** - Where required I made a telephonic call to offer more information on my research. In most cases the

prospects were keen to know more about the DBA programme. I also answered any other query that the prospects had. Such a conversation helped to gain the confidence of the prospective interviewee. During the conversation I requested the place and date/time for meetings. Almost all prospects readily granted the interview.

3.2.1.4 Conduct of interview and experiences:

At the time of the interview I introduced myself and explained the purpose of meeting. I also offered my business card and clarified that my employer had not sponsored the DBA and would not receive any information about the interview. I stated clearly the confidentiality and anonymity about the interview, the interviewee and the organization. Before the start of the interview I asked for permission to audio-record the interview. I also sought permission to write my own notes. At the end of the interview I thanked the interviewee for his/her time and asked if it was acceptable to get back for further clarification. Everyone readily agreed to talk to me again.

None declined permission to write notes, while only one interviewee declined my request for audio-recording the interview. Of all the prospects I contacted, I found it was only one person who kept postponing the meeting having agreed to appear for a face-to-face interview. I made repeated attempts to meet him personally, finally gave up on this prospect. I conducted one interview on video conference, through CISCO telepresence technology. For all other out-station interviewees, especially for those from other countries, I had telephonic interviews. During the telephonic interviews

I adopted a similar sequence of introducing myself, then the purpose and then asking for permission to record the interview. I used a speaker phone at my end so that I could audio-record the interview. There were times when I encountered line disconnections; however every interviewee was patient enough to allow me to connect again.

I also found that most interviewees were ready to offer very interesting perspectives and views on IT. Having allowed them to speak freely, I found I accomplished a lot more than what I had originally expected. It is attributable to the fact that people whom I interviewed held quite senior positions and had extensive experience in multi-national companies. Almost all had roles and responsibilities that covered multiple geographical areas.

3.2.1.5 Confidentiality and anonymity

I assured each interviewee that his/her name or organization name would not be quoted in my thesis. Further I assured them that I would include an interview summary and not the full interview. I would not share the interviews with any other person or organization. During the interview the interviewee had a right to decline answering any question he/she found intrusive. In keeping with these assurances I have codified the organizations and interviewees and they are being referred only by respective codes. The notes written during the interview and the recording, where applicable, would be preserved in my own custody and would be destroyed after the thesis is approved. My own experiences are being referred to under the name of 'MyCompany'.

3.2.2 My own experiences in global companies and reflections on those experiences

In addition to interviews there was also an element of the research design where I drew upon my extensive experiences and reflected on those in light of various theories put forward in the literature review. In the published papers I found the discussion on the strategy-as-practice and the methods required in researching. I also referred published work on practitioner as researcher.

3.2.2.1 Researching strategy-as-practice

Rasche and Chia (2009 p.714) advocate that the practice of research itself has to undergo changes, emphasizing that there is a need to get closer by getting involved in the practice itself, through participant observation rather than through detached interviews. Getting involved means living among strategists; learning their language and participating in their practices and rituals. Such involvement complements the interview-based data (Rasche and Chia, 2009 p. 729). A process where the researcher participates over extended period of time, be regarded as a kind of research activity as a necessary complement to the existing methodologies (Rasche and Chia, 2009 p. 725).

Without claiming to have carried out a full ethnographic study I have followed principles behind such study. Having been part of the group of strategists I had opportunities to observe closely the activities leading to IT strategies, events and the outcomes. I have narrated such instances, reflected on them and connected to the theories illustrated in the literature survey. I have been a participant and observer and have reflected as researcher. Such a

method allows a rich understanding of situated phenomena helping ideographic research which explains underlying structures and patterns of action (Tsoukas, 1989 p 551). Reflexivity refers to understanding and conceptualizing the role of researcher in the research process which includes involvement rather than detachment.

3.2.2.2 The participant observation and the reflective practitioner

By virtue of being a practising manager over the last several years and now in the role of a researcher, I looked at the views expressed by some of the experts. Bryman (1984 p. 89) while discussing the research methodologies, points out that the concern with participant observation may be about achieving research in a manner that is most appropriate to the topic on hand. Oliver (2003 p. 53) has suggested that if a participant observer decides the extent to which a distinction can be made between a participant role and the observer role in relation to the issues on hand, then some of the potential conflict can be dissipated. I consider it to be an advantage being able to reflect on my experiences while I am not in the participant role. It helped to avoid the participant bias to a large extent.

Heiskanen and Newman (197 p. 122) have described the possibilities of translating direct experience from practice into a form that makes sense using the notion of reflection-in-action. They have suggested that in order to avoid bias the practitioner should exclude such topics where fairness of reporting is jeopardized. They have also proposed that the access to information and the practitioner's familiarity with the research site are the most important assets of the reflection-in-action. Heiskanen and Newman

(1997 p. 129) concluded that the reflection-in-action is best in process studies. Jarvis (1999 p. 3) has defined practitioner-researcher as practitioners who do research. He maintains that many times practitioners know lot more than the acclaimed specialists.

Schon (1983 p. 324) opines that reflective researcher cannot maintain distance from the experience of practice; and that the practitioner may take time out to become a reflective researcher, moving in and out of research and practice careers. Mailick *et al* (1995 p. 189) have offered a collaborative model for study involving practitioners as researchers.

Cunliffe (2003 p. 984) opines that carrying out reflexive research offers insight into how we constitute knowledge and realities. Having been in a practitioner role earlier, I agree to Robson's (2002 p. 219).view that involving practitioners in research provides an obvious means of facilitating change. While the practitioner-researcher may have some disadvantages but they also have complementing advantages (Robson, 2002 p. 535).

My experiences and reflections on those helped me connect to the research findings with ease. They also were of great assistance in developing the new model. The views of Schon, Robson, Cunliffe, Heiskanen and Newman and others support my approach of reflecting on my own experiences and use them to complement my findings from the interviews.

3.2.2.3 Compilation of my own experiences

I have revisited my own experiences and elucidated them to corroborate or counter the learning from the interviews. I subscribe to the view of Mintzberg and Waters (1985 p. 270) that managers learn from their experiences of their organizations and the emergent strategy makes up the notion of learning based on experiences.

This involved writing various events and their association with the various theories described in my literature survey. I connected the events with theories wherever possible. My observations from my previous organization helped me write narratives that provided vital data required to ground my theory. Such narratives encompassed the events prior to IT strategy formulation as well as during and post formulation. There was a significant change in the strategy formulation process over last few years. I have included my observations for this period. Having witnessed the process from within the organization I proposed not to mention the name of the organization in my thesis.

3.2.2.4 Narratives

I have used the concept of 'narratives' to build upon theories and stories as in the domain of process theory stories are constructs. Narrative is a way of giving an account of social life in terms of a story of successive events. It is the way in which the depiction of events in a story gives the appearance of causal chain or logic and the sense of movement towards a conclusion (Sayer 2006 p. 141). Pentland (1999) describes the usefulness of narratives in building process theory. Narrative data have properties that provide the

basis for many kinds of organizational theories (Pentland, 1999 p. 712). I have pieced together a sequence of events based on the formal interviews and informal discussions with people at various levels, keeping in view the tasks identified by Poole *et al* (2000 p. 53). The authors have identified five key tasks to be able to generalize results viz. identify events and event types, characterize event sequences and their properties, specify dependencies in temporal sequences, evaluate hypotheses of formal and final causality and recognize the coherent pattern that integrates the narratives. Poole *et al* (2000 p. 52) have discussed an eclectic approach for narrative explanations that allows flexibility with multiple narrative forms. My narratives follow such flexibility.

3.2.3 My impressions from a field research that I conducted for another project

In the last few months I participated in a research project in the area of project management. I was a member of a team of researchers conducting semi-structured interviews of IT project managers. I conducted 11 interviews myself gathering their views on usefulness of certification and the factors in success of IT projects. The interviewees were from small, medium and large IT firms, mostly multi-national companies. The impressions I gathered from meetings with these project managers shed additional light on the team working and the social factors impacting the global team activities. I have included my impressions in the discussion and the findings chapters.

3.2.4 Relevant industry examples gathered from secondary data

I found examples reported in published articles that related to various firms and their IT practices. I have compiled some of these and included them in

findings chapter 4 for synthesising later. I value such information as it exhibits the real life practices from industry.

3.3 Chapter 3: Section 3

3.3.0 Data Analysis and Theory Development

Robson (2002 p. 165) has illustrated the research tradition based on “Grounded Theory” as one of the influential qualitative study designs. This approach espouses derivation of theory from data collected through research.

I have used Grounded Theory Methodology (GTM) approach to my analysis. The aim of grounded theory is to develop the theory from data rather than to gather data to test a hypothesis (Goede and de Villiers, 2003 p. 210). The theory is grounded in reality as represented in the data. The critical systems thinking shows social awareness that the organizational pressures that lead to theories and the intervention methods used at a particular time should be recognized (Goede and de Villiers, 2003 p. 214). I have linked the interviewees’ background and their contribution to the IT strategy formulation and/or execution process, explaining the actions of people in particular situations and their motivation behind the actions. Combining the ‘hows and whats’ helps to produce typical model (Whetten, 1989 p. 491). It provides a framework for interpreting patterns or discrepancies in our observations which can be understood within a context.

Following the grounded theory approach, the framework or the model needs to be developed from the data. This approach differs from typical action research project where the researcher advocates a course of action to be taken and tests the success of that action (Goede and de Villiers, 2003 p. 217). The themes emerging from interviews and the discussion identifying the corresponding events from my own experiences combined with the

theories from social and political literature helped to focus on explanations of actions and outcomes. Through the analysis, the theory was built through interaction with data making comparisons between the concepts from socio-political world and the views expressed by the interviewees and the observed events. Robson (2002 p. 493) has indicated a similar approach in grounding the theory.

Jarvis has acknowledged the expectation that the dissertations should be grounded in practice (Jarvis, 1999 p. 6). He has proposed that practitioner research is the ideal way to improve practice because it grows out of actual practice. Mintzberg (1979 p. 588) proposed the term “direct research” to connote research strategy based on description and induction instead of explicit prescription and deduction. I have followed this concept of description and induction while interpreting my research findings.

To start with, I listened to all the audio-recorded interviews. This was followed by writing down a summary of the interviews. Ash and Smallman (2008 p. 8) have demonstrated data analysis technique using a qualitative analysis package. Robson (2002 p. 354) describes the use of themes in carrying out content analysis. Carrying their basic thought forward I developed a consolidation identifying the themes that emerged from the interviews. It also helped me to progress towards a conceptual model that I was able to compare with stories built in narratives and observation.

3.3.1 Generalisability

In qualitative research the goal is to expand and generalize theories. Even a single case studied in depth and with sufficient insight, may provide the basis for a theoretical explanation of a general phenomenon (Hyde, 2000 p. 84). It also helped to discuss limits of generalisability. Hyde (2000 p. 84) also discusses use of deductive procedures in qualitative study. The semi-structured interviews that I conducted followed a general pattern of interviewing most of IT managers first, then the business managers and then consultants. What I learned from my initial interviews with the IT managers was more and more verified in latter interviews; in a way I used both inductive and deductive processes. The IT managers' perspective differed to a certain extent from those of business managers while the consultants helped to bridge the gap by offering their own experiences and the views.

I chose the sample from a typical multinational, multi-business and multi-cultural environment. All my interviewees came from such a background. The social and political aspects in such organizations may differ in degree from that of a more compact single business environment. However it does not preclude from generalizing beyond the descriptions in my thesis (Robson, 2002 p. 177). Even in such an organization a certain social and political atmosphere exists that makes its mark on strategy formulation, though the degree may differ. To that extent I believe that my concepts and theory so developed have a larger application and can be generalised to a very large extent.

3.4 Chapter 3: Section 4

3.4.1 Overall approach

In summary, I have followed qualitative enquiry concepts deploying semi-structured interviews as my main data collection method. Data collected in interviews was triangulated by complementing with my own experiences and the industry examples gathered from secondary data. The grounded theory helped towards developing model for IT strategy formulation. This approach is supported by Epstein's (1995 p 85) practice-based research concept linking research and practice and incorporating the grounded theory development as a strategy.

4. Chapter 4: Findings

This chapter shows the findings of research and is written in four sections:

Section 1: The interviews spread, codification and the summary of interviews

Section 2: My own experiences and observations

Section 3: IT's recognition of people involvement – some corporate examples

Section 4: My impressions of my recent research with IT project managers

Section 5: Overall findings

4.1 Chapter 4: Section 1

4.1.0 Interview spread

I conducted 21 interviews. The interviewees included IT managers, business managers and consultants. Further the IT managers and the business managers were chosen from manufacturing as well as service industry to get a wider perspective. I also had interviewees from parent companies as well as subsidiaries. Here I present the interview spread:

A. Interviews by type of respondents

Interviews	IT managers	Business Managers	Consultants	Total
Total	13	3	5	21

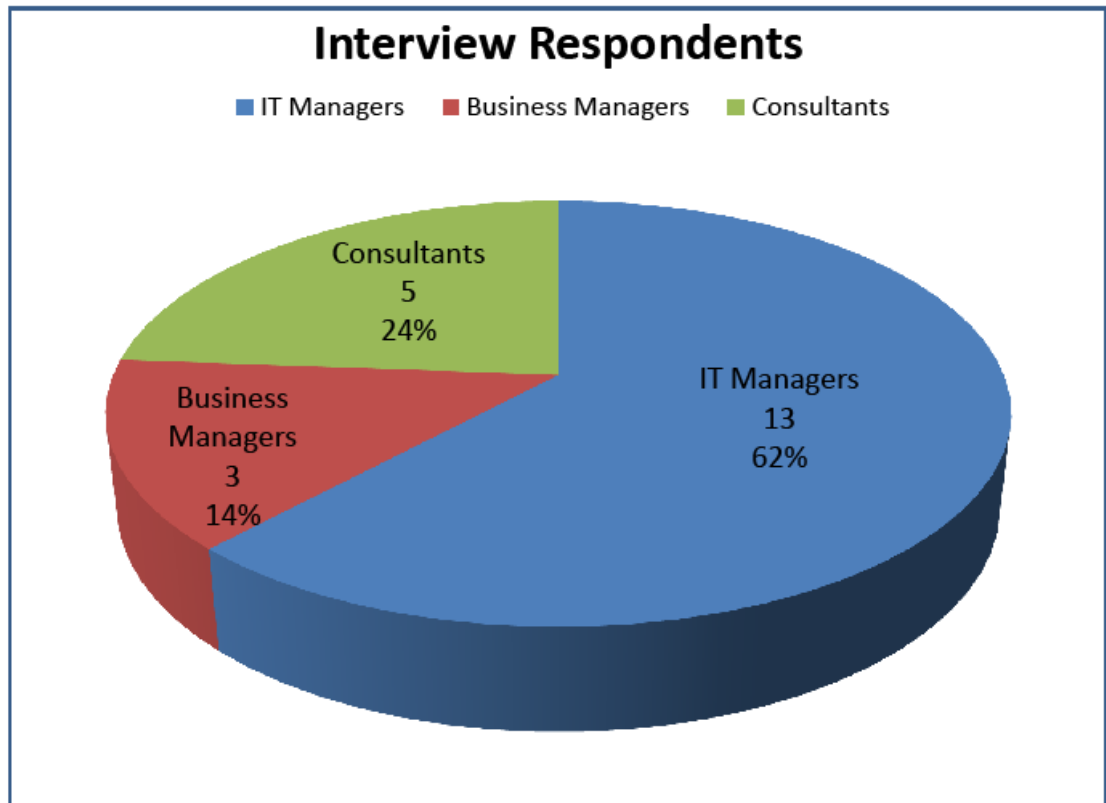


Figure 4-1: Interview respondents by type

B. Interview Respondents by industry sector

Interviews	IT managers	Business Managers	Consultants	Total
Manufacturing	8	3	0	11
Services/retail	5	0	0	5
Consultants/Experts	0	0	5	5
Total	13	3	5	21

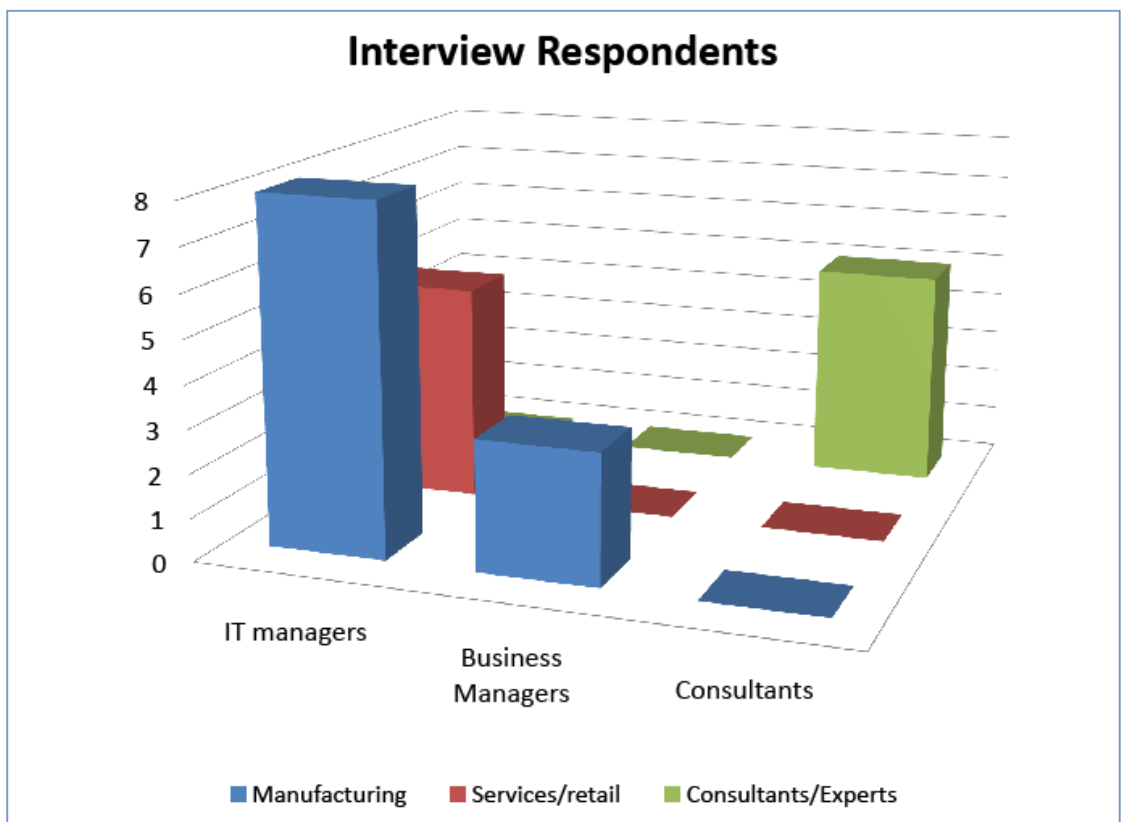


Figure 4-2: Interview respondents by type of industry

C. Interview Respondents by type of company

Interviews	Parent company	Subsidiary company	Total
IT Managers	9	4	13
Business Managers	1	2	3
Consultants	2	3	5
Total	12	9	21

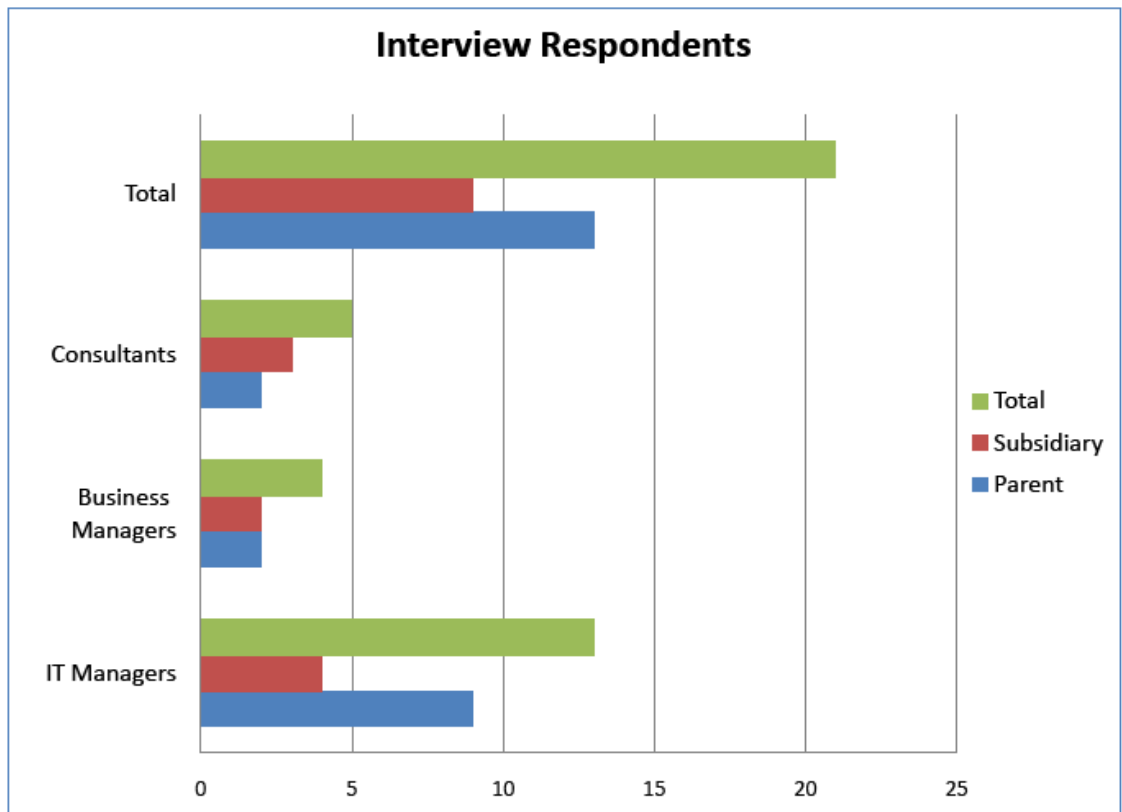


Figure 4-3: Interview respondents by type of company

D. Interviewee codification

Interviewees have been codified in the following manner:

1. The First letter identifies company to which interviewee belongs
2. The Second letter shows the sequence number of interviewee in that company
3. The Third letter indicates whether the interviewee belongs to parent 'P' or subsidiary 'S'

Table 4-1: Interviewee codification

Sr. No.	Company	IT Manager	Business Manager	Consultant
1.0	A	AAS		
2.0	B	BAS		
3.0	C	CAP		
4.0	D	DAP		
5.0	E	ECP, EDP	EAS, EBS	
6.0	F	FAP		
7.0	G	GAP		
8.0	H		HAP	
9.0	I	IAP		
10.0	J	JAS		
11.0	K	KAP		
12.0	L	LAS		
13.0	M	MAP		
14.0	O			OAP
15.0	P			PAP
16.0	Q			QAS
17.0	R			RAS, RBP

4.1.1 Interview summary

I present here the summary of each of the interviews conducted.

1.0 Company A, Subsidiary company

IT manager A identified as AAS

IT manager AAS represents a large global company in manufacturing and selling of pharmaceutical products. The Company is organized along business lines and follows divisional structure with businesses carrying P&L responsibility. The global CIO heads IT and has direct reportees in the roles of IT Head Manufacturing, Infrastructure Head, Emerging market head and so on. In a way, the IT organization is divided globally into

1. 'Infrastructure'
2. 'Applications' with more than one person heading applications sphere.

Every country has a role for 'country IT manager' who reports into the relevant IT organization and the relevant local country business organization. IT manager AAS carries a lean organization under him locally. I classify this organization as 'Global Matrix Structure'.

The IT strategy is top-down and has mandated usage of certain standards like rollout of security products, Microsoft suite and Oracle applications. In the infrastructure area the network, e-mail, data centres etc. have been standardized and are supplied by 'Infrastructure' organization. Local applications are hosted locally. At the business level the 'emerging market' strategy is in place that includes major countries like China and India.

It is experienced that in the IT sphere the strategy is developed globally and does not align well with the business's emerging markets strategy. IT manager AAS feels that IT resources from India are still not utilized for overall strategy or for delivery as is being done by many other companies.

2.0 Company B, Subsidiary company

IT manager A identified as BAS

BAS belongs to a class of IT managers who work for global companies with multiple businesses spread around the globe. The company B follows a divisional structure with every business carrying the responsibility of running its own P&L account, though in many countries there are legal entities that consolidate results meeting law of land requirements.

IT follows much of the corporate governance structure with each business overseeing its own IT. In recent years (from year 2007) IT has been classified into two major segments: one for infrastructure and the other for applications. The Company has consolidated infrastructure as a common base; an organization delivering infrastructure services across businesses. The divisional applications continue to remain a business responsibility resulting in business specialized IT organizations.

Centrally all IT organizations converge at the global CIO level. The company as a whole carries the benefits of the common foundation of IT infrastructure like standard email system and shared networks while maintaining strong business integration through business attached applications organizations.

IT teams exhibit collaborative culture and work towards common processes and tools; as an example number of ERP instances have been reduced considerably in the last few years. As part of IT governance, senior IT community members around globe get together in an annual conference and script important policy elements. Similarly, regional and local level meetings are conducted. The outcomes of such meetings are shared with relevant business managers' councils and their consent/approval is obtained before deployment.

IT strategy is derived from business strategy and planning is done with components from central level, regional level and local level. Detailed IT planning involves considerations from the point of view of resources, funding, local conditions and so on. IT budget approval follows functional and geographical axes. Over a period of time IT has helped in automating many business processes, cross-boundary as well as local. IT is considered a valued partner of businesses.

Apart from procedural aspects two special factors in this company have been:

1. People networks - Philosophically the company emphasizes people networks more than structure derived authority. IT follows the same philosophy of listening to people and respecting their opinions. Aligning with various business councils and business management is an important aspect of IT planning. This includes intensive interaction and ensuring approval of IT plans from businesses managements.

2. Quality - the Company focuses a lot on quality and this is reflected in the desire of management to go up the quality ladder all the time. There are procedures in place to attain and prove the maturity levels, these also get audited. Many times quality improvement initiatives and innovations trigger IT applications development and deployment. Six Sigma concepts are widely followed in the company.

3.0 Company C, Parent company

IT manager identified as CAP

An Indian multinational company with \$3 billion turnover, spread across 7 countries and 700 locations. The company belongs to a large Indian business group and its main business is in chemicals. The market has been a 'seller's' market in general. The group has its own IT companies.

The company believes in outsourcing philosophy in managing its IT function. All operational areas have been outsourced. Applications are handled by a group IT company under a ten year contract; while the infrastructure has been outsourced to other vendors. The uniqueness of the overall IT management is that the CIO is the only internal employee in the IT department who necessarily spends most of the time in strategizing and planning. In essence the company has maintained only IT strategy function internally while all other aspects are outsourced.

Being a multi-business unit organization, the IT function faces challenges. The commonality (standardization) of processes is generally resisted; it becomes difficult to have a common way of working across the organization.

Two examples of not so successful implementations included an IVR (interactive voice response) system and the bulk handling logistics system. Both systems sought to reduce the workload of internal employees of purchasing and the logistics departments. Though in principle the systems were path-breaking, businesses were not ready to accept them. They always questioned the reliability of information and its sources. In the end it was apparent that the internal employees wanted to be in touch with their business partners as much as possible. Any saving in terms of time or efforts, even at operational level, was ignored due to the perceived need for keeping warm relations with business partners.

For 2010/2011 IT has proposed major implementations that included process changes and consequently organization changes. It also included creation of internal BPO in a low cost location of western India. The company at times receives guidelines from the group headquarters in terms of future IT direction, though the group does not have a group CIO in place. This is especially valid for external IT vendors where the group attempts to pool together the hardware and software requirements of all group companies and negotiates with vendors for consolidated demand. In a way the company follows this pattern:

1. External vendor strategy – dealt at group level
2. Business related strategy – at company level

The group also has an infrastructure IT company. Though the group prefers to have all network related demands to be met by this infra company there is no compulsion to do so. In a way this sister company is the preferred vendor

but not mandated by the group. The group has not implemented common email or ERP implementation. The CIO of the company feels it may result in group companies losing their freedom.

The company IT strategy follows the business strategy; also it takes into account inputs from individual managers. The CIO prepares a rolling 3 year plan which is reviewed twice every year. The payback expected for any investment in IT is currently at 6 month level. Overall CAP opined that:

1. IT potential is underutilized, the role of IT is limited
2. The 10 year outsourcing contract to the sister company makes it challenging to push any demand, the vendor being so assured of business
3. The company is bureaucratic; is overstaffed
4. The attitudes in businesses have hardened, bringing about any change is difficult. CAP believes that IT can effectively use the recessionary pressures to have a real push for changes as the company has been facing a challenging economic situation.

4.0 Company D, Parent company

IT manager identified as DAP

The company is an engineering giant in India with \$ 7 billion sales with multiple business lines. One of the important businesses includes construction. It is an Indian multinational with businesses in 6 other countries and runs a consistent profitable business. The company also has its own IT

business run as an independent unit. The CEO of this IT company also carries the role of CIO for the parent company. The management philosophy awards high autonomy to businesses with each one running its own profit and loss account. The businesses are empowered to have their own IT set up resulting in multiple IT organizations and diverse IT landscape coming into existence. The corporate IT is the apex body that is expected to keep the IT together.

The challenges faced currently include the optimization of IT infrastructure. It has managed to get a single data network in place for all businesses; the network being under corporate IT management. The email systems differ for different businesses; there is no plan to bring those together. The payroll system is run as a shared service. The own IT company is the preferred partner for IT service however the company management does not specify it as a mandate. This internal company has to compete like any external vendor to bag the business.

IT has become a way of life in the company; most processes are already automated. Only a few peripheral processes have to be brought into the IT fold. IT faces little or no resistance to process automation. As an example an order processing system was put in place that obviated the necessity of having a cell of 30 employees. It also took the entire process to paperless state; hardcopies are not required anymore. IT manager DAP felt that the business growth and efficiency increases made it possible to implement such a system although it affected the employment of 30 individuals. Because of expanding businesses these people were offered alternate jobs and they accepted.

Each business has own IT manager and its own IT strategy. The present enterprise architecture of the company is the sum of IT architectures of businesses. IT manager DAP felt that it was important to commoditize the hygiene factors and the foundation of IT for the company. Still the IT could have following construction:

1. Common tools and processes for all businesses
2. Common tools and processes to a set of businesses
3. Specialised tools and processes to help in specific business practices

The IT governance may be depicted as being at three levels:

1. IT Steering committee comprising of 3 senior directors
2. IT council made up of IT managers of various businesses
3. IT business councils that exist inside businesses to manage the IT and business alignment and enhance IT contribution to businesses

The IT manager DAP opined that the IT strategy had to be written by IT managers but is required to be aligned with businesses. This can be achieved by iterating discussion meetings with the relevant business managers. IT manager DAP has created an IT effectiveness framework named as star framework, based on COBIT concepts. It identifies the maturity levels of IT on 5 point scale. This is presently used for rating the IT in all business divisions.

5.0 Company E

- 1. Business manager A from subsidiary – identified as EAS**
- 2. Business Manager B from subsidiary – identified as EBS**
- 3. IT manager C from parent company – identified as ECP**
- 4. IT manager D from parent company – identified as EDP**

5.1 Interview with business manager EAS

Company E is a global multinational operating in over 70 countries. It carries divisional structure with legal entities in all relevant countries. Some divisions have done away with the 'regional' structures while some continue to do so. The IT organization is treated like a division and is organized in a central group and clusters of countries. A global CIO heads the IT organization with the divisional CIOs reporting into him. In addition there are 'Applications' and 'Infrastructure' organizations CEOs report into the global CIO. This team is called 'IT Management' group. The IT organization typically follows 'Global Matrix' structure with every IT manager reporting to local business manager geographically and in the IT organization globally. The dual reporting exists in all countries except in the parent company's strategic group.

Business manager EAS expressed his views:

1. Structures are ways to execute strategy. Structure follows strategy
2. Business strategy includes segmentation, it is components to solutions
3. Technology offers building blocks

4. ERP, CRM are essential business enabling systems, the company needs a robust intelligent customer information system.
5. It should create value

He continued “IT strategy should be to make the company more competitive, it should collapse systems merging all legacy systems into one standard system. The divisions do not drive markets, customers drive the market. IT business strategy should target towards simplification removing broken and fragmented systems”.

IT strategy is a directive; it requires building necessary competencies. For execution, degrees of freedom need to be given but it should not damage the core.

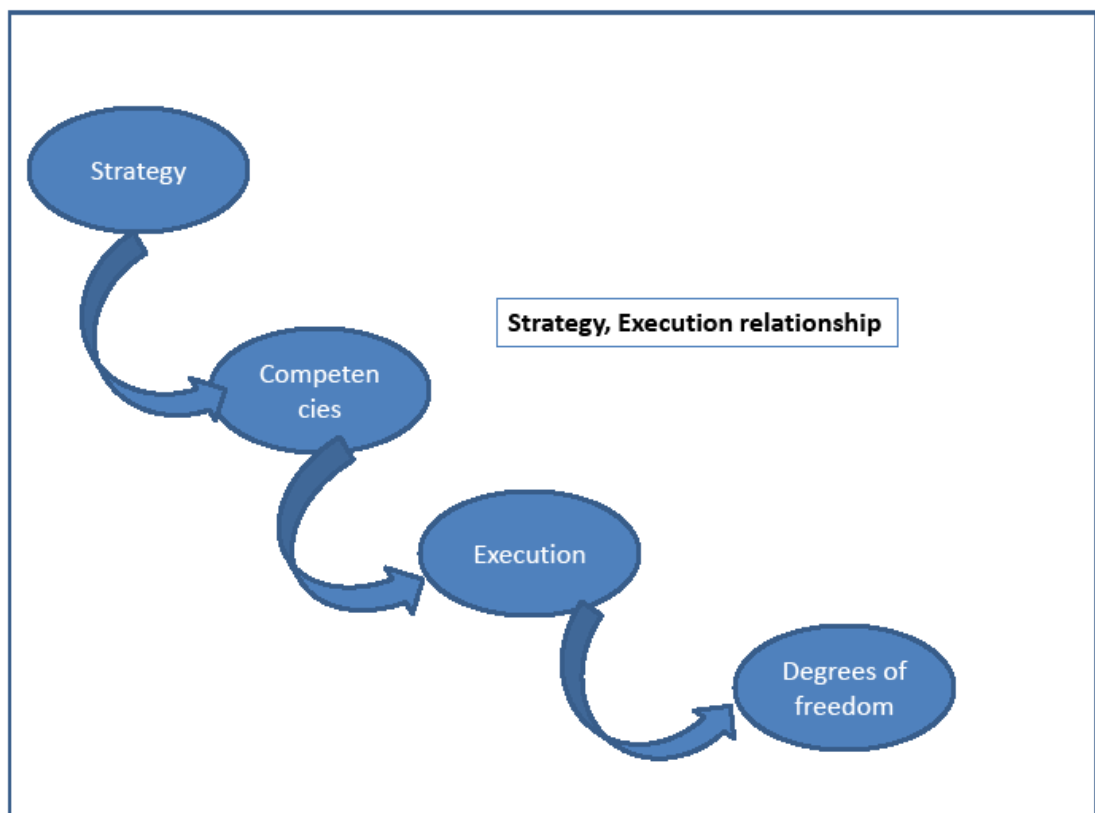


Figure 4-4: Strategy-Execution relationship

5.2 Interview with business manager EBS

The company is a business driven organization where businesses lead with a high level of freedom and autonomy. As a result it has developed multiple IT systems and organizations with disparate standards and tools. Cost optimization was never attempted, processes were not shared. Now the cost pressures have a significant effect everywhere. It will help in business harmonization and process harmonization. IT will be a force to drive such harmonization.

Business manager EBS expressed that emerging markets will be the first to achieve harmonization. He expects that the emerging market strategy and global IT strategy will synchronize with a focus on future. He spoke about standardization versus harmonization.

The company's management philosophy has been changing from product management to market management. This is evident in the change from transfer pricing to integral reporting. The control is giving way to transparency and knowledge. The company is becoming more market facing with 'Go to Market' strategy and approaches large players like Walmart and Carfour on a global basis rather than addressing them geographically in every country.

Such changes will result in business process changes. IT management need to concentrate on these changes, it should follow business demands and structures. Business will mould changes.

5.3 Interview with IT manager ECP – parent company global

Infrastructure manager

ECP said “Technology will be part of solutions offered by the company; the company products will include much of IT. Infrastructure will play a significant role in the products”. Currently the company is not IT-driven as IT is not positioned very well in the overall organization or in operations.

However in future it will become an IT-driven company where strategic corporate thinking will incorporate IT strategies. It needs to promote the value of IT through referencing and refocusing. It needs to prepare some business solutions that will include IT as a major component, it will bring the recognition we desire for IT. It needs to make reference visits; the platform for exhibiting IT will be the management and the business leaders. The senior IT management has started participating in country managers’ meetings regularly.

The company has a silo mentality that causes fragmentation and loss of energy. ECP felt that they were far behind the competition; they were currently where other companies were 10 years ago. They needed to catch up and go up the maturity cycle. “One IT” has been the focus area for IT strategy; we are in the process of consolidating the IT organization by bringing together IT people spread in different units of company.

While speaking on the concepts of centralization and autonomy IT manager ECP said “we are all part of big machine; we are not democracy, people need follow directives”.

During the interview CEP named global CIO repeatedly. It became apparent that in ECP's view the company depended on the Global CIO for directions and his opinion carried very high importance in the mind of the IT manager ECP.

5.4 Interview with IT manager EDP

IT manager heads the global applications organizations. In his view the IT derives its objectives from corporate and business objectives.

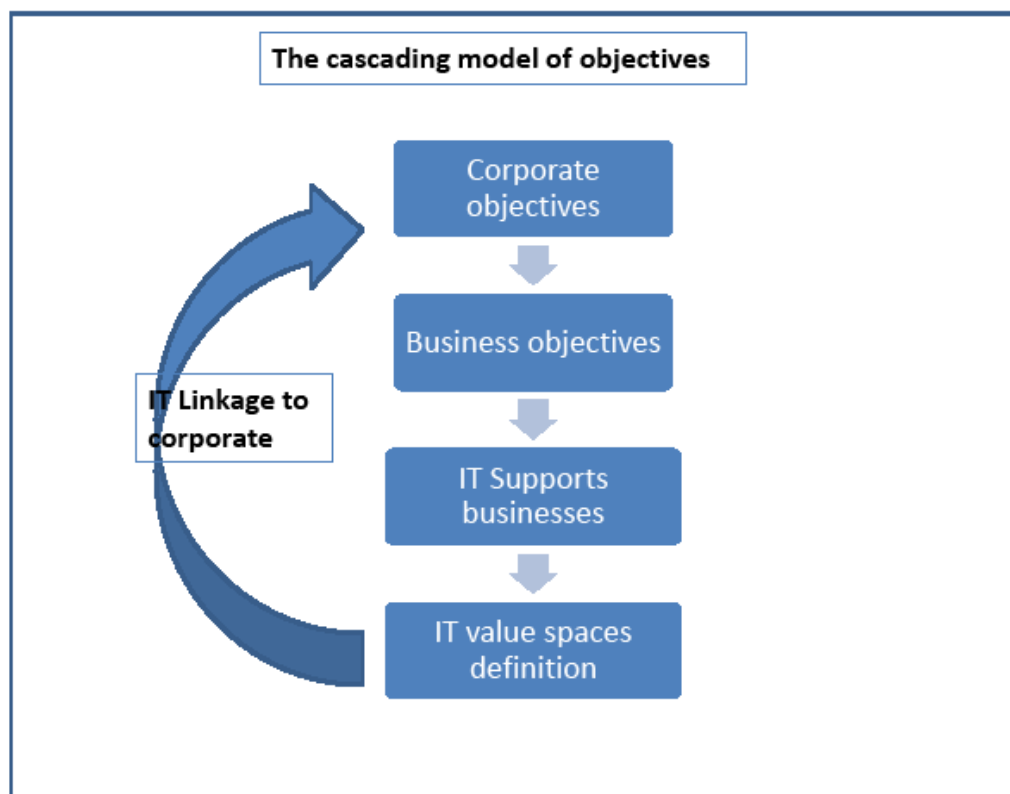


Figure 4-5: Cascading model of objectives

IT links back to corporate and business goals through its linked model. It achieves close alignment with the businesses through establishing and organizing regular meetings within five 'Functional Boards'. They represent

the main focal points of IT services requirements. The exercise concentrates on updating business processes with IT changing its role from being a 'service provider' to becoming a 'Business Partner'. It also requires considerable changes in the attitude of IT organization, they need to recognize that IT is integral part of businesses. Businesses indicate 'What', IT handles the 'How'.

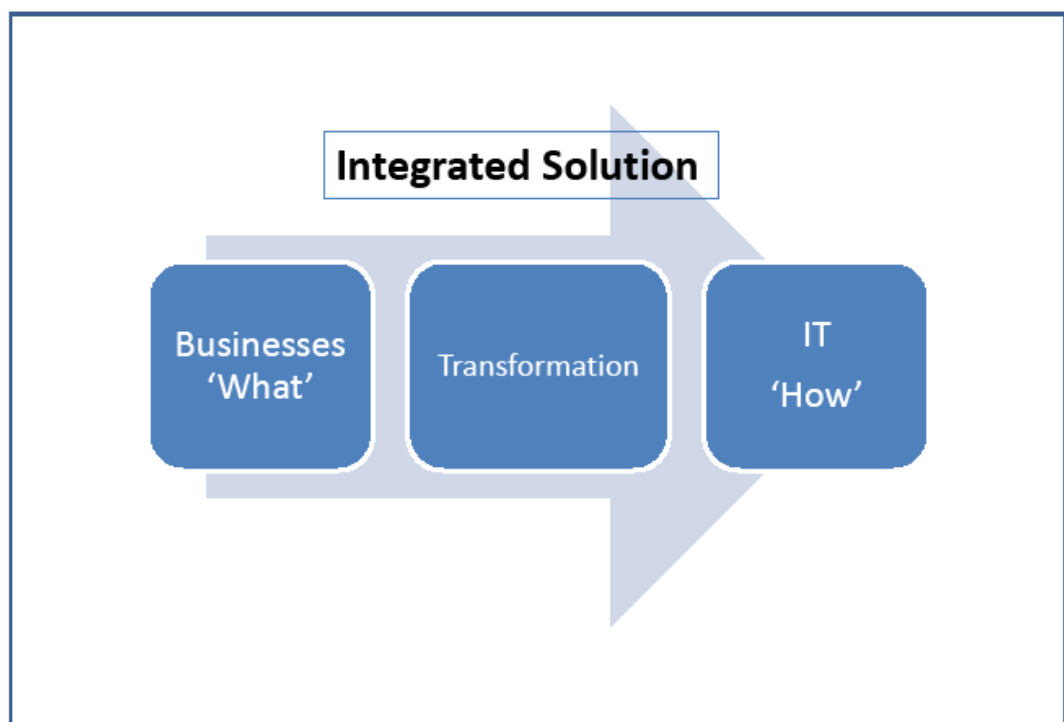


Figure 4-6: Integrated solution

IT has the authority to reject a business suggestion when it does not match the overall corporate and IT objective. IT does demand management, but also proactively proposes new ideas and solutions.

Being a global company the Top-Down policies apply; the functional strategies play a leading role. They will be the drivers of processes rather than the geographical considerations.

Overall observations – company E

1. There is a definite drive towards global policies with Top-Down approach in IT. The same company was much more democratic earlier and always strove for an acceptable strategy. This indicates a major change in the organization culture and expected behaviour.
2. IT managers believe parent company perspective reigns supreme
3. The strategies are being thrust down the organization globally without much consideration of local aspects
4. The local managers in subsidiaries appear cautious in expressing their reservations, although they agree with some of the steps of standardization and harmonization. A significant expression was in 'degrees of freedom' needed to be granted to subsidiaries.

6.0 Company F, parent company

IT manager identified as FAP

The industry is made up of big players who operate on high volumes. IT has a supporting role, business alignment is vital. IT comprises two major components:

1. Generic technology
2. Business specific

The generic technology component is moving towards commodity, more being considered as the 'Run' role while the business specific IT is fast taking up the 'Transform' role. The differentiator happens to be the

'Transform' portion of IT which creates excitement, it entices the business experts as it addresses 'improvement' in business processes. IT manager FAP believes that the 'Run' part will shrink in size as time passes while the 'Transform' pie will grow with time resulting in higher spending in the transform portion. It will be demand driven; will invest in the future. In the current scenario Run happens to be 45% and Transform happens to be 55%.

Run carries ambition of zero defects:

1. Always available
2. Zero incidents
3. Optimal performance
4. No outages

Transform runs three major programs:

1. BPM – Business process management to exploit opportunities
2. PMO – Program management office
3. EEA – Enterprise architect solutions

BPM sets the stage, it articulates the desired state. It validates the demand; it is business driven but also shapes the business. The BPM is populated by systems people and functional experts who happen to be non-IT personnel. Good service delivery boosts trust in IT and this trust in turn allows IT to launch more services.

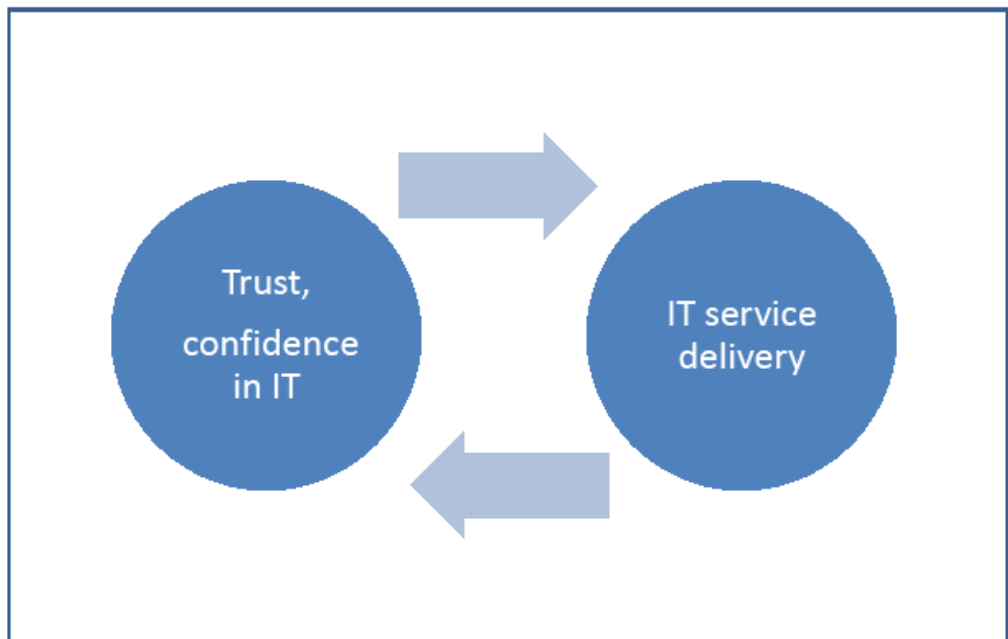


Figure 4-7: Trust, confidence and IT delivery

IT initiatives carry change agenda; the IT organization needs to focus on gaining such competencies and building capabilities.

7.0 Company G, Parent company

IT Manager identified as GAP

The IT manager heads the corporate IT organization of large automobile manufacturer G with ten verticals headed by sector presidents. It has grown substantially over the last several years and sells its automobile products in India; its products are also exported to other countries and continue to have strong demand. The company G has a good product line that continues to grow.

IT manager GAP opined that businesses have been recovering from economic crisis. India has not been dependent on US and Europe and has lot of self-sustaining capability. However businesses have been cautious; they do not want to take risks. The company G responded to the crisis by looking for different opportunities, they looked inward, took stock of the situation, worked on business process integration (BPI) in parts and changed business model. The culture and mindset changed as the cross-functional teams drove BPR and ERP implementation. Team work has brought in change in working together. The silo mentality has given way to teamwork, in manufacturing as well as support functions. Openness and transparency has been on rise. As an effect the TQM, six sigma-like initiatives are showing good results.

Most of the current IT population has been drawn from businesses; with almost 90% having business experience. There are no hardcore programmers in the company; those tasks have been outsourced. There are only 45 full time employees (FTE) in central IT organized in 5 cells:

1. Centre of excellence – managerial and technical
2. Internal customer relations
3. Projects
4. Operations – data centre and other support functions
5. Vendor management

Some of the group companies have their own IT departments. These departments work under the guidance of corporate IT. The structure is federated type, without hardline reporting into corporate IT. IT strategy

formulation is an annual exercise with each sector presenting its own strategy. In addition corporate presents its IT strategy. Two war-rooms stay active throughout the year, one referred to as strategy war-room and other as operations war-room. Inputs to IT strategy formulation have been:

1. Business strategy
2. Environmental inputs like technology availability, economic situation and IT industry readiness
3. Corporate inputs like leadership expectations and roles, policies

Corporate IT handles the infrastructure, mainly wide area network across the group while the local companies handle their own local requirements. The corporate IT has launched an initiative called “Project Harmonization” to align processes on common platform. The IT governance is through two committees:

1. IT committee comprising of sector IT heads and corporate IT head who together discuss IT strategy for the group
2. IT purchase committee that attempts to centralize all IT acquisitions

IT strategy is presented to the business presidents who need to approve it before implementation.

8.0 Company H, Parent company

Business manager identified as HAP

HAP is associated with the holding company of a large business group with interests in multiple sectors and countries. HAP has led business strategies for many years. He shed light on important aspects of business environment, the role of IT and its strategic intent.

The business environment has changed significantly over last decade:

1. Informed decisions – the End consumer is more knowledgeable in the present communication era. He /she has access to much larger pool of information through internet and SMS like tools. He/she makes more informed decisions than in the past.
2. Choice – With ready availability of products and services there are more options on the horizon than in the past. There are possibilities in terms of types of products, modes of delivery, completely different alternatives and so on. As an example e-books are impacting publications and printing sectors while e-education is bringing revolution in the education sector.

Information and choice have resulted in changing consumer perceptions affecting buying behaviours. Simultaneously the macro-economic scene has been impacting sales pattern. Businesses have to ride through these cycles and make sustainable progress. Some recent businesses like Google, Apple and Facebook have exhibited success in the face of changing tastes.

IT contributes considerably towards meeting the end consumers' expectations by:

1. Conceptualizing business value
2. Communicating value to consumer
3. Providing proximity feeling to consumer

IT also contributes towards shaping the organization by facilitating management of power/influence base in line with management philosophy:

1. Employee engagement – provide excitement
2. Employee empowerment – convey responsibility and authority
3. Employee inter-connection – provide right platforms
4. Employee connection to end consumer – make employees aware and accountable towards consumer needs/wants/expectations

In view of the changing business environment and technology's ability to connect to end-consumers and employees the intent of IT strategy should embed these management philosophical elements:

1. Product-driven
2. Information-driven
3. Control-driven
4. Shaping-driven

The weight on the above elements needs to be in line with management ideology.

In the real world the IT strategy follows optimisation and harmonization concepts with the agreement of all concerned. The agreed strategy exhibits

lowest common denominator principles. Such a strategy gets a ready buy-in and is relatively easy to deploy especially in large corporations with distributed decision making structures.

9.0 Company I, parent company

IT manager identified as IAP

Business involves providing airport services like landing, parking and terminal operations. The company operates on revenue sharing basis with a proportion of total revenue being paid to the Government. The overall business remains stable and does not experience short business cycles. The business model generally remains quite stable and is long-lasting. The major divisions are Commercial, HR, Finance, IT, Operations, Corporate communications and Projects. IT in this company generates revenue by selling check-in terminals to airlines.

IT manager IAP described the IT strategy exercise as being done from 5000 ft above the ground from the architectural perspective. It includes a 3-5 year rolling budget of capital expenditure (capex) and operational budget (opex). Architectural review is carried out once in 6 months and total revamping is done once in two years. Every month IT review is carried out by the Executive Committee while capex and opex budgets are reviewed and approved once a year.

The IT strategy was evolved through workshops with business managers. A consulting company helped in conducting workshops. During strategy

emphasis was placed on finding 'Golden rules'. Security was of prime importance supported by technology tools and processes.

IAP said that the "IT projects are driven by users e.g. SAP implementation and Airport Management System deployment". Application space is user-driven while infrastructure space is IT-driven. IT creates value for business. As an example IAP offered glimpses into the airport management system which supports double the flights with half the staff. Earlier the airport used to serve 400 flights manually with 50 airport control staff; now the same is handled by 25 staff members supporting 700 flights.

10.0 Company J, subsidiary company

IT manager identified as JAS

Company J is a global corporation with roots in Germany with direct operations in more than 140 countries. The company has four major business lines:

1. Courier service
2. Logistics
3. Supply chain
4. Global forwarding

The Company is organized in 4 regions viz. US, Europe, APAC and Emerging markets. APAC is structured in 5 areas. IT manager JAS heads IT for South Asia area which comprises of 7 countries. He reports into APAC CIO, he also has reporting line to the South Asia business head. The

company operates in a matrix fashion with hierarchical and functional reporting lines for its managers.

The IT team has strength of 40 in South Asia and supports 3500 employees in the area. Globally IT is organized into two major teams; CIO for businesses heads the demand line while the CIO for supply heads the fulfilment line. In addition there are four major businesses having their own CIOs. Together the global CIO, 4 business CIOs and 2 demand and supply side CIOs form the cross-business IT Leadership Team.

Currently there are attempts underway to bring together WAN, email and desktop support on a common platform following same standards. The newly acquired businesses are not yet fully integrated into overall processes and IT tools.

There are 2 data centres in Europe and one in APAC region. At country level the IT manager JAS plays both demand and supply roles. Where organization requirements are only at the regional level, the IT manager is authorized to carry out vendor negotiations. He described three of the IT systems that improved the business processes dramatically. One system improved the process efficiency by 50%; manager JAS said such tools are credited for business growth.

IT manager JAS said “IT is seen as value adding. Technology is an integral part of business”. Ironically, this is a global company which has grown rapidly on the business side, still maintains its individual geographical and vertical structures and is attempting to standardize its IT tools and processes

in a slow manner. The struggle is more because of the complexity of IT organization and the people's views, opinions and interests.

11.0 Company K, parent company

IT manager identified as KAP

The company offers tax refund services in major countries, mainly at airports. The business is classified as 'Financial Services Others'. It runs a large business spread in 40 countries on 200 locations with headquarters in Europe. IT manager KAP heads the IT at the global level and is a member of the Executive Board of the company. In the past the company has carried out its operations in a loosely coupled federated manner. Governance from parent company has been quite light and many decisions are left to its subsidiary units.

This is one IT manager, at Global CIO level, who said "cell phones, desktops need not be standardized". For IT strategy formulation he said "Realize the differences among various groups of people". He believes that IT must engage businesses; it must listen more.

The IT budget is divided into four major segments:

1. Infrastructure – cost based, supported by parent company
2. Business operations – funded by businesses
3. Investments and projects – the project management office takes fund organizing responsibility
4. R&D – 10% of the total IT budget is pooled for R&D

Earlier IT was typically responsible for transaction services, its operations was the differentiator for competing in the market. Now IT is more involved in business process changes and the structure. The Business Intelligence team along-with the data management team has shown amazing ability to do introspection in businesses. In order to develop such ability in the IT team the CIO must talk about business; must be part of business.

IT manager KAP believes that IT offers tools and processes but it does not have the power to shape the organization; though it may impact the organization through its product offering.

12.0 Company L, Subsidiary company

IT manager identified as LAS

Company L is in the banking business; is spread all over world in various segments of financial market like retail banking, investment banking, credit cards and so on. IT manager LAS represents one of the subsidiaries in East Asia and carries significant experience in providing IT services to his businesses.

He opened saying that that the last few years had been very challenging for IT. The economic crisis resulted in businesses expecting major cost cuts from IT. It responded by eliminating some projects also combining some smaller projects, trying to improve the efficiency and effectiveness of IT projects. Process automation contributed in a major way, but was also associated with business process changes. Off-shoring of IT services further helped to bring down the cost of services.

Business strategy has always been an input in the IT strategy formulation process. IT is invariably seen as a cost, an overhead. It is very rare that IT is viewed as a business partner.

IT strategy that is agreed is the one that is most acceptable to all. It has nothing to do with technology or business. People look at their own interests and often take the path most suited to them. While working on IT strategy people ego, position of individual, interpretations and politics take centre stage, especially in global businesses. People only accept suggestions and decisions from the people whom they trust; little attention is paid to the rationale and logic behind it. Value contributed by IT is more on perceptions rather than on actual dollars put on the table.

While developing a strategy framework, the central mission of businesses takes priority. Employee satisfaction is considered quite important for IT strategy formulation.

13.0 Company M, Parent company

IT manager identified as MAP

Company M is a large modern retailer and is a holding company for the group with outlets in major cities in India. It runs over 70 stores in various formats. The IT manager MAP is the Group CTO who heads the IT for the group companies. In addition he holds a business head role of one of the smaller businesses. He also carries with him a special assignment for restructuring the organization. The IT manager MAP is a member of the

Management Committee of the group along-with CEO, CFO and other business heads. The IT organization consists of the IT managers of various businesses in addition to other functions like infrastructure and applications.

MAP said IT has been in the DNA of the organization and a key part of business. It has been seen as giving competitive advantage. Generally IT capital expenditure has been exceeding 1% while operating expenses have been less than 1% of revenue. He described a business process change triggered by IT deployment. An auto-replenishment system that improved fill rate by 15%. This system impacted 3 teams as manual intervention diminished.

IT has been viewed as enabling function in the company. It is a business driven, demand driven function. Another example MAP cited was of a multi-channel retailing system that would create a common process and a standard way of working. Various retailing formats need to work in a homogeneous manner where IT would play a significant role. Further the acquired companies needed to be integrated through IT systems.

The IT strategy formulation is done by a cross-functional team which has the mandate to explore and experiment. The strategy is presented in business heads meeting where the Managing Director intervenes when disagreements occur. The review takes place at two levels:

1. Operational review
2. Strategic review

A promoter review is also carried out. Major IT projects go to the Board of Directors for approval where an independent IT specialists' view is sought. This IT specialist is an independent Director on the Board of Directors.

14.0 Company O, parent company

Consultant identified as OAP

Consultant OAP opined that the economy has moved from the earlier euphoria to a state of despair. The Good news is that some sanity is entering into markets. He envisages that from the current economic crisis some form of new economic order will begin. The thought process has begun with some eminent economists offering their views. Just as Communism, Marxism did not prove to be the answer to the nation's economic woes, the free market does not solve all problems. A wholly free market will no longer be a reality; some regulation of markets will be put in place as one of the first economic changes. Still any regulatory instrument must provide for some entrepreneurial freedom; if that does not happen, the economy will not move forward. Compliance versus entrepreneurial spirit will be examined again, an example is the SoX compliance required by America regulators.

Any corporate strategy or business strategy is unlikely to succeed without understanding the socio-economic aspects of environment in which it operates. Anyone wanting to do business in India has to take into account the social factors and the political, economic realities of the market. Here the

rich and poor coexist; in addition at least 3 generations of the population coexist in India. It is a country where the middle class is just emerging. One should also understand what the political ideology is; what the political system of a country is.

Over the last few years, since the 90's, the economic growth of India has been fuelled by the information technology sector. The growth there has been much quicker than in the past. Over the last five years all sectors of the Indian economy have grown substantially. The internet, the web technology, the mobile phones have changed perspectives on growth. The technology has helped companies:

1. Customer relations have improved through better and quicker communication. Companies have started involving customers in designing products. This has resulted in
 - a. Co-design
 - b. Co-creation
2. Cost reduction through simpler networks, integration of partners in businesses and sharing of information

The technology strategy has to simplify the processes by bringing in suppliers, intermediaries and customers. Their interests need to be incorporated; they need to be part of your strategy. Innovation will be the key to future strategies with encouragement for innovation in processes and products. It will be important to be able to use technology to serve the bottom of the pyramid. Further opportunities exist at the bottom; healthcare,

education, monitoring of development, empowering people will be major areas.

15.0 Company P, parent company

Consultant identified as PAP

Consultant PAP identified the following components of IT strategy business enablers:

1. Improvement operational performance
2. Cost efficiency
3. Globalization impact
4. Social responsibility

Factors affecting IT strategy include:

1. Geographical area, culture, attitudes
2. Regulatory and compliance aspects
3. Inconsistency of IT maturity across geographies

Most appropriate themes to build IT strategy include:

1. IT People – current skill set
2. Applications – what does business want? Business should drive IT
3. Sourcing – hardware, software etc

Consultant PAP opined that:

1. IT should take responsibility for full compliance (like SOX) along-with CEO and CFO. IT will play a dominant role in compliance. Security and compliance must be part of IT strategy
2. CSR – Corporate Social Responsibility will be another important factor of IT strategy. BPOs are trying to use eco-friendly mechanisms to create carbon credits. The stakeholders and shareholders are concerned with the environment and therefore ‘Green IT’ focus is required.

The consulting firm (for which consultant PAP works) said that the relevance of IT strategy formulation methodology is looked at every year. Local practices and local conditions are taken into consideration and the suggested methodology is tweaked to accommodate those. Methodology is not rigid; rather it is customer-friendly.

The ROI syndrome – in the view of consultant PAP very few companies measure ‘KPI before’ and ‘KPI after’ the deployment. However companies that tried this have been successful using either global benchmarks or local self-assessments.

Closing remark – consultant PAP said

1. “IT was always a support function earlier, now being of strategic importance IT is turning into a value creator and strategy enabler”.
2. “Exposure of IT in banking and services has been much larger than in manufacturing companies”.

16.0 Company Q, subsidiary company

Consultant identified as QAS

QAS represents a well known global consulting firm that has a very strong clientele all over the world. It carries out regular research activities in the IT arena and publishes the results. The predictions and research outcome are well accepted.

In the opening, consultant QAS said that IT has been a remarkable driver of economic growth. It has revolutionized the industry and society in general. The information technology has been changing the businesses in the same way as that steam engines and electricity and telephones have changed the society. The technical cleverness gets translated into business cleverness. The IT strategy keeps changing its contents over a period of time. Cost reduction is also a value creation for businesses. This can be seen in four different ways:

1. Cut in IT costs
2. Cut in business costs
3. Capital substituting labour
4. New processes

IT strategists are still fighting old battles like legacy systems and still working on SOA and middleware like products and services. IT strategy is really the business strategy like in case of Google. Increasingly IT strategy will become obsolete as people try to use technology to solve business problems. IT is one part of complex capability; the capabilities need to

change; IT is not one part of architectural component. IT vendors have seen the change; they have started selling services instead of boxes.

Organizations move slowly, however, the economic crisis has accelerated the change. The businesses have really gone global; they do not work on islands any more. The product and services distribution has gone global.

The IT strategy is never the best or ideal; it is always one that is most acceptable. That means people make adjustments and compromises. The ideal needs to be distinguished from the reality of today. Today we have all these factions that are regional, economical, ideological and technological. They protect their legacy assets that have returned them value worth many times their investments over all these years. They always do what they have done in the past. The political groups stay active. The strategy will always be about making the best possible response given the current circumstances of which legacy assets, experiences and politics are parts.

Technology shapes the organization but does the management plan the use of shaping the organization? That is a little difficult to find. Fundamentally human behaviour, human failings are not changed by IT. There are various organizational models and tools that have been used to design and shape the organizations, however, IT does not figure among those. No one uses IT for organizational planning but they do use IT to impact the processes and ways of working. Consultant QAS said he had never seen anybody using IT as a primary driver into the organizational design.

17.0 Company R

1. Consultant A with Subsidiary identified as RAS

2. Consultant B with parent identified as RBP

Interview with Consultant RAS

Company R is a large multinational in the computing business spread all over the world with over 100,000 employees. The consulting wing has been doing excellent business for last several years. Consultant RAS works for its Indian arm.

RAS opined that the economy has slowed down considerably in India, yet it would achieve a growth rate of over 6% during 2009. The spending in IT is very much related to growth in businesses. There is an interesting trend that we see developing in the last 6-9 months. Mostly short term projects have reduced while long term projects are coming back. The engagement in long term projects is increasing. At the tactical level, the scenario in IT is changing, offering the best time for radical changes with companies looking for 5-10 year engagements with their vendors. The decision cycles are getting longer with more approvals required, at the same time the companies are getting bolder saying that they would look at long term decisions, be it an outsourcing agreement or a long term partnership.

The earlier measure of IT cost as percentage of sales is giving way to the benefits accrued from IT implementations. The importance is awarded to the value generated by IT. The downturn in business and IT has forced the strategists to think of convergence rather than alignment. Earlier we used to

see that business and IT ran parallel, now it is being seen as common path moving forward. A strong intersection is seen now-a-days. People are talking about business-led IT improvement rather than IT impacting business, as an example one may think how the supply chain can be improved through IT deployment. Another example is where one thinks of improving the productivity of insurance agents using IT tools.

Earlier we have always seen that IT strategy follows business strategy. It was business strategy that drove IT strategy. Today people have realized that both need to go together as IT has played such an important role over the last few years that it cannot lag behind. Technology provides the cutting edge required for business growth, more and more companies are dependent on technology for their goal achievements.

The financial institutions like banks have IT merged into business almost entirely, while manufacturing sectors still treat IT as back office. RAS said this could be the case; however, it also has to be with the mindset of people that the role of IT is the support role and being seen as cost centre. Not just banking and telecom but also some manufacturing firms want to go the whole hog with IT.

Does IT make business changes? RAS said there are companies where the mandate of making business changes is with IT. IT is part of business process changes but could IT make changes on its own? No, RAS did not think so. IT cannot make such changes. IT-led changes face major challenges as this involves change management and not so much technology changes. Change management should be part of IT manager's

competence portfolio. Business planners have not used IT to structure the organization; such a thing has not been done so far. The organizational changes continue to be in the HR domain and not really in the IT domain.

There is a mismatch between business priority and the IT investment which leads to the feeling that IT does not deliver its value to business. Therefore it is extremely important to understand business requirements and priorities while formulating IT strategy. Articulating the value generation still continues to be an important element.

Large multinational companies are becoming GIEs, Globally Integrated Enterprises. They standardize their tools and processes. The business has gone global; IT has to follow suit. The BPO and KPO industry came into existence purely because of standardization.

Interview with Consultant RBP

Consultant RBP works with the parent company at the headquarters. She believes that IT is an integral part that any business needs; most processes are managed through IT. A CIO who adds value has to have technical knowledge along-with business knowledge. Business transformation can take place only when business process knowledge and IT knowledge come together. IT can always suggest solutions; IT can shape organizations by offering business reasons to change. The company R has Business Transformation IT organization that has created a Globally Integrated Enterprise. Simplification and standardization as the key along-with speedy implementation can achieve a lot.

The goal of the people is to maximize the business for the company as a whole, not for the region or the country. For business maximization the company needs to build capabilities that include global, Geographic and business expertise. IT strategy is tied to business strategy; overall business strategy is input to IT strategy formulation process. IT enables business but does not drive business.

With unlimited resources one may be able to have a strong balance between strategic thinking and tactical implementation. In reality the political factors contribute to a non-optimal strategy; one carries out a balancing act. As a culture, while formulating the IT strategy the lobbying takes place; the buy-in from various groups and factions becomes a necessity. Ultimately the most common accepted strategy is developed.

4.2 Chapter 4: Section 2

4.2.0 My own experiences and observations: MyCompany 2001-2009

Over the last ten years, like most organizations, MyCompany went through a process of major changes which comprised business reorganization, divesting non-core units and acquiring new businesses. In a way MyCompany redrew its image while casting itself into a totally new die. Such a change involved major churning into the organization and the employees. It included new policies, realignment, newer strategies and different ways of execution. The management philosophy changes had to be visible to people to be successful in this transformation. I am describing here the IT developments in MyCompany from 2001 to 2009 as I experienced. I saw three main transition stages:

1. Period 2001 - 2003
2. Period 2003 – 2007
3. Period 2007 - 2009

Later I want to relate these changes to my research findings and connect them to the literature review I had presented in the earlier chapter.

4.2.1 MyCompany 2001 - 2003

The company used to have a strong 3-layer structure in place at the start of the decade. Total operations were divided into five regions with each region controlling the number of countries. The regions were structured on a geographical basis keeping in mind the cultural and business diversity.

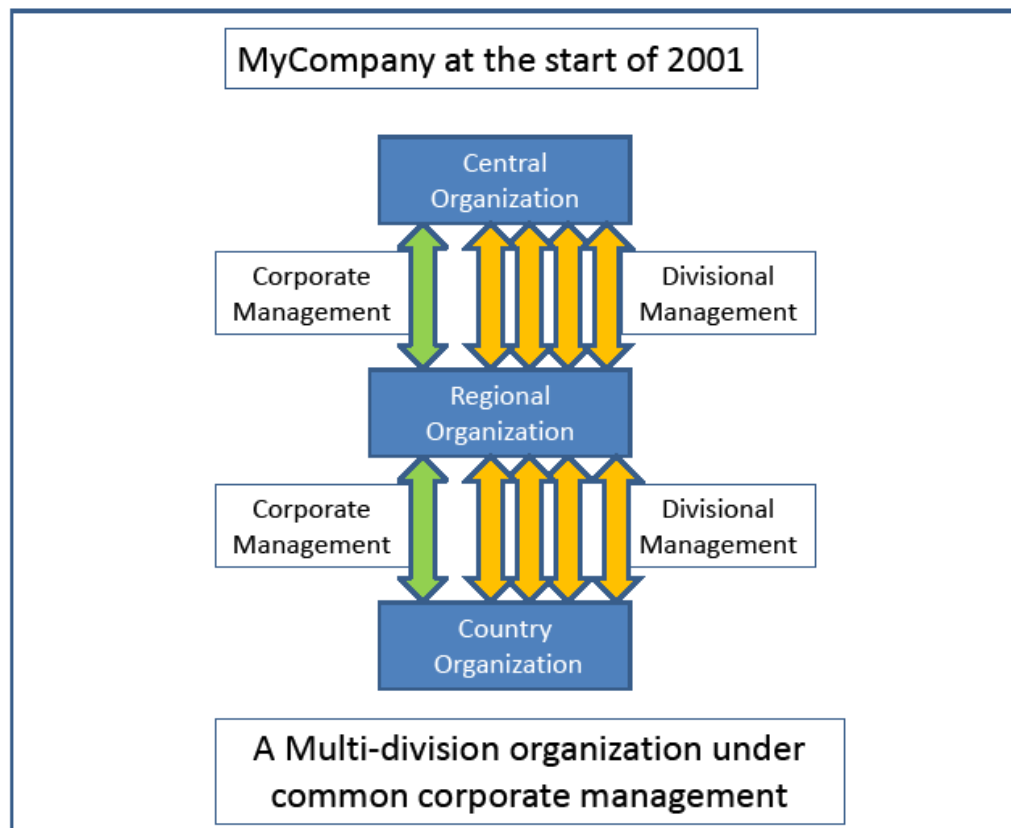


Figure 4-8: MyCompany in 2001

The divisions were responsible for all activities relating to product creation, launching, sales and delivery. Divisions had their own profit & loss (P&L) accounts which they had to manage as budgeted. The divisions had their own sales targets, production facilities, manpower plans and financial responsibilities. In a way, at the country level, every division would operate

almost as an independent company. The corporate body in each country would manage itself as another independent company, with its expenses being met either by charging to local divisions or from the funds allocated from its holding region. The regional organization costs would similarly be met by central body or by certain recovery from corresponding regional division organizations.

Every region would compile the results of countries in its fold and submit the consolidated result to the central organization. A similar process would be followed at the central level giving a consolidated picture of the global organization. The budgets and results of local country organizations and regions would be reviewed and approved by the next level head every quarter.

4.2.2 MyCompany IT from 2003 to 2007

MyCompany started its drive towards optimizing manpower utilization and cost reduction with the concept of 'Shared Services' in 2003. The guiding principles were based on the idea that the non-business services could be clubbed together so as to make use of available manpower and competencies more fruitfully. This essentially involved corporate functions such as finance, HR, IT, purchasing and real estate. Under this banner the 'Global Service Units (GSUs)' were launched with IT taking the lead in established IT GSU. The overall concept included a tighter IT organization cutting across country boundaries. The region was further subdivided into

clusters; each cluster being a logical country group taking into consideration the geographical specialties.

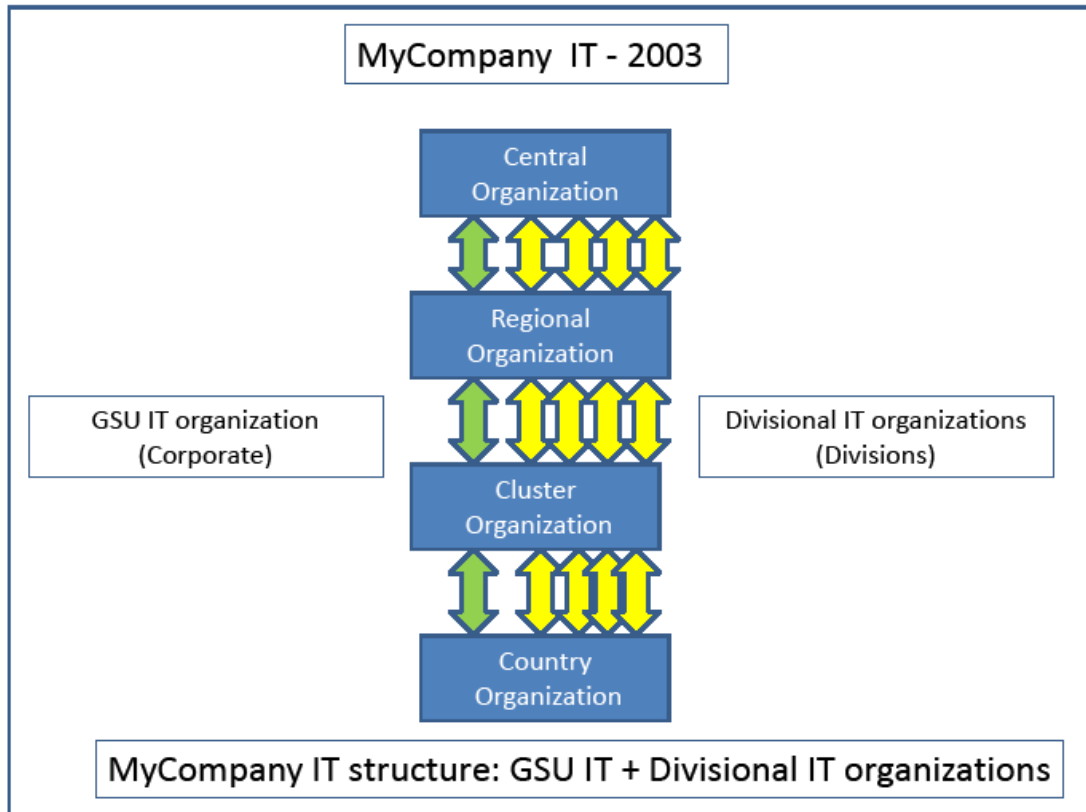


Figure 4-9: MyCompany in 2003

While the corporate functions started their drive towards optimization via the GSUs, the divisions continued their independent IT structures. The change effected was in the sharing of resources and competencies across national borders. However, it also introduced an additional layer of cluster managers.

The important learning for the IT organization was towards an alignment with the next higher level and the acceptance of standardization as a part of the global company. The GSU IT also introduced process standards that included operational and tactical level procedures. In the years to follow (2003-2007) many changes were introduced. The IT reporting and charging

focused more on SLA (service level agreements) with internal customers, mainly the divisions and other corporate functions. Some tariff structures also got standardized across the borders e.g. the network and email charges became common around the globe. The data network took the shape of a common global service through vendor consolidation and technology rationalization under a central network cell.

In effect the services got classified as global, regional and local; the network and email services being global while some of application services continued to be regional and/or local. In transactional terms a particular service was being offered by a global, regional or local team. The costs of services were accumulated at the respective level matched by the charges paid by the customer to three organizations through standardized financial routes. GSU IT followed the important no-profit-no-loss principle; that meant the GSU IT income statement at the year-end had to reflect zero surpluses.

4.2.3 Period 2007-2009

This period witnessed major cost pressures on the organization. The acquisitions and divestments posed new challenges, the integrating of new companies while continuing IT support to divested companies added complexities. The new acquisitions came up with different standards, sets of tools, policies and so on. They also had varying management philosophies and cultures. The divested businesses had to be supported for a fixed time period at contracted service prices. The management looked to IT for getting its act in place. The new companies had to be connected quickly in terms of data networks that would help to align the processes and applications.

Simultaneously there was an urgent need to reduce overall IT expenses. The world economy was going through a difficult phase. The businesses in Europe and America were experiencing shrunk volumes and receding bottom lines. It affected the overall financial health of the company. IT decided to do its bit. The consolidation exercise that started in 2005 took stronger root. The IT management sent stronger signals through the organization. Any resistance to change was not going to be accepted. The overall democratic way of working seemed to be giving way to mandates resulting in quick decisions and implementations.

The IT organizations spread in various sectors (earlier defined as divisions) and the corporate IT again underwent a major churn. The consolidation drive brought in place two IT support organizations, one supporting 'Infrastructure' other supporting 'Applications'. The IT people in sectors were pooled in these two organizations.

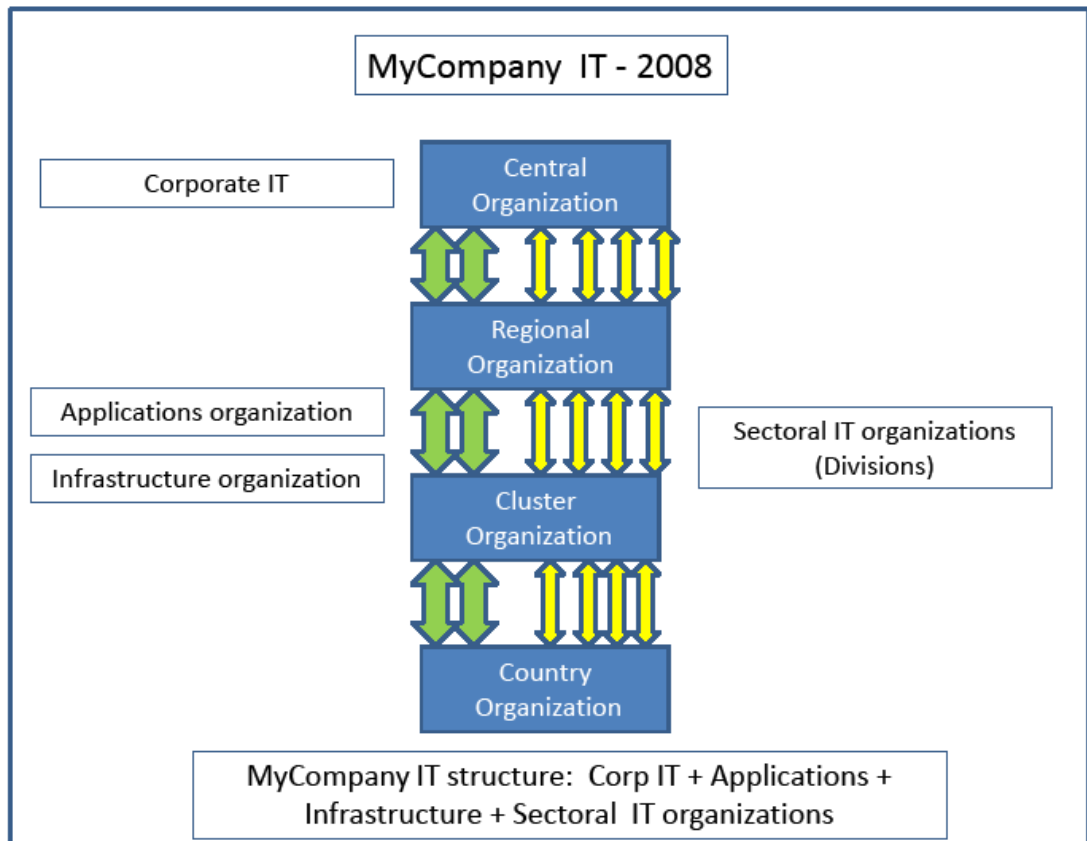


Figure 4-10: MyCompany in 2008

Sectoral IT organizations became much thinner with the applications and Infrastructure people being pooled into two service organizations. The responsibility of sectoral IT organizations became that of focusing on alignment with businesses and focus on the demand side of the IT requirements. The Applications and Infrastructure organizations became that of meeting 'Supply' side of IT requirements. The sectoral IT organizations were to depend on these service organizations to complete sector IT demands. The Corporate IT became a body that concentrated on IT strategy and policy matters director reporting to global CIO. The responsibilities of various IT organizations can be summarized as:

	Unit	Responsibility
1	Corporate IT	IT strategy and policy
2	Sectoral IT organizations	IT demand & alignment
3	Applications Organization	IT supply
4	Infrastructure Organization	IT supply

Figure 4-11: Organizational responsibilities

Further change took place in late 2008. The regional organizations in Applications and Infrastructure were eliminated thus reducing one organizational layer. As a practice all the sectoral organizations were to follow suit, some did it quickly while some retained the regional layer. It was also the overall trend in the organization to remove the regional layer completely.

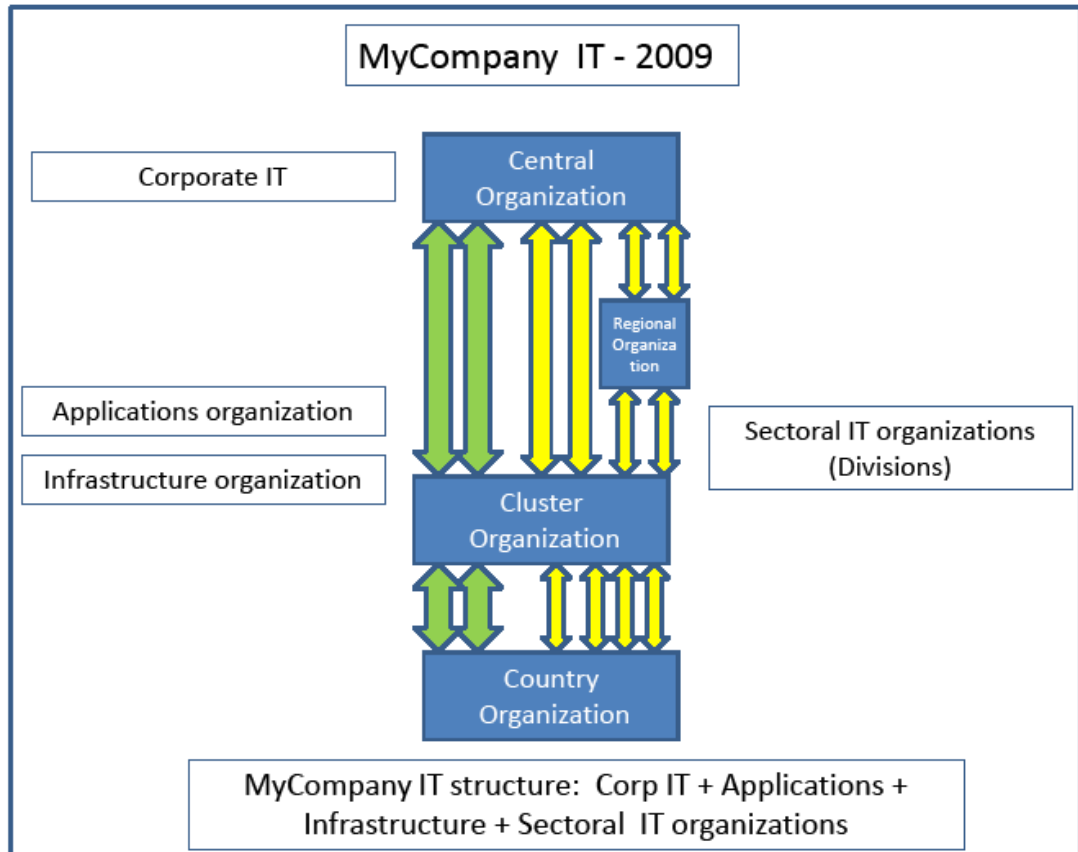


Figure 4-12: MyCompany in 2009

With continuous consolidation drive, the Applications and Infrastructure organizations formed the bulk of IT personnel in the company. The organizations while eliminating the regional structure progressed on the path of becoming global organizations. The clusters came under direct control of the respective central organizations. Service creation and delivery became the primary responsibilities of the central organizations and clusters and country organizations offered only supporting structure. A true global IT delivery was put into effect.

4.2.4 MyCompany - Overall observations

1. The change at the helm- The three periods matched the change of global Chief Information Officer (CIO) at the helm of operations. The periods reflected the management philosophy of three CIOs and the changes they introduced as true globalization took root in the company along-with changes seen in other global functions. As an example the manufacturing, the industrial operations as referred to in the company, shifted its focus to low cost countries. It moved much of the manufacturing from Europe to China. Also in local units the production shifted to outsourced parties under the loan-license arrangement. The finance function set up its own shared service centres (SSCs) for transactional processes. Initially set up as four MyCompany SSCs in four countries, these were later outsourced to another external party. In essence the SSCs were sold out to a vendor along-with assets and resources under contract to provide return services to financial MyCompany for a fixed period.
2. The outsourcing story 1 - The IT followed suit, though in a limited manner, by outsourcing complete desktop and related services. This included handing over some desktop service employees and related assets to a third party with a contractual obligation to provide services at a fixed price for a fixed period. The desktop services outsourcing had to go through two different attempts. The first attempt had a global design with all desktop services being contracted to a single company globally. It was expected that this company would be able to provide highly efficient services at a low cost on account of

economies of scale. The contract had standard services and prices irrespective of existing geographic differences in costs and services modalities. The internal resistance from users and IT personnel and the political pressure made it impossible to deploy the contract globally even though the concept and contract had full support from the global management. It had to be retracted.

3. The outsourcing story 2- The desktop contract was redone in 2007-2008 embedding into it some recognition of geographic differences, especially cost factors e.g. the services costs in some Asian and South American countries were far lower compared to Europe and North America. The global contract was subdivided regionally and was assigned to vendors exhibiting services capabilities regionally. It also incorporated varying service pricing in keeping with the costs in each of countries. Such an arrangement met with less local resistance and over two years could be implemented in every country. A noteworthy difference from the outsourcing story 1 was also in the IT management philosophy. The new CIO operated on mandates rather than inclusive democratic decision making processes. This was also helped by the overall MyCompany management moving towards autocratic mode from the earlier democratic mode.

The change in decision making in IT organization became more and more visible in 2007-2009 period. The decision making became more centralized with most decisions coming from the central body irrespective of implementation location or geographical considerations. The speed of implementation also increased rapidly and IT people around the world

started complying quickly without registering their views. The fear of job losses in view of the recessionary trend in 2007-2008 shaped the attitude of people.

4.3 Chapter 4: Section 3

While synthesizing the research findings and discussion thereon, I want to visit some corporate examples. Here we see the way large corporations have incorporated some management principles into their IT practices.

4.3.0 IT's recognition of people involvement – some corporate examples

The notion of practice places a stronger focus on people than on organizations, on routine as opposed to change and on situated activity rather than abstract processes (Whittington, 2003 p. 118). I offer here examples from the corporate world.

CISCO - IT Governance has been differentiated from IT management in terms of the degree to which the governing or managing body focuses on external issues versus internal issues. IT governance has been traditionally left to the Chief Information Officer's way of organizing the decision making at the central level. In most organizations, the body constituting CIO and the senior executives of businesses carries responsibility of IT governance. Cisco has set in place a committee-based organization structure instead of the conventional form functional or hierarchical structures. Within IT, The Connected Business Council in consultation with other committees sets the direction. The Operations Transformation Board ensures that IT implementations are carried out as planned (Gibson, 2009 p. 1). The rigorous architectural approach to IT management along with collaboration

and virtualization separates Cisco from others. In a way Cisco has formally acknowledged the people factor in the organizational setting. In Sandrino-Arndt's (2008 p. 3) decision-making archetypes Cisco's structure can be equated to the 'Federal' reference model.

New York Life Insurance Co. has always had a technology governance team in place; however in 2007 it brought in a 'Business and Technology Strategy' team to maintain a roadmap for the firm. This initiative has resulted in greater discipline and broader team involvement. It helped to construct a framework that intertwined IT and business objectives (Greengard, 2009). It is the process that keeps the business and IT leaders closely connected creating a management structure to make the IT department a valuable business asset to the overall enterprise. As part of strategy development, New York Life's 'Business and Technology Strategy' team members conduct interviews with senior level business executives across functions and domains.

AT&T's philosophy of IT governance has been "Make IT part of business process, not an afterthought". The strategic planning is one of continual collaboration, with technology people sitting through the business-focused conference calls (McCafferty, 2009). AT&T's strategy is to incorporate its IT employees into every aspect of business process. The IT strategic planning process involves a 3-year window to decide on which projects are funded and at what level. It is a business approach to the management of enterprise technology.

Communication has been one of the most vital elements of IT governance in large corporations; especially information on how decisions are made, how they are implemented and what the desired outcomes are (Sandrino-Ardnt, 2008 p. 4). My own findings during the field research involving interviews with project managers strongly supported the view on communication. They unequivocally claimed to have put heavy emphasis on communicating consistently and continually with the team members. Every project manager pronounced it to be the major contributing factor towards the success of the project, especially in projects where the team was spread over multiple locations and needed to be collaborating virtually.

Google follows the 'culture of choice' philosophy, embedding the people factor in its IT implementations. Google employees are free to choose what they need on their desktops. Google believes that tighter control limits the innovation capability of employees (Claburn, 2006 p. 13). It also places faith on group intelligence where belief in IT is that all employees select all employees.

Coca-Cola - Collaboration has been identified as a major strategic thrust in Coca-Cola (Sheelvant, 2008). The internal collaboration among employees and the external collaboration with business partners are considered to be the key elements of future success. Cross *et al* (2006 p. 41) have stressed the importance of collaboration as a vital feature of business life. Their research concludes that the strongly performing companies have a higher percentage of collaborative time.

HP, Intel, IBM, AMD and Microsoft - Schwittay (2009) has reported IT industry attempts to make employees own the 'Corporate Citizenship programmes'. She has described attempts by HP, Intel, IBM, AMD and Microsoft to inculcate new culture in their respective organizations. Most of these initiatives were aimed at using ICT to reach unconnected people.

4.4 Chapter 4: Section 4

4.4.0 My impressions of my recent research with IT project managers

In recent months I participated in a research project that included interviewing IT project managers. As a team we conducted 24 interviews; I personally interviewed 11 project managers from large, medium and small companies. Project managers had 3-15 years of project management experience. The research was aimed at finding the views on usefulness of certification and the factors in success of IT projects.

Most project managers talked about importance of teamwork and the usefulness of robust communication requirements. Many of the project managers worked in virtual teams and depended on their people skills to get the best out of their teams. They emphasized the necessity to understand the cultural and traditional aspects of team members to work effectively with the team. The findings from this research aligned well with findings from the interviews I conducted for my research and showed strong recognition of socio-political aspects in success of projects. One very interesting observation was around the type of project. The project managers acknowledged the heavy component of social skills in client - facing service projects than the product development projects.

4.5 Chapter 4: Section 5

4.5.0 Overall findings

While summarising the interviews it became apparent that some keywords and phrases appeared again and again, essentially indicating the important aspects that managers had in mind surrounding the IT strategy and its formulation. From the analysis of interview data I gathered these important aspects into categories. These became 24 categories.

Table 4-2: Initial categories

IT strategy features	Council membership of IT manager	Business-driven demands
Basis for IT strategy	People interests	Company directions
IT strategy process	Parent and subsidiaries	Contribution to business
Inputs to strategy	Coalitions	Articulation and promotion of IT value
Management philosophy	Standards – tools and processes	Operations
Organization structure	Process harmonization	IT alignment with business
Multiplicity of IT departments	IT project approvals	Process changes
Reporting structure	Project reviews	Empowerment – employees and partners

Examination of the categories further made it possible to bring related categories together and group them into themes. I regrouped 24 categories into 12 themes. Following table shows the categories and the themes.

Table 4-3: Regrouped themes

Initial categories	Regrouped Themes
1. IT strategy features 2. Basis for IT strategy	1. IT strategy
3. IT strategy process 4. Inputs to strategy 5. Management philosophy	2. IT strategy formulation
6. Organization structure 7. Multiplicity of IT departments	3. IT organization
8. Reporting structure 9. Council membership of IT manager	4. IT position in organization
10. People interests 11. Parent and subsidiaries 12. Coalitions	5. People
13. Standards – tools and processes 14. Process harmonization	6. Standardization and harmonization
15. IT project approvals 16. Project reviews	7. IT governance

17. Business-driven demands 18. Company directions	8. Company – role of business units
19. Contribution to business 20. Articulation and promotion of IT value	9. Value of IT
21. Operations	10. Operations
22. IT alignment with business	11. Business alignment
23. Process changes 24. Empowerment – employees and partners	12. Role of IT

Most of these themes directly or indirectly enveloped the human factors and their importance in global companies. My own experiences complemented the above themes and brought out the interconnections and interdependence of many of them. It was very interesting to see how the people factor, organizational aspects and the strategy part go hand-in-hand. Further the interviewees' descriptions of their company status at various levels of maturity aligned with my experiences over last ten years in MyCompany. I could also relate my experiences with the theories that I have discussed in the chapter 2 of literature review.

My participation in the research project involving interviews with IT project managers reconfirmed the socio-political angle of working in global companies.

In next chapter I have discussed the themes in detail and have connected them to my experiences. Further I have brought out the principles that I

visited in the literature review chapter, thus paving the way towards the development of a new model for IT strategy formulation in the chapter 6 of synthesis and conclusion.

5. Chapter 5: Discussion

I have organized this chapter in three sections.

Section 1: Themes - Quotations

This section shows the common ideas that the interviewees expressed. I have listed some of quotations from interviews against themes.

Section 2: Themes discussion

I have discussed each theme emerging from interviews and triangulated with my own experiences

Section 3: Themes interconnection

I have connected the themes to preamble the model generation, regrouping them to support the model presented in the following chapter.

5.1 Chapter 5: Section 1

5.1.0 Themes summary

Carrying forward the themes from previous chapter I have listed them here and have included some quotations from interviews. The table shows interviewees' expressions on various aspects.

Table 5-1: Themes - quotations

Sr. No.	Themes	Some quotations from interviews
1	IT strategy	<ol style="list-style-type: none"> 1. <i>Off-shoring of IT helped to bring down the cost</i> 2. <i>IT strategy does not align with Emerging market strategy</i> 3. <i>IT strategy is developed by IT people</i> 4. <i>A group company as a vendor limits negotiations options</i> 5. <i>IT strategists are still fighting old battles like legacy systems and still working on SOA and middleware</i> 6. <i>IT should follow business demands and business structures</i> 7. <i>IT derives its objectives from corporate objectives and business objectives</i> 8. <i>When organizations are at regional level the local company is allowed to deal with local vendors directly</i>
2	IT strategy formulation	<ol style="list-style-type: none"> 1. <i>Strategy formulation is an annual exercise with each business IT presenting its own strategy</i> 2. <i>Strategy was evolved through workshops with business managers</i> 3. <i>Inputs to IT strategy are business strategy, environmental inputs like technology, economy and corporate inputs like leadership expectations</i> 4. <i>Technology strategy has to simplify the processes by bringing in suppliers, intermediaries and the customers. Their interests need to be incorporated, they need to be part of IT strategy</i> 5. <i>The employee satisfaction is considered quite important for IT strategy formulation</i> 6. <i>IT strategy should include management philosophy elements of being product-</i>

		<p><i>driven, information-driven, control-driven and shaping-driven, weight of each will depend on management ideology</i></p> <ol style="list-style-type: none"> 7. <i>IT is seen as an overhead; it is rarely viewed as business partner</i> 8. <i>It was business strategy that drove IT strategy. Today people have realized that both need to go together.</i> 9. <i>While working on strategy, the central mission of businesses takes priority.</i> 10. <i>Any corporate or business strategy without understanding of the socio-economic aspect of environment will fall short.</i> 11. <i>Increasingly IT strategy will become obsolete as people try to use technology to solve business problems</i> 12. <i>The strategy will always be about making the best possible response given the circumstances of which the legacy assets, of which the experiences, of which the politics are part</i>
3	IT organization	<ol style="list-style-type: none"> 1. <i>Structures are ways to execute strategy</i> 2. <i>IT strategy is a directive, it requires building competencies</i> 3. <i>IT organization has two arms, generic technology and business specific organizations</i> 4. <i>The company has multiple IT units as corporate IT and business IT organizations</i> 5. <i>Each business has its own CIO</i> 6. <i>IT organization consists of the IT managers of various businesses apart from core functions like Infrastructure and Applications</i> 7. <i>IT organization needs to build competencies</i> 8. <i>In order to develop abilities IT team</i> 9. <i>CIO must talk to businesses, must be part of businesses</i>
4	IT position in organization	<ol style="list-style-type: none"> 1. <i>Group CIO is a member of Management Committee</i> 2. <i>CIO is a member of Executive Board of company</i> 3. <i>CIO reports to the CFO</i>
5	People	<ol style="list-style-type: none"> 1. <i>Struggle is because of complexity of IT organization and the people views, opinions and interests</i> 2. <i>Realize the difference among different groups of people.</i> 3. <i>Anyone wanting to do business in India has to take into account the social factors and</i>

		<p><i>the political, economic realities of the market</i></p> <ol style="list-style-type: none"> 4. <i>One should understand what is the political ideology, what is the political system of the country</i> 5. <i>Strategy buy-in is achieved through annual conferences, global and regional</i> 6. <i>While working on strategy people ego, positioning of individuals, interpretations and politics take away the cake, especially in global businesses</i> 7. <i>The IT strategy is never the best or ideal one; it is always the one that is most acceptable. That means people make adjustments and compromises</i> 8. <i>IT strategy that is agreed is the one most acceptable to all; it has nothing to do with technology or business. People look at their interests and take the path most suited to them</i> 9. <i>IT must engage businesses, it must listen more</i> 10. <i>IT people have to network with others in organization. Such networking is encouraged and expected. People networks are important for smooth running of business</i> 11. <i>Today we have factions that are regional, economical, ideological and technological. The political groups are active</i> 12. <i>Political factors contribute to a non-optimal strategy; one carries out a balancing act</i> 13. <i>While formulating IT strategy lobbying takes place; the buy-in from various groups and factions is a necessity. Ultimately the most common accepted strategy is developed.</i>
6	Standardization and harmonization	<ol style="list-style-type: none"> 1. <i>Any attempt to standardise usually meets resistance from organization</i> 2. <i>Challenge is to get a single system or network in place for entire group, especially for newly acquired businesses</i> 3. <i>IT is a force towards harmonization</i> 4. <i>In real world IT strategy follows optimization and harmonization with the agreement of all concerned. Such agreed strategy exhibits lowest common denominator principle</i> 5. <i>Cell phones, desktops need not be standardized, we need not force on people</i> 6. <i>Multinational large companies are becoming 'Globally Integrated Enterprises'. They standardize their tools and processes.</i>

7	IT governance	<ol style="list-style-type: none"> 1. <i>IT strategy is done in IT council</i> 2. <i>Strategy is approved by business presidents</i> 3. <i>Strategic and operational reviews are carried out twice a year</i> 4. <i>IT strategy is presented in business heads meeting where the Managing Director intervenes when disagreements occur</i> 5. <i>The IT review takes place at operational level and at strategic level</i> 6. <i>Major IT projects go to Board of Directors for approval</i>
8	Company – role of business units	<ol style="list-style-type: none"> 1. <i>Company is business driven organization where businesses lead with high level of freedom and autonomy</i> 2. <i>Focus is changing from product mgmt to market management</i> 3. <i>Businesses will mould changes</i> 4. <i>Company employees have silo mentality causing fragmentation and loss of energy</i> 5. <i>Functional strategies play leading role, they will be drivers of processes rather than geographic considerations</i> 6. <i>Global company has grown very rapidly and still maintains its individual geographical and vertical structure. Then attempting to standardize its IT tools and processes becomes challenging</i> 7. <i>Historically company has carried operations in a loosely coupled federated manner.</i> 8. <i>Governance from parent company is quite light and many decisions are left to subsidiary companies</i> 9. <i>The businesses have really gone global, they do not work on islands any more</i>
10	Operations	<ol style="list-style-type: none"> 1. <i>Businesses indicate ‘what’; IT handles ‘How’</i> 2. <i>IT does demand management</i> 3. <i>IT projects are driven by users</i> 4. <i>Quality of service delivery and the projects are vital</i> 5. <i>‘Run’ part of IT need to prove ‘zero defects’</i>
11	Business alignment	<ol style="list-style-type: none"> 1. <i>IT alignment with business is vital</i> 2. <i>Cross-functional teams broke silos, brought in teamwork</i> 3. <i>IT strategy formulation is done by cross-functional team that has mandate to explore and experiment</i> 4. <i>Business and IT used to be parallel tracks, now it is seen as common path moving forward. IT strategists are thinking of convergence rather than alignment</i>

12	Role of IT	<ol style="list-style-type: none"> 1. <i>IT can help in employee engagement, empowerment, interconnect employees and end consumers</i> 2. <i>Earlier IT was typically responsible for transaction services, now it is involved in business process changes and the structure</i> 3. <i>IT offers tools and process but it does not have the power to shape the organization, although it may impact the organization through its product offering</i> 4. <i>Fundamentally the human behaviour, human failings are not changed by IT</i> 5. <i>No one uses IT to do organizational planning but they do use IT to impact processes and the ways of working</i> 6. <i>IT is seen as enabling function in the company</i> 7. <i>IT has always been a support function, now being of strategic importance it is turning into a value creator and strategic enabler</i> 8. <i>There are companies where mandate of making business process change is with IT, as a part of process change.</i> 9. <i>Business planners have not used IT to structure the organizations. It is HR domain</i> 10. <i>IT can shape organization by offering business reasons to change</i> 11. <i>IT is changing its role from service provider to business partner</i>
----	------------	--

5.2 Chapter 5: Section 2

5.2.0 Themes discussion

When I look at these themes in depth, it becomes quite apparent that all of them are inter-connected and interdependent. One influences another and also gets influenced. The IT strategy formulation is done within the framework of a company's strategies, policies and structures. The expectations, the role of IT and its organization are widely shaped by the organizational context and culture. Encompassing all the factors are the views and the demonstrated behaviour of the employees and the business partners of the company, especially in a large global corporation that has a mix of geographical, cultural, social and political backdrop. Fisher (1999 p. 10) proclaims that "the combination of macro and micro cultures within and between entities needs to be better understood and respected and utilized to attain the results required". Similar ideas on clash of cultures have been acknowledged by many. My own interviewees recognized this factor; some in a subtle manner, others very overtly. The discussion here on various themes shows such overlap and the interconnections to some extent.

1. IT Strategy

Most of the IT managers talked about outsourcing as one of the strategies deployed in their organization. The larger conglomerates, especially Indian ones, showed a trend of internal outsourcing, signifying that the outsourced party was one of the sister companies. In such a case the IT manager did not have to spend efforts in searching for an appropriate vendor, however, it was quite apparent that such a relationship was always a delicate one. The

outsourcing customer (my interviewees CAP, DAP) never had the comfortable feeling of being attended to, as he would have liked to. In addition to it, the outsourcing customer had little, or almost no, option to change the vendor; consequently there was little control over service delivery.

The large global corporations generally choose an external vendor capable of global service delivery. The managers in subsidiary companies (my interviewees AAS, BAS, JAS) opined these were mandates coming from parents, mostly without regard to local considerations. At the same time, the parent company IT managers believed (interviewees ECP, EDP) mandates and directives were the way forward in large companies. Only one global IT manager (KAP) was very open to the subsidiaries having freedom to choose from various options.

Most of the interviewees, the IT managers and the business managers, expressed their view that business strategy was the driving factor for IT strategy. Interviewee EBS was very vocal in saying that IT strategy should follow business strategy. Such a view was expected as the organization E was a business-led organization.

At the same time, most IT managers claimed to be part of senior level councils in their organizations. They also believed that IT contributed significantly towards the business strategy. Earl had, as early as 1988, identified strategic applications of IT in gaining competitive advantage, productivity and performance, managing and new business development. The paradox is visible in the claim that the IT managers belonged to the

overall organization strategy group while the IT strategy is based on business strategy and not part of the business strategy.

It was interesting to note that the consultants like PAP and QAP stressed on environmental awareness through Green IT initiatives. They also emphasized on the compliance role of IT, especially IT's contribution in meeting legal and regulatory requirements for the company. A special mention needs to be made of the fact that IT managers displayed little enthusiasm in both the areas.

2. IT Strategy formulation and execution

The IT strategy formulation was described by IT managers as an annual exercise. In large global companies the strategy formulation involves taking into account views of various groups, factions and coalitions. Smallman (2006 p. 777) offered ways in which the collibratory intervention is carried out for emancipating or handicapping social actors to achieve clearly defined objectives. I have discussed here both direct and indirect intervention.

Collibratory intervention - direct

The notion of 'balance of power' is a fundamental one in international relations; it is a natural process that includes party competition, pressure-group politics, and rival paradigms and so on. Dunshire (1990 p. 17) proclaimed 'collibration' as a tool of governance. The government puts its thumb on the local political scales, hoping to tip the balance in favour of one of the local sides. It is intervention but not by regulation or by output monitoring; it is collibration. It is a technique of manipulating the mechanism;

it is a technique as an alternative to control by other means and not advocacy of no control. The government may reject regulation of markets and not wish to either lay down targets to be achieved or standards to be kept and still wants to be able 'to steer the equilibrium' in a preferred direction by money-moving methods of one kind or another (Dunshire, 1990 p. 16). There is a difference between regulating the market and intervening in the market. The regulation involves providing a framework of laws to maintain required environment while intervening includes some sort of action that steers the equilibrium in the desired direction.

In almost all my interviews it was clear that the senior management in one form or other intervenes to make IT move in a direction that it desires. The organization structure and power of bases used for such purpose vary the forms like steering committee, executive council, the management review.

Three of the common methods include:

1. Budget approvals or rejections e.g. periodic reviews
2. Public declaration of high level value creation expectations e.g. through appearances in annual conferences
3. Timely intervention to align the businesses and the IT e.g. in a judiciary position to resolve the differences among various parties

All these forms are observed in an organization that follows democratic processes getting buy-in from various parties so that policy formulation and implementation takes place smoothly. 'Leave it to the market' principle of government policies is followed in many global companies to have a

balanced approach in dealing with issues and problems arising from the necessity to do business in international scenario. However such an approach is also an expensive one where the decision making and subsequent implementation becomes a time consuming process. The recent downturn in economy forced the firms to look alternate ways to quickly make amends. The senior IT organization in MyCompany chose a method of top-down approach rather than continuing the well practiced democratic path. Such a top-down path has been assessed as not only illusory but undesirable principle (Dunshire, 1990 p. 5). Besides top-down approach MyCompany also appointed global heads for various components of IT services. These global heads had primary responsibility of ensuring that the mandates were followed in letter and in spirit by every unit around the globe. Meyer (1971 p. 392) describes the strategy of a French King to place his 'intendants' in each region of France. This was to counter the local feudal lords. The strategy helped to lay foundation of French absolute monarchy.

Collibratory intervention - indirect

Any policy tool can be deployed in collibration: information, regulation, subsidy or direct action (Dunshire, 1993 p. 43). The main attraction of collibratory methods is that, other things being equal, they are cheap, non-committing and unobtrusive forms of intervention. Managing social tension can take the form of changing its variables, changing its relationships or changing its values through canalizing, biasing or formalizing.

I would like to cite an example from my current experiences. Two of the entities wanted extra floor space; both approached the parent body asking

for it. I represented one of the entities. After having requested several times though written and verbal communication, I met the parent body representative to press on. It was then conveyed that the additional space was already allotted to the competing entity months ago and I was advised to request additional space from that entity. Having enquired when this had happened, the parent body representative said that the old correspondence was dug out which proved the allotment was approved. Having insisted further I got to know that the size of entity and its perceived weight mattered. My competing entity being much larger, the balance tipped in its favour.

Analysis of this experience reveals:

1. The parent body had revealed the availability of additional space to the larger entity much in advance, without informing my entity
2. The parent body then committed to allot additional space to larger entity without informing the smaller entity; the favour of information and allotment was based on size.
3. Despite prior commitment the parent body allowed the smaller entity to fight for additional space although the parent body knew of the final outcome. It created a semblance of all bodies being treated equally.

This exemplifies collibratory intervention from parent body in the form of:

1. Information dissemination
2. Direct action

3. IT Organization

Business manager EAP said “structures are ways to execute strategy. Structures follow strategy”. However true this principle may be, in the real world we do not see many companies changing structure with strategy. Employees identify themselves with organization structure rather than with strategy. The classical functional as well as matrix structure is seen in many organizations. Khan and Azmi (2005 p. 41) have proposed Velcro hooking as an idea for effective implementation. The Velcro organizations are those where resources can be configured seamlessly and with little efforts. Referring to the future, Peppard opined that structuring IS organization as a separate unit is a flawed practice. Executives should not see IS as a separate unit but as a pervasive construction (pers. comm..Peppard, 2010).

The structure of IT organization has been undergoing continuous modification account of changes and technology as well as the desire of businesses to have greater control on IT. Traditionally the IT department used to be attached to finance function making the Chief Information Officer report to Chief Finance Officer. There has been a tussle between businesses and the finance to control the vital IT department. New York based Bankers Trust Co. decentralized the IS operations as early as 1991 and gave its businesses complete control over its systems operations and decisions (LaPlante, 1991). Over a period of time many global companies followed the divisional set up with IT being part of every division. As a result multiple IT departments came into being in large companies. During my

interviews the managers of most global companies confirmed that they had multiple IT units.

A more prevalent IT organization form is structured with two major arms, one for infrastructure and one for applications. The infrastructure includes standard resources like networks, desktops, data centres and email. Some of my interviewees said that their infrastructure units reported to the global CIO. Standardization of tools and processes resulting in reduced operating cost has been the key objective behind such global departments. The divisional structure of global companies also makes it possible for the divisions to have their own divisional IT departments for handling applications. My interviewees confirmed such multiplicity of IT departments.

It is also interesting to see how the technology changes and the usage impacts IT organization structure. Based on increasing internet usage and direct business involvement York (Infoworld, 1999) had predicted that centralized IT would get decentralized in the following decade. He conceived that the savvy computer users would carry their own responsibility for IT requirements. I have experienced the pendulum swing from totally centralized IT to decentralized IT structure; which is now again traversing towards centralization. However this transformation is referred to as consolidation avoiding the term 'centralization'. MyCompany IT is said to be in consolidation mode in 2007-2009.

4. IT position in organization

The power or ability of a function or individual to influence is conventionally recognized by its placement in the organization chart. The higher the placement the more is the influencing ability. During my interviews it was clear that IT managers in parent companies had more power than those at subsidiaries. Further the IT managers who reported to Chief Executive exhibited more power than those who reported into other functional heads. Out of my interviewees four managers represented IT in the highest executive committee of the company. Almost all of these four had an additional responsibility besides IT management. O'Connor and Smallman as early as 1995 proposed an evolution into a hybrid manager capable of understanding business and IT. In MyCompany a business division CFO moved into a global CIO position prompting recognition for business integration. This principle was further underlined by the move of the former global CIO into a business head role. It is clear that IT's influencing ability, responsibilities handled by CIO, his reporting level and overall organizational attitude go hand-in-hand.

5. People

IT strategy impacts employees of the organization while the employees also affect the formulation and execution of IT strategy. Organization culture and values carry a significant role in the strategy area. Kanungo *et al* (2001 p. 30) found that some organizations have used IT effectively to drive productivity increases and derive organizational benefits; many are still to use IT effectively. My interviewee BAS said that his company encouraged

'people networking'; it believed that it was the interconnections that bring people together reducing friction in work practices. Gupta and Rogers (1991 p. 61) support this view and state that "Corporate culture defines the ways in which things are done in an organization, therefore those organizations that value and reward teamwork will be able to get better results". Pinto and Millet (1999 p. 25) state that "Many problems associated with managing the introduction and use of new IS are people problems, rather than those associated with technical difficulties".

Here I discuss some of the experiences and issues in large global corporations.

5.1 Parent and subsidiaries

Dunshire (1995 p. 34) as early as 1995 expressed that "harnessing self-policing associations rather than regulations, towards steering and not rowing are the outcomes of social mood-shift". Sandrino-Arndt (2008) observed "A big obstacle to implementing effective IT governance in large organizations is the lack of understanding about how decisions are made, what processes are being implemented and what the desired outcomes are".

He has identified five decision-making archetypes:

1. Business Monarchy – all IT related decision being made by business executive(s)
2. IT Monarchy – IT decisions are made by IT executive(s)
3. Federal – Coordinated decisions made in collaborative mode by business representatives and IT representatives

4. IT Duopoly – Two-party decision making involving IT executives and group of business leaders
5. Anarchy – The most decentralized decision making where individual users or groups can make decisions based only on local needs

Parent company views

MyCompany is moving from consensus methodology to autocratic ways of strategizing and implementing. This has been a significant change in the entire work culture of organization. For several years the senior management believed in carrying people together, getting views of disparate cultures and arriving at an acceptable solution. The IT organization followed suit. During 2008 and 2009 the organization started issuing more and more top-down mandates. The IT policies are being designed and decided centrally by parent company and handed down to the subsidiaries.

During my interviews I found subsidiary company managers hinting at the policies coming from parent companies. Corroborating their views I quote here a direct remark from one of the parent companies IT manager interviewee (ECP)

“IT strategy development is not ‘democracy’, people should follow directives”.

Referring to the socio-political angle in chapter 2 it becomes quite clear that the autocratic ways of working follows a somewhat uncharted path and is not supported as an effective methodology by real world experiences or research.

Subsidiary company views

An interviewee AAS commented that in his company the IT strategies were being decided globally and operational diktats were being issued. He strongly felt that the centralized decisions did not take into account the geographical factors leaving the subsidiaries' IT requirements unfulfilled. The feelings were recognizable as the IT manager represented the subsidiary of the global corporation and was not part of centralized decision making. A Similar opinion was expressed by business manager EAS, though not very explicitly "for execution degrees of freedom needs to be given but it should not damage core".

5.2 People interests

IT manager LAS was very open and candid about the people interests and ego factors. He expressed the view that the people keep their own interest at heart rather than that of the company. As a result the formulation of IT strategy embeds such tactics that provide for factional interests areas and group requirements. Consultant QAP spoke at length about the existence of legacy systems and the IT managers' desire to protect them. The desire was born out of the available competencies, the faith in time tested systems and risk averse behaviour. Consequently the IT managers insisted on continuation of expensive legacy systems rather than taking advantage of newer techniques and tools. Consultant QAP said in the process the IT managers' battles over legacies continued instead of attending to changing business needs.

5.3 Coalitions' pressures tactics

My interviews supported the coalition phenomenon, especially in large corporations. The consultants QAS and RBP were especially vocal about the people interest groups and the coalition politics. They talked about the factions arising out of regions, economies, ideologies and technologies. The lobbying and its success in changing the rules or getting the approvals were significant. I found that the consultants were much more open about the political atmosphere and the effect it has on IT strategy. They were clear that the IT strategy that gets implemented turns out to be the most acceptable and not the ideal one. The managers, the business as well as IT, hinted at the politics and the coalitions but never really came out openly about the causes or effects.

I offer here an experience from IT field of coalition politics when in MyCompany the internal tariff announcements took place. For the first time the company had decided to announce consolidation of data network globally with a view to ultimately having better control on operations and vendors. This would lead to cost reduction by allotting the contracts of larger volumes. While it was proved in the subsequent years that cost could actually be brought down; in the initial years it was an uphill task for the IT organization of the parent company. During the very first year it was decided:

- a. To accumulate network costs from local, regional and global level e.g. the local lead costs from within the country plus the backbone costs at all levels

- b. To pay the costs from the central pool
- c. To charge back the costs to all entities at a uniform rate, that would mean that every entity in the world would pay exactly same tariff despite its location or economic conditions.

This tariff structure resulted in huge increases in the low cost network endpoint countries like India, China, Brazil and Russia although it lowered the network costs in central countries in Western Europe. A closer analysis showed that overall network costs decreased for the entire corporation as a whole; however the new allocation method tipped the balance in the favour of the parent company and its closer associates. The change meant that the end point countries had to pay more than in previous years. The IT managers in such countries collaborated with the local managers like local CEOs and CFOs and raised their protests through management and finance channels. In response the parent company IT organization approached the Global CFO and CEO and convinced them that the new method would pay in the long run. An approval of the new tariff plan from the Global CFO and CEO put to rest all protests and the subsidiaries started paying the new tariff, albeit grudgingly.

In this process the regional IT organizations especially the Asia Pacific and South American regional entities pooled together their strengths and made strong representations. At the same time the European and North American IT organization expressed their consent to the new plan. The coalition politics was highly visible in every forum. Every group worked towards its own interests and the Global CIO faced the challenge of maintaining a healthy balance among competing coalitions. The CIO intervention mainly

included reference to the approval from higher management, changing the entire setting of tariff discussion. Another very interesting observation was the variation in increases in network charges for end point countries. India, Russia, Brazil experienced heavy increases while Chinese charges remained almost at the same level. Classical explanation could be found in the relative importance and size of business in China versus other countries. China being a manufacturing hub was the largest exporter of goods to all other subsidiaries as well as parent company. The parent company could not afford to increase costs in China. The tariff structure design covertly incorporated such considerations.

Analysis here shows:

1. Coalition politics
2. Maintenance of balance in IT organization
3. Collaboratory intervention from senior management

6. Standardization and harmonization

An interviewee IT manager (CAP) said he would use the downturn to force standardization across the business units. He mentioned that the businesses generally resisted any drive towards standardization of IT tools and processes. Instead they preferred their own systems and practices. CAP said the recession and the pressure for cost reduction could be used to make businesses accept changes and put in place standard practices. The interviewee business manager EBS strongly emphasized that the drive towards standardization and harmonization can be achieved through IT. He preferred the harmonized way of working rather than standard ways of working. He opted for a certain degree of freedom instead of enforced standards.

The example from the CIO of Great-West Life is worth examining here. Saull (2000) reported the merger of IT divisions of three companies, viz. Great-West Life, London Life and Investors Group (GLI). The synergy and the economies of scale were the drivers for the merger. It helped single systems solutions across all three companies to standardize operational processes to achieve 'best of breed' performance levels in service, reliability and cost. An effort was made towards implementing highest quality solutions in technology, processes and staff development.

Frelinger (2005) offers an excellent example of IT at Sun Microsystems efforts to align itself with the COBIT framework. The scenario quoted belonged to the period from 2003-2005 when Sarbanes-Oxley compliance assumed paramount importance and the IT departments scrambled to align

themselves. The organization structure typically followed the segments of strategy, architecture and technological direction; moving on to develop/integrate/deploy part and then into the operational aspects of IT.

Some observations:

1. From 2003-2005, IT at Sun Microsystems prepared itself to meet the organizational objectives of SoX compliance.
2. There was little evidence in the structure or principles followed by IT that indicated that it took into account IT's value creation ability or requirement.
3. There was an excellent example of a product being improved on the basis of experiences and the compliance guidelines. Sun Microsystems' product Helios embedded principles from COBIT and the ITIL to meet the industry requirements.

7.0 IT Governance

IT governance constitutes a set of formal and informal rules and practices. Two central aspects of the IT governance are decision authority and processes. Currently IT is an all pervasive phenomenon in the organizations; it interacts with every other function. As such IT governance needs to be an integral part of the enterprise governance (Sandrino-Arndt, 2008) with conformance dimension and performance dimension.

Interviewee BAS said that his company followed IT governance through a series of meetings at various levels. The Annual IT conference of senior IT people around the globe is directed towards scripting the IT policies of the

organization. The regional and local meetings are also organized where the outcomes are shared with the business managers concerned. Such gatherings are quite common in most of the global companies. During my interviews most of the IT managers indicated that their companies practised the IT governance at various levels from top management to the day-to-day users.

In MyCompany at the local level we developed an elaborate structure covering three levels of stakeholders, customers and users:

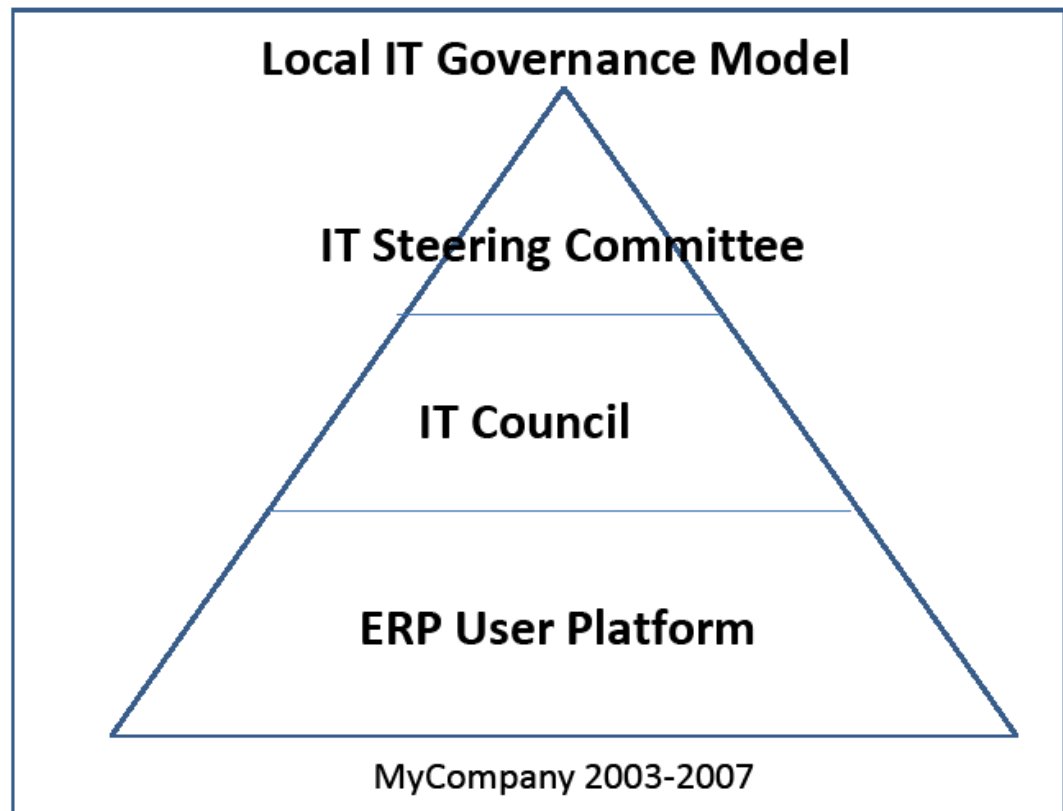


Figure 5-1: Local IT governance model

The three groups were constituted as follows:

1. The IT Steering Committee comprised of the business heads as stakeholders
2. The IT council was made of the IT managers from businesses
3. The ERP User Platform was constituted of the operational users

This three layer structure took into account the views of three groups of people. The meetings of the three groups were being coordinated by the local Corporate IT manager. During my tenure as local Corporate IT manager, I encountered many situations where the steering committee

members, the business heads, would expect the local IT to deliver IT in a certain way and at lower costs; while the global IT directives would not allow me to accept the demands of these stakeholders. The global directives would not match the local expectations in my organizations similar to that expressed by interviewee AAS. The common factor between me and the AAS was that both of us were part of large global corporations while representing IT locally as local corporate IT managers.

The three layer IT local governance still helped in understanding the viewpoints of all the participants and taking corrective actions wherever possible. Letza *et al* (2008 p. 26) conclusion supports such structure and way of working “As a business process corporate governing cannot be isolated from social and non-economic conditions and factors such as power, legislation, culture, social relations and institutional contexts”. IT governance, being part of overall corporation governance, follows the same principles as corporate governance.

8.0 Company – role of business units

Over a period of time global companies transformed the geographic structure into the product focused structure emphasizing the need to concentrate on their products. The business units became more and more controlling factors especially with the availability of communications tools and the information technology. My interviewee business manager EBS clearly said their company was a business led organization. The interviewee IT manager DAP said his company was being operated as though they were

13 independent companies, indicating that the business units had complete freedom to take decisions in their respective spheres of operations.

The freedom and independence awarded to business units have a high impact on the IT organization, its strategies and execution. From this freedom multiplicity of IT units became a common phenomenon.

MyCompany has been having IT organizations supporting their own businesses. The silo mentality of IT people was being openly referred to as a cause for fragmentation. My interviewee IT manager EDP cited such behaviour resulting in non-standard high cost IT tools and services. Over the last decade MyCompany has realized the duplication of functions and associated high costs; which eventually prompted the global CIO to launch the consolidation drive.

Further powerful business units expect a strong alignment of IT along with business strategies. This poses some challenges, especially in the applications area, as the applications modifications in larger ERP implementations require a certain amount of time. I have experienced in MyCompany rapid organizational changes in business units that caused major alignment issues in IT. IT responded by approaching the high level headquarter functional boards and getting approvals there.

However, there are large well spread global organizations which are operated in a loosely federated manner. The parent company keeps little control and lets the unit companies take their own decisions. The interviewees KAP and JAS described a way of working where the standardization and harmonization were not focus areas and the CIOs had

to lay down their strategies differently. KAP expressed the view that he did not want to control desktops or emails tools in any manner. He was quite open to using Skype as a communication tool as well. This is quite understandable now, in view of the freedom granted to business units.

9.0 Value of IT - Value Creation

A consultant interviewee (QAS) elaborated about technology cycles. He stressed that the technology cycle has been one of 50/60 years, made up of 'Innovation' phase and 'Value creation' phase. The first phase was of innovations that lasted for last thirty years during which period the technologists invented new products. It was the novelty that attracted people during that period. Miller (2009 p. 9) supports this view of technology change followed by emergence of new solutions. During the next thirty years of 'value creation phase' we need to prove the value created by the innovations that we have been making. The businesses will emphasise the value of technology rather than its innovativeness. Norman (1998) proposed that customers now look for solutions and convenience rather than for technology. He offered this picture to indicate two periods:

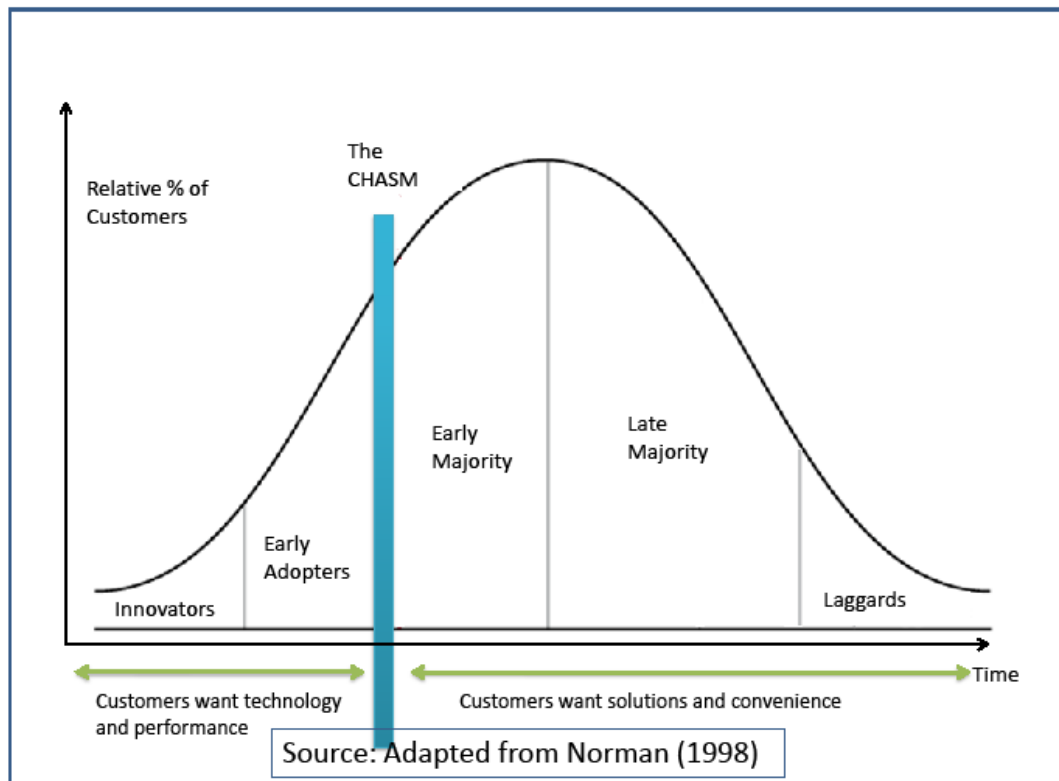


Figure 5-2: Early adopters and laggards

The value creation function of IT has been well recognized by researchers and corporations alike. Peppard (2007, p. 336) has proclaimed that the CIOs have to manage business value through IT. He has also acknowledged the difficulty faced by CIOs in delivering value on account of the organization structures, mindset, authority patterns and processes. In their attempt to create value the CIOs work on their IT organizations and restructure those from time to time. Peppard (2007 p. 338) described some organizational changes like setting up relationships managers. He has identified the core issue as 'how to generate value through IT without having access or authority over necessary knowledge and resources'.

At this point I want to relate this view to my own experiences in attending global IT conferences in my earlier employment. The 2008 IT conference announced 'value space' concept as a determinant of contribution of IT towards businesses. Ten value spaces that would create value for businesses at different levels were identified. This was an entirely new route compared to two earlier conferences in 2006 and 2007 where IT organization had unfurled the Business Balance Score Card (BBSC) and the Key Performance Indicators (KPIs). The new direction clearly brought into focus the organization's mindset change from technology performance to value creation.

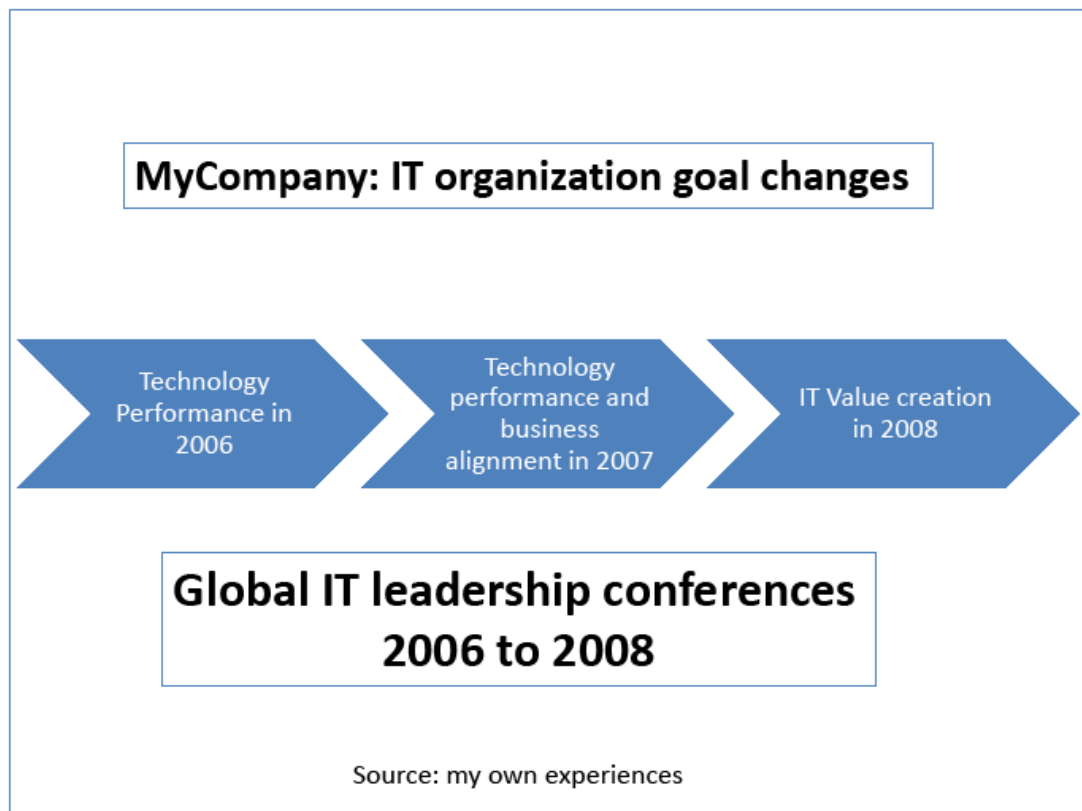


Figure 5-3: MyCompany: IT organization goal changes

Peppard (2007 p. 343) announced “we are possibly addressing the requirement to generate business value through IT in an inappropriate fashion”. He further stated “seeking to improve the performance of the IT function is likely to achieve little”. Many a times the businesses view the IT function as a black box that is supposed to meet the business requirements. The value creation being addressed solely internally by IT function is unlikely to achieve the required level. While the expectation and attempt to create value through IT function is certainly important, the businesses do not get involved or share the responsibility of value creation. Peppard (2007 p. 340) has identified the following six competencies that are required for value creation: creating strategy, defining the IT capability, delivering IT supply, implementing solutions, exploiting information, defining the IS contribution. Importantly all these competencies do not reside within IT i.e. the knowledge and skills underpinning each of these competencies are not located solely in IT functions. We need the business functions to work closely with IT to create value.

10.0 Operations

In most of the global corporations operationally the IT services have been divided in two major segments, one for infrastructure and other for applications. During my interviews the IT managers AAS, BAS, DAP, GAP, IAP explained the way their IT organizations delivered such services. An interesting description came from IT manager FAP. He described two parts as ‘run’ and ‘transform’ referring to the infrastructure services as the ‘run’ part where the ideal was zero defect delivery. The applications wing was referred to as the ‘transform’ part since it actually changed the business

work practices. He said that the 'transform' was the more exciting part compared to 'run'. In my own experience the infrastructure management often gets outsourced as many elements have been commoditized by IT companies over the last decade. In such cases operations are entirely handled by a third party. I experienced in MyCompany the network management and subsequently the desktop services being handed over to an external vendor. Currently the data centre outsourcing activity is in progress. The vendor management is solely based on service level agreement incorporating agreed cost reductions and service improvements.

11. Business Alignment

Many researchers and practitioners have pointed out the need to align IT with businesses. Segars and Grover (1999 p. 204) identified integration with business strategy as an issue in information systems strategic planning. The lack of commitment and limited involvement of top management were found to be primary reasons for this. My interviews reaffirmed that business alignment was a concern, coming from IT managers as well as business managers. Gold (2002) announced that alignment was an issue acknowledged by business managers. While such a requirement of alignment has been repeatedly talked about for last two decades, the IT managers still seem to be battling it.

Alignment was being projected as one of the ways in which IT could prove its value to businesses. My interviewees explained various ways in which alignment was sought by different organizations. The cross-functional teams came out as one effective way to handle this. They included the

involvement of businesses in IT at different stages in varying degrees e.g. some have made special attempts to include businesses in IT governance while some have done the same at the requirements specifications stage or at the operational levels. In MyCompany functional boards were constituted to ensure the business alignment. These functional boards decide on the business requirements and IT follows the fulfilment. As one of the interviewees ECP said, businesses decide 'what' and IT does 'how'. At the local level I had myself put in place the three committees starting from the User Platform, then the IT Council and then a Steering Committee. My interviewee IAP explained the workshop method that he deployed to align with businesses. Under facilitation of the consultant the company conducted structured workshops with business managers to arrive at the requirements. These concepts can be seen in the integrated approach toward strategic information systems planning suggested by Min *et al* (1999 p. 378).

Alignment should be a joint responsibility of IT and business; IT or CIO alone cannot ensure the alignment (Chan, 2007 p. 311). He emphasizes that executives and line managers should try to improve coordination with IT; actions of IT managers are not enough to achieve this coordination. During my interviews and from my experience I found little evidence of the business managers being actively involved in ensuring the alignment. It always has been the responsibility of IT to align itself to business. While concluding Chan (2007 p. 312) proclaimed "the alignment remains an important but elusive goal".

12.0 Role of IT

During my interviews the role of IT as seen by IT managers came out to be a business supporting and enabling role. Many of them said that IT is a business partner and still in most of the cases the IT depended on businesses to tell it what is required, although the IT needed to take a proactive role rather than a reactive one (Pyburn, 1991). It was a rare case where IT actually participated in business strategy formulation and where the IT strategy became part of business strategy and not derived from it. In such cases the IT manager has been a member of the topmost executive committee of the organization.

While IT managers still talk about the role of IT being a supportive or business enabling role three of the top business managers (HAP, EAS and OAP) painted a very different role for IT. In their view IT played an empowering and interconnecting role, essentially helping employee motivation and satisfaction. They also spoke about the role IT played in customer engagement and involvement reaching a level of co-design and co-creation. Such a role has been recognized to a certain extent by placing emphasis on CRM. As an example GM's IT strategy places CRM as a priority item in IT roadmap (Weier, 2009). In my view the IT managers rarely see the role of IT on a broader canvas while the top business managers see IT in a completely different sphere of customer and employee empowerment, especially after the proliferation of personal communication tools and the internet reach.

An interesting aspect is the IT's support in providing 'home computing' or 'telecommuting' or 'work from home' as may be differently referred to by various companies. This is becoming a part of life in many companies where HR managers see this as a tradeoff between the cost pressure and the requirement to have high ability people on board. They see the 'telecommuting' as also helping the people balance their personal and career needs. On the other hand Davenport and Klein (2005 p. 32) observed that such practice impacts the social systems within the organization. It also poses difficulties for managers to monitor the work done by such employees, while the employees themselves do not gel with the values and culture of organization.

It is clear that with the advent of newer technologies in computing and communications the role of IT has been drastically changing. The gap between the expectations of business managers and the ability of IT managers to grasp changing role has widened. Some companies have countered this issue by bringing in a business manager as global CIO of the company while in some cases the CIO has assumed additional responsibilities of running a business. During my interviews I came across both the models and in my view these models are likely to yield much better results.

5.3 Chapter 5 Section 3

5.3.0 Interconnected themes

It is interesting to notice that many of these themes are interrelated and interdependent. Holistically they need to be viewed together. Such opinions have been expressed by people in various ways. Quoting ISACA publications Hardy (2003) says “As IT becomes increasingly critical for enterprise survival as well as enabling growth; IT Strategy Committees need to broaden their scope. In addition to providing counsel on strategy when advising board on its governance responsibilities, they need to focus on IT value, risk and performance”.

The institutionalists acknowledge that the institutions affect the behaviour of its members. The focus of institutional perspective has been on the social evolution of structures. I view IT governance of large global corporations as akin to the governance of countries that exhibit diversity of culture, economy, social strata and political aspirations. Lindblom and Woodhouse (1993 p. 23) espoused that the democratic politics aspires to solve this conundrum by making office holders responsive to the collective wisdom of citizenry. Having experienced IT in global corporations I believe that democratic policy-making processes are required to be followed in IT strategy formulation. I came across many instances of collibratory intervention in various forms during interviews as well as in my own corporate experiences; I have described some of those earlier. Dunshire (1996 p. 328) predicted that collibratory methods would obtain increasing recognition as governments discover that they are well adapted to the change in culture.

All 12 themes influence and get influenced by the 'people factor' which happens to be an all-encompassing theme. Be it governance, alignment, business unit role or the role of IT, each one exists within the ambit of behaviour and attitude of related personnel. The adaptive structuration argues that the technologies trigger the processes that over a time lead to changes in rules and resources used in social interactions. The structuration theory clarifies that all social changes are contextual and human social activities are recursive in nature.

I have regrouped the themes showing their interrelations within the cloud of the people factor. This influential factor is generally recognized but little is practically done to formally incorporate it into the IT strategy formulation.

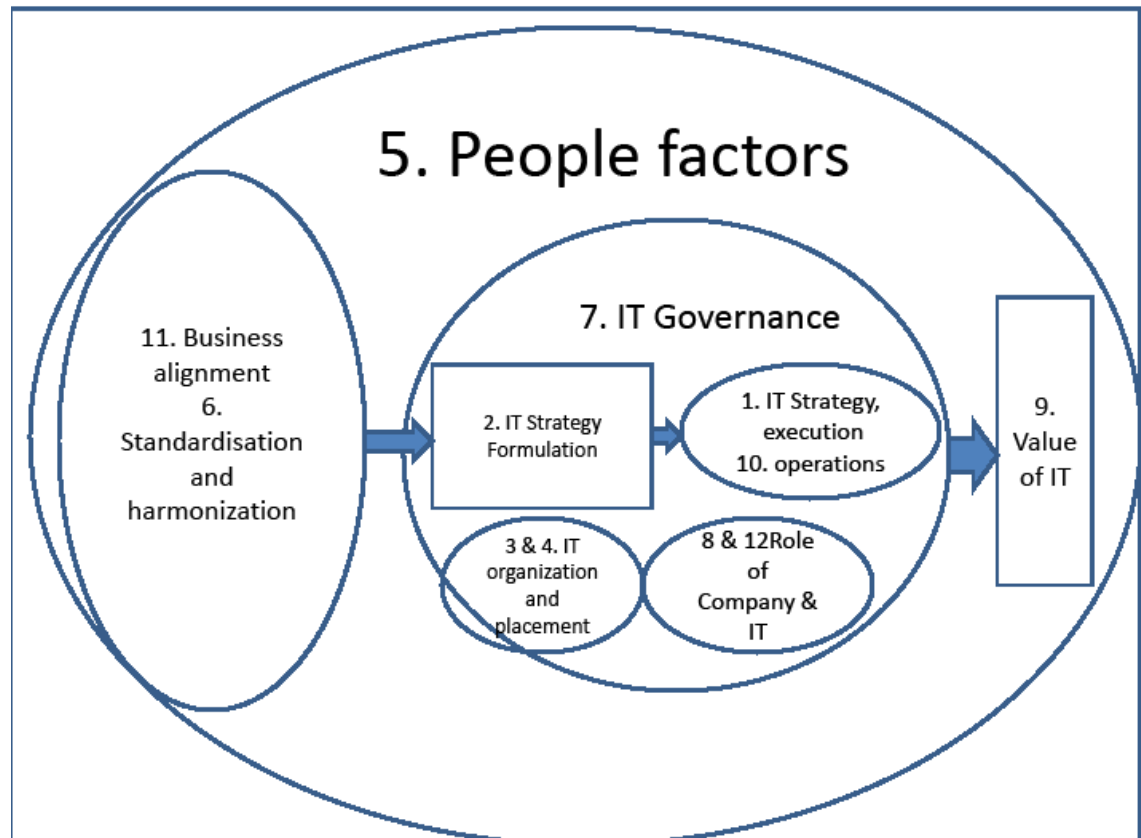


Figure 5-4: Interconnected themes

In the next chapter I bring together various concepts to offer a model for IT strategy formulation.

6. Chapter 6: Synthesis and Conclusion

I have written this chapter in two sections.

Section 1: The synthesis

Moving to the political aspects of people involvement I have developed the IT strategy formulation model in organizational context

Section 2: The conclusion

6.1 Chapter 6: Section 1

6.1.0 The Synthesis

6.1.2 The Political aspect of people involvement

Organizational research indicates that the workplace politics has its impact on decision making and the performance of employees. Bodla and Danish (2009 p. 55) concluded from their study that perceived organizational politics negatively impacts the employees' organizational commitment, job satisfaction and job involvement. The organizational political tactics of withholding information and distorting information are most dysfunctional in nature (Allen *et al*, 1979 p. 82). Pinto and Millet (1999, p. 112) suggest that the managers should accept the political nature of organizations and develop competencies to act in a manner that allows them to operate effectively in such an environment.

My recent field study involved interviewing IT project managers of large, medium and small firms. The study revealed that the experienced project managers acknowledged the socio-political angle of the IT implementations and considered it far more critical in services delivery than in products creation. The customer facing tasks require special competencies to deal with various parties on customer side. This becomes far more challenging

while dealing with customers from different cultures and attitudes emanating from geographical separation. The project managers were equivocal in saying that managing the global virtual teams required deep understanding of individual member needs; the project managers' skills of team-building assumed a high level of significance.

The subsidiary managers play a key role in the micro-political games in MNCs and influence substantially the mandate changes negotiations with the headquarters (Dorrenbacher and Geppert, 2009 p. 386). During my interviews I had found substantial divergence in views held by subsidiary managers and the parent company managers; the expectations and understanding differed considerably. The global multi-national corporations exhibit heterogeneous cultures, traits and demonstrate various behavioural diversities that open opportunities for conflicts and resistance. Marques (2009 p. 39) has recommended that an employee needs to see the organizational politics as an opportunity rather than as a problem.

"I think some of the key issues facing global corporations relate to the need to have common systems while at the same time taking account of local issues. Clearly, common definitions of key data are needed, but there are bound to be difference processes, different regulatory requirements, and quite likely, different customer requirements. The strategy will need to take these into account. As for the process, the issue relates to global HQ taking into account these local concerns" (pers. Comm.. Galliers, 2010).

The management at the headquarters needs to understand the consequences of resistance and embed appropriate strategies to deal with it

at the right point in time. Drawing from the political world I offer here a methodology to account for organizational politics and ways to deal with it.

6.1.3 The strategy formulation

Strategy formulation has been reported by many researchers. Mintzberg and Waters (1985 p. 257) have differentiated the intended strategy from realized strategy and coined terms 'deliberate strategy' to indicate the focus on direction and control. The 'emergent strategy' on the other hand implies strategic learning that helps to know what works in real world. Whittington (1996 p. 732) has shown four basic perspectives of strategy viz. policy, process, planning and practice. He has approached the strategy formation as 'social practice' underlining the need to consider social aspects of strategy formation. My research findings corroborate this view highlighting the need to attend to the people aspects of IT strategy. Stiles (2001 p. 629) has discussed the process of strategy formation in greater detail than the strategy being outcome of a formal planning. He has identified power as a major role-player in strategy formation; power itself may have been derived in many ways.

The Rational and Contextual model

The various IT strategy formulation models that I described in chapter 2 emphasise the content and the ways of arriving at the content of strategy. Most of these models were developed without a view of a diverse multi-cultural organization. Over the last two decades, organizations have gone global assuming a heterogeneous nature. For today's organizations their diversity is a characteristic that needs to be taken into consideration; it is important to pay close attention to the contextual setting. Narayanan and

Fahey (1982 p. 32) support this by proposing that “formulating the contents of strategy inevitably entails managing its context and processes”. They have advocated that the political side of the strategy requires to be managed like the analytical side. From that perspective mere arriving at the contents of strategy does not meet the objectives of strategy, but its deployment by people, as planned, achieves the objectives. Sminia (2005 p. 268) supports this view by presenting two aspects of strategy formation as the rational analysis for content and the political activity to make strategy acceptable. Further Sminia (2009 p. 114) states that “understanding the strategy process as rational decision making is largely inadequate as it ignores the complicated nature of actually doing the strategic management”.

I present here two parts of IT strategy in the Rational and Contextual model.

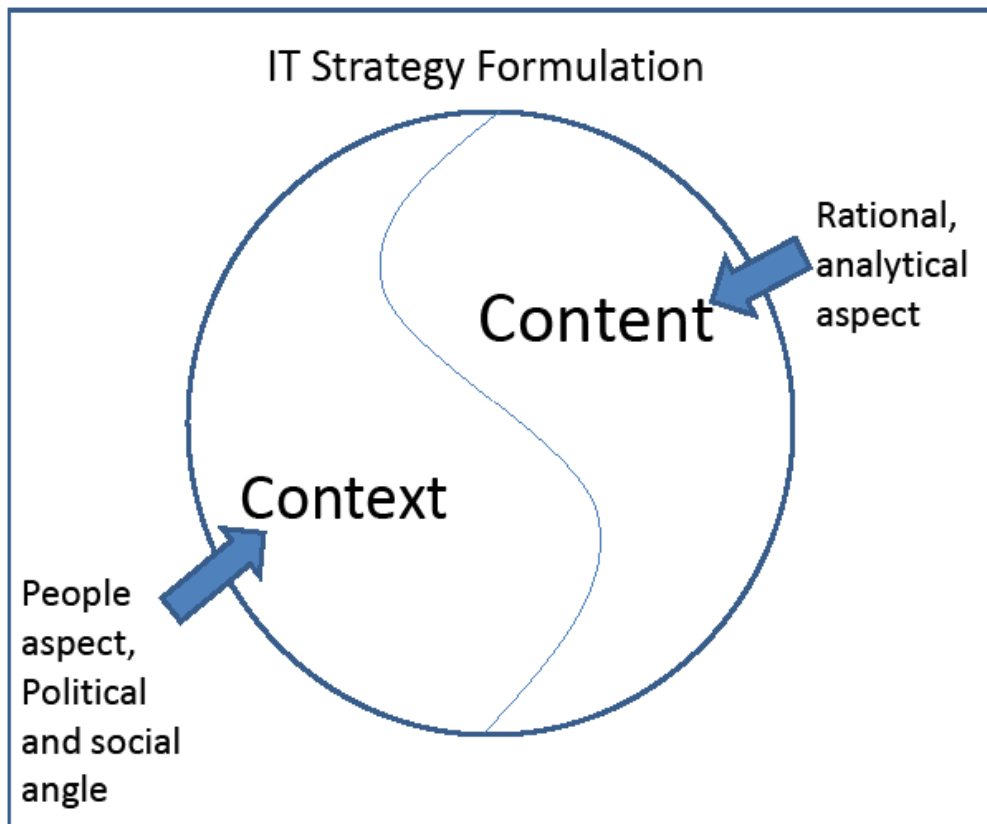


Figure 6-1: Rational and Contextual model of IT strategy

Both the content and context aspects of IT strategy complement each other. They even modify and get modified in course of development and deployment, in turn affect each other and get affected. Orlikowski (2000) has talked about technology-in-practice, the technology altering practice but the practice also providing for technology development. The analytical, rational part has been discussed by many over the last three decades. The continuous technology advancement also helped in focusing on the content of strategy. The 'Federalism (integrated global IS/IT)' structure of global IS/IT management from Peppard (1999 p. 88) acknowledges the complexity in IT

management of a global organization and supports the group-wide strategy formulation, yet it does not openly recognize the socio-political aspects angle of working in a global corporation.

Considering current heterogeneous organizations which are multicultural in nature, spread over many countries and accommodating many facets of attitudes and behaviour, I have discussed the political aspects of strategy and not the analytical or rational ones.

The context part - The People aspect of IT strategy formulation

On execution the IT strategy ultimately introduces changes in organization processes leading to reshaping the social structures of organization.

Orlikowski (2000) asserts that the people interact with the technology to enact structures which shape their emergent and situated use of technology.

I like to consider such enactment in the light of change management as proposed by Palmer and Dunford (2002) in relation to the intended changes, partially intended and unintended.

Images of change outcomes	Images of managing	
	Controlling	Shaping
Intended	Directing	Coaching
Partially intended	Navigating	Interpreting
Unintended	Caretaking	Nurturing

Figure 6-2: Images of managing, adapted from Palmer and Dunford (2002 p. 244)

In practice the IT deployment results in all three kinds of changes: intended, partially intended and unintended. For example one could relate Google's 'culture of choice' philosophy (Claburn, 2006 p.13) to 'nurturing' in the above model. It is also true that the management philosophy in terms of controlling or shaping is the major influencing factor to decide the change management strategies deployed. During my interviews the senior business leaders clearly stated that "shaping" and not "controlling" is the way forward for large global corporations. IT has a major role to play in shaping, though there was little agreement on the organization planners' incorporation of IT as a shaping mechanism. It is also vital to acknowledge that an inappropriate way of change management can lead to failure. Markus (2004 p. 6) has identified the 'deliberate technology strategy' as one doomed to failure i.e. the belief that IT alone is enough to create significant improvements in organization performance.

Blazejewski and Dorow (2003 p. 208) have proposed a model for changes taking into account the political aspect of organizations, explaining the power bases that affect the organizational changes. This model presents the view that depending on their interests and power bases, individuals resist,

interrupt, influence or support the organizational processes. I have proposed the IT strategy formulation model that can anticipate and account for people responses and embed those into the initial design. I propose that we consciously consider the social and political implications.

Mintzberg and Waters (1985) have identified deliberate and emergent strategies as two ends of a continuum as an outcome of strategy formation process. They conclude that management of strategy formation requires “to direct” in order to realize intentions while simultaneously responding to an unfolding pattern of actions (Mintzberg and Waters, 1985 p. 270). The content and context parts that I have discussed earlier fit this view very well. In a way strategy has to walk on two feet of contents and the context and the strategists have to address both at the same time.

Organizational politics has been recognized and acknowledged by many researchers (Geppert and Williams, 2006; Kostova, 1999; Kirkbride and Letza, 2004). However few have openly admitted and formally accepted it as part of IT strategy formulation approach.

I propose a framework

1. To identify various interest groups
2. To determine the actors interest areas and the impact they can have on IT directions and deployment
3. To effectively negotiate the interest factors without losing the corporate gains and objectives

People responses

The managers need to study the political tactics adopted by the organizational players and channelled so as not to jeopardize the goal of organization. They also need to play attention to the interplay of social structures and technology. The interpretive flexibility of technology results in dynamic process of structuration that is embedded historically and contextually (Orlikowski, 1992 p. 412). Such a result is seen in both the design and the use mode of technology. In a way the interpreted social implications of technology introduction shape the political response from the interest groups. I have depicted here the evolution of political response from organization units, which start from the technological introduction. Based on the perceived impact of new technology, people regroup and offer a response to newer tools and processes.

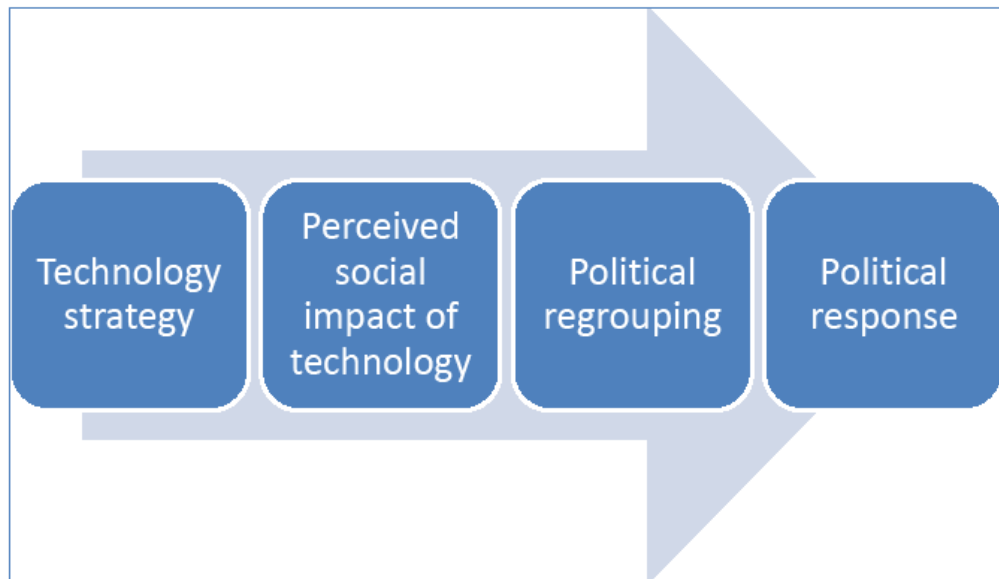


Figure 6-3: People response

While declaring the inadequacy of focusing on small group of institutions Sabatier (1991b p. 148) concluded that understanding policy process requires looking at the subsystem composed of bureaucrats, interest group leaders, legislative personnel and reporters within the substantive policy area. The large global corporation comprises of multiple such groups characterized by differences in cultures, attitudes, behaviours.

Political component of response

The response from an organizational unit for a change involving IT carries a political component. This political component depends on the perceived impact of IT decision, the context in which it is being proposed and the timing of the proposal, essentially the contextual and temporal qualities of the political component. I present these components in this diagram:

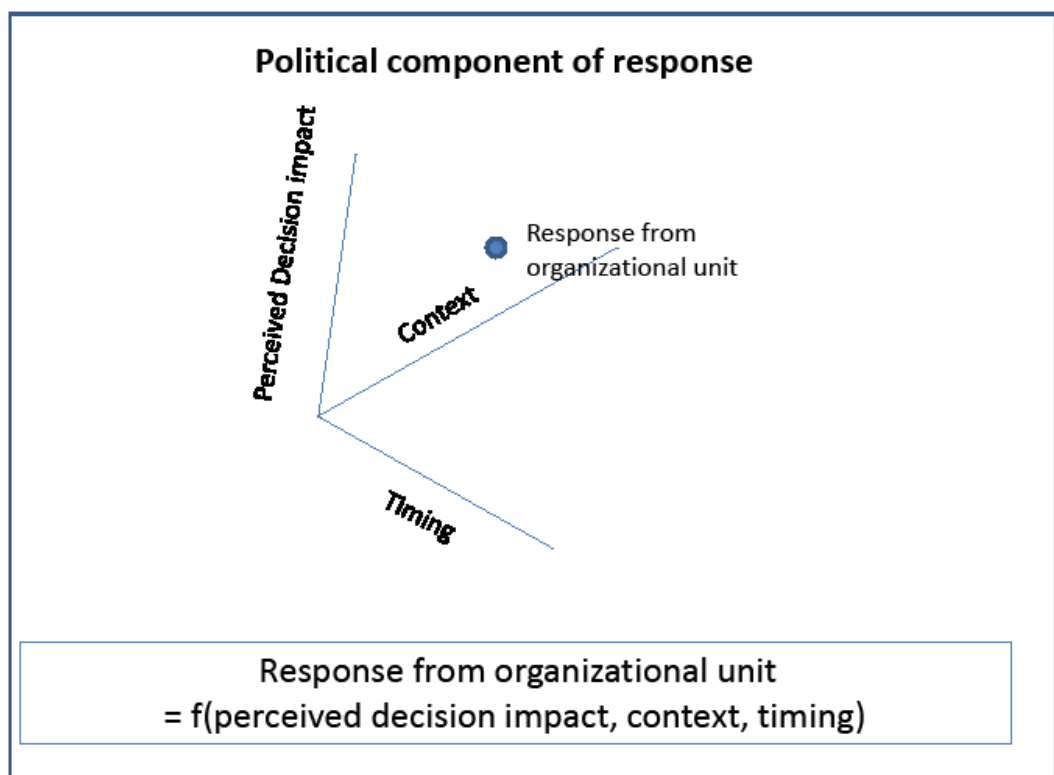


Figure 6-4: Political component of response

To illustrate this point I refer back to MyCompany experiences. The desktop service outsourcing, described in the previous chapter, in scenario 1 (2005-2006) and in scenario 2 (2007-2009) would have similar perceived impact; however, the timing and context were completely different. The Second

scenario was in the period of economic upheaval covering the period 2007-2009 where the organization was already reeling under sales and profit pressures. In tough and challenging times, the political ability and will of the organizational units to influence decisions were much weaker; consequently the resistance offered to the change was much lower than in situation 1, One of my interviewees (CAP) was clear that the economic difficulties presented an opportunity to push through IT projects which would otherwise have been resisted by the businesses. He had planned his following year projects of standardization of business processes based on anticipation of least resistance.

I suggest that every business demand or IT decision be viewed closely to distinguish the political component from the business critical component. One can assess such a component by interacting with the people who put forward demands. A scale ranging from 0-5 may be used to represent the critical component and the political component of a demand or a decision. It is possible that for a particular IT demand both criticality and political side may score high. One has to carefully weigh options in cases where the criticality is not high but the political side may score high.

The proposed model to clearly understand every business demand on IT:

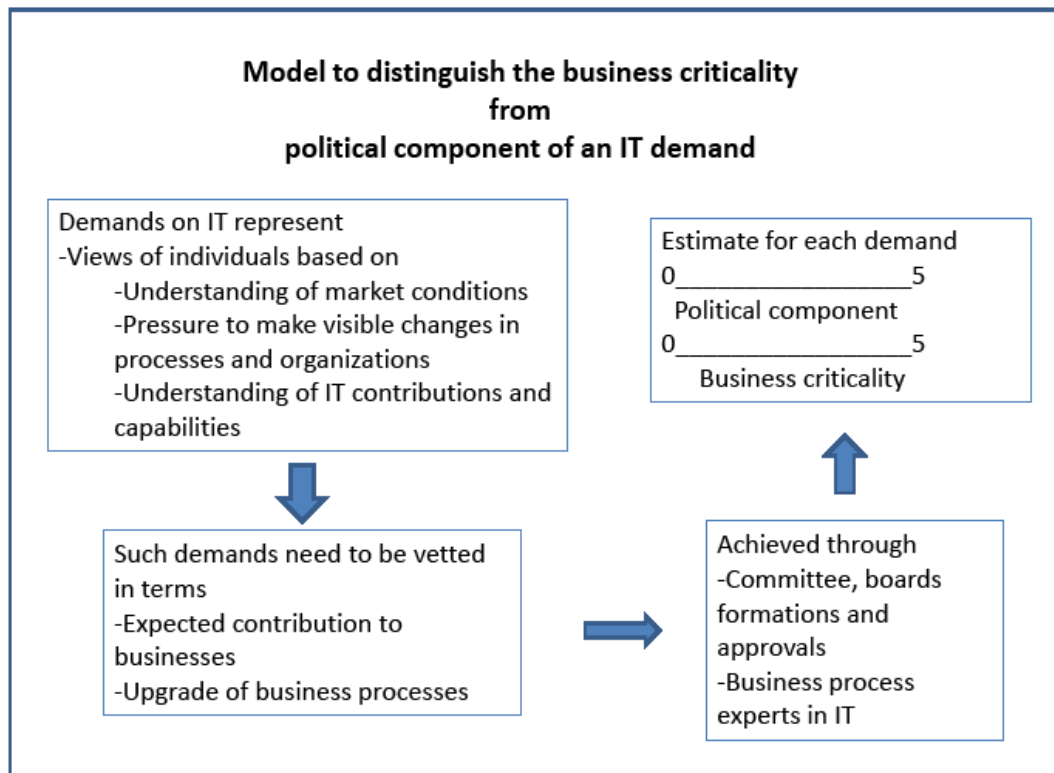


Figure 6-5: Business criticality and political component

Having identified the political component for every decision and demand one has to deal with it in an appropriate manner. I would like to include such response from strategists as part of our IT strategy formulation process.

Acknowledging and dealing with political aspect

Sminia (2005 p. 268) has identified the organization politics and organization culture as factors making contributions to the realization of strategy.

Blazejewski (2006 p. 75) offered a conflict perspective on multinational corporations noting that the socialization and informal networks have gained significant importance. Identifying conflict situations and resolving them is part of running such a multinational company. She has described three ways of handling organizational conflicts:

1. Communicative conflict handling
2. Structural conflict handling
3. Third party intervention

Referring to my earlier literature survey I propose to follow principles of partisan mutual adjustment and collibratory intervention methods as the central features of my model. My research and experience discussed in the previous chapter support the notion that both of these tools can be effectively deployed to deal with the coalition pressures and the organizational micro-politics. Further, these principles embed in them Blazejewski's above recommended ways of handling conflicts.

The centralized decision making yields quick decisions, while the partisan mutual adjustment and the agreements are likely to take longer. The outcome of a strategy becomes visible only once it is deployed. The institutional patterns may shape the initial impact of IT; the changes in these institutional arrangements may produce different changes once IT is deployed (Barrett *et al*, 2006 p. 11). Fisher (1999 p. 10) announces

“Establish a trusting culture and workers will create solutions to problems by pursuing their own competence”. Power has shifted from managers to a shared responsibility with workers (Fisher 1999 p. 11). Since the ultimate success of a strategy depends on visible deployment and its usage by organizational members, the agreed strategy is likely to yield a better result than the imposed decisions. In large companies the strategy-making process does not proceed in a purely top-down fashion, strategy is typically developed in business unit level (Stiles, 2001 p. 646). The strategic parameters are set at the top level within which the strategy can be developed.

Aligning my experiences, the research findings and literature review, I have proposed here the implementation of the democratic process in IT strategy formulation. Considering the existence of multiple interest groups in large corporations, collibration as an intervention mechanism has its merit in many situations. Taking a cue from Rylander and Peppard (2003 p. 327) I suggest that the responses from IT strategists be part of the strategy process as a supporting behaviour and reflecting values, rather than providing a set of directions.

This picture shows the inclusion of collibratory intervention as part of IT strategy process.

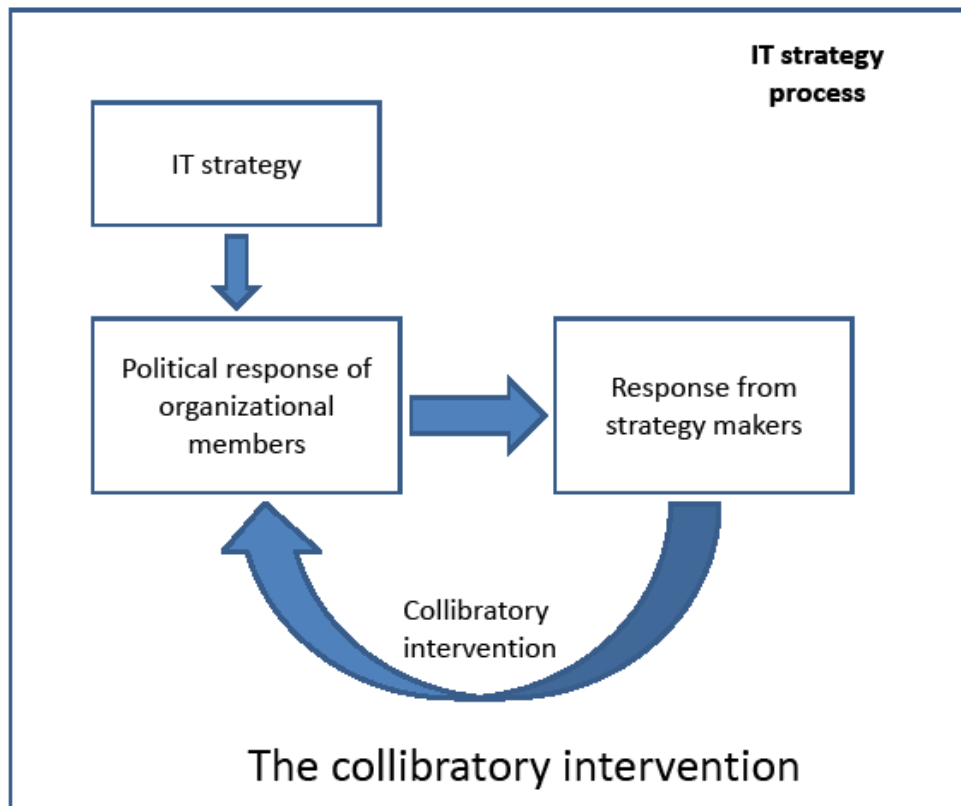


Figure 6-6: The collibratory intervention

In the context of UK politics, Kirkbride and Letza (2004 p. 90) have described “collibratory balance as a link among the pressures of internal and external stakeholder interests and the weight of state-based and market-base regulation”. The global corporations with their internal and external forces are no different. CIOs need to balance such factors while formulating IT strategy. The phenomenon of people interests and their attitudes and behaviours is manifested in the form of coalitions that come into existence and the pressure they exert. An example will help to clarify the point. While discussing the data centre consolidation in MyCompany the European group

got pitted against the Asian group. It was clear that the major operations were in Europe and the group proposed a viable option to consolidate the data centre in one of European cities. The Asians on other side claimed the high business growth expectation in Asia and demanded that a data centre be set up in Asia. In order to bolster their demand, they threw the weight of the higher business management support into the ring. After much deliberation the IT management agreed to set up a data centre in China. Two years later it became clear that the Chinese data centre did not attract enough volumes and traffic making it unviable. The decision to set up the Chinese data centre was made more from a political standpoint and was not a rational IT decision.

Collibratory intervention includes tipping the balance in favour of one party to achieve the policy objectives. It involves conferring privileges or handicapping the social actors. Continuing the above example of setting up Chinese data centre I want to point out such intervention. The central team decided that the tariffs for usage be exactly the same for all data centres, resulting in the Chinese centre charging the same rate to the customer as the European data centre. It meant that despite low costs the Chinese data centre would have high prices like the European data centre, making it an expensive proposition for low cost countries in Asia. As a result the traffic and volumes declined over a period of time and the Chinese data centre became an unviable proposition. This was the case of collibratory intervention handicapping one party.

6.1.4 Model development – vital decisions

Many ERP implementations have followed either a 'big bang' approach or the step-by-step introduction, both with instances of failures and successes. The IT strategists may propose a mass one-time change following big bang approach or gradual implementation. In the large corporation, where a central decision has its effects and outcomes all around the globe impacting organizations and people, I would like to refer to Lindblom's suggestions.

Lindblom (1965 p. 148) has suggested 'remedial and serial policy making' as an appropriate way forward in a non-static real world society where the values and tastes continue to shift. In the IT enabled world where the business dynamics as well as the IT tools and processes continue to evolve, such a 'remedial incremental policy making' certainly fits the bill. In a globalised environment of a corporation running multiple businesses in multiple geographies, the IT strategy and policy problems become complex to fully master. MyCompany IT faced a challenging situation after the acquisition of a large well-spread company. The business strategists demanded quick IT integration with a view to bring people and processes on board in a short timeframe. The acquired company operated with disparate tools and standards. Deploying our standards across all the units of the acquired company would have resulted in multiple implementations and high costs. Politically the high costs and long implementation periods were unlikely to be accepted by company management, knowing that the external financial analysts were closely watching the integration progress and its financial fallout. The IT management decided to follow the remedial and serial policy and worked on step-by-step integration over a period of time. In

effect, the Lindblom policy making process was deployed by MyCompany IT management.

Lindblom (1965 p. 149) has identified two types of errors in remedial and serial decision making:

1. Adverse consequences and failures in policy unanticipated because of limited analysis
2. Adverse consequences and failures at least roughly anticipated but not permitted to influence decision makers' choice.

Lindblom (1965 p. 105) also suggests the central coordination as an alternative to the partisan mutual adjustment. The concept here is the central harmonized way of working rather than a single person making decision with full authority. During my interviews many instances were cited where the interviewees described that high level central bodies were formed to decide and agree on important IT decisions. In MyCompany the central IT management team comprising of business division CIOs and Global CIO made such decisions. When such a body does not carry enough influential ability the central coordination principle is driven to the extreme by having all decisions being made by CIO instead of the group of managers.

Synthesizing the various ideas and underlying concepts, I propose the following model for IT strategy formulation and deployment:

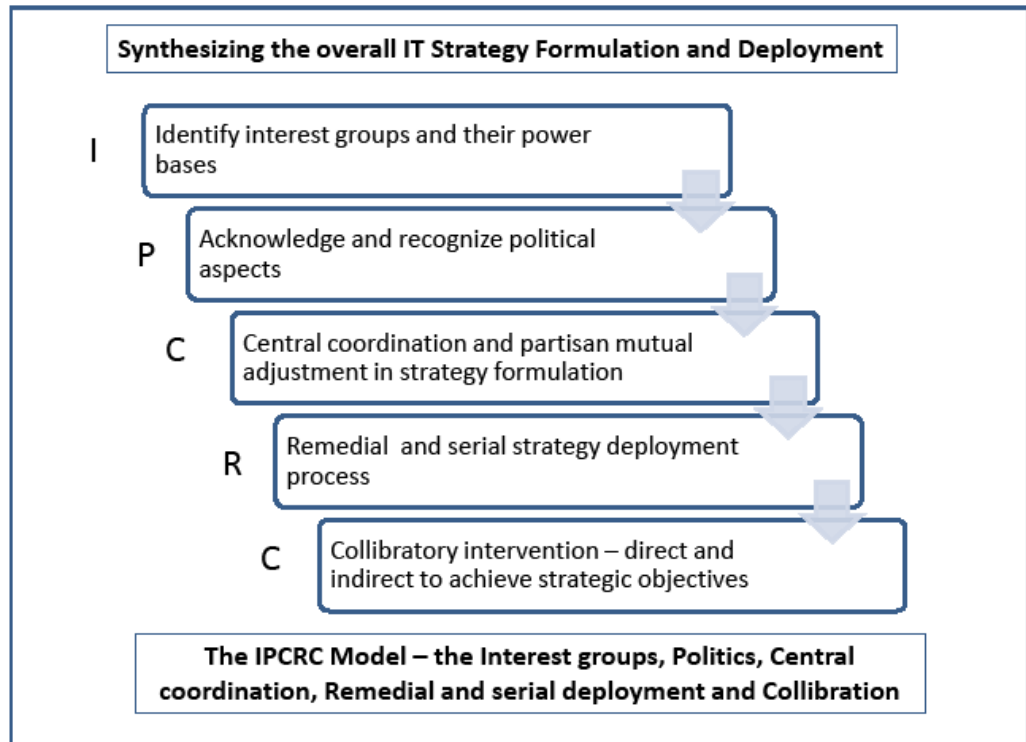


Figure 6-7: The IPCRC model

The IPCRC model proposed above takes into consideration the overall global nature and diversities of large corporations. It recognizes the interest groups and their power bases moving into the political nature of these groups. The acknowledgement of formation of coalitions and the reasons behind such formations would be an important aspect of these steps. Having known the interest groups and their political alignment and inclination, the model proposes that the central team work in a coordinated manner and take into account any requirement of partisan mutual adjustment. In the next step, the model prescribes that one needs to look into deployment following

the remedial and serial process. The collibratory methods help in achieving the goals and objectives as defined earlier for IT strategy.

1. I – Identify the interest groups and their power bases – In the organization spread over cultures, geographies and attitudes the people converge on common interests. The groups of common ideologies and values come together with underlying power bases. They carry their own norms, cultures, traditions and also make their own choices. It is vital to recognize such groups and their power bases early in the stages of IT strategy formulation. The power is derived from constitutional hierarchy and/or the personal traits like expertise; power being closely associated with processes of significance and legitimization (Blazejewski, 2006 p. 73).
2. P – Acknowledge and recognize political aspects – Individual interests of subsidiary managers and the goals of their organizations impact the IT strategy acceptance and thus its deployment. The micro-politics and the actors in the organization play a major role in the degree of success (Dorrenbacher and Geppert, 2009 p. 386) Neglecting the role of actors in a multinational corporation enhances the possibility of failure. The actors' commitment to IT strategy decisions starts in the early phase of formulation and continues in the deployment phase. The political processes and the organizational context can modify the content of strategy. This was amply exhibited by the interviewee responses and my experiences which made it clear that most large organizations end up with an 'agreeable strategy' and not the 'ideal' one.

3. C – Central coordination and partisan mutual adjustment – Having recognized various interest groups and coalitions in the game it is vital to get agreements in place in the early stages of IT strategy formulation. The give-and-take tactics help in etching out the consensus. The central team needs to do the task of bringing together all the relevant parties and coming up with an agreed strategy. Many organizations use workshops, conferences and other platforms to achieve this objective. The ultimate aim of this step is to remove disagreements and arrive at an acceptable strategy with the commitment of all involved.
4. R- Remedial and serial strategy deployment process – Quick remedial steps in multiple doses is the key feature of this stage. In larger organizations with differing levels of maturity of systems, technology availability and knowledge, it is imperative to keep tabs on the deployment at all times. Quick remedial action where required helps to get the deployment on track. Such deployment also entails a series of steps and not a big bang approach. The multiple smaller doses of changes making gradual advancement help organizational units to reach anticipated maturity levels.
5. C – Collibratory intervention, direct and indirect – With the multiplicity of organizational units and their political stands, a well-timed intervention brings in the required result. Such an intervention may amount to changing the playing field by redrafting the rules, thus favouring one party or handicapping another. A direct intervention through mandate is another form of intervention that may also be

deployed. The intervention timing and the type are the key factors which contribute to a more acceptable solution and yield the expected result. .

An interesting influential aspect is revealed by concepts of impression management which includes assertive and defensive tactics. In a highly political environment it is better to avoid impression management but focus on organizational goals and objectives (Chen and Fang, 2008 p. 275). This refers to the pitfalls of forcing the strategic decisions down the hierarchy instead of concentrating on overall goals.

Operationalising the IPCRC model

The literature review, the research findings and my experiences in large global corporations support the IPCRC model proposed here. The model has been a culmination of the findings from various sources. The notion of practice provides a foundation to operationalize the IPCRC model; it captures the essence of what people actually do. Ashurst *et al* (2008 p. 354) clarify that the concept of practice relates to informal organization and how individuals discharge their responsibilities. The practice is underpinned by the knowledge, skills and experience and is evidenced by their behaviour (Ashurst *et al*, 2008 p. 355). We had visited examples of how the socio-political behaviour of people impacts the deployment and results in changes in outcome. By operationalising the full IPCRC model, the strategists can anticipate the reactions of people across geographies which would help to offer appropriate response and achieve the goals of IT strategy.

Strategy has been proposed as day-to-day activity that engages senior management. The practice perspective of strategy has been elaborated by Sminia (2005 p. 269) as a process of layered discussion. Earlier Whittington (1996 p. 732) advocated that the practice perspective shifts the focus from the core competence of corporation to the competence of manager as strategist. Practice concerns itself with the work of strategizing. In effect it the actual everyday activity and the realization of its impact on people and organization are the key elements of operationalising the IRCPC model.

6.2 Chapter 6: Section 2

6.2.0 Conclusion and direction for future research

The interviews of IT managers, business managers and consultants brought out some very special features of IT strategy:

1. It was revealing to note that the consultants were much open about the political aspects and the fallout of IT strategy. In comparison only two of the IT managers and business managers overtly admitted the existence of politics in such companies.
2. At the same time it was clear that most subsidiary managers acknowledged and hinted at the gap existing between the central headquarters and the subsidiaries around the world. The parent company managers did not recognize such a gap and expected compliant behaviour from the subsidiary managers. In some way it also indicates the well entrenched hierarchical attitude of the parent company managers.
3. The consultants pointed to the possibly important areas like green IT and compliance role of IT while these did not figure in the interviews of most of IT managers.
4. The expectations from IT as expressed by business managers differed from those as seen by IT managers. The required 'alignment' seems to dodge the practitioners and they continue to struggle. This view is corroborated by Avila *et al* (2009).
5. The value of IT is being recognized by more and more IT managers and is getting embedded as an important agenda item in the IT strategy formulation.

It was clear that the IT managers do award enough recognition to the key features of a global corporation in terms of its diversity and the impact of diversity on strategy formulation and its deployment. The socio-political aspect is either attended to more by gestures than by serious attempts to weave it into the overall strategy formulation framework. Most of the IT managers indicated conveying the annual conferences at various levels as the means to acquire a buy-in from all. The parent company IT managers saw the socio-political aspect more as compliance issue while subsidiary managers viewed it as a mandate style of the parent company.

The IPCRC model proposed above is a way to make the IT managers take cognizance of the vitality of the context of IT strategy and address it structurally. The easy access to information and the transparency it has brought in necessitates that the IT managers spend efforts in managing the political environment as much as managing the technical content of the IT. As one of the consultants opined, most IT managers are still battling the legacy systems and have little time to consider the changing business scenario. The senior business leader's expectation of IT role in empowerment and engagement very much focuses on the socio-political aspect of the IT. The IPCRC model embeds all such aspects and makes it possible for IT managers to better the success rate in the deployment of the IT strategy.

Direction for future research

While the components of IPCRC models were derived from experiences and the research findings, it will be useful to actually experiment with the model

within large organizations. I expect that it will be a challenge to find organizations that will be ready to overtly acknowledge the political nature of larger organizations. A clear admission of the socio-political nature of global corporation is a necessary stage to evoke and offer proper responses.

An interesting new field of research will be an idea to measure political inclination of an organization. The higher the political index the more the energy that needs to be expended in managing the context. Research in this area will go a long way to encounter difficulties faced by the senior IT management of companies. Some sort of measurement mechanism of awareness of the socio-political aspects will help to find gauge the ability of IT managers to deal effectively in large diverse corporations. It will also help to find ways and means to sensitize the IT managers to important aspects of socio-political area.

It will also be interesting to explore capability requirements of the IT managers, both in parent companies and in subsidiary companies. Such a capability model may necessitate completely altering the IT managers' profiles and may lead to a new set of education and training requirements.

The four abilities I see today are:

1. Socio-political awareness
2. Green IT and environmental contribution
3. IT value creation
4. IT role in
 - a. Empowerment and engagement
 - b. Regulatory compliance

It is interesting to note that technical IT competence does not figure in this list. We will probably need a different orientation and mindmap to manage IT in large global corporations.

7. Chapter 8: Appendix

My sample mails

Dear Mr.,

I need some time from you. Earlier I had spoken to you about my Doctoral program.

To recap a little, I am doing my Doctoral program from University of Bradford, UK. I started in 2006. I have reached a stage of doing my research and thesis. I plan to submit my thesis mid next year. As part of the research process I have been talking to prominent CIOs, business managers and consultants/experts. I am been researching companies with global reach and multiple businesses. It's the geographical spread and diversity in businesses that pose challenges to IT Strategy formulation. I aim at understanding existing process of IT Strategy Formulation in industry. Further I aim to find the impact of IT strategy on organization.

This usually requires an interview of about 60-90 mins and follow-up queries, if any. Will be wonderful to get your inputs from the standpoint of 'Business Manager' as well as 'Consultant/Expert'. Contents of interview will be confidential and will be used only for this project. Excerpts of interviews and interview results will be included in the research report.

I will be in Mumbai on May 15 & May 16 morning. I will appreciate if you can spare some time. Pl let me know your availability,

With regards,
anil

Hi

This is in keeping with reference to discussion had with you. To re-introduce myself, I am Anil Vaidya, Sr. Director – IT, I am based in

I have been doing my Doctoral program at The University of Bradford, UK. I joined the program in 2006. After initial work and preparation over last 3 years I have reached a stage of research and thesis. I plan to submit my thesis mid next year. As part of the research process I have been talking to CIOs, business managers and consultants/experts. I have been researching companies with global reach and multiple businesses. It's the geographical spread and diversity in businesses that pose challenges to IT Strategy formulation.

This usually requires an interview of about 60-90 mins and follow-up queries, if any. I am pasting below a note on purpose, it gives little more info.

Will be great if I get some of your time, if OK then I can call you next week. Pl let me know date/time convenient to you.

With regards,

anil

_____Note: Statement of Purpose_____

My name is Anil Vaidya. I am a student (ID 060237400) of the DBA programme (Doctor of Business Administration) at Bradford University, UK. I seek your help for my doctoral research.

Organizations have attempted a number of ways to formulate information systems and technology (IS/IT) strategy to meet business expectations balancing demand and supply opportunities; weaving around themes like business alignment, competitive advantage, knowledge management and value addition. Business responses to the dynamics of globalization and the cross-border movement of labour and capital combined with fast changing consumer tastes and behaviour, have led to rapidly changing demands upon IS/IT. Instability and uncertainty of demand challenge the process of developing sound IS/IT strategy. To maintain simplicity I will use the generally understood abbreviation IT to represent IS/IT in the rest of this note.

I aim at understanding existing process of IT Strategy Formulation in industry. Further I aim to find the impact of IT strategy on organization. I also gather views of industry on IT Strategy by interviewing prominent CIOs, business managers and IT consultants/experts. Contents of interview will be confidential and will be used only for this project. Excerpts of interviews and interview results will be included in the research report.

I am currently associated withas Sr. Director – IT. To clarify, this project has not been sponsored by or any other organization.

Some Responses

Dear Anil,
Please give me a call and we can fix up a convenient time on those dates.
Regards,
.....

Hi Anil

I admire your pursuits!!

Of course I will be happy to spend time with you! Friday May 15th is my preference.
Perhaps at my Office in Worli?

My mobile no. is Do call me next week whenever and we can set the time
and place.

Warm regards

.....

No problem . It was my pleasure to interact with you.

Please send me your Delhi and Bombay telephone contact numbers

.....

-----Original Message-----

From: A.V.Vaidya@Bradford.ac.uk [mailto:A.V.Vaidya@Bradford.ac.uk]

Sent: Saturday, March 14, 2009 5:50 PM

To:

Subject: Thnx

Dear,

Thanks for sparing time for our meeting last week. I have been in Delhi
since
then and will continue to be here for two more weeks. I will drop you a
line to
organize my meetings with some of your business managers before coming to
Mumbai.

with regards,
anil

8. Chapter 8: Bibliography

Accenture (2009) downloaded from website on 30/10/2009 at 10:20 PM India time from http://www.accenture.com/Global/Technology/IT_Strategy_and_Transformation/default.htm

Allen, R., Madison, D., Porter, L., Renwick, P. and Mayes, B. (1979) Organizational politics: Tactics and characteristics of its actors *California Management Review* 22(1): 77-83

Ambert, A., Adler, P. A., Adler, P. and Detzner, D. (1995) Understanding and evaluating qualitative research *Journal of Marriage and Family* 57(4): 879-893

Ash, J. and Smallman, C. (2008) Dying without Permission: Decision Error and Operational Risk in the Management and Execution of Dangerous Work *2008 The Davis Conference on Qualitative Research* 1 - 32

Ashurst, C., Doherty, N. and Peppard, J. (2008) Improving impact of IT development projects: The benefits realization capability model *European Journal of Information System* 17: 352-370

Avila, O., Goepp, V. and Kiefer, F. (2009) Understanding and classifying information system alignment approaches *The Journal of Computer Information Systems* 50(1): 2-14

Barrett, M., Grant, D. and Wailes, N. (2006) ICT and organizational change: Introduction to the special issue *The Journal of Applied Behavioral Science* 42(1): 6- 22

Barton, R. (2003) *Global IT Management* Wiley, West Sussex, England

Bartunek, J. (1984) Changing Interpretive Schemes and Organizational Restructuring: The Example of a Religious Order *Administrative Science Quarterly* 29: 355-372

Berg, M. (1998) The Politics of Technology: On bringing Social Theory into Technological Design *Science, Technology, and Human Values* 23-4: 456-490

Berg, M. and Bowker, G. (1997) The multiple bodies of the medical record: Towards a sociology of an artifact *Sociological Quarterly* 38: 511-535

Birkinshaw, J. and Fry, N. (1998) Subsidiary initiatives to develop new market *Sloan Management Review* 39(3): 51-61

Blazejewski, S. and Dorow, W. (2003) Managing organizational politics for radical change: the case of Beiersdorf-Lechia S.A., Poznan *Journal of World Business* 38: 204-233

Blazejewski, S. (2006) Transferring value-infused organizational practices in multinational companies: A conflict perspective in Geppert, M. and Mayer, M. (eds) *Global, national and local practices in multinational companies* Palgrave Macmillan, New York

Bodla, M. and Danish, R. (2009) Politics and workplace: An empirical examination of the relationship between perceived organizational politics and work performance *South Asian Journal of Management* 16(1): 44-62

Bryman, A. (1984) The debate about quantitative and qualitative research: A question of method or epistemology? *The British Journal of Sociology* 35(1): 75-92

Chan, Y. and Reich, B. (2007) IT alignment: What have we learned? *Journal of Information Technology* 22: 297-315

Chen, Y. and Fang, W. (2008) The moderating effect of impression management on the organizational politics – performance relationship *Journal of Business Ethics* 79: 263–277

Cibborra, C. and Land, F. (eds) *The Social Study of Information and Communication Technology: Innovation, Actors and Contexts*. Oxford, Oxford University Press

Claburn, T. (2006) Google revealed: The IT strategy that makes it work *Information Week* 28 August

Constantinides, P. and Barrett, M. (2006) Large-scale ICT Innovation, Power, and Organizational Change: The Case of a Regional Health Information Network *The Journal of Applied Behavioral Science* 42-1: 76-90

Cunliffe, A. (2003) Reflexive inquiry in organizational research: Questions and possibilities *Human Relations* 56(8): 983-1003

Curtis, G., Page, S. and Kaltenmark, J. (2006) Information Technology: Thinking bigger In Jain, R. and Prabhakar, R. (eds) *IT and Business Strategy* The ICFAI University Press, Hyderabad

Cross, R., Martin, R. and Weiss, L. (2006) Mapping the value of employee collaboration *The McKinsey Quarterly* 3: 29-41

Daniel, J. (1993) Book Reviews – Managing with Power: Politics and Influence *Administrative Science Quarterly* 38-2: 337-340

- Davenport, T. and Klein, P. (2005) Rethinking the mobile workforce *Optimize* 4(8): 26-33
- Davidson, E. (2006) A Technological Frames Perspective on Information Technology and Organizational Change *The Journal of Applied Behavioral Science* 42-1: 23-39
- DeSanctis, G. and Poole, M. (1994) Capturing the Complexity in Advanced Technology Use: Adaptive Structuration Theory *Organization Science* 5-2: 121- 147
- Doherty, N., Marples, C. and Suhaimi, A. (1999) The relative success of alternative approaches to strategic information systems planning: an empirical analysis *Journal of Strategic Information Systems* 8: 263-283
- Dorrenbacher, C., and Geppert, M. (2009) Micro-political games in a multinational corporation: The case of mandate change *Management Revue* 20(4): 373-391
- Dunshire, A. (1990) Holistic Governance *Public Policy and Administration* 5(1): 4-19
- Dunshire, A. (1993) Manipulating social tensions: Collibration as an alternative mode of government intervention *MPIFG Discussion Paper* 93(7): 2-49
- Dunshire, A. (1995) Administrative theory in the 1980s: A viewpoint *Public Administration* 73: 17-40
- Dunshire, A. (1996) Tipping the balance: Autopoiesis and governance *Administration & Society* 28(3): 299-332
- Earl, M. J. (ed) (1988) *Information Management The Strategic Dimension* Clarendon Press, Oxford
- Earl, M. (1993) Experiences in strategic information systems planning *MIS Quarterly* 17(1): 1-24
- Earl, M. (1996) (ed) *Information Management* Oxford University Press, Oxford
- Farndale, E., Paauwe, J., Morris, S., Stahl, G., Stiles, P., Trever, J., and Wright, P. (2010) Context-bound configurations of corporate HR functions in multinational corporations *Human Resource Management* 49(1): 45-66
- Fisher, J. (1999) What will it take to transform you *The Journal for Quality and Participation* 22(6): 7-13

Fisher, J. (1999) Organization in the 21st century? *The Journal for Quality & Participation* November/December: 7-13

Frelinger, B. (2005) Building Acceptance and Adoption of COBIT at Sun Microsystems *Information Systems Journal* volume 2 downloaded from www.isaca.org on January 16, 2010

Galliers, R and Land F. (1987) Choosing Appropriate Information Systems Research Methodologies *Communications of ACM* 30(11): 900-902

Galliers, R. (2004). Reflections on Information Systems Strategizing In Avgerou, C., Ciborra, C. and Land, F. (eds.) *The Social Study of Information and Communication Technology: Innovation, Actors, and Contexts* Oxford, Oxford University Press pp. 231-262.

Galliers, R. D. (2006) On confronting some of the common myths of Information Systems strategy discourse In Mansell, R., Avgerou, C., Quah, D. and Silverstone, R. (eds) *The Oxford Handbook of Information and Communication Technology* Oxford, Oxford University Press pp. 225-243

Galliers, R. (2010) Provost & Vice President for Academic Affairs, Bentley College, Massachusetts, USA

Gartner(2004) Competing the IT Strategy downloaded from website site on 30/10/2009 at 10 PM India time from http://www.gartner.com/resources/124200/124253/executive_summa.pdf

Geppert, M., Matten, D. and Walgenbach, P. (2006) Transnational institution building and the multinational corporations: An emerging field of research *Human Relations* 59(11): 1451-1465

Geppert, M. and Williams, K. (2006) Global, national and local practices in multinational corporations: Towards a sociopolitical framework *International Journal of Human Resource Management* 17(1): 49-69

Gibson, S. (2009) Cisco: Collaboration is key to business *Business Intelligence-Baseline Magazine* September 29

Giddens, A. (1995) *The Constitution of Society, Outline of the Theory of Structuration* Polity Press Cambridge, UK

Goede, R. and De Villiers, C. (2003) The applicability of grounded theory as research methodology in studies on the use of methodologies in IS practice *Proceedings of SAICSIT* 208-217

Gold, R. (2002) Enabling the strategy-focused IT organization *Information Systems Control Journal* 4

- Greengard, S. (2009) New York Life: Insuring Business Success *Business Intelligence-Baseline Magazine* September 29
- Grover, V. and Segars, A. (2005) An empirical evaluation of stages of strategic information systems planning: pattern of process design and effectiveness *Information and Management* 42: 761-779
- Grunow, D. (1995) The Research Design in Organizational Studies: Problems and Prospects *Organization Science* 6(1): 93-103
- Gupta, A. and Rogers, E. (1991) Internal Marketing: Integrating R&D and marketing within the organization *Journal of Services Marketing* 5(2): 55-68
- Hardy, G. (2003) Coordinating IT governance – A new role for IT strategy committees *Information Systems Control Journal* 4
- Heiskanen, A. and Newman, M. (1997) Bridging the gap between information systems research and practice: The reflective practitioner as a researcher *ACM Digital Library, Proceedings of eighth international conference on information system archive*: 121-132
- Herbert, T. And Matthews, R. (1977) Is the contingency theory or organization a technology-bound conceptualization? *Journal of Management* 3(1): 1-10
- House, R. (1997) Path-goal theory of leadership: Lessons, legacy and a reformulated theory *Leadership Quarterly* 3: 323-352
- Hussain, Z. and Cornelius, N. (2009) The use of domination and legitimation in information systems implementation *Information Systems Journal* 19: 197-224
- Hyde, K. (2000) Recognising deductive processes in qualitative research *Qualitative Market Research* 3(2): 82-89
- IBM (2009) IT strategy formulation downloaded from website on 30/10/2009 at 9:20 PM India time from <http://www-935.ibm.com/services/us/index.wss/offerfamily/gbs/a1029389>
- IT Spending and Staffing Benchmarks (2009) Computer Economics study downloaded on 24/11/2009 at 7 PM India time from <http://www.computereconomics.com/page.cfm?name=IT%20Spending%20and%20Staffing%20Study>
- Jarvis, P. (1999) *The practitioner-researcher: Developing theory from practice* Jossey-Bass San Francisco

- Jarzabkowski, P. (2003) Strategic practices: An activity theory perspective on continuity and change *Journal of Management Studies* 40(1): 22-55
- Kanungo, S., Sadavarti, S. and Srinivas, Y. (2001) Relating IT strategy and organizational culture: an empirical study of public sector units in India *Journal of Strategic Information Systems* 10: 29-57
- Kaplan, B. and Duchon, D. (1988) Combining Qualitative and Quantitative Methods in Information Systems Research: A Case Study *MIS Quarterly* 12(4): 571–586
- Karahanna, E., Straub, D. and Chervany, N. (1999) Information Technology Adoption Across Time: A Cross-Sectional Comparison of Pre-adoption and Post-adoption Beliefs *MIS Quarterly* 23-2: 183-213
- Kerney, A. (2006) The road to business value: An integrated approach to IT investments in Jain, R. and Prabhakar, R. (eds) *IT and Business Strategy* The ICFAI University Press, Hyderabad
- Khan, M. and Azmi, F. (2005) Reinventing business organizations: The information culture framework Singapore *Management Review* 27(2): 37-62
- Kirkbride, J. and Letza, S. (2003) Establishing the boundaries of regulation in corporate governance: Is the UK moving towards a process of collibration *Business and Society Review* 108(4): 463-485
- Kirkbride, J. and Letza, S. (2004) Regulation, governance and regulatory collibration: Achieving an holistic approach *Corporate Governance* 12(1): 85-92
- Klein, H. and Myers, M. (1999) A set of principles for conducting and evaluating interpretive field studies in information systems *MIS Quarterly* 23(1): 67-93
- Kostova, T. (1999) Transnational transfer of strategic organizational practices: A contextual perspective *The Academy of Management Review* 24(2): 308-324
- LaPlante, A. (1991) Finding the right IS structure: Winning shapes *Computerworld* 25(24): 58
- Lederer, A. and Sethi, V. (1988) The implementation of strategic information systems planning methodologies *MIS Quarterly* 12(3): 445-461
- Lee, A. (1991) Integrating positivist and interpretive approaches to organizational research *Organization Science* 2(4): 342-365

- Letza, S., Kirkbride, J., Sun, X. and Smallman, C. (2008) Corporate governance theorizing: limits, critics and alternatives *International Journal of Law and Management* 50(1): 17-32
- Levy, M., Powell, P. and Galliers, R. (1999) Assessing Information Systems strategy development frameworks in SMEs *Information Management* 36: 247-261
- Levy, M. and Powell, P. (2000) Information systems strategy for small and medium sized enterprises: an organizational perspective *Journal of Strategic Information Systems* 9: 63-84
- Lindblom, C. (1965) *The intelligence of democracy* The Free Press New York
- Lindblom, C. and Woodhouse, J. (1993) *The Policy-Making Process* Prentice Hall New Jersey
- Lindblom, C. (1997) Initiating Change *American Behavioral Scientist* 40-3: 264-276
- Luthans, F. And Stewart, T. (1977) A general contingency theory of management *The Academy of Management Review* 2(2): 181-195
- Maanen, J. (1979) Reclaiming qualitative methods for organizational research: A preface *Administrative Science Quarterly* 24(4): 520-526
- Mathiassen, L. (2002) Collaborative Practice Research *Information Technology & People* 15(4): 321-345
- Markus, M. (2004) Technochange management: Using IT to drive organizational change *Journal of Information Technology* 19: 4-20
- Marques, J. (2009) Organizational politics: Problem or opportunity? Strategies for success in workplace *Human Resource Management* 17(6): 38-41
- McCafferty, D. (2009) ATT: A philosophy of partnership *Business Intelligence-Baseline Magazine* September 29
- McKinsey IT Survey (2007) downloaded from website on 30/10/2009 at 11:10 PM India time from http://www.mckinsey.com/clientservice/bto/pointofview/pdf/MoIT11_Survey_F.pdf
- McKinsey (2009) Framework for IT Strategy downloaded on 30/10/2009 at 11 PM India time from <http://itstrategyblog.com/mckinsey-framework-for-it-strategy/>

- Mentzas, G. (1997) Implementing an IS Strategy – A Team Approach *Long Range Planning* 30(1): 84-95
- Meyer, P. (1971) Proliferation of departments, terminology of departmentalization, and history of regionalism In Chapman, R. and Dunshire, A. (eds) *Style in Administration* The Royal Institute of Public Administration, London
- Miller, D. (2009) *Business focused IT and Service Excellence* British Computer Society, UK
- Min, S., Suh, E. and Kim, S. (1999) An integrated approach toward strategic information systems planning *Journal of Strategic Information Systems* 8: 373-394
- Mintzberg, H. (1979) An emerging strategy of direct research *Administrative Science Quarterly* 24: 582-589
- Mintzberg, H. and Waters, J. (1985) Of strategies, deliberate and emergent *Strategic Management Journal* 6(3): 257-272
- Morris, S., Wright, P., Trever, J., Stiles, P., Stahl, G., Snell, S., Paauwe, J. and Farndale, E. (2009) Global challenges to replicating HR: The role of people, processes and systems *Human Resource Management* 48(6): 973-995
- Morrison, A. And Kendall, R. (1993) Developing global subsidiary mandates *Business Quarterly* 57(4): 104-110
- Narayanan, V. and Fahey, L. (1982) The micro-politics of strategy formulation *The Academy of Management Review* 7: 25-34
- Newkirk, H. and Lederer, A. (2007) The effectiveness of strategic information systems planning for technical resources, personnel resources and data security in environments of heterogeneity and hostility *The Journal of Computer Information Systems* 47(3): 34-44
- Norman, D. (1998) The life cycle of a technology: Why it is so difficult for large companies to innovate Nielsen Norman Group Report downloaded on March 5, 2010 from http://www.nngroup.com/reports/life_cycle_of_tech.html
- O'Connor, G. and Smallman, C. (1995) The hybrid manager: a review *Management Decision* 33(7): 19-28
- Oliver, P. (2003) *The student's guide to research ethics* Open University Press United Kingdom

- Orlikowski, W. (1992) The duality of technology: Rethinking the concept of technology in organizations *Organization Science* 3(3): 398-427
- Orlikowski, W. and Gash, D. (1994) Technology Frames: Making Sense of Information Technology in Organizations *ACM Transactions on Information Systems* 12-2: 174-207
- Orlikowski, W. (2000) Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations *Organization Science* 11-4: 404-428
- Orlikowski, W. and Barley, S. (2001) Technology and institutions: What can research on information technology and research on organizations learn from each other? *MIS Quarterly* 25(2): 145-165
- Orlikowski, W. and Yates, J. (2006) ICT and Organizational Change, A Commentary *The Journal of Applied Behavioral Science* 42-1: 127-134
- Orlikowski, W. (2006) Material Knowing: The Scaffolding of Human Knowledgeability *European Journal of Information Systems* 15: 460 - 466
- Palmer, I. and Dunford, R. (2002) Who says changes can be managed? Positions, perspectives and problematic *Strategic Change* 11(5): 243-251
- Pentland, B. (1999) Building Process Theory with Narrative: From Description to Explanation *Academy of Management Review* 24(4): 711-724
- Peppard, J. (1999) Information management in the global enterprise: An organizing framework *European Journal of Information Systems* 8: 77-94
- Peppard, J. & Ward, J. (2004) Beyond strategic information systems: towards an IS capability *The Journal of Strategic Information Systems* 13, 167-194
- Peppard, J. (2007) The conundrum of IT management *European Journal of Information Systems* 16: 336-345
- Peppard, J. (2010) Professor of Information Systems, Cranfield School of Management, Cranfield, UK
- Peters, B. (1999) *Institutional Theory in Political Science* Pinter, London and New York
- Pettigrew, A. and Fenton, E. (2000) (eds) *The Innovating Organization* Sage Publication, London
- Pfeffer, J. and Salancik, G. (1974) Organizational Decision Making as a Political Process: The case of a University Budget *Administrative Science Quarterly* 19-2: 135-151

- Pinto, J. and Millet, I. (1999) *Successful information system implementation The human side* Project Management Institute, Pennsylvania, USA
- Poole, M., Van de Ven, A., Dooley, K. and Holmes, M. (2000) *Organizational Change and Innovation Processes* Oxford University Press, Oxford
- Pyburn, P. (1991) Redefining the role of information technology *Business Quarterly* 55(3): 89-94
- Raghunathan, B. and Raghunathan, T. (1991) Information systems planning and effectiveness: An empirical analysis *Omega International Journal of Management Science* 19(2/3): 125-135
- Rasche, A. and Chia, R. (2009) Researching strategy practices: A Genealogical social theory perspective *Organization Studies* 30(7): 713-734
- Ricardo, H. (2010) Developing a competitive edge through employee value: How all international companies should conduct business *The Business Review, Cambridge* 16(1): 11- 17
- Riley, P. (1983) A Structurationist account of political culture *Administrative Science Quarterly* 28(3): 414 - 437
- Robey, D. and Boudreau, M. (1999) Accounting for Contradictory Organizational Consequences of Information Technology: Theoretical Directions and Methodological Implications *Information Systems Research* 10-2: 167-185
- Robson, C. (2002) *Real World Research Blackwell Publishing* Malden, USA
- Rylander, A. and Peppard, J. (2003) From implementing strategy to embodying strategy *Journal of Intellectual Capital* 4(3): 316-331
- Sabatier, P. (1991a) Political science and public policy *Political Science and Politics* 24(2): 144-147
- Sabatier, P. (1991b) Toward better theories of the policy process *Political Science and Politics* 24(2): 147-156
- Salmela, H. and Spil, T. (2002) Dynamic and emergent information systems strategy formulation and implementation *International Journal of Information Management* 22: 441-460
- Sandrino-Arndt, B. (2008) People, portfolios and processes The 3P model of IT governance *International Systems Control Journal* Volume 2 downloaded from www.isaca.org on January 16, 2010
- Saul, R. (2000) The IT balanced scorecard – A roadmap to effective governance of a shared service organization *Information Systems Control Journal* 2 downloaded from www.isaca.org on January 16, 2010

- Sayer, A. (2006) *Realism and Social Science Sage Publications* London
- Schultze, U. and Orlikowski, W. (2004) A practice perspective of technology-mediated network relations: The use of internet-based self-service technologies *Information Systems Research* 15(1): 87-106
- Schwittay, A. (2009) Taking Prahalad High-Tech: The emergence and evolution of global corporate citizenship in the IT industry *The Journal of Corporate Citizenship* 33: 97-107
- Schon, D. (1983) *The reflective practitioner* Basic Books Inc, New York
- Scott, W. (1987) The Adolescence of Institutional Theory *Administrative Science Quarterly* 32-4: 493-511
- Segars, A. and Grover, V. (1998) Strategic information system planning success: An investigation of the construct and its measurement *MIS Quarterly* 22(2): 139-163
- Segars, A., Grover, V. and Teng, T. (1998) Strategic information systems planning: planning systems dimensions, internal coalignment and implications for planning effectiveness *Decision Sciences* 29(2): 303-345
- Segars, A. and Grover, V. (1999) Profiles of strategic information systems planning *Information Systems Research* 10(3): 199-232
- Sheelvant, R. (2008) Emerging role of IT in the marketing strategy of Coca-Cola downloaded on January 20, 2010 from <http://itstrategyblog.com>
- Smallman, C. (2006) In search of relevance: conventional or critical management enquiry? *Management Decision* 4(6): 771-782
- Sminia, H. (2005) Strategy formation as layered discussion *Scandinavian Journal of Management* 21: 267-291
- Siminia, H. (2009) Process research in strategy formation: Theory, methodology and relevance *International Journal of Management Reviews* 11(1): 97-125
- Snow, C. and Thomas, J. (1994) Field research methods in strategic management: Contributions to theory building and testing *Journal of Management Studies* 31(4): 457-480
- Stiles, P. (1994) Book Review: Successful change strategies: Chief executives in action in Taylor B. (ed) Director Books
- Stiles, P. (2001) The impact of the board on strategy: An empirical examination *Journal of Management Studies* 38(5): 627-650

- Tsebelis, G. (1995) Decision making in political systems: Veto players in presidentialism, parliamentarism, multicameralism and multipartyism *British Journal of Political Science* 25-3: 289-325
- Tsoukas, H. (1989) The validity of idiographic research explanations *Academy of Management Review* 14: 551-561
- Van de Ven, A. and Poole M. (2005) Alternative approaches for studying organizational change *Organization Studies* 26(9): 1377-1404
- Villiers, M. (2005) Three Approaches as Pillars for Interpretive Information Systems Research: Development Research, Action Research and Grounded Theory *Proceedings of SAICSIT* 142-151
- Wagner, E. and Newell, S. (2006) Repairing ERP, Producing Social Order to Create a Working Information System *The Journal of Applied Behavioral Science* 42-1: 40-56
- Wainwright, D. and Waring, T. (2004) Three domains for implementing integrated information systems: redressing the balance between technology, strategic and organizational analysis *International Journal of Information Management* 24: 329-346
- Ward, J. and Peppard, J. (2007) *Strategic Planning for Information Systems* John Wiley & Sons: UK
- Ward, J. (2010) Professor of Strategic Information Systems, Cranfield School of Management, Cranfield, UK
- Weier, H. (2009) GM's IT strategy *Information Week* 5 December
- Wetherbe, J. and Whitehead, C. (1977) A contingency view of managing data processing organization *MIS Quarterly* 1(1): 19-25
- Whetten, D. (1989) What Constitutes a Theoretical Contribution *The Academy of Management Review* 14(4): 490 - 495
- White, O. (1965) Reviewed work(s): The Intelligence of Democracy: Decision Making through Mutual Adjustment by Charles E. Lindblom *The Western Political Quarterly* 18(4): 934-936
- Whittington, R. (1996) Strategy as practice *Long Range Planning* 29(5): 731-735
- Whittington, R. (2003) The work of strategizing and organizing: For a practice perspective *Strategic Organization* 1: 117-125
- Yang, Q, Mudambi, R. And Meyer, K. (2008) Conventional and reverse knowledge flows in multinational corporations *Journal of Management* 34(5): 882-902

York, T. (1999) Shift in IT roles ahead *Infoworld* 21(3): 75