Implementing Global Sourcing Strategies and Optimising Offshoring Capability:
A Longitudinal Case Study

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Abstract

Recognising the impact that globalisation has had on the sourcing of services, the purpose of this study was to understand how managers of firms implement global sourcing strategies and optimise offshoring capabilities. While significant research has been undertaken by scholars, future research needs have also been identified, including in-depth longitudinal studies in outsourcing, how outsourcing changes over time and the evolution of retained client capabilities. Research in these areas will go some way towards improving our understanding of the complex issues with which managers of firms have to deal.

To support these research needs through this thesis, a longitudinal case study based within a global financial services firm was undertaken over two years, utilising a mixed methods approach that included interviews, qualitative and quantitative surveys, documentation, physical artefacts and participant observation. In addition, this research was supplemented by 16 years of secondary historical data. The result is a detailed and rich narrative describing the real issues managers experience and how they deal with them when implementing global sourcing strategies and optimising offshoring capabilities.

The thesis concludes with the identification and discussion of one primary and four secondary contributions. The primary contribution is captured in the *Global Services Sourcing Model*, which will assist managers when implementing global sourcing strategies. The first two secondary contributions are labelled *Leadership Incongruence* and the *Retained Organisation*, and highlight the role of leadership during the implementation phase of the strategy and how this strategy may impact the organisation into the future. The third secondary insight is the *Global Services Maturity Model*, which will provide managers with guidance when developing the internal capabilities to support their offshoring initiatives. The final secondary contribution discusses the importance of developing a *Global Mindset* across the organisation to support the firm's global sourcing strategy.

Key Words: Global sourcing, outsourcing, offshoring

Certification

This thesis is submitted in fulfilment of the requirements of the degree of Doctor of Business Administration (DBA), in the Macquarie Graduate School of Management, Macquarie University.

This represents the original work and contribution of the author, except as acknowledged by general and specific references. The content of the thesis is the result of work that has been carried out since the official commencement date of the approved Macquarie University Human Research Ethics Committee research programme application approval number: 5201100446.

Any editorial work, paid or unpaid, carried out by a third party is acknowledged; and, ethics procedures and guidelines have been followed.

I hereby certify that this has not been submitted for a higher degree to any other university or institution.

Signed:

Alexander Ross McKenzie
6 December 2013

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I hope this encourages future generations in overcoming the odds, achieving their own goals and making a difference in their own distinctive ways.

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Abbreviations

ABC	activity-based cost
ABM	activity-based management
ABS	applications best shore
AHP	analytical hierarchy process
ANOVA	analysis of variance
APRA	Australian Prudential Regulation Authority
BOT	build–operate–transfer
BPO	business process outsourcing
C/B	cost/benefit
CC	core competence
CEO	chief executive officer
CGEIT	Certified in the Governance of Enterprise IT
CIO	chief information officer
CMM	capability maturity model
CMMI	capability maturity model integrated
COC	critical outsourcing characteristics
CODBA	cost of doing business abroad
COE	centre of expertise
COS	centre of scale
COSO	Committee of Sponsoring Organisations of the Treadway Commission
CPM	corporate portfolio management
CSF	critical success factor
eSCM	eSourcing capability model
eSCM-CL	eSourcing capability model for client organisations
FAO	financial accounting outsourcing
FORT	four outsourcing relationship type (framework)
FSU	Financial Sector Union
GDP	gross domestic product
GSLI	Global Services Location Index
HABIO	holistic approach business, information, organisational (framework)
HR	human resources
HRO	human resource outsourcing
ICT	information and communication technologies
IOS	international offshoring services
IS	information systems
ISACA	Information Systems Audit and Control Association
IT	information technology
ITO	information technology outsourcing
ITIL	information technology infrastructure library
KISA	knowledge-intensive service activities
LOF	liability of foreignness
MandA	merger and acquisition
NAFTA	North American Free Trade Agreement
OECD	Organisation for Economic Cooperation and Development
ORN	Offshoring Research Network
RandD	research and development

RBA	Reserve Bank of Australia
RBT/RBV	resource-based theory/resource-based view
RFI	request for information
RFP	request for proposal
RQ	research question
SSC	shared service centre
SD	strategic decision
SDM	strategic decision making
SLA	service level agreement
SMEs	small- and medium-sized firms
TC	transaction cost
TCE	transaction cost economics
UCA	unit of competitive advantage
US	United States

Chapter 1: Introduction

The reason the Global Banking Corporation and most other organisations need to go offshore is because of the lack of availability of skills—there simply aren't enough people locally. Jobs are not going offshore, activities are going offshore.

Executive Manager

I have sat in several meetings now where our suppliers show the same presentation and make the same commitments that they will bring us all this supposedly mature capability from their global organisation. I am still waiting for it.

Senior Manager

For years senior management have been telling us we run a best-in-class operation. Each year we have been doing more for less. We have people who have been working on the same systems for over 20 years. Now they want to send it all to India. I just don't get it. What am I meant to say to my team? They have given me some talking points but none of that gives us any credibility at all.

Middle Manager

These comments from managers in organisations implementing global sourcing strategies provide examples of situations in which managers find themselves when their firms have decided on an outsourcing and offshoring strategy. Such managers are asked to implement the new strategy while still being required to deliver on the day-to-day needs of their organisation (i.e., 'building the aircraft while flying it at the same time'). Although some of these situations are isolated, many can be more systemic during the establishment of a global service delivery organisation. Firms may implement a global sourcing strategy for reasons other than simply cost. However, if the driver is purely transaction cost (TC), a number of questions arise. Is the firm now receiving the financial arbitrage benefits? Where capability is the focus in that the firm seeks to introduce a particular capability or emerging technological innovation (such as mobile banking, in the case of a financial services firm), is this being achieved? If the firm implemented a global sourcing strategy to gain experience in working in another geographical region as a foothold for further expansion (for example, setting up a presence in China), is this now being leveraged across the broader organisation for strategic advantage? By understanding how managers address

these challenges by identifying the sorts of capabilities and practices required to implement and optimise a global sourcing strategy, it may be possible to avoid or at least minimise the impact of these challenges for managers embarking on similar journeys in the future.

1.1 The Phenomenon

What is the specific phenomenon that this study will be considering? The focus of this research is global sourcing strategy. This thesis will address two aspects. First, the study will investigate how managers of firms *implement* global sourcing strategies. Specifically, it will examine the types of decisions that managers need to make and the complex issues that need to be addressed during this implementation phase. Second, the study will look beyond the implementation phase and examine how these same managers *optimise* and mature their firm's offshoring capabilities.

Researcher interest in this phenomenon is not new. A study by Rottman and Lacity (2004) recognised the many challenges when implementing an outsourcing and offshoring strategy. The authors interviewed managers from both client and service-provider firms, exploring how the managers developed a global sourcing portfolio, reduced the risks of such a portfolio, worked with the suppliers and, finally, achieved cost savings while maintaining the quality of the services outsourced. A follow-up study was undertaken by the same authors (Rottman & Lacity 2006) in which they identified 29 practices for managers to embrace in order to overcome many of the challenges of outsourcing and offshoring.

The importance of studying this phenomenon is also reinforced by a report that attributed an approximate 50 per cent failure rate for offshore outsourcing (McCue 2005). According to McCue's report, many firms are getting it wrong, which is a costly exercise. The significance of the phenomenon is further emphasised by the scale of today's global sourcing industry. According to Hätönen and Eriksson (2009), outsourcing originated in the 1950s, but it was not until the 1980s that organisations adopted the strategy more widely. The 1989 mega project deal between the Eastman Kodak Company as client and four large vendors as providers (Gonzalez, Gasco & Llopis 2006) is often referred to as a turning

point because never before had a major organisation outsourced a significant asset to a third party (Fjermestad & Saitta 2005).

During the late 1990s, technological improvements in information and communication technology as well as increasingly open markets intensified the globalisation of service offshoring and outsourcing (Palugod & Palugod 2011). This period witnessed the rapid growth of organisations implementing global sourcing strategies. These strategies consisted initially of information technology (IT) services because of the growing demand for these services arising from businesses' increasing adoption of computer technologies. Much of this IT offshoring went to India; in 1999, software exports from India amounted to US$4 billion (Palugod & Palugod 2011).

In 2005, the McKinsey Global Institute reported that 11 per cent of worldwide service employment could in theory be performed remotely. It defined eight representative sectors of the global economy and calculated that in 2003, a total of 18.3 million jobs in these sectors (for banking, this represented 25 per cent of the available jobs, or 3.3 million jobs) could be done by employees located anywhere in the world. The report went on to extrapolate this to the global economy in 2008, estimating that 160 million jobs—or approximately 11 per cent of the projected 1.46 billion service jobs worldwide—could in theory be carried out remotely (Farrell et al. 2005). A further report by the McKinsey Global Institute, titled *The world at work: jobs, pay and skills for 3.6 billion people*, (Dobbs et al 2012) attributed an increase of approximately 4 million offshore jobs between 1980 and 2010—mostly in India and the Philippines—to IT offshoring. The same report also projected that by 2020, there may be 38–40 million fewer workers with tertiary education than employers will require (or a 13 per cent unfulfilled demand), placing more pressure on firms to seek alternative strategies, including global sourcing.

According to the International Data Corporation (IDC) (2006) study titled *Worldwide and U.S. offshore IT services 2006–2010 forecast*, the global and United States (US) markets for offshore IT services were forecast to continue to grow at roughly 15 per cent per year between 2006 and 2010, with a total growth of 17 per cent over the subsequent five years. By 2009, the global information technology outsourcing (ITO) industry had grown to

US$56 billion (National Association of Software and Services Companies [NASSCOM] 2009). Following close behind ITO, the business process outsourcing (BPO) industry was also expanding, from US$12 billion in 2004 to US$38 billion in 2009. Despite the global financial crisis, the global outsourcing services market did not decline overall and resumed its previous growth trend in 2010 (Palugod & Palugod 2011).

Willcocks and Kotlarsky (2012) state the global market size for IT outsourcing as US$290 billion and for BPO outsourcing as US$175 billion, of which offshore outsourcing is a US$85 billion plus industry per annum. Willcocks and Kotlarsky (2012) also state that the average growth rates over 2012–2016 are estimated to be 5–8 per cent per annum for ITO, 8–12 per cent per annum for BPO and 8–18 per cent pa for offshore outsourcing.

For the financial services industry, the Corporate Executive Board Financial Services Operations Leadership Council, a global financial services industry think tank, assessed the global banking and financial services IT and business services outsourcing market to be valued at US$170 billion and growing at a 5.2 per cent compound annual growth (Corporate Executive Board 2013). The Corporate Executive Board also identified in a survey that 60 per cent of respondent organisations were currently outsourcing with a further 19 per cent of survey respondents considering to outsource in some form (Corporate Executive Board 2013).

To better fit this phenomenon to how managers deal with the complex issues of implementing and optimising global sourcing strategies, it is essential to establish a theoretical foundation.

1.2 The Literature

The literature investigation has four discrete phases. The first phase is a broad review of the literature of the global sourcing phenomenon, including its evolution and the relevant theories. The second phase centres on the key management decisions of the firm: ownership, location, governance, and demand and supply. The third phase centres on the literature of 'optimise', or how firms that have implemented global strategies improve. The final phase

concludes the literature review by exploring organisational decision making and decision-making models in the context of outsourcing.

Outsourcing, offshoring and global sourcing have continued to be a key area of interest for researchers. It was Adam Smith in 1776, followed by Ronald Coase in 1937 and Oliver Williamson in 1975, whose thoughts and ideas on transaction cost economics (TCE) theory are often considered the prominent theoretical substance behind outsourcing (Hätönen & Eriksson 2009). From a theoretical perspective, researchers have studied outsourcing and the later global offshoring phenomenon over the last 20 years. These researchers have contributed to a diverse body of work, including studies that consider additional theories, such as: agency theory, resourced-based view theory, resource dependency theory, relational exchange theory, social capital theory, innovation diffusion theory, punctuated equilibrium theory, geographical location theory and organisation theory (Lacity et al. 2010). The types of questions under investigation by researchers have ranged from *why* firms choose to buy rather than make, *what* to outsource and *where* to outsource to, currently, *how* to outsource (Hätönen & Eriksson 2009).

Several notable studies of global sourcing, outsourcing and offshoring have provided recommendations for future scholarly research. Hätönen and Eriksson (2009) suggested more research on the *how* question, success factors, offshoring and the timing of sourcing decisions. Dibbern et al. (2004) suggested a future focus on a better understanding of the dependent variables of ITO success, further research from the vendor perspective, further research into client–supplier relationships, further research on how outsourcing changes over time, and finally, comparative studies such as differences and similarities between public and private sectors.

Lacity et al. (2010) suggested nine areas for future research. These are: 1) more studies of strategic IT outsourcing decisions; 2) more studies of strategic IT outcomes; 3) more studies on the dynamic interactions between outsourcing and the firm's capabilities; 4) more studies on the effects of the environment; 5) more studies on configurationally and portfolio approaches to outsourcing; 6) more studies on alternative destinations besides India; 7) continuing studies into emerging models and trends; 8) studies seeking to inform

reference discipline theories as much as we seek to be informed; and 9) the development of indigenous ITO theories.

More recently, Beulen, Tiwari and van Heck (2011) recommended future research be in-depth longitudinal case studies on outsourcing transitions, quantitative analysis to understand which factors and to what extent these factors influence transition performance, studies of transition in the scenarios with multiple service providers and research on other offshore countries besides India.

A second study by Lacity et al. (2011) suggested a further nine areas for further research into BPO: 1) BPO innovation effects; 2) retained client capabilities; 3) environment; 4) alternative destinations besides India; 5) supplier capabilities; 6) pricing models; 7) business analytics; 8); emerging models and trends; and 9) developing endogenous BPO theory. Lacity et al (2012, p. 69) suggested more studies on 'the dynamic interactions between outsourcing and firm capabilities'; the authors suggest that this is an emerging area and a better understanding of the evolution of capabilities over time would be beneficial to practice.

1.3 The Research Problem

1.3.1 *What Problem will this Research Address?*

Recent literature review findings identify client capabilities and success factors as an important area for future research (see Tables 2.8 and 2.9). While these client capabilities and success factors are important across the entire sourcing lifecycle as defined by Gartner (2012), it is the contract development and sourcing management phases that the literature suggests a future focus and interest take place by researchers (see Figure 1.1). These phases of the taxonomy occurs after the firm has made the decision to implement a global sourcing strategy where the focus is on how the firm's managers execute this strategy from a planning, transition, ongoing delivery and overall global sourcing capability maturity uplift perspective.

As evident from the earlier research, once an organisation has selected its sourcing strategy, there remains a need to understand the success factors and the downstream decisions regarding what part of the business or technology functions can be outsourced or offshored, how these can be transitioned successfully, how a firm can uplift capability maturity and what this means for the retained organisation in the post-transitioned environment. Another way to view the problem that this research will go part of the way to addressing is through the question of how managers are delivering on the expectations or value proposition when their firms embark on implementing global sourcing strategies.

Figure 1.1: Literature Gaps and Sourcing Lifecycle Taxonomy

Source: Adapted from Gartner (2012)

1.3.2   *Why is it Important to Solve this Problem?*

Williamson (1981) stated that transactions should be undertaken within a firm when the cost of doing them is lower than the cost of using the market. An alternative way to express this is that the firm faces a 'make-or-buy' decision. If we ask 'Why do firms outsource?', based on TCE theory, it is an imperative that firms achieve the objective of a lower TC.

Another way to consider this concept is in terms of overall maturity or, as Whitley and Willcocks (2012 pp. 131) described it, 'moving up the learning curve'. This perspective of maturity within global sourcing is supported to the point where specific capability maturity

models (CMMs[1]) have been developed for client organisations and supplier organisations to benchmark their sourcing capabilities maturity journey (Hyder et al 2010), (Hefley and Loesche 2010). This concept of capability maturity is illustrated in Figure 1.2. When organisations fail to deliver on business expectations when implementing global sourcing strategies, significant value can be lost (as illustrated in Figure 1.3) because the firm failed to 'mature' its capability to outsource, thereby failing to achieve the outcome TCE is intended to achieve.

Figure 1.2: Global Sourcing and Offshoring Capability Maturity Journey
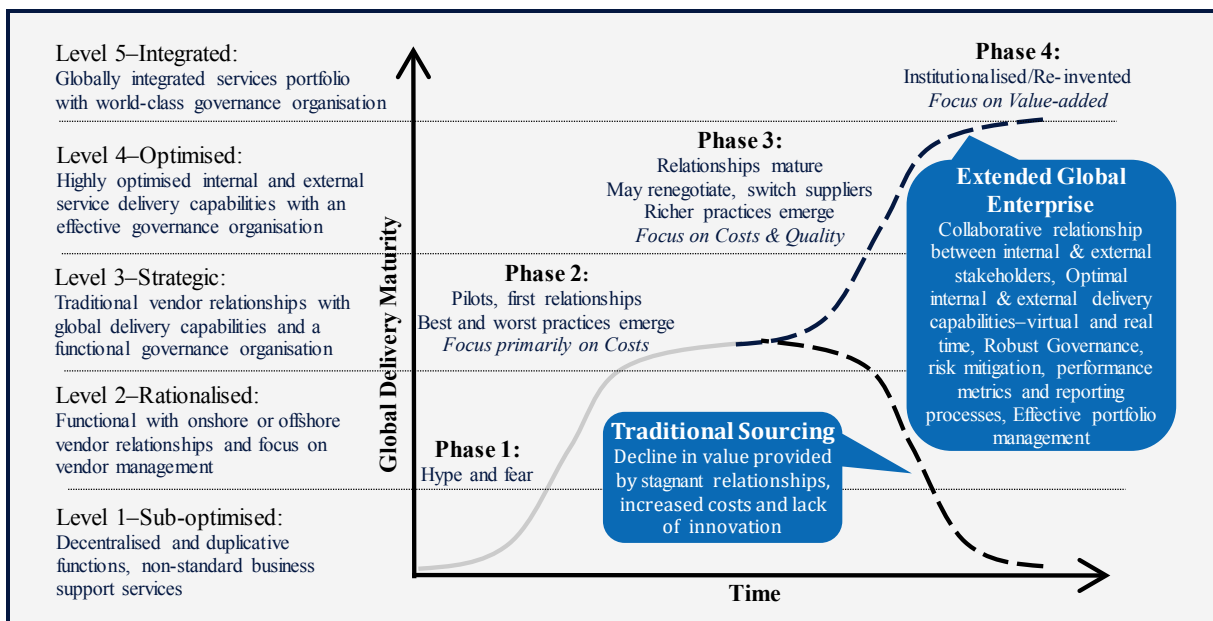
Source: Adapted from Ambrose & Cohen (2010); Willcocks, Cullen & Craig (2010)

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[1] ® CMM is registered in the U.S. Patent and Trademark Office by Carnegie Mellon University

Figure 1.3: Sourcing and Offshoring Implications When Capabilities Fail to Mature
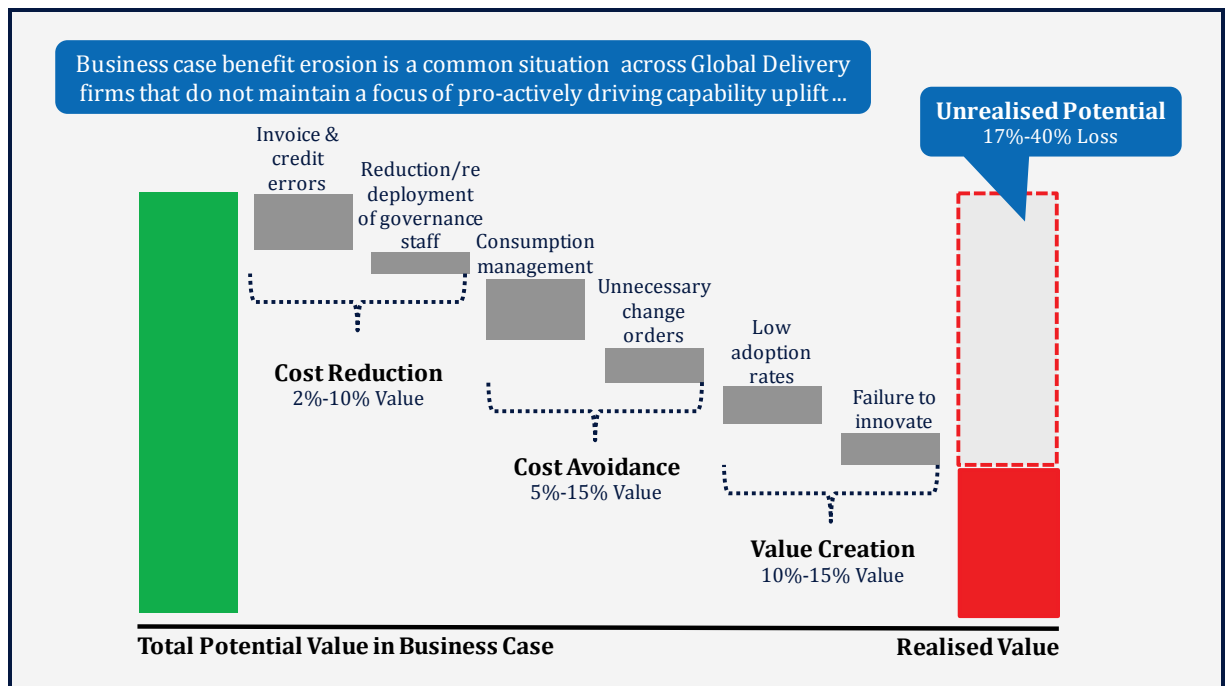
Source: Adapted from McFarlan (2012)

1.3.3 Statement of Purpose

The purpose of this research is to investigate how managers implement global sourcing strategies and optimise their firm's offshoring capabilities. The importance of this research is supported by the significance of today's global sourcing industry, and the outsourcing and offshoring phenomenon as detailed earlier in this chapter. As this research is being presented as a thesis to support the award of a Doctor of Business Administration, the focus is on the research's outcomes and contribution to practice. This is in contrast to a thesis supporting the award of a PhD, in which outcomes that are more theoretical are expected. Nevertheless, this thesis presents as outcomes frameworks that may have theoretical applications.

1.3.4 Research Questions

The topic of this research, 'Implementing global sourcing strategies and optimising offshoring capability: a longitudinal case study', is being investigated through five primary research questions (RQs). The first two questions investigate the types of upfront decisions

that managers are making and the types of issues with which they are dealing as they go about transitioning to their firm's global sourcing strategy (strategy in this context is being defined broadly to also include the set of strategic decisions about outsourcing as the eSCM-CL work demonstrated that this is not always the case - see Hefley and Loesche p 21 2010):

RQ1: How do managers implement their firm's global sourcing strategies?

RQ2: What are the types of issues managers experience when implementing their firm's global sourcing strategies, how do they overcome them and do they change over time?

The next set of RQs seeks to investigate how managers are executing:

RQ3: What are the types of issues managers expect to experience in the future with their firm's offshoring capabilities and are they taking action to mitigate these potential issues?

RQ4: How do managers optimise their firm's offshoring capabilities and does this change over time?

The final RQ seeks to identify, if present, the critical success factors (CSFs) when managers implement global sourcing strategies:

RQ5: What CSFs can be identified when managers implement global sourcing strategies and optimise offshoring capability?

These five RQs can be mapped back to the original literature gaps illustrated in Table 2.8 and summarised in Table 2.9.

1.4 The Justification

The outcomes of this research will contribute to the broader academic literature on the phenomenon of outsourcing and offshoring, in particular by addressing several research gaps that have been identified by past researchers, as previously discussed. However, as stated, this research supports the award of a Doctor of Business Administration, which is by

nature a contribution to practice. As such, the outcomes of this research will contribute to industry by providing current practitioners of global sourcing strategies and offshoring, (i.e., managers of firms) with rich and in-depth insights into how their counterparts in other firms go about implementing global sourcing strategies. Offshoring is a sensitive subject within many firms today, largely because of external perceptions. Public affairs programmes, employee union organisations and employees themselves often debate the emotional aspects, but seldom are there open forums to review, reflect and inform on other aspects of global sourcing strategies and their respective implementation within firms. The intention of this research is to enable firms and their managers to be more effective when implementing global sourcing strategies, and more successful in the longer term in optimising offshoring capabilities.

1.5   The Methodology

As highlighted in this chapter, previous researchers have called for the use of more in-depth case study style research methodology when examining the global sourcing phenomenon. The nature of the RQs developed for this study are revelatory in that they are seeking to access, observe and analyse a particular social phenomenon that is generally inaccessible to researchers. Therefore, the case study method—and, in particular, a single longitudinal case study design type rather than a multiple-case study design type—has been adopted for this study.

This longitudinal case study takes place in a major global financial services organisation. I obtained approval to conduct the case study at this location on the condition that I maintained confidentiality regarding the organisation's name. Therefore, throughout this thesis, the organisation will be referred to as either the 'Global Banking Corporation' or the 'Corporation'. In terms of scale, based upon total assets, the Corporation is among the top 50 banks in the world today (Accuity 2013). The case study draws on data between 1996 and 2013, with the primary data accessed between 2011 and 2013, as the Corporation developed and implemented a new sourcing strategy involving the outsourcing and offshoring of application technology development and maintenance work to India.

Throughout the duration of this longitudinal case study, I was also an employee of the Corporation and thus performed the role of participant observer. In addition, as a result of holding similar professional roles working closely with the Corporation, I had accumulated historical knowledge and insight prior to the official commencement of this longitudinal case study. This knowledge and insight goes back to 1996, resulting in a case study of this single firm over 18 years.

The benefit of undertaking a longitudinal case study within a single organisation is the potential richness of data, which could not otherwise be collected. The opposing view is that a single case may not allow for broader generalisations to be made regarding the specific phenomenon under study. This view is often represented by four key concerns when using the case study method: lack of rigour, little basis for scientific generalisation, takes too long and the challenge of forming casual linkages to possible outcomes (Yin 2009).

To minimise the impact of these concerns, a mixed methods strategy for data collection was used, combining both qualitative and quantitative methods. In this case, these methods include multiple data sources, including interviews, surveys, participant observation and the collection of artefacts, and documents and archival records that not only track the Corporation over time but also across the depth and breadth of the management layers from senior management to middle management. The volume of raw data produced as a result of this approach is significant (for example, 8,399 separate coding entries were made from the qualitative interviews and surveys alone, and 4,312 individual data points were collected for the quantitative statistical analysis—refer to Tables 5.1 and 5.4 in Chapter 5). However, the use of computer software programs such as NVIVO for the qualitative analysis and Minitab/SPSS for the quantitative statistical analysis enabled this data to be processed relatively efficiently in order to draw out key insights and conclusions.

Finally, the writing style of this research alternates between first person and third person when it comes to authorial voice. This approach has been influenced by authors such as Bansal and Corley (2012). As editors of the *American Management Journal*, they discussed the coming age for qualitative research and the value of using first-person narrative to

acknowledge the author's role in the research, and the philosophy of phenomenology, in which experience and reality are intertwined.

1.6 The Contributions to the Improvement of Professional Practice

This research investigated two overarching, though inter-connected, themes. The first was how managers of firms implement global sourcing strategies. The second was how the same managers then optimise their firm's offshoring capabilities. These themes were explored through five RQs, which in turn resulted in the following five (one primary and four secondary) contributions to the improvement of professional practice. The first RQ and resultant primary contribution focused on the implementation part of the strategy. This elicited various responses from the practitioners and identified that without a formal framework in place to guide and direct the implementation of the strategy, execution may be inconsistent or ineffective.

Primary Contribution—the *Global Services Sourcing Model*

Although a firm may be highly focused on achieving the overall objective or vision for a global sourcing strategy, without a clearly articulated roadmap to transition the firm to this 'end game', the firm may be exposed to greater inefficiencies and operational risks than necessary, or may be unable to respond to external events appropriately.

To assist firms in the sourcing decision process, this research has developed the *Global Services Sourcing Model*, which identifies a firm's decision choices and how these choices relate to each other, to provide a more holistic or macro perspective. This model will allow managers to connect cognitively all the moving parts of a global sourcing strategy in one dynamic model.

The second RQ asked managers about the types of issues they were dealing with when implementing their global sourcing strategies. This question was asked of the same participant group several times over the course of two years, as the managers implemented their global sourcing strategies. As a result, it was evident how issues changed over time. However, the most significant finding was the way this question was answered in the interviews and surveys because, after the data was coded, another story was being told.

Secondary Contribution—*Leadership Incongruence*

For firms embarking on a global sourcing strategy for the first time, it is likely that the leadership capabilities required for successful implementation may be lacking, due to inexperience. Further, where the executive leadership is not fully engaging the lower levels of management into the rationale or context of why such a strategy is being implemented, employee disengagement may result. Consequently, mixed messages, or worse— cynicism—can become widespread resulting in the slow take-up of new practices, or, in some cases, complete refusal to do so.

To counter these potential situations, this research suggests that it is an imperative to gain alignment across all layers of management to inform, educate and where possible collaborate, in order to achieve leadership buy-in to the overall strategy. Further, to support the upskilling of inexperienced managers, extensive site visits, case studies and training prior to the commencement of the implementation of the global sourcing strategy should be considered.

The third question asked managers about the issues they need to address at some stage in the future.

Secondary Contribution—the *Retained Organisation*

As a firm commences the implementation of their global sourcing strategy, much of the focus is on the transition of services and the establishment of appropriate governance controls. In cases where individual employee roles no longer exist because these services have been transitioned to an offshore service provider, the focus is on moving these individuals elsewhere or out of the firm to achieve the financial benefits of the global sourcing business case.

However, this research has identified a potential blind spot for firms implementing these strategies: how do these changes to a global operating model affect the retained organisation in the medium to longer term? For example, where a firm has fully transitioned, will this affect the overall culture and identity of the firm, particularly when the firm has used the public presentation of the faces of its people as a key differentiator from its competitors over a long time?

Therefore, this research recommends that a key part of implementing a global services strategy is to understand fully the cultural effects on the retained organisation. For example, how do organisations develop a culture of partnership and trust when the extended supply chain ecosystem crosses organisational, geographical and cultural boundaries?

The fourth RQ focused on how managers optimise their firm's offshoring capabilities. The managers were asked to rate their firm's current offshoring capability and then identify the approaches they were taking to improve or optimise. Although numerous approaches were identified, it was evident that a common challenge existed across all management layers.

Secondary Contribution—the *Global Services Maturity Model*

Managers often speak about the need to mature their businesses. Although this may imply many things, it is generally considered to involve the more effective running of their operations over time while adapting to changing business demands year on year. When managers implement a global sourcing strategy and set out to optimise their firm's offshoring capabilities, it is typical that the business case drives the achievement of the benefits, which are generally more focused on the financial elements over a shorter period. The challenge with this is that to drive ongoing improvement and maturity, further investment may be required over a longer period of time that goes beyond the original business case.

A further consideration is that managers often look to the contract in order to define the expectations and obligations between the client firm and the service provider firm. However it is not practical to define every activity required, particularly when it comes to driving maturity.

The business case and the contract is seldom linked to the benefits of driving ongoing maturity and, with no resources being allocated once transition to a global sourcing strategy has been completed, it is a possibility that the new global operating model will be sub-optimised.

Furthermore, a significant oversight during the selection and due diligence phase by the client firm could result in focusing more on the 'what' and less on the 'how'. In other words, during due diligence and subsequent earlier phases of the outsourcing lifecycle, client firms must also seek to understand how service provider firms will support the client firm in maturing its operations and not just on how many specialist resources the service provider may have. One may call this the 'qualitative due diligence'.

Therefore, to lessen the potential risk of firms not maturing when implementing global sourcing strategies, <u>this research has defined</u> the *Global Services Maturity Model*, in which a more holistic or end-to-end view of the sourcing lifecycle and capability maturity is incorporated into a single framework. This will assist managers by ensuring that they consider the ongoing needs of their 'future state' operations at the same time as they are preparing initial business cases and contracts, thereby recognising not only the full cost of the transition to a global operating model but also the full value that is derived.

The final RQ asked managers to identify the CSFs required to be present when implementing a global sourcing strategy or when optimising their offshoring capabilities. Although many of the factors identified can be compared to previous authors' work, such as Rottman and Lacity (2004), it was the concept of managers developing a 'global mindset' that resonated most with the research participants.

Secondary Contribution—*Global Mindset*

It is easy to underestimate the cultural shift required for a firm that has operated on a single-country level for almost 200 years to move to a global environment. Although people and information are now increasingly more mobile physically and virtually because of advancements in technology, parochial paradigms continue to be entrenched. Therefore, when a firm embarks on a significant global sourcing strategy, issues can be expected to arise, and they need to be confronted and resolved.

During the course of this longitudinal case study, a scepticism, mistrust and in some cases even racism existed just beneath the surface of individuals' responses to questions around outsourcing and, in particular, offshoring to India. There was also evidence of ignorance regarding how best to operate in a virtual environment across multiple cultures, geographies, time zones and client/service-provider models.

All this can be summarised in the growing body of research interest known as 'global mindset'. As defined by Javidan, Teagarden and Bowen (2010), 'global mindset' is the intellectual, psychological and social capital that leaders require to operate in this new global environment.

To facilitate the paradigm shift of firms and their people as the enter the global arena, even if it is simply through the implementation of a global sourcing strategy, this research recommends that firms embrace a global-mindset culture. This entails driving an agenda through the firm to introduce new skills and enhance existing ones regarding the operation of a global business.

Finally this research also uncovered an additional theme. Although it is not directly related to the specific RQs, it was nevertheless front-of-mind for many managers when they were interviewed during the course of the study at the Global Banking Corporation. In summary, this theme revolves around the establishment (or not) of *Ethical Supply Chains* in order to be socially responsible from end to end. Although not a new concept, having been investigated from various sources including Hefley and Babin (2013) plus supported by the international standard ISO 26000:2010 for Social Responsibility (ISO 2010), it may be worthy as a future research topic.

These five contributions to the improvement of professional practice, as well as the additional theme, will be discussed in more detail in Chapter 5.

1.7   The Thesis Outline

This thesis contains five chapters. Following Chapter 1's introduction, Chapter 2 provides a literature review of relevant theoretical contributions. Chapter 3 details the methodology used, specifically the research strategy, the design, the data collection and the data analysis approach. Chapter 4 contains the data and analysis. Chapter 5 discusses the overall research conclusions and possible implications of the research, being the distinctive contribution to the improvement of professional practice. References and Appendices conclude this thesis.

Chapter 2: Literature Review

2.1 Introduction

This chapter provides a background to the research literature related to global sourcing. It is structured across four themes and nine topics (see Figure 2.1).

Figure 2.1: Literature Review Structure
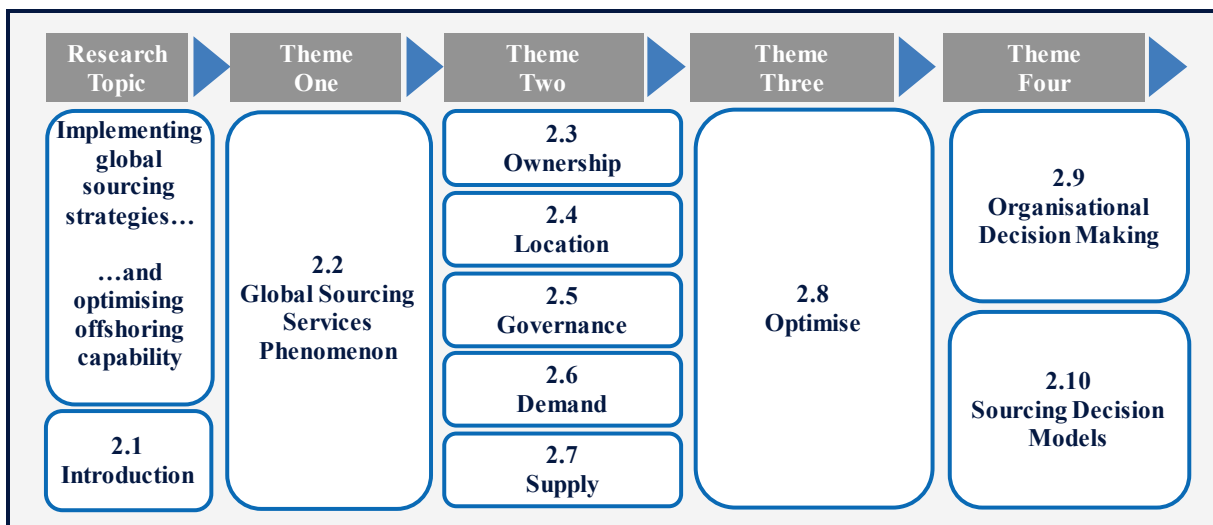
The first theme provides the broad context and informs the scope of the global sourcing phenomenon. The second theme builds on the previous one by reviewing the implementation aspects of global sourcing. A logical next step from a practitioner point of view, once implementation has been undertaken, is to improve; hence, the third theme covers the theory behind optimising global sourcing. The fourth theme examines the literature of decision making and decision-making models as they may relate in a global sourcing context. In essence, this final theme ties together themes two and three regarding the 'how' of implementing and optimising global sourcing.

2.2 Global Sourcing Services Phenomenon

| Research Topic | ▶ | Theme One | ▶ | Theme Two | ▶ | Theme Three | ▶ | Theme Four | ▶ |

2.2 Global Sourcing Services Phenomenon

- Definition of Terms
- Management Theories
- The Evolution of Outsourcing

The sourcing practices of many organisations in the delivery of their products and services have changed significantly over the last decades. Whereas many companies, including 7-Eleven and IBM, used to exhibit highly vertically integrated activities or internally linked chains, recently, many companies of varied scales are leveraging global expertise to design, manufacture, market and supply products and services using distributed value chains (Youngdahl & Ramaswamy 2008). Every year, increasing number of companies turn to other external providers and even to foreign shores for their sourcing activities. By 2006, over 200 firms from the Forbes 2000 list of the world's largest companies, and almost 50 per cent of the Fortune Global 250, had offshored IT and business process activities. In 2009, there were over 120 locations being developed globally to support this expanding phenomenon of offshoring and offshore outsourcing (Oshri, Kotlarsky & Willcocks 2009).

The increase in global outsourcing is supported by expanding revenue. The total revenue of the global outsourcing market was projected at US$373 billion by the end of 2009, an increase of 14.4 per cent over 2008, and despite the global market's overall growth slide from 2008's 19 per cent, the double-digit 14.4 per cent expansion amid a recession still bodes well for the industry (Yu 2009). These figure indicated that offshoring and outsourcing are 'part of a natural ongoing economic revolution notwithstanding a financial crisis' (Yu 2009). Plunkett Research (2012) emphasises three broad areas significant to the growth of outsourcing: 1) logistics, sourcing and distribution services; 2) information technology services, including the creation of software and the management of computer centres; and 3) BPO areas such as call centres, financial transaction processing and human resources (HR) management.

As we can see from this introduction, outsourcing is a significant phenomenon. However, it should be understood as part of the major organisational practice of sourcing. The concept of sourcing is defined here, along with the other terms that are usually associated with it.

2.2.1 Definition of Terms

In an organisational context, sourcing is the process by which work is contracted or delegated to an external or internal entity that could be physically located anywhere. Sourcing encompasses various insourcing and outsourcing arrangements, such as offshore outsourcing, captive offshoring, nearshoring and onshoring (Oshri, Kotlarsky & Willcocks 2009). Sourcing, then, is a management action that includes the choice between alternative organisational arrangements such as those mentioned above. It implies a decision process about whether to perform a business function in-house or externally, or—to put it another way—whether to stay with the current organisational arrangement or to change it (Dibbern 2004).

This chapter focuses on the two types of sourcing: insourcing and outsourcing. In insourcing, internal resources are used to provide a service within an organisation. A sister organisation may be competent at email and web hosting, while another organisation may undertake the payroll function. In this set-up, the workload is passed to the area of the organisation that has demonstrated the best core competency (CC) (McDonald 2010).

In contrast, outsourcing transfers the activities and processes previously conducted internally to an external party (Ellram & Billington 2001). Outsourcing has been labelled and defined in various ways. Terms such as 'outsourcing', 'de-verticalisation', 'disintegration' and 'farming-out' have been used, often interchangeably, in many studies of outsourcing (Globerman & Vining 2006). For the purpose of shared understanding, the term 'outsourcing' is used consistently in this thesis.

Outsourcing can be classified further depending on where business operations are carried out—onshore, nearshore or offshore. Onshore sourcing, in which the service provider is located in the same country as the client, is also known as 'domestic sourcing'. Nearshore

sourcing takes place between countries that share borders or are geographically close (Kehal & Singh 2006). Offshore sourcing is synonymously referred to as 'offshoring' (Hätönen & Eriksson 2009), and refers to situations where the service provider is located in a country separate from the client's country (Kehal & Singh 2006). Offshore outsourcing usually involves knowledge-based and manufacturing activities performed by third-party firms in other nations. The primary purpose is to take advantage of lower wages (labour arbitrage) and operating costs in nations such as China, India, Hungary, the Philippines and Romania (Plunkett Research 2012). A distinct type of offshore sourcing, in which the company owns its offshore operations, is captive offshoring. For example, Microsoft owns and operates significant captive research and development centres in China and elsewhere. The objective with captive offshoring is generally to maintain control while achieving the benefits of labour arbitrage from lower cost geography, and the ability to utilise highly educated local workforces (Plunkett Research 2012).

Recent terminologies reflect the developments in sourcing. For instance, 'backsourcing' indicates taking back in-house assets, activities and skills that were previously outsourced by companies to one or more outside service providers (Hirschheim, Heinzl & Dibbern 2006). 'Bestshore' refers to the 'shore' or location that offers the best 'deal' for the customer (Selig 2008). 'Rightshore' is sourcing at the right place, at the right time, with the right resources. It indicates the flexibility required for distributed delivery projects to leverage existing project execution infrastructure and reduce the overall cost of ownership for the client. It attempts to deliver the same high-quality product as with an onsite project team but at reduced costs and without compromising on the associated risk (Ghag 2008). 'Rightsourcing' refers to the identification, procurement and execution of various services. It is not necessarily the same as the current state of an organisation's outsourced activities after a period of changes, modifications and finetuning. Instead, rightsourcing is a defined strategy from the outset that mixes in-house services, multi-sourced services, shared services and best-of-breed solutions in the most suitable way to optimise benefits for the organisation and provide it with a competitive edge (Cheung 2007).

2.2.2 Management Theories

Theoretical frameworks and model building are two interrelated processes. Dibbern (2004) states that building a theoretical framework is a preliminary state of model building. Theoretical frameworks provide statements about relations among broadly defined concepts within a set of boundary assumptions and constraints, while model building refines the theoretical framework and puts it into concrete terms, so that it can be examined empirically. In the same vein, I present existing management theories to explain my own conceptualised sourcing decision model.

Research into the determinants of sourcing has already reached an advanced state whereby a variety of exploratory studies, and studies that rigorously test hypotheses, already exist. Hence, it is not necessary to explore totally new concepts (Dibbern 2004). As Hätönen and Eriksson (2009) observed, it is not that the theories have become obsolete; instead, perhaps the evolution of the sourcing practice has complicated the theory base. Dibbern (2004) recognised the need to focus on integrating existing theories and systematically evaluating the resulting comprehensive model.

The deductive approach is followed in the review of management theories. First, general views are presented, such as those of Dibbern (2004), Hätönen and Eriksson (2009) and Gottschalk and Solli-Saether (2006a), to discover commonalities among theories, before a detailed discussion of each theory. A matrix is also drawn (see Table 2.7) in order to make a visual presentation of the relatedness of these theories to the key sourcing elements that form the backbone of my framework.

2.2.2.1 Dibbern's Classification of Sourcing Theories

Dibbern (2004) categorises management theories into three: 1) economic, 2) strategic and 3) social/organisational. *Economic* theories focus on some sort of efficiency criteria to coordinate and govern economic agents. They include: TC theory, agency theory and other economic lenses that cover production economies, labour market economics, and more general considerations of costs and financial indices. *Strategic* theories focus on how firms

develop and implement strategies to achieve an organisation's objectives. Reference theories of this type include: resource-based theory (RBT)/resource-based view (RBV) and lenses on overall organisational strategies and strategic analysis. *Social/behavioural* theories take an entirely different focus. Eschewing rigidly rational views of organisations, these theories concentrate on relationships and dependencies that exist between individuals or groups. Reference theories of this type include: innovation diffusion theory, power/politics theory, resource-dependence theory and institutional theory.

2.2.2.2   *Gottschalk and Solli-Saether's Classification of Management Theories*

Gottschalk and Solli-Saether (2006a) identify taxonomies or schools of outsourcing particularly relevant to IT. Their framework is seen as a guide to choices in initiating outsourcing projects according to goals, organisational character, and technological, behavioural or economic biases. Each school represents a particular theoretical orientation and different form of organisational intervention at outsourcing. The schools are not mutually exclusive. This means that two or more schools can sometimes be observed in the same outsourcing arrangement. The theory-based schools of outsourcing include: the TC school, the school of neoclassical economics, the contractual school, the school of CCs, the agency school, the resource-based school, the school of partnership and alliance, the relational exchange school, the stakeholder school, the school of firm boundaries and the school of social exchange. These 11 schools are grouped according to what they recommend for outsourcing. Theories that indicate possibilities for outsourcing include: CC theory, RBT, TC theory, neoclassical economic theory and the theory of firm boundaries, while others indicate limitations, such as: contractual theory, partnership and alliance theory, relational exchange theory, agency theory and stakeholder theory.

2.2.2.3   *Hätönen and Eriksson's Discipline-based Theories*

Hätönen and Eriksson (2009) identify three main streams of sourcing literature: strategic management, supply chain and international business. However, irrespective of the research stream, there exist few prominent RQs that have guided outsourcing research—namely, the

why?, *what?*, *where?* and *how?* of outsourcing. Hätönen and Eriksson view these four key questions as the assumptions underlying the sourcing literature (see Figure 2.2).

Figure 2.2: The Discipline-based Theories on Key Outsourcing Questions
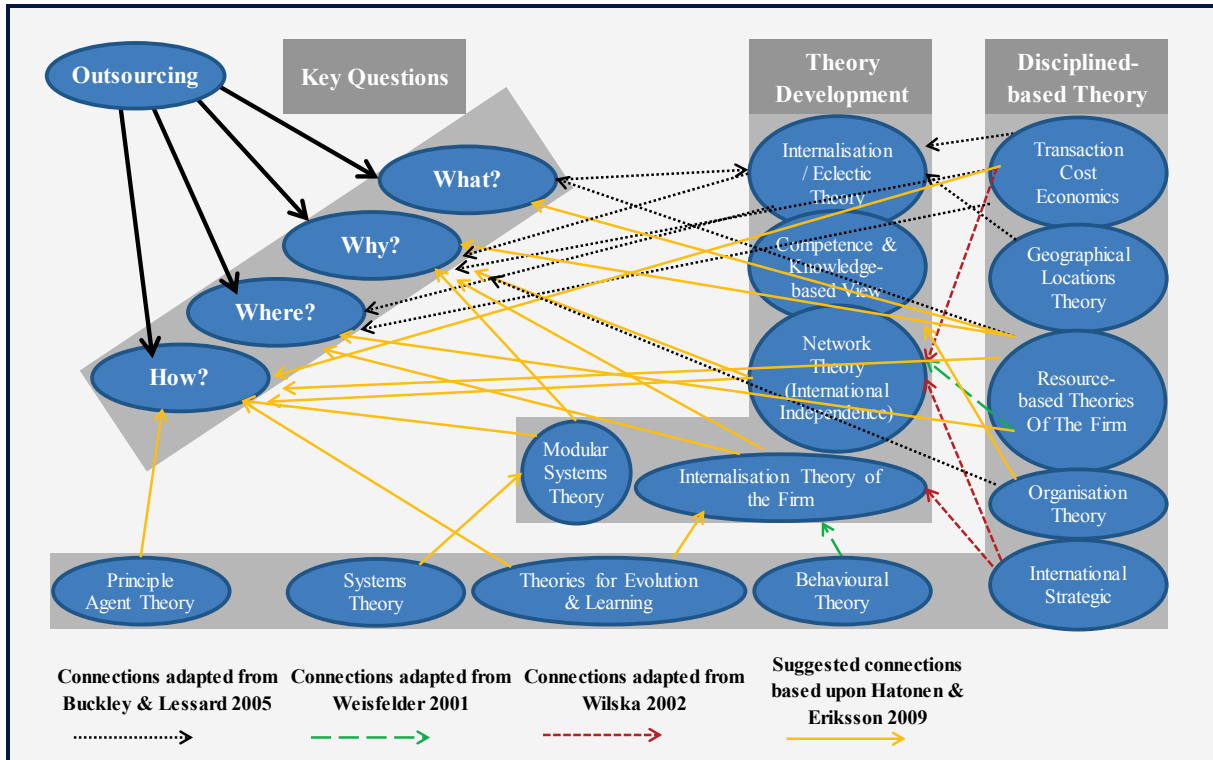
Source: Hätönen & Eriksson (2009)

First, researchers and practitioners are interested in *why* firms choose to 'buy' instead of 'make'. Theories often cited to explain the motives of why organisations source out include TC theory, the RBV and theories of the organisation and the corporation. Beyond the *why* to outsource, the same theoretical lenses (TC and resource-based perspectives) answer the *what* to outsource question. The *where* to outsource is also a highly interesting topic because although the location decision is such an important one, to date, this has been an under-researched topic (Hätönen & Eriksson 2009). The theory most commonly cited to answer this question is the geographical location theory. Lastly, the *how* to outsource question tackles the outsourcing process. Many scholars have included phases such as planning, developing, implementing and evaluating in this process. The *how* question is also connected to the relationship between the outsourcer and the provider. Therefore, the dynamics and management of relationships are important issues for this area of inquiry.

2.2.2.4   A Closer Look at the Management Theories

The 13 management theories most commonly cited in the literature are presented here. They are: neoclassical economic theory, TC theory, theory of firm boundaries, RBT, activity-based theory, stakeholder theory, CC theory, social exchange theory, contractual theory, agency theory, partnership and alliance theory, relational exchange theory and corporate portfolio management (CPM) theory.

2.2.2.4.1 Neoclassical Economic Theory

The neoclassical or 'marginalist' theory emerged after 1873 (Langlois & Robertson 1995). The creators of neoclassical economics were Stanley Jevons, Leon Walras, Maria Edgeworth and Vilfredo Pareto, who are credited with transforming the study of economics into a rigorously mathematical scientific discipline (Nadeau 2008). The neoclassical theory views every business organisation as a production function driven by profit maximisation. Companies offer products and services to the market where they have a cost or production advantage. In turn, they rely on the marketplace where they have disadvantages. This means obtaining functions that are internally deficient or inferior from the marketplace. According to this paradigm, companies will justify their sourcing strategy based on their evaluation of possibilities for production cost savings (Ang & Straub 1998). Using this theory, the question to outsource depends on whether the marketplace can produce products and services at a lower price than internal production (Gottschalk 2007a). In the context of IT outsourcing, firms would outsource IT to attain cost advantages from perceived economies of scale and scope possessed by vendors. When the marketplace can offer production cost savings, companies would be likely to outsource. However, a company will keep its IT-function internally if this has production cost advantages (Gottschalk & Solli-Saether 2006b).

In the light of neoclassical economic theory, outsourcing may proceed in two ways. First, outsourcing may arise through the substitution of external purchases for internal activities. In this way, outsourcing can be viewed as a discontinuation of internal production (whether goods or services) and an initiation of procurement from outside suppliers. Consequently, a

firm reduces its involvement in successive stages of production. This substitution-based outsourcing is otherwise known as vertical disintegration, which is the most commonly understood type of outsourcing (Gottschalk & Solli-Saethers 2006b). Second, outsourcing may arise when a firm purchases goods or services from outside organisations even when those goods or services have not been completed in-house in the past. This type of outsourcing is known as abstention (Gottschalk & Solli-Saethers 2006b). Firms may find that there are vendors who are more capable of executing their ideas. Thus, these firms opt to entrust the development and production of a product or the delivery of services to these particular groups in the market.

While neoclassical theory offers an economic framework by which to understand outsourcing, it might be too simplistic an explanation. Outsourcing is not solely and simply a procurement activity based on cost-saving objectives. It is also a strategic decision (SD). IT outsourcing, for instance, is not only a purchasing decision in which firms purchase elements of their operations. They bring their jobs outside to achieve not only economic but also technological and strategic advantages (Gottschalk & Solli-Saethers 2006b).

2.2.2.4.2   Transaction Cost Theory

Coase who won the 1991 Nobel Prize in Economics, introduced the concept of TCs (Menard 2005) in 1937, although no individual in particular is credited with coining the term. In his seminal work, *The Nature of The Corporation* (Coase 1937), he posed two key questions: 'Why is there any (internal) organisation?' and 'Why is not all production carried on by one big firm?' He implied TCs as the answer to both questions. He argued that firms exist because some transactions internal to firms are less costly than similar transactions carried out in markets. The limits of the corporation depend on cost comparisons at these margins (Williamson & Winter 1993). Coase's ideas form the basis not only of the TC theory but also of the corporation boundaries theory because they set a limit on companies' freedom to conduct their business.

As seen in the TC theory, firms are concerned mainly with the management of transactions in an efficient manner through the least-cost form of governance, under the assumption of

opportunism (Vivek, Banwet & Shankar 2008). Firms are driven to cost savings, including lowering operational costs, controlling costs and freeing resources for more profitable business units (Hätönen 2009). When organisations approach outsourcing for the first time, they are usually guided by this perspective, which aims to reduce costs and improve performance in a particular activity (McIvor 2005). Under conventional outsourcing, performance improvement is operational (or tactical) rather than strategic in nature: the goal is to do the same things a little better, a little faster or a little cheaper but there is less concern with significant and fundamental business change (Kelly & Poole 2006).

In mundane terms, the issue of make-or-buy (Rosen 1993) determines which activities a firm chooses to do for itself and which it procures from others. Using TC theory, the key concepts that must considered in deciding whether to make or buy are of a technical (asset specificity), human (bounded rationality) and behavioural (opportunism) nature (Groenewegen 1996).

The degree of asset specificity required in an exchange significantly affects the level of TCs. Asset specificity refers to the degree to which investments are unique to the contracting relationship and hence possess considerably less value outside the transaction relationship (Joskow 1988). Asset specificity can apply to capital goods, labour and location (O'Looney 1998). For example, in information system (IS) services, transaction-specific assets include fixed assets and specific assets tailored for the use of a specific organisation or user. Fixed assets refer to specialised and dedicated equipment, operating procedures and software systems, while specific assets include idiosyncratic professional skills and specialised knowledge embedded in human assets. The higher the asset specificity, the greater is the necessity to outsource because of the motivation to invest in these assets. For instance, if IS experts possess the asset specificity required by a firm, the firm will outsource the IS jobs to these experts because this costs less than investing in its own employees to learn the skill or buy the equipment (Hirschheim, Heinzl & Dibbern 2009).

Several studies have used the TC perspective in their study of IT outsourcing (e.g., Ang & Straub 1998; Grover et al. 1998; Langfield-Smith and Smith 2003). These studies generally support the thesis of TC economics—that whenever an activity requires specific assets, TCs

(the costs of writing, monitoring and enforcing contracts) are likely to be high. When TCs are high, outsourcing is deemed to be relatively inefficient compared with internal hierarchical administration. Therefore, central to the arguments of TC analysis is the ideal of achieving the economic goal of an efficient boundary in organisation design (Ang & Straub 1998).

2.2.2.4.3 Theory of Firm Boundaries

In his essay on the nature of the corporation (Coase 1937), Coase lays the groundwork for firm boundary theory and consequently for outsourcing. He discusses the relative efficiency of within-firm versus market transactions as a key determining mechanism of firm boundaries, and hints at vertical integration, single versus multiple product lines or industries, and spatial (i.e., geographical) considerations with respect to a 'consuming centre' as important dimensions along which boundaries are defined. Coase's work can be considered some of the earliest literature referring to the possibilities and limitations of outsourcing.

With the introduction of many management theories, the understanding of firm boundaries has taken a multiperspective approach. According to Schilling and Steensma (2002), at the heart of the debate is whether the underlying mechanism determining firm boundaries is a fear of opportunism (as posited by TC economics), a quest for sustainable advantage (as posited by RBV theorists and others), a desire for risk-reducing flexibility or a combination of factors. By bringing in the different perspectives (mentioned earlier in this section), the theory of firm boundaries has become a dynamic framework that explains why and when firms decide to either make or buy. It has made itself the overarching umbrella under which other theories fall. It does not perceive each theory as separate or argue that one theory best explains the management's decision to produce or procure. Rather, it sees these theories as the ribs of the umbrella: each has its own paradigm power to explain certain outsourcing contexts.

2.2.2.4.4 Resource-based Theory

The RBT or RBV that is developing within the field of strategic management has two sets of roots: seminal writings on business strategy by Kenneth Andrews and his colleagues C. Roland Christiansen and Alfred Chandler, among others, and Edith Penrose's 1959 work characterising the corporation as a collection of productive resources (Foss, Knudsen & Montgomery 1995). The central tenet of RBT is that unique organisational resources of both tangible and intangible nature are the real source of competitive advantage (Peppard, Lambert & Edwards 2000).

A firm's performance depends fundamentally on its ability to have a distinctive, sustainable competitive advantage, which derives from the possession of firm-specific resources. Specifically, these resources are characterised as valuable, rare, inimitable, non-substitutable and not readily obtainable in factor markets. An organisation's physical assets, infrastructure and workforce that satisfy these criteria qualify as resources. Hence, this theory rests on two key points: first, resources are determinants of firm performance, and second, resources must be rare, valuable, difficult to imitate and non-substitutable by other rare resources. When the latter occurs, a competitive advantage has been entered (Priem & Butler 2001).

Under RBT, resource management is given primary emphasis. Organisations move from searching for efficiencies and improvements in a single process or activity to reconfiguring entire processes in order to obtain greater value across the organisation. Firms with this orientation focus on responding to changes in the external business environment (McIvor 2005). In reaction to market forces, firms form alliances to strengthen their collection of tangible and intangible resources. Differing from TC theory and drawing close to CC theory, RBT views firms as creating their CCs through capabilities rather than by avoiding negative market conditions (Prahalad & Hamel 1990). Further, it sees them as driven by innovation and responsiveness to customer needs rather than by cost reduction.

2.2.2.4.5 Activity-based Theory

Activity-based theory is built upon a RBV. While RBT perceives the corporation as a bundle of resources, an activity-based view perceives it as a bundle of activities. RBT focuses on explaining why some firms create more value than others by examining differences in resource stocks. In contrast, RBT places little or no emphasis on resource flows. In particular, the role of the production process in transforming inputs into end products (other than having the latent ability to transform) is under-conceptualised in RBT. In contrast, activity-based theory emphasises the flow of resources as consequences of activities. It highlights the impact of the corporation's production function on creating value, while placing little attention on differences in resource stocks. It assumes that all necessary inputs (resources) can be acquired from the market (Gottschalk 2006).

Activity-based theory hypothesises that the only permanent modus operandi enabling an organisation to reduce costs is the elimination of unnecessary activities. The traditional approach of slashing expenses solely on the basis of headcount—rightsizing—usually results in temporary relief only, cosmetically displayed in financial statements. If the headcount is reduced without a concurrent elimination of activities, an operational 'black hole' emerges as fewer people attempt to carry out the same amount of work (Forrest 1995). Activity-based management (ABM) evolved from this perspective. Historically, ABM emerged from the activity-based cost (ABC) systems of the mid-1980s to meet the need for accurate information about the cost of resource demands by individual products, services, customers and channels. ABC systems enabled indirect and support expenses to be driven first to activities and processes, and then to products, services and customers. The systems gave managers a clearer picture of the economics of their operations. This clearer picture led naturally to ABM, which refers to the entire set of actions that can be taken, on a better-informed basis, with ABC information. ABM enables the organisation to accomplish its outcomes with fewer demands on organisational resources; that is, the organisation achieves the same outcomes at a lower cost. Two complementary applications help ABM achieve its objectives: operational and strategic ABM (Kaplan & Cooper 1998).

Operational ABM means 'doing things right', or working to improve efficiency, lower costs and enhance asset utilisation. Operational ABM aims to increase the capacity of resources (equipment and people) by reducing machine downtime, improving—or even eliminating entirely—faulty activities and processes, and increasing the efficiency of the organisation's resources. Operational ABM attempts to either increase capacity or lower spending (i.e., reduce the cost driver rates of activities), so that fewer physical, human and working capital resources are required to generate revenues. Operational ABM is measured by reduced costs, higher revenues (through better resource utilisation), and cost avoidance (the expanded capacity of existing resources prevents the need for additional investments in capital and people) (Kaplan & Cooper 1998).

Strategic application of ABM means 'doing the right things'. It involves shifting resources away from unprofitable applications by reducing the cost driver quantities demanded by unprofitable activities. The ABC model signals when individual products, services and/or customers appear to be highly profitable. This information can be used by marketing and sales experts to explore whether demand for those highly profitable products, services and/or customers can be expanded to generate incremental revenues that exceed their incremental costs. Managers can then divert the activity towards more profitable outcomes. They can also use ABC information to choose suppliers that are low-cost, not just low-price (Kaplan & Cooper 1998).

Based on this discussion of the two applications of ABM, outsourcing can be considered an ABM strategy. The organisation's desire to manage its operations efficiently, optimally and inexpensively encourages it to procure services and resources from outside when external providers offer better and cost-effective management for some of the organisation's activities. In so doing, the organisation directs its activities from the least productive to those that generate a high income.

2.2.2.4.6 Stakeholder Theory

The stakeholder theory of the corporation, in recognisable modern form, was first used in 1963 at the Stanford Research Institute in its internal memo. It received active academic

interest and managerial acceptance following Freeman's seminal 1984 book (Windsor 2002) entitled *Strategic management: a stakeholder approach*. Stakeholder theory is an instrumental theory of the corporation that integrates both the RBV and the market-based views, while adding a socio-political flavour (ICON Group 2008). Freeman (2010) described a stakeholder as any group or individual who can affect, or is affected by, the achievement of a corporation's purpose. Lacity and Willcocks (2000) viewed stakeholders as groups of people with aligned interests. Examples of stakeholders are employees, customers, suppliers, stockholders, banks, environmentalists, governments and other groups who can help or hurt the corporation (Gottschalk & Solli-Saethers 2006b). Post, Preston and Sachs (2002) provided a useful categorisation of a number of these stakeholders, namely: *resource-based stakeholders, industry-structure stakeholders* and *socio-political stakeholders*. Resource-based stakeholders are those that have a voluntary and close relationship with the corporation because they supply it with one or more resources, such as capital and labour. They include shareholders and other financial capital suppliers, workers, suppliers and customers. Most stakeholder theorists group these stakeholders as the primary stakeholder of the organisation. Industry-structure stakeholders include joint venture partners and alliances, supply-chain associates and regulatory authorities. The social-political arena comprises local communities and citizens' private organisations and the government (Hage 2007).

Stakeholder theory is a theory of organisational management and ethics. All theories of strategic management have some moral content, though it is often implicit. In this case, moral content means that the subject matter of the theories comprises inherently moral topics (i.e., the theories are not amoral). Stakeholder theory addresses morals and values explicitly as a central feature of managing organisations (Phillips, Freeman & Wicks 2003). It recognises the corporations' moral responsibilities to stakeholders and advocates these four principles in doing business: 1) honouring agreements, 2) avoiding lying, 3) respecting the autonomy of others, and 4) avoiding harm to others. Thus, this theory establishes economic relationships within a general context of moral management (Gottschalk & Solli-Saethers 2006a).

In the context of outsourcing, stakeholder theory provides a good theoretical framework on which to understand the wider network of business relationships that span geographical distance. By being able to identify their stakeholders in a hierarchy of importance, the organisation can manage its business in ways that best serve these stakeholders.

2.2.2.4.7 Theory of Core Competencies

Prahalad and Hamel (1990) were among the early proponents of CC theory. They defined CCs as the collective learning of the organisation, especially how to coordinate diverse production skills and integrate multiple streams of technologies. Aside from that description, CCs refer to work organisation and the delivery of value. Although some authors indicate characteristics of CCs, most of the literature on this subject seems tautological—core equals key, critical or fundamental (Gottschalk 2006).

To identify an organisation's competence, Prahalad and Hamel (1990) suggested reflecting on three simple criteria. First, a CC should provide potential access to a wide variety of markets. Second, a CC should make a significant contribution to the perceived customer benefits of the end product. Third, a CC should be difficult to imitate.

When an organisation is able to identify its CC (technology, governance, processes and collective learning), it results in the strengthening of its core products. Core products are the physical embodiments of one or more CCs. They are the components or sub-assemblies that actually contribute to the value of the end products. By focusing on the core products, companies distinguish between the brand share they achieve in end product markets. Prahalad and Hamel (1990) advised that companies must be able to distinguish their CCs, core products and end products to understand how global competition is played out at different levels.

Drejer (2002) believed that the CC paradigm is important in the face of fierce global competition. Beyond the similar and formidable standards of many organisations such as ensuring product cost, quality and timeliness, and others, Drejer suggested that managers need to look at the internal competencies of their corporations to secure long-term survival.

Diversified corporations must perceive themselves as more than just a portfolio of products and a portfolio of businesses. Most importantly, they must see themselves as a portfolio of competencies. US companies do not lack the technical resources to build competencies, but their top management often lacks the vision to build them as well as the administrative means to assemble resources spread across multiple businesses. A shift commitment to CCs will inevitably influence patterns of diversification, skill deployment, resource-allocation priorities, and approaches to alliances and outsourcing (Prahalad & Hamel 1990).

Based on this notion, a company's decision to source or not hinges on the degree of criticality of a specific component or business activity to the organisation. Activities that are not CCs are considered the best candidate for outsourcing with best-in-world suppliers. At the extreme, a company can strip itself down to the essentials necessary to deliver to customers the greatest possible value from its core skills, while outsourcing as much of the rest as possible. By limiting or shedding activities that provide no strategic advantage, a company can increase the value it delivers to both customers and shareholders and, in the process, lower its costs and investments (Ang & Straub 1998). Some non-core activities may have to be retained in-house if they are part of a defensive posture to protect competitive advantage.

2.2.2.4.8 Social Exchange Theory

Social exchange theory can be traced to one of the oldest theories of social behaviour, which assumes that any interaction between individuals is an exchange of resources. Resources being exchanged are not only tangible, such as goods or money, but also intangible, such as social amenities or friendship. Social exchange theory believes that parties enter into and maintain relationships with the expectation that doing so will be rewarding (Gottschalk 2006a).

Social exchange theory postulates these four foundational premises: 1) exchange interactions result in economic and/or social outcomes; 2) these outcomes are compared over time to other exchange alternatives to determine dependence on the exchange relationship; 3) positive outcomes over time increase a firm's trust in their trading partner(s)

and their commitment to the exchange relationship; and 4) positive exchange interactions over time produce relational exchange norms that govern the exchange relationship (Gottschalk 2006a).

The social exchange occurring between firms can be understood through their inter-organisational governance. In the context of a social structure, inter-organisational governance regards firms as interdependent and relies on reciprocation. Trust and equity are key variables in this approach. Self-interest is best maximised by the returns available through cooperation in a relationship (Blau 1964). This theoretical perspective allows firms to see the larger social network as it moves analysis of inter-firm relationships from the focal firm to the dyad or network level in an effort to understand inter-organisational relationships. Networks of social relationships are seen as delivering better services and products than economic forms of organisation since actors in cooperation can collaborate to compete and thus maximise resources and activities. The method of governance using social exchange is relational contracting, based on a bilateral mechanism of coordination (Donaldson & O'Toole 2007).

In an outsourcing relationship, especially an offshore agreement, commitment is important to make the contract work; it is the psychological link that ties business partners together. To commit to the partnership, partners must believe that an ongoing relationship with one another is important enough to warrant maximum efforts to maintain it; that is, the committed party believes the relationship is worth working on to ensure that it endures indefinitely. Commitment can be considered the input variable, while the outcome in a social exchange relationship, or the dependent variable, is measured by the satisfaction level (Gottschalk 2006a). However, the continued partnership creates a unique cycle in which the two variables would exchange places, with satisfaction becoming the antecedent that affects the partners' future commitment.

2.2.2.4.9 Contractual Theory

The contract is an appropriate metaphor for the relationships between the corporation and its stakeholders (Hage 2007). Contracts are indispensable instruments that ensure the

smooth and orderly dispensation of roles in an organisation. In particular, contracts need to be in place in outsourcing alliances, given their unique and risk-high nature. As described by Gottschalk (2007b), an outsourcing contract provides a legally bound, institutional framework that draws up each party's rights, duties and responsibilities, and specifies the goals, policies and strategies underlying the arrangement. Moreover, every outsourcing contract serves to facilitate exchange while preventing opportunism. When contractual arrangements are made appropriately, opportunism is limited, moral hazards are prevented from affecting a cooperative relationship and each party's proprietary knowledge is protected.

Contracts have been defined in various terms, such as forms of exchanges, transactions and the delegation of decision-making authority, as well as formal legal documents (Hage 2007). They vary greatly in terms of degree of formality and extent of specificity as well as frequency. Some contracts are relatively vague and informal, and do not require documents to define the relationship (such as between a firm and its community). In an arrangement like this, it is difficult to make one party accountable. In contrast, other contracts, such as those drafted for business (for example, between a firm and its employees), can be highly formal and specific. In this type of arrangement, each party is accountable and liable to its end of the bargain. Another characteristic of contracts is that they must be clear in terms of frequency. Some contracts are enforced continuously, such as between the Corporation and its employees, while other contracts have to be renewed each working period or need to be specified, as an isolated part of a vendor may rarely have any contract with the Corporation (Hage 2007).

Legal experts have always emphasised the need for a comprehensive contract, not only because it affects people's livelihoods, but because it becomes a reference point specifying how the client and vendor relate (Kern & Willcocks 2000). Being instruments, contracts are not inherently perfect, so they require careful study to make sure important issues are properly taken up. For instance, in IT outsourcing, key contractual issues include service level, transfer of assets, staffing, pricing and payment, warranty and liability, dispute resolution mechanisms, termination, intellectual property matters and information security (Gottschalk 2007b).

2.2.2.4.10 Agency Theory

Traditional agency theory (in its narrowest definition) focuses on the relationship between shareholders, who are an organisation's principals, and the top management team members, who are hired as the agents. The principals want the organisation, particularly the agents, to create wealth. Shareholders or principals vary in how they would like to achieve this goal. The first type of shareholders focuses on a steady annual profit combined with steady increasing stock prices. The second type, like private equity houses, is interested in the company's short-term gains, with more steeply rising stock prices. In contrast, the agent wants to do as little as possible for their salary. When the agent makes an effort, they are likely to pursue short-term gains only for the sake of performance evaluation, which they submit on a regular basis. To monitor the agent's actions, management conducts auditing and reviewing procedures. Further, to align the agent's interest with the management's, they are presented with performance-based reward schemes that may include stock options (Hage 2007).

Agency theory views the corporation as the nexus of a set of contracting relationships between principals and agents, which is the main idea of contractual theory. The corporation is not regarded as an individual entity, but is understood based on its inside and outside relationships. For example, management has contracts with its employees, suppliers and customers (and maybe with other actors within the supply chain) to be able to manufacture and sell their goods. While agency theory recognises these various relationships among stakeholders, it does not aim primarily to explain why and when to enter into these relationships but how to design the resulting contractual relationships in an efficient way (Jensen & Meckling 1976).

Agency theory is similar to TC theory as they both regard cost as the most important considerations of management decisions. Agency theory posits that the efficiency criterion in the organisation is measured by agency costs. These costs emerge as the principal allocates decision rights to the agent. Assuming that the agent has information advantages over the principal, the principal sets incentives in order to assure that the agent behaves in her/his interest. When calculating the magnitude of these incentives, the anticipated agency

costs are considered. These are the sum of monitoring and bonding costs, including issues such as residual costs (Jensen & Meckling 1976).

Parallelism can be inferred between traditional agency theory and stakeholder theory regarding the governance of stakeholder relationships, as both can broaden the understanding of this principal–agent problem (Dibbern 2004). Hage (2007) commented that when studying the relationship of these stakeholders within an organisation based on the metaphorical use of the contracts and of the corporation as a nexus of contracts, we see agency problems arise in the relationship between stakeholders and organisations, even when accepting differences in their legal status. By distinguishing the roles and goals of the principals (owners) and agent (manager), agency theory studies the way in which the agency deals with problems arising from a natural consequence of the relationship between these stakeholders. Also, in an attempt to respond to relational problems, activities of monitoring and bonding are employed. These activities, combined with the residual loss, will lead to a certain amount of agency costs. This in turn leads to the economic question of how these costs can be minimised to benefit all.

Agency theory has an important application to sourcing because the latter involves different kinds of principal–agent relationship. One example is the relationship that exists between buyer and provider. The focus of agency theory is on developing the most efficient contract governing the principal–agent relationship, assuming self-interested people and corporations. Some agency theorists also look into the most efficient contract to use under different levels of outcome uncertainty, risk aversion, information and other variables (Logan 2000).

2.2.2.4.11 Partnership and Alliance Theory

A strategic alliance, or partnership, is defined as a planned collaboration among multiple firms for conducting business activity together for purposes of mutual benefit. Alliances are contract-driven and arise in many different forms: suppliers with manufacturers, sharing intellectual property in research and development, and integrated marketing efforts, among others. When two organisations—A and B—unite, they form C. Although the C

organisation created by A and B is typically not a standalone organisation, a strategic alliance, once formed, can be considered an organisation in its own right, having its own goals, strategies, leadership style and so on. Usually, the goals for C are spelt out in the contractual agreement between the parent organisations. Also, C is accorded joint oversight with a policy committee made up of members of the parent organisations. In addition, the alliance's leadership (i.e., top management team) is typically shared by representatives from each parent company. C organisation can be described as implicit and highly reliant as it has very few resources of its own and little autonomy from A and B. People, leaders, infrastructure and other organisational components of C are drawn from the parent organisations and typically remain there as long as the partnership is in effect (Burton, DeSanctis & Obel 2006).

Contracts play a crucial role in an alliance. Hancox and Hackney (2000) found that few organisations claim to be in a strategic partnership with their IT suppliers. In instances where the vendor had greater experience in negotiation, the contract was more likely to favour the vendor. In a study by Hancox and Hackney (2000), most respondents used the vendor's standard contract as a basis for their outsourcing agreement and most did not use external technical or legal advice. It was found that 80 per cent of clients wished that they had more tightly defined contracts. Clients with loose contracts were more likely to regard outsourcing as a failure. It should also be noted that the client's view of IT partly influences its relationship with the vendor, such that firms regarding IT as a CC capability are more likely to look upon outsourcing as an alliance. Clients who regard IT as a core are also more likely to be satisfied with the outsourcing arrangements because they negotiate from a more knowledgeable position.

Hancox and Hackney (2000) interviewed IT managers to validate partnership theory in IT outsourcing. In contrast to assurances found in vendors' marketing literature, most clients were sceptical about partnership. If partnership did exist, it was usually as a collection of some of the intangibles mentioned earlier, rather than as a formalised arrangement. Partnership was reported to be in the area of systems development, where vendors needed to have a greater understanding of the organisation, rather than in outsourcing of operations and IT infrastructure support. There seemed to be no correlation between those

organisations regarding IT as strategic and those regarding relationships with vendors as partnerships.

2.2.2.4.12 Relational Exchange Theory

Relational exchange theory emphasises the human side of organisations. According to this theory, the key to determining how efficiently contract governance is carried out lies in the relational norms between the transactors (Artz & Brush 2000). The term 'transactors' could be inferred to mean the stakeholders that other theories are referring to or, more specifically, the principals and agents who are bound by the contract.

Unlike other theories, which perceive the management of activities and resources as cost-cutting measures, relational exchange theory views relational governance as a specific means to accomplishing this goal. It posits that the degree to which transactors engage in joint planning, or the extent of inter-firm information sharing, determine the costs associated with periodically renegotiating contracts. Transactors with established behavioural norms have the advantage of an uncomplicated and smooth renegotiation process, and consequently incur lower ex-post bargaining costs than those who have not (Artz & Brush 2000).

Artz and Brush (2000) examined supplier relationships that were governed by relational contracts and found support for relational exchange theory. By altering the behavioural orientation of the alliance, relational norms lowered exchange costs. In measuring relational norms, they investigated such elements as collaboration, continuity expectations and communication strategies. Collaboration was highlighted because it affects the other elements. Collaboration is defined as the willingness of the client and vendor to work together to create a positive exchange relationship and improve alliance performance (Artz and Brush 2000). Collaborative actions enhance the client–vendor relationship as a whole while curtailing opportunistic behaviours. For example, joint planning and forecasting allow both the customer and the supplier to participate in determining roles and responsibilities, and fostering mutually beneficial expectations (Gottschalk 2006b).

Cooperation is blocked, and relational equilibrium disturbed, when one firm is perceived as pursuing its own interests to the detriment of the other firm. When one firm attempts to coerce another in order to gain a more favourable negotiation outcome, that firm is likely to be viewed by its alliance partner as exploitative rather than accommodative, and retaliatory behaviour often results. In contrast, non-coercive strategies accomplish the immediate goal through persuasion rather than demand. Non-coercive communications focus on beliefs about business issues and involve little direct pressure. An example is a partner who readily complies with the request or recommendation of another party because he/she can see the benefits to be gained by collaborating (Gottschalk 2006b).

2.2.2.4.13 Portfolio Management Theory

Portfolio management can be considered an evolving concept. The concept can be derived from Gewald and Helbig's (2006) notion of functional planning. Another literature related to the concept is the common process model (de Jong et al. 2010); although it does not specify functional planning, it specifies portfolio management and standards as a process on a strategic level. Authors de Jong et al. (2010) stated that this process is comparable to functional planning. In short, functional planning exhibits several characteristics of processes at a strategic level; it designs the functional roadmap, which sets the direction of the firm. Defining the desired functionalities is also intertwined with the core and identity of the organisation, which is a strategic characteristic (de Jong et al. 2010).

Authors de Jong et al. (2010) decided to move functional planning to a strategic level and rename it IT portfolio management within the context of their study. IT portfolio management does not only include application portfolio management but also service portfolio management. The goal is to design and align services and functionality. In practice, the output of this process is the strategy for the service catalogue ('which services do we want to deliver and how?') and the application landscape ('which functionalities/applications do we want to deliver and how?'). Moreover, this process focuses on translating business needs into the IT strategy (de Jong et al. 2010).

As noted above, several terms are used to label the concept of portfolio management, including functional planning, and project and portfolio management. However, it is increasingly becoming known as corporate portfolio management or CPM, perhaps because it is now widely applied to other business processes. CPM brings into focus the goal of defining a portfolio strategy for discretionary investments. It is an organisational capability and strategy that considers finite resource availability in a manner that enables a company to optimise its portfolio across the myriad investment opportunities available to it (Sanwal 2007). CPM addresses the capital allocation and investment decisions faced by senior management today. It emerged from the recognition that the most critical determinant of an organisation's long-term value is its ability to optimally allocate limited capital among large projects, new markets, and merger and acquisition (MandA) decisions. Successful organisations make large investment and capital allocation decisions using a robust approach that analyses each option's 'risk-return trade-off' and reflects each option's overall impact on the existing portfolio. In contrast, poor investment can result in share-price depression, lost market share, departure of key leadership and negative media attention (Wyman 2007). CPM aims to optimise decision making in research allocation and in making investments.

Comparing CPM to current risk-based decision-making practices, Wyman (2007) stated that CPM provides the following benefits: increased decision-making transparency through a more consistent evaluation of all business units and options; a consistent approach to risk assessment; a systematic way of including different views of risk in the decision-making process; a clear enhancement of the due diligence process; better understanding of value creation among new investment opportunities; consideration of the correlation and diversification effects of the organisation's different business and investment options; guidance for strategic planning (e.g., identification of where the company needs to move to improve its risk-return position); and consideration of qualitative and non-financial implications. The CPM approach is said to be already within an organisation's capability. The key is to ensure that management understands and continually evaluates the risk-return position of both the organisation's assets and new investment opportunities to create the most value in the long term.

2.2.2.4.14 Synthesis of the Management Theories

This section began with an explanation of why management theories are emphasised in this study. Management theories are good references for model building. They provide the necessary background and context for the sourcing concepts. As a result, they guide in the refinement of the subsequent model/s. Since research into management theories is already at an advanced level, the deductive approach was used in my literature review. Using this approach, I presented the general views of the many authors, first through the taxonomies of management theories that they have created. Dibbern's (2004) three classifications of management theories are economic, strategic and organisational/social. Gottschalk and Solli-Saether (2006b) indicate the possibilities and limitations of 11 sourcing theories. Hätönen and Eriksson's (2009) categories are based on the four key sourcing questions of what?, why?, where? and how?. Next, I identified and discussed in detail 13 theories from these three taxonomies, namely, neoclassical economic theory, TC theory, theory of firm boundaries, RBT, activity-based theory, stakeholder theory, CC theory, social exchange theory, contractual theory, agency theory, partnership and alliance theory, relational exchange theory and CPM theory.

From the discussion of these management theories, it can be noted that many concepts are not unique to any single view but are shared by different management theories. This point is made particularly clear in the studies by Dibberns (2004), Gottschalk and Solli-Saether (2006b), and Hätönen and Eriksson (2009), which all took place within a five-year period. For instance, proper allocation of resources is regarded by many theories (e.g., RBT, CC theory, theory of firm boundaries and portfolio theory) as a significant factor in sourcing, but each theory places a different emphasis on the concept. In the case of TC theory, there is not necessarily a straightforward answer to the question 'Why do firms outsource or offshore work?' for cost reasons. Nor is the answer simply down to CCs, where services or functions are viewed as 'non-core'. Further, another reason why a firm might outsource could be to gain initial experience or exposure to new and emerging capabilities and competencies, which in time these same firms may consider bringing back in-house.

The management theories that provide the background and context to sourcing concepts do not follow in any particular sequence. For example, Hätönen and Eriksson's (2009) categories of key sourcing questions of 'what?', 'why?', 'where?' and 'how?', do not infer that a firm considers the 'what?' question first, followed by the 'why?', 'where?' and 'how?' questions. This sequence, if it is one at all, is dependent on the firm's overall strategies.

2.2.3   The Evolution of Outsourcing

Pastin and Harrison (1987) stated that the outsourcing of manufacturing functions would create a new form of organisation that they termed the 'hollow corporation'. Under these sourcing strategies and supply chains, outsourcing prompted firms to abandon internal production bases and rely on others for the manufacturing, distribution and other business support functions. Pastin and Harrison (1987) also noted that such an organisational form would require considerable changes in the way firms were managed, causing substantial (and sometimes unpleasant) social and economic changes in the manufacturing industries. Ang and Straub (2006) described the hollowing out of the corporation as occurring when organisations began to relinquish internal control and depend more heavily on external service providers. James Brian Quinn of Dartmouth College, a business visionary, regarded outsourcing as one of the greatest organisational and industrial structural shifts of the century (Corbett 2004). As for the outsourcing of services, if taken to the extreme, it has the potential to leave a business with only its board of directors and a unique business plan (Kelly & Poole 2006).

Early in this chapter, a significant question was asked: How have we come to this point? To reach an understanding of the current status of outsourcing, as well as the path along which it is heading, it is important to recognise the initial impetus behind the phenomenon. Historically, most outsourcing took place in manufacturing industries (Globerman & Vining 2006). Carmel and Tjia (2009) indicated that these manufacturing industries have evolved since World War II to include steel, shipbuilding, automobiles, manufacturing, textiles and apparel, consumer electronics, tool making, semiconductors and others.

As the practice of outsourcing continues to grow in importance, its nature and focus is evolving. It is now spreading rapidly within service industries. It is also becoming increasingly cross-national and global. In the United Kingdom (UK) in the early 1980s, the mix of business included heavy industry and manufacturing, but today the services sector dominates the economy, with raw materials and products largely imported from lower cost countries. In the US, the transfer of non-core operations to third-party specialists who then supply services more effectively at a lower cost has become a common trend within the services sector, creating new business models. Catering, cleaning and switchboards are now rarely managed in-house (Kelly & Poole 2006). This globalisation of services is predicted to overtake its manufacturing-based cousin in scale and scope; hence, this development is called the 'services shift' (Kennedy & Sharma 2009).

The development of outsourcing can be summarised in three broad and somewhat overlapping yet distinct phases: the era of the Big Bang, the era of the Bandwagon and the era of Barrier-less Organisations (Hätönen & Eriksson 2009; see Figure 2.3). The first phase of outsourcing, the era of the Big Bang, is also known as 'traditional outsourcing'. It occurred in the 1980s, when organisations first began outsourcing customer contact call centres and other service-oriented operations. During this first wave of outsourcing, which lasted approximately until the end of the 1980s, companies outsourced non-core business processes, principally to cut operational costs, by operating domestically through arms-length relationships.

The second phase of outsourcing emerged from the positive experiences of early outsourcing cases, which led other companies to jump on the bandwagon. The era of the Bandwagon is also known as 'strategic outsourcing'. In contrast to traditional outsourcing, more strategic functions were now being outsourced and arm's-length management of the relations became insufficient. As a result, firms began building closer relationships with their vendors. Although the knowledge base and resources were primarily sourced from domestic markets, by the early 1990s, firms had already begun leveraging the international resource pools. By the turn of the millennium, with the influence of Year 2000 problem (also known as the Y2K problem, the Millennium bug, the Y2K bug, or simply Y2K) and the crash of technology stocks in 2001/2002 (Lewin & Peeters 2006), the popularity of

outsourcing meant that it had now become the norm rather than the exception. The global resource pool, falling interaction costs and improved ITs and communication links had become available to all companies, regardless of their industry, geographical location or the size of the company.

These developments gave rise to the current phase in outsourcing history—the era of Barrier-less Organisations. Also known as 'transformational outsourcing', the aim of this phase is to create radical new business models that can generate increased competitiveness for firms and become 'game changers' in their respective industries. Transformational outsourcing is about changing the paradigm, such as adopting adaptive enterprises (Hätönen & Eriksson 2009). Companies adopting this model hope to transform business processes and technology infrastructure to reduce costs, improve services and empower employees (Sparrow 2003).

Willcocks and Lacity (2012) identified *nine pressures* or challenges that the outsourcing industry is beginning to experience and that are likely to affect managers, decision making and future challenges as firms attempt to manage effective global sourcing strategies. The first of these nine pressures is what the authors define as the 'India factor'. They see the large Indian heritage outsourcing firms such as Infosys, TCS and HCL as examples, as they move up the value chain, introduce new operating models such as bestshoring (a combination of client onsite, client onshore and offshore delivery), and acquire and/or move into new sectors. The authors claimed that the recent global downturn makes acquisitions by these cashed-up firms more likely.

The second pressure, the 'Multi-Tower Trend, is where the larger outsourcing firms offer 'multi-tower' business and technology services within one discrete corporate domain, such as HR, finance or administration.

The third pressure is 'Multi-sourcing and Partnering', where firms are shifting from single vendor to multi-vendor relationships to de-risk and minimise scale. However, when client firms introduce multi-vendor strategies, the complexity of governance also can increase.

The fourth pressure is 'Multiple Alternative Locations', where outsourcing firms are seeking new geographies. Improving supply from over 120 increasingly ambitious centres globally is not an uncommon challenge for some of these outsourcing firms, while at the same time new geographies become more attractive (see Table 2.1).

The fifth pressure the authors describe as 'Cost Plus Innovation—The Rising Demand'. This is where world economic and business pressures exert continuing downward pressures on costs, but also upward pressures on innovation as part of this new world following the 2012–13 recessionary climate.

The sixth pressure is the 'Unending Search for (a) new sources of skill, (b) better labour models, (c) at more attractive prices'. Here, firms are moving beyond time and material commercial contracts to more sophisticated instruments that include outcome-based and managed services. This sophistication is also introducing pressure on the internal capabilities of the client and outsourcing firms.

The seventh pressure is described as 'More Mature, More Demanding Clients', which translates to clients seeking much more than upfront cost savings and 'green' service levels. In this paradigm, clients increasingly expect a cost, service and innovation package that considers longer term results rather than one-time, big-bang 'transformational' efforts.

The eighth pressure, 'Clients Developing Global Sourcing Strategies', speaks in many ways to my study. Regional, multinational and global firms are now searching dynamically for cost and service reductions while mitigating country risks via multiple locations, standardised infrastructures and back-office services.

Willcocks and Lacity (2012) defined the final pressure as 'Large Provider Location Strategy', where outsourcing firms are seeking multiple offshore locations for existing clients and new markets. This is being driven not only by the pressure to mitigate location risks, but also to access talent and optimise cost-service performance. This is resulting in greater utilisation of new geographies such as South Africa and Sri Lanka as well as growth

in tier-II cities in India that, in the past, would not have been considered from a previous list that would of included the cities of Mumbai, Bangalore and Delhi.

The evolution of outsourcing continues. In his book *The future* (Gore 2013), former US Vice President and Noble Prize Laureate Al Gore defined a number of critical drivers of global change in the decades to come. The first, 'Earth Inc', speaks of outsourcing as being a driver of massive change that is migrating labour from wealthy economies such as the US, Europe and Australia to emerging and developing economies like India and even nations such as Kenya, which have large populations and lower wages. It seems that, from Gore's perspective at least, global sourcing is here for some time yet.

Figure 2.3: A Review of the Outsourcing Research

A Review Of The Outsourcing Research

Phase	Big Bang	Bandwagon	Barrier-less Organisations	???
Research Questions	Why? How?	What? Where?		When?
Applied Theories	Transaction Cost Theory, Resource Internalisation Theory	Based View, Relational View, Location, Modular	Organisational Theories, Theory Systems Theory, Life-cycle Approach, Institutional Theory's, Theory of Evolution & Learning, Portfolio
1950	**1980**	**1990**	**2000**	**2007**
Research Interest	Make v Buy?, Core Competencies, Make, Buy or Ally?	v Outsourcing?, Modularity, Resource, Virtual Outsource	Acquisition, Organising, Location, Institutional, Incremental	Portfolio Management, Effects, Outsourcing, Outsourcing Timing
Outsourcing Definition	**Transactional** Turning activities to outside vendors in areas in which using the market mechanisms results in lower transaction costs	**Resource Seeking** Reliance on external sources for manufacturing components and other value adding activities	**Transformational** Turning over all or part of an organisational activity to an outside vendor	**Developmental** Turning over the management, development and continuous improvement of internal services and processes to an outside vendor

Source: Hätönen & Eriksson (2009)

2.3 Global Sourcing 'Make versus Buy'—Ownership

2.3 Ownership

- The Make or Buy Decision
- The Evolving Business Focus: Theories and Reality
- Methodology in the Strategy
- Core Versus Non-Core Functions
- Risk Assessment

In this era of barrier-less and highly interdependent organisations, outsourcing may be a strategic necessity—an 'offshore or die' decision in the face of a hypercompetitive environment in which faster and faster cycles of competitive responses and reactions are required in order to remain financially viable and cost competitive (Carmel & Tjia 2009).

Outsourcing must be based on a sound strategic plan. Organisations must have a predetermined 'sourcing strategy', which is defined as a set or portfolio of plans, directives and decisions ('sourcing action plans') that define and integrate internally and externally the services required to fulfil an enterprise's business strategy. The challenge of a sourcing strategy is to continuously deliver to the organisation the exact combination of internal and external resources and services that are necessary to support business objectives (Cohen & Young 2006). This involves the make-or-buy decision, identification and selection of suppliers, managing and improving supplier relationships and capabilities, monitoring and rewarding supplier performance, developing and managing second- and third-tier supplier relationships, and the use of technology to benefit sourcing activities (Wisner, Tan & Leong 2009).

2.3.1   *The Make-or-Buy Decision*

According to Seshadri (2005), sourcing strategies are derived from a basic decision to buy rather than make. This make-or-buy decision has been used to evaluate the relative

efficiency of internal and external production, and more recently to consider whether the Corporation should train and develop its staff or gain the required skills and capabilities from the external labour market. When firms decide to buy in the required skills, they are faced with a further choice: to gain the required skills directly from the external labour market or to outsource that activity to market-based agents (Benson 2006).

Seshadri (2005) suggested bringing multiple criteria to the decision to buy rather than make. These criteria are: cost minimisation, profit maximisation, capabilities, TC, substitutable risk and organisational relations. While it may appear that cost is a major consideration in the outsourcing decision, an effective strategic sourcing must include what Seshadri (2005) referred to as 'risk-reward trade-offs', which are hidden from the short-term application of functional sourcing.

2.3.2   The Evolving Business Focus: Theories and Reality

Theories and empirical evidence are the most objective references to explain a phenomenon. Hence, they are presented here to determine the strategic drivers behind outsourcing. To understand what keeps this phenomenon going, it is important to understand the underlying motives behind the decisions of many companies to buy instead of make. Two theoretical perspectives in the strategic management literature relate to the evolution and advancement of sourcing: the TC and the RBV of the corporation (Vivek, Banwet & Shankar 2008).

2.3.2.1   Transaction Cost Theory

This theory was first promoted by Williamson (1981), who drew heavily from Coase's (1937) paper on the boundaries of the corporation. The theory focuses on transactions rather than commodities or technology, stating that transactions largely determine the efficacy of one mode of exchange (hierarchical) over another (market) (Logan 2000).

As production costs are objectively calculated by the accounting system, while TCs are assessed subjectively through indirect indicators, functional managers are likely to differ in the levels of importance they assign to reducing TCs. Consequently, the effect TCs have on

a make-or-buy choice can partly reflect the influence exerted by the purchasing manager. Production cost differences seem more influential in sourcing decisions than TC differences, and the experience of the decision maker is related to assessments of technological uncertainty. Profit centre managers engage in influence activities that increase the costs of price renegotiations above the level that is observed in comparable external market transactions. Managers sometimes seem more reluctant to outsource when investments in specific assets are necessary and, contrary to theory, managers sometimes consider previous internal investments in specific assets a reason to insource. In certain circumstances, decision makers systematically misestimate (or fail to consider) TCs (Anderson, Glenn & Sedatole 2000).

2.3.2.2   *Resource-based View*

The RBV is concerned with the management of resources in a manner that increases the competitive advantage of the corporation rather than simply maintaining its competitive position. Under this assumption, the corporation moves from searching for efficiencies and improvements in a single process or activity to reconfiguring entire processes in order to obtain greater value across the organisation. The focus of organisations is responding to changes in the external business environment (McIvor 2005). Firms react to their markets by defining alliances as collections of tangible and intangible resources. Differing from TC theory, a RBV sees firms as creating their CCs through capabilities rather than by avoiding negative market conditions (Prahalad & Hamel 1990), and as driven by innovation and responsiveness to customer needs rather than by cost reduction.

Kelly and Poole (2006) believe that companies do not choose to outsource based only on a singular perspective. The process begins with traditional outsourcing, with the major goal of cutting costs. However, increasingly, outsourcing is regarded as a means of achieving a step change in performance, agility and customer service. Traditional or conventional outsourcing gives way to transformational outsourcing—bundling technology, transformation skills and outsourcing into an affordable commercial package—as a way of achieving substantial technological and organisational change. Increasingly, cost-saving objectives are being superseded by other factors. In the course of outsourcing, companies

discover that they are able to recruit highly qualified personnel in low-cost countries who are motivated and ready to take on low-level jobs that may be shunned by native workers (Lewin & Peeters 2006).

Accessing pools of highly skilled talent around the world has emerged as a new strategic driver (Manning, Massini & Lewin 2008). As the number and type of offshored functions change over time, so the particular sub-processes within each function also evolve, from simple to more complex and higher value-added tasks (Lewin & Peeters 2006).

Interestingly, contrasting motives and differing emphases behind outsourcing practices are noted between US and European companies. According to a Cranfield School of Management survey, US companies pursued more value-adding sourcing strategies while European companies focused more on gaining economies of scale through outsourcing (Kakabadse & Kakabadse 2002).

2.3.3   *Methodology in the Strategy*

For the last five years, a rising number of companies in North America and Europe have experimented with outsourcing, hoping to reduce costs and gain strategic advantage (Reiner 2004). Offshoring strategies appear promising in terms of cost reduction, as certain organisational activities are moved to a subsidiary or an independent service provider in a country with favourable conditions (Oshri, Kotlarsky & Willcocks 2009). However, this strategic move created mixed results. In 2004, GE, which adopted the 70:70:70 rule (70 per cent of all GE business processes would be outsourced, 70 per cent of all outsourced business would be offshore, and of this, 70 per cent would be done in India) reported more than US$340 million in savings from this initiative, and these savings grew to US$600 million by 2004 (Reiner 2004). Many firms, such as American Express and HSBC, followed suit, reporting similar cost efficiencies. However, others, such as British energy firm Powergen and leading retail bank Abbey National, suffered significant drops in customer satisfaction after offshoring back-office and customer services, and have more recently relocated offshored operations back to their home markets (Lampel & Bhalla 2008). Clearly, companies need to rethink how they formulate their offshoring strategies

and consider the following three-part methodology. First, prioritise between core (highest priority) and commodity (low-priority) processes. Second, analyse all the risks accompanying offshoring. Finally, determine the best location for offshoring efforts (Aron & Singh 2005). The first two parts—process identification and risks assessment—are explained further as sub-topics in this section, while the third part is discussed as a separate section.

2.3.4 *Core versus Non-core Functions*

According to the core-competency perspective, modern organisations cannot afford to internalise and maintain all the productive and administrative apparatus necessary to react to external environments, which are increasingly dynamic and hypercompetitive. In order to reduce costs and gain competitive advantage, organisations should source services and products strategically by internalising components critical to the product or service for which they have distinctive competency and outsourcing peripheral business activities (Ang & Straub 2006). The key suggestion is to distinguish which activities are the corporation's core and non-core competencies (Perm-Ajchariyawong 2008).

A company's competitiveness derives from its CCs and core products (the tangible results of core competencies). CC is the collective learning in the organisation, especially the capacity to coordinate diverse production skills and integrate streams of technologies (Prahalad & Hamel 1990). Ang and Straub (2006) identify the services and product assets that are 'specific' to the corporation as 'strategic assets', and, as such, they must be maintained through the internal base.

Many outsourcing scholars, such as those mentioned above (Ang & Straub 2006; Perm-Ajchariyawong 2008), agree that CCs must be kept as internal processes while peripheral or commodity processes are good candidates for outsourcing. Aron and Singh (2005) explain that by identifying its CCs, the corporation gains clear focus and is able to isolate those service delivery chains that create significant value (i.e., account for a significant proportion of the overall value created for the customer) and the extent to which that value is captured by the corporation. Core processes are critical because they are at the heart of

the company (Schniederjans, Schniederjans & Schniederjans 2007). Further, identifying the corporation's non-core activities means that they can be related to other firms' CCs, and those firms can manage the activities with greater efficiency and expertise. Specifically, outsourcing can offer firms a more efficient way to handle peripheral tasks and focus on where they have expertise (Perm-Ajchariyawong 2008).

The significance of identifying the company's CC is illustrated in the cases of GTE and NEC. In the early 1980s, GTE was positioned to become a major player in the IT industry. NEC was much smaller and had no experience as an operating telecommunications company. However, today, their stature has reversed. NEC is among the top five companies in telecommunications, semiconductors and mainframes while GTE has become essentially a telephone company with a position in defence and lighting products. How did it happen? NEC built and nurtured a group of CCs. In contrast, GTE managers could not agree on the competencies on which to base the company's strategy. It organised itself around strategic business units, which by nature underinvest in CCs, imprison resources and bind innovation (Oshri, Kotlarsky & Willcocks 2009).

Organising around CCs requires a radical change in corporate organisation. Oshri, Kotlarsky and Willcocks (2009) provided a guide on the steps a corporation needs to take. The first step is to identify CCs or those tasks that meet these three requirements: provide potential access to a wide variety of markets, make a contribution to the customer benefits of the product and are difficult for competitors to imitate. The next step is to redesign the architecture of the company to provide an impetus for learning from alliances and a focus for internal development. Management should consider: How long could they preserve their competitiveness if they did not control their CC? How central is this CC to customer benefits? What opportunities would be foreclosed if they lost this competence? By being able to focus on the core capabilities in which they have relative advantage while leaving the production of unfamiliar products to others who have the relative advantage, organisations gain what Perm-Ajchariyawong (2008) referred to as the value of differential advantage through the conduct of trade between these more efficient operating economies.

2.3.5   *Risk Assessment*

Outsourcing involves risks that are likely to create overhead costs that offset the beneficial gains firms anticipated from establishing an outsourcing relationship and which may be a detriment to the success of outsourcing. To avoid, or at least mitigate, these risks, firms need an appropriate mechanism to protect their potential value and manage risks that might arise in an engagement (Perm-Ajchariyawong 2008).

Oshri, Kotlarsky and Willcocks (2009) cited six categories of potential offshore outsourcing risks. Business risks include no overall cost savings, poor quality and late deliverables. Legal risks refer to an inefficient or ineffective judicial system, offshore locale intellectual property rights infringement, export restrictions, inflexible labour laws, difficulty obtaining visas, changes in tax laws and inflexible contracts/breaches in security or privacy. Political risks involve backlash from internal IT staff, perception of strategy as unpatriotic, political threats for companies who would source offshore, political instability within the offshore country, and political instability between the buyer's country and the supplier's country. Workforce risks include supplier employee turnover, supplier employee burnout, inexperienced supplier employees and poor communication skills of supplier employees. Social-cultural differences refer to holiday and religious calendar differences. Logistical risks involve time-zone challenges, managing remote teams and coordinating travel.

Risk assessment needs to take place upfront, prior to offshoring, but also on an ongoing basis. Many firms conduct some type of country risk assessment before they enter a country (ex-ante). However, they stop conducting regular assessments once they have established the operations. This is a mistake. Offshore cost savings and risks are tightly bound together (Carmel & Tjia 2009).

To sum up, developing sourcing strategies to support a sustainable competitive advantage is no easy task. Building, maintaining and improving supplier alliances pose many benefits for the corporations involved; but many buyer–supplier relationships end in failure because of misaligned strategies, lack of commitment, unrealised goals and loss of trust in the

relationships (Wisner, Tan & Leong 2009). Brown and Wilson (2005) advised firms that as they define their sourcing strategy, they must never lose sight of both their current and future outsourcing business goals. Every outsourcing decision must be made in the context of the entire enterprise and the marketplace. At a minimum, sourcing strategy must be based on the inevitable evolution within the marketplace, including both service providers and business competition, and business objectives, such as capabilities that the corporation plans to add.

2.4 Global Sourcing Location

The question of where to outsource follows the initial make-or-buy decision (Hätönen 2009). However, when considered more broadly as part of sourcing, regardless of make-or-buy, location could be considered the first and foremost decision. For example, an organisation may have concluded that a specific geography would be the most beneficial because it offers a high volume of specific skills. Upon reaching this conclusion, the organisation may then decide to either 'make' in-house or outsource. This location decision is one of several outsourcing decisions firms must make (Graf & Mudambi 2005).

In practice, offshoring is not a single strategic model but a range of models, each with its own risks and benefits. Successful offshoring depends as much on selecting the right offshoring model (Lampel & Bhalla 2008) as on selecting the right location to cater to the model. The same outsourcing model applied to two different locations and contexts may produce different outcomes. Therefore, the challenge for any outsourcing firm is to find the location with the 'best fit', where all factors are optimised.

Since international offshoring services (IOS) is a relatively new phenomenon, there is little empirical research to guide corporate decisions about where to locate services facilities (Bunyaratavej, Hahn & Doh 2007). There is more research in manufacturing than services outsourcing. However, because of the different nature of manufacturing and services, research related to manufacturing location does not necessarily apply to the services trade. Factors that have an impact on manufacturing, such as infrastructure, location-specific risk

factors and government policy, are not necessarily important for services (Bunyaratavej, Hahn & Doh 2008). Thus, the dynamics behind service offshoring is explored here, based on the available literature. As Bunyaratavej, Hahn and Doh (2008) explained, an understanding of the factors and dynamics that facilitate the location of a business environment (in this case, services offshoring) is important for both firms deciding where to locate facilities and countries seeking to improve their standing as a location for offshoring facilities.

Several external location and case-specific variables influence the final location decision (Hätönen 2009). The variables or components that are recognised as making up the business environment include the host's national culture, political systems, legal systems and economic systems (Bunyaratavej, Hahn & Doh 2007). However, the attractiveness of the sourcing location cannot be decided simply by looking into variables that are external to the outsourcing firm. The other important consideration is the variables that are internal to the organisation.

Hussey and Hall (2008) listed the core drivers used by organisations to establish their global sourcing locations. These criteria are language capabilities, the size and skill of the perceived available workforce, the quality and pervasiveness of the educational system, attrition levels and the potential corporate leverage an organisation can extract from an investment in a specific geography. However, instead of discussing these variables separately, an attempt is made to understand how these variables interact to influence the location decision. Graf and Mudambi (2005) and Bunyaratavej, Hahn and Doh (2007) provided location decision models to guide in location choice. Their models developed from earlier frameworks on sourcing location.

2.4.1 *Graf and Mudambi's Outsourcing Decision Model*

Graf and Mudambi's (2005) outsourcing decision model (Figure 2.4) is an enhancement of Dunning's (1980) initial theoretical framework, which identified three main determinants for location choice: infrastructure, country risk and government policy. Graf and Mudambi (2005) added another determinant, human capital considerations, and two moderating

factors, as they intended their model to be a framework for offshoring services decisions. The 'H' in the model refers to hypothesis, as this largely based on Graf and Mudambi's hypothesis of positive and negative factors influencing the outsourcing decision.

The inclusion of the human capital factor is justified because of the inherent nature of IOS, which involves trade-offs between technology and 'human touch'. As differentiated by Bunyaratavej, Hahn and Doh (2007), services often depend more on knowledge and information, and communication and people skills, and less on highly specialised machinery and conditions such as robotic manufacturing equipment, high-temperature metallurgic processes and ultra-clean rooms devoid of chemical and physical impurities. Hence, human capital is a principal differentiating factor between service and manufacturing outsourcing. Aside from human capital, the new model incorporates firm-specific and situation-specific moderating factors that are assumed to affect the outsourcing determinants.

Infrastructure, country risks, government policy and human capital make up the location-specific factors (Hätönen 2009). According to Graf and Mudambi (2005), location-specific advantages are based on resources, networks, institutional structures or other advantages that are specific to a geographic entity and immoveable. How these location-specific factors affect the location decision is explained.

Relative to infrastructure, the model proposed that the quality and availability of IT infrastructure in the destination location is positively related to the amount of BPO. In addition, the cost of IT infrastructure in the destination location and the geographic distance are negatively related to the amount of BPO.

Country risks involve economic risk and political risk. Economic risk incorporates measures such as the openness of the economic system, inflation rate and exchange rate fluctuation, and the possibility of repatriating profits. Political risk encompasses aspects including political instability, conflict intensity between nations, and the likelihood of changes in labour and environmental laws as well as regulations affecting business and trade. The general assumption is that both the economic and political risks of the

destination location are negatively related to the amount of BPO (Graf & Mudambi 2005). In other words, the greater the economic and political risk present in a country, the less likely the country will be chosen as an offshore destination.

Figure 2.4: Graf and Mudambi's Outsourcing Decision Model

Infrastructure
H1A: IT Infrastructure Quality (+)
H1B: IT Infrastructure Costs (–)
H1C: Geographic Distance (–)

Country Risk
H2A: Economic Risk (–)
H2B: Political Risk (–)

Government Policy
H3A: Tax Rate (–)
H3B: Investment Incentives (+)

Human Capital
H4A: Workforce Size & Availability (+)
H4B: BPO Experience (+)
H4C: Technical & Language Skills (+)
H4D: Compensation Levels (–)
H4E: Cultural Distance (–)

Moderating Factors

Firm-specific Factors
H5A: Outsourcing Objectives
    * Cost Reduction
    * Process Improvement
    * Capability Enhancement

H5B: Experience
    * International Experience
    * Outsourcing Experience

Situation-specific Factors
H6A: Nature of the Business Process
    * Strategic Importance
    * Process Standardisation
    * Asset Specificity
    * Visibility to Customers

H6B: Customer Expectations
    * Interpersonal Interaction
    * Convenience

Local Attractiveness

Source: Graf & Mudambi (2005)

Government policy, which differs widely between countries, is an important consideration when forging an alliance with an outsourcing provider. Governments have the ability to affect the extent and form of foreign involvement in service industries by imposing obstacles and discriminatory barriers, or by providing investment incentives. Policy makers use a range of tax and fiscal instruments and subsidies (Graf & Mudambi 2005). The model assumes that the tax level in the destination location is negatively related to the amount of BPO, while the investment attraction schemes of the destination location are positively related to the amount of BPO.

The human capital varies for different kinds of work. Some tasks—referred to as 'L-tasks'—can be performed by workers with relatively little education or training, while other tasks—'H-tasks'—can be performed by workers who have greater skills (Grossman & Rossi-Hansberg 2006). Services typically require workers with more advanced education and higher competencies (Bunyaratavej, Hahn & Doh 2007), that is, those capable of H-tasks. In terms of workforce size and availability, BPO experience, and technical and language skills, human capital is predicted to be positively related to the amount of service offshoring, while compensation levels and cultural distance are hypothesised to be negatively related to the amount of service offshoring.

The location-specific factors are moderated by firm-specific and situation-specific factors. The corporation-specific moderators are related to two basic aspects of the decision-making process: the outsourcing objectives and the outsourcing experience. The location decision may be driven by different objectives. Outsourcing firms may place varying importance on cost reduction, business process improvement and capability enhancement (Graf & Mudambi 2005). Another important consideration among firms is experience in outsourcing. It is plausible to expect firms to be more receptive to outsourcing if they have previous experience of it, and to favour locations of which they have knowledge. Situation-specific factors are the second set of moderators and include the nature of the business process and customer expectations. They are said to have primary influence in location decisions (Hätönen 2009).

2.4.2 *Bunyaratavej, Hahn and Doh's Parity Concept*

Bunyaratavej, Hahn and Doh's (2007) parity concept hypothesises that firms offshore to locations that are closest to their home country in terms of wages, education, culture and infrastructure. While Graf and Mudambi's (2005) model still requires empirical support, the parity concept has already been tested. In their study among outsourcing firms, Bunyaratavej, Hahn and Doh (2007) tested four hypotheses.

- Hypothesis 1 states that firms will offshore services to host countries that have wages that are somewhat discounted in comparison to the home country, but tend towards home country parity (i.e., are higher relative to the global marketplace), ceteris paribus.

- Hypothesis 2 states that firms will offshore their services to host countries that have similar relative levels of students enrolled in secondary education to the home country, ceteris paribus.

- Hypothesis 3 states that firms will offshore their services to host countries that have a similar culture to the home country, ceteris paribus.

- Hypothesis 4 states that firms will offshore their services to host countries that have a relatively similar level of information and communication infrastructure investment as the home country, ceteris paribus.

The results of the study confirmed the first hypothesis. Firms offshore services to countries with relatively high wages, as suggested by the parity perspective, rather than relatively low wages, as might be expected under a traditional manufacturing perspective. An ex-post analysis showed that during the period 2002–2003, a large proportion of offshoring projects in call centres, for example, went to developed countries such as Canada, Ireland and the UK (United Nations Conference on Trade and Development 2004). In their decision making, firms engage in a quality/wages trade-off, with quality often being the paramount consideration in order to maintain customer satisfaction (and therefore competitiveness) in the home market. To the extent that locations with low-wage/high-quality combinations exist in the global marketplace, these arbitrage situations will be relatively short-lived, as other companies move to exploit them, causing wages to rise (Bunyaratavej, Hahn & Doh 2007). The result of the study also showed that education has a positive impact on a firm's location decision to offshore services. The level of education of the service providers is important because, often, service activities that are offshored are more sophisticated than those of manufacturing (Bunyaratavej, Hahn & Doh 2007). Furthermore, the study supported the third hypothesis. Firms appear to offshore services to countries that have increasingly similar cultures. Similarities in culture between a host country and the home country provide a firm with many benefits. In a more similar culture, firms are likely to reduce additional costs they might otherwise incur through training and information acquisition. Moreover, although the point of production of services could be physically located far from consumers, service providers are pressed to make consumers feel that the services originate close to home. This is particularly true in the case of front-office services. Cultural differences, especially in terms of language, may pose an obstacle to the delivery of this key component of services (Bunyaratavej, Hahn & Doh 2007). Finally, with respect to the fourth hypothesis, information infrastructure, the study result did not find any

significance in that information infrastructure could not be confidently attributed to impact and attract location decisions (Bunyaratavej, Hahn & Doh 2007).

2.4.3 The Right Partner

The right choice of partner is often seen as the key to success in outsourcing agreements. It cannot be separated from the choice of location because the two are interrelated and intervening processes (Graf & Mudambi 2005). However, it is equally likely that in some circumstances, the partner or the location is chosen first (Hätönen 2009).

Locating the right partner requires careful steps. Hoffman, Walden, Delgadillo et al. (2007) suggested two important steps. The first step involves determining the characteristics an outsourcing partner should have to fit most advantageously with the outsourcing firm's needs. The partner's critical outsourcing characteristics (COCs) include factors such as commitment to quality, price, references/reputation, flexible contract terms, scope, additional value-added capability, cultural match and location. These factors must be ranked in order of importance. The second step assesses outsourcing partners based on the weighted factors. In this step, several alternative outsourcing partners—and where they can be found—are identified. Relevant information about each potential outsourcing partner is entered into the goal programming part of the model. The model evaluates the information and determines which outsourcing partner best meets the needs of the outsourcing firm. The informational output of the outsourcing partner selection model is extensive and goes far beyond any simple tabular solution. The model provides the best strategically fitting outsourcing partner for the outsourcing firm and provides information on how well the choice satisfies the prioritised goals established by management. In addition, the model provides trade-off information regarding the COCs that can help improve outsourcing partner selection decisions.

Choosing the right location involves systematic decision making. While it may be tempting to focus on the variables that satisfy the organisation's outsourcing objectives, the rest of the variables should also be considered, since offshoring requires activity sustainability. The sourcing location must be projected to be a long-term outsourcing destination. Hence,

forging alliances with the right partner is also necessary. The firm providing the services is referred to as the 'outsourcing partner' to demonstrate that it is not simply a vendor but a collaborator who helps the organisation achieve its business goals. The two firms are in a business alliance from which both parties should benefit.

2.4.4   The Present Scenario

The 2011 A.T. Kearney Global Services Location Index (GSLI) lists the 50 countries that are presently the major players in the outsourcing industry, including IT services and support, contact centres and back-office support. Each country's score is composed of a weighted combination of relative scores on 43 measurements, which are grouped into three categories: financial attractiveness, people skills and availability, and business environment. See Table 2.1 for the complete list. Although this is based on 2011 data, overall, India, China and Malaysia remain the top three countries in the index. However, changes in the rest of the rankings reflect the world's volatile economic environment. Not long ago, Central Europe emerged as one of the premier global hubs for offshoring, catering primarily to Western European clients. However, for this 2011 year, established leaders— including Poland, the Czech Republic and Hungary—have fallen, as increasing costs erode their competitiveness. Meanwhile, countries in low-cost regions such as Southeast Asia and the Middle East have made significant gains on this year's list, as the IT-enabled services industry grows and export figures improve (Kearney 2011).

Table 2.1: 2011 Top 50 Global Services Locations

Rank	Country	Financial Attractiveness	People Skills and Availability	Business Environment	Total Score
1	India	3.11	2.76	1.14	7.01
2	China	2.62	2.55	1.31	6.49
3	Malaysia	2.78	1.38	1.83	5.99
4	Egypt	3.10	1.36	1.35	5.81
5	Indonesia	3.24	1.53	1.01	5.78
6	Mexico	2.68	1.60	1.44	5.72
7	Thailand	3.05	1.38	1.29	5.72
8	Vietnam	3.27	1.19	1.24	5.69
9	Philippines	3.18	1.31	1.16	5.65
10	Chile	2.44	1.27	1.82	5.52
11	Estonia	2.31	0.95	2.24	5.51
12	Brazil	2.02	2.07	1.38	5.48
13	Latvia	2.56	0.93	1.96	5.46
14	Lithuania	2.48	0.93	2.02	5.43
15	United Arab Emirates	2.41	0.94	2.05	5.41
16	UK	0.91	2.26	2.23	5.41
17	Bulgaria	2.82	0.88	1.67	5.37
18	US	0.45	2.88	2.01	5.35
19	Costa Rica	2.84	0.94	1.56	5.34
20	Russia	2.48	1.79	1.07	5.34
21	Sri Lanka	3.20	0.95	1.11	5.26
22	Jordan	2.97	0.77	1.49	5.23
23	Tunisia	3.05	0.81	1.37	5.23
24	Poland	2.14	1.27	1.81	5.23
25	Romania	2.54	1.03	1.65	5.21
26	Germany	0.76	2.17	2.27	5.20
27	Ghana	3.21	0.69	1.28	5.18
28	Pakistan	3.23	1.16	0.76	5.15
29	Senegal	3.23	0.78	1.11	5.12
30	Argentina	2.45	1.58	1.09	5.12
31	Hungary	2.05	1.24	1.82	5.11
32	Singapore	1.00	1.66	2.40	5.06
33	Jamaica	2.81	0.86	1.34	5.01
34	Panama	2.77	0.72	1.49	4.98
35	Czech Republic	1.81	1.14	2.03	4.98
36	Mauritius	2.41	0.87	1.70	4.98
37	Morocco	2.83	0.87	1.26	4.96
38	Ukraine	2.86	1.07	1.02	4.95
39	Canada	0.56	2.14	2.25	4.95
40	Slovakia	2.33	0.93	1.65	4.91
41	Uruguay	2.42	0.91	1.42	4.75
42	Spain	0.81	2.06	1.88	4.75
43	Colombia	2.34	1.20	1.18	4.72
44	France	0.38	2.12	2.11	4.61
45	South Africa	2.27	0.93	1.37	4.57
46	Australia	0.51	1.80	2.13	4.44
47	Israel	1.45	1.35	1.64	4.44
48	Turkey	1.87	1.29	1.17	4.33
49	Ireland	0.42	1.74	2.08	4.24
50	Portugal	1.21	1.09	1.85	4.15

Source: A.T. Kearney Global Services Location Index (2011)

2.4.5   *The Fast-changing Outsourcing Landscape*

The geography of offshoring is changing fast. Countries that were good choices a few years ago, and which still attract large investments in the industry, may have already peaked and gone into decline as future destinations. Relatively unknown locations today may be important destinations tomorrow. Location decisions are not as straightforward as they used to be. In addition, the economic crisis is creating further volatility as it reshapes the offshoring landscape. In short, the recent decline in growth will continue, and the crisis will likely shake up the current offshoring geography as countries deal with the volatility with varying degrees of success (Kearney 2011). Two important factors affecting the industry's market value and the 'dynamics of global sourcing' in 2010 were identified. The first is the economic recovery of Europe and the US, which will create BPO demand over IT services. The second is the continuing agility and commitment of governments in outsourcing provider countries such as China and Vietnam to attract foreign investors and improve infrastructure (Yu 2009).

Over the longer term, the global crisis is recognised as having a positive effect on the outsourcing industry. Kearney (2011) believes that the crisis might trigger a further globalisation of services. In a new era of risk, the opportunities are larger than ever. As the global labour pool becomes more accessible, and the number of countries courting investors grows, the rewards will go to those companies first to identify them.

2.5   Global Sourcing Governance

2.5 Governance

- Governance Defined and Distinguished
- The Importance of Sourcing Governance
- Typology of Governance
- Between Manufacturing and Service Governance
- Governance Frameworks
- Contract
- Decision Makers and Decision Rights
- Criteria of Good Sourcing Governance

2.5.1   *Governance Defined and Distinguished*

Sourcing governance refers to the assignment of rights and responsibilities for all decisions regarding the use and management of internally and externally provided resources and services, with the objective of upholding the organisation's sourcing philosophies, assuring service coordination and achieving business results (Cohen & Young 2006). Sourcing governance aims to guide the organisation in its sourcing decisions, which may involve outsourcing but can include internally sourced services. For example, Qantas Airlines may choose to source its IT from a centralised business unit across all divisions; alternatively, it may choose to source its mainframe IT applications from IBM. Sourcing governance is not focused on the company doing the outsourcing—in this case, it is not about how IBM manages the governance with Qantas, but how Qantas manages its sourcing relationships either internally or externally.

Sourcing governance has often been erroneously interchanged with 'vendor management', 'retained staff' and 'sourcing management organisation'. Governance is none of these (IT Infrastructure Library [ITIL] 2007). Management and governance are different disciplines, although they may be in simultaneous operation. Moreover, ITIL (2007) differentiated management from governance by referring to the former as making decisions and executing

processes. In contrast, governance deals only with making sound decisions. While management and governance both entail decision making, Gottschalk (2006a) distinguished the extent of the decision-making function in management and governance. Governance is not about making specific decisions—management does that—but rather about determining who systematically makes and contributes to those decisions. Governance is about authority: how decisions are made, who gets to make them and who is accountable for the decisions (Cohen & Young 2006). Governance reflects broader principles while focusing on the management of the outsourcing relationship to achieve performance goals for both client and vendor. Governance is the institutional framework in which contracts are monitored, adapted and renewed (Gottschalk 2006a). It is the framework of decision rights that encourages desired behaviours in the sourcing and the sourced organisation. It is important to differentiate governance from management because when companies confuse the two, they inevitably focus on execution at the expense of strategic decision making (SDM). While both are vital (ITIL 2007), firms must be able to distinguish between management and governance functions.

Sourcing governance becomes more important in multi-sourcing arrangements, as it addresses capabilities needed to regulate and support multiple service providers, including management methods and processes, organisational roles and responsibilities, and service delivery rules and agreements (Brown & Wilson 2005).

2.5.2   *The Importance of Sourcing Governance*

There are five major reasons why sourcing governance is critical. First, it can turn disruptive and non-integrated services into high-performance service delivery operations. Second, it means better outcomes as sourcing actions are directed at the organisation's goals and do not draw resources (money or management focus) away from their environment. Third, it synchronises sourcing strategy with business strategy as business strategy changes. Fourth, it encourages desirable sourcing behaviours by the providers and consumers of services. Last, it is the best approach for the management of sourcing risk (Cohen & Young 2006).

A sourcing strategy cannot be executed without the right governance and execution capabilities. An effective governance model must become an integrated part of the business. Establishing effective sourcing governance is critical to the success of any sourcing strategy (Patel & Aran 2005). While lack of strategy would be a huge barrier to a firm's success, good governance is responsible for achieving positive outcomes from sourcing relationships and keeps the corporation's environment from spinning out of control once a strategy is formed. No matter how good the strategy, if sourcing governance is not in place to implement it, enforce it, alter it and adjust it according to market changes, the strategy will be worthless. Governance takes sourcing philosophies from words to reality and ties them together, as well as binding sourcing strategies and business strategies (Cohen & Young 2006).

Sourcing governance must be introduced at the appropriate time during the sourcing process. According to Dutta and Folden (2010), sourcing strategy is usually defined first, then the sourcing initiation and enhancement are made, and finally sourcing governance is put in place. Today, many companies begin on a narrow path or adopt a shotgun approach—that is, they focus on the compliance component of governance without developing a more comprehensive framework with a prioritised roadmap based on the highest value delivered to the organisation (Selig 2008). Thus, in practice, neglect of sourcing governance is a contributing factor in almost every case of sourcing chaos. Far too many organisations assume that putting relationship or service managers in place is a substitute for governance. Chaos often results when these managers realise that there are no clear rules about who has authority to make decisions (Cohen & Young 2006).

Firms must regard sourcing governance as an operating compass. It should not only be secured at the early stage of sourcing but be progressively utilised and monitored. Organisations that tailor their sourcing governance according to a feasible, realistic and adaptive approach relative to their environment, strategies, priorities, capabilities and available resources ensure an outsourcing framework characterised by higher levels of maturity, effectiveness and responsiveness. Good governance enables faster, better decision making and is more important to long-term sourcing than any other factor. Governance is

the foundation of sourcing agility, and sourcing agility spawns business efficiency, effectiveness and growth (Cohen & Young 2006).

2.5.3 *Typology of Governance*

Selig (2008) described the various decision-making systems in an organisation as enterprise, business and IT governance. The overall direction and operation of the organisation is the oversight of enterprise governance. It is the set of responsibilities and practices exercised by the board and executive management, with the goal of providing strategic direction, ensuring that plans and objectives are achieved, assessing that risks are proactively managed and ensuring that the enterprise's resources are used responsibly. Enterprise governance deals with the separation of ownership and control of an organisation, business governance focuses on the direction and control of the business, and IT governance focuses on the direction and control of IT.

Enterprise governance is concerned with internal control. A standard reference for internal control in enterprises, the COSO (Committee of Sponsoring Organisations of the Treadway Commission) model, has become the most widely used internal control framework in the US and has been adapted or adopted by numerous countries around the world (Certified in the Governance of Enterprise IT [CGEIT] 2010). The COSO model was developed in response to senior executives' need for effective ways to better control their enterprises and to help ensure that organisational objectives related to operations, reporting and compliance are achieved. It identifies eight components that comprise enterprise risk management, and help management achieve their enterprise's performance and profitability targets and prevent loss of resources. The eight components—internal environment, objective setting, event identification, risk assessment, risk response, control activities and information and communication, and monitoring (CGEIT 2010)—are derived from the way management runs an enterprise and are integrated with the management process.

IT governance is seen by the Information Systems Audit and Control Association (ISACA) as the responsibility of the board of directors and management. It is an integral part of enterprise governance and consists of leadership, and organisational structures and

processes, that ensure that the organisation's IT sustains and extends its strategies and objectives (CGEIT 2010). The specific scope of IT governance includes the processes and authority for resources, risk, conflict resolution and IT responsibility, which are shared among business partners, IT management and service providers. Project selection and prioritisation questions are included here. IT governance decides on who makes these decisions (power), why they make them (alignment) and how they make them (decision process) (Luftman 2003). In summary, IT governance formalises and clarifies oversight, accountability and decision rights for a wide array of IT strategy, resource and control activities (Selig 2008).

2.5.4 *Between Manufacturing and Service Governance*

One of the main challenges in sourcing governance for both manufacturing and service outsourcing deals with sharing decision rights with sourcing partners. When a company places itself in a position to make operational decisions on behalf of an outsourcer, there is a high possibility of poor service levels and contentious relationship management. Governance inevitably becomes the weakest link in a service sourcing strategy (ITIL 2007).

Power distribution and governance of the business linkage differ between the manufacturing and service contexts. In classic manufacturing offshoring, the offshoring firm is most often the dominant firm, with an arms-length arrangement with the sourcing provider (Ørberg Jensen 2009). In contrast, Jae and Young (1999) describe service sourcing relationships: while initially the service receiver (or offshoring firm) tends to have greater influence than the service provider, as the nature of their relationship changes from one that is relatively independent to one that is tightly coupled, the service provider is likely to take more management responsibility and risk. Maintaining partnerships tends to be more difficult in services sourcing because of an asymmetry of resources in the power relationship, which favours the service provider. Consequently, service receivers may fear becoming too dependent on their service providers and the significant switching costs. This may explain the negative relationship between mutual dependency and partnership quality from the service receiver's perspective.

2.5.5 Governance Frameworks

As a result of the variability of the nature of business, governance frameworks tend to be specific to a particular business type rather than integrated or general in purpose. For instance, in IT, Selig (2008) noted that the growing number of models and frameworks addresses one or more aspects of IT governance. Table 2.2 lists some of the frameworks being used in IT process improvement initiatives.

Table 2.2: IT Governance Framework

IT Governance Frameworks/Models	
COBIT 4.0	Control Objectives for Information and Related Technologies
ISO 17799 or BS 7799	Security Perspective Approach
PMBOK PMMM PRINCE2	Project Management Book of Knowledge Project Management Maturity Model
IT Service Management and Delivery Model	ITIL Framework
ISO 9001-2000/Six Sigma/Lean	Quality Improvement Route
CMMI	Capability Maturity Model Integrated
eSCM	eSourcing Capability Model (eSCM is not just an IT governance framework but is also focused on the governance of sourcing)

Source: Selig (2008)

2.5.6 Contract

Past research has shown clearly that one of the key success factors of an outsourcing arrangement is thorough information and effective management of the relationship between client and vendor. In general, the outsourcing relationship can be broken down into two constituent elements: 1) the formal contract that specifies the task requirements and obligations of each party in written form, and 2) the psychological contract, which is based on the parties' mutual beliefs and attitudes (Hirschheim, Heinzl & Dibbern 2009). Goo (2009) believes in the duality and interplay between elements of the psychological and formal contract. More specifically, he argues that the formal contract, reflected by various service level agreements (SLAs), provides the foundation for relational governance characterised by trust and commitment in the relationship between client and vendor.

2.5.7   Decision Makers and Decision Rights

Decision makers and decision rights can be understood in terms of centralisation and decentralisation governance models. In a centralised model, there is a single entity (person or group) responsible for all data ownership for the entire enterprise. Centralisation implies that all ownership activities are coordinated from a single point of control, as well as coordination of metadata, information sourcing and so forth. In a decentralised model, the ownership roles are allocated to separate areas of interest (Loshin 2001).

According to Gottschalk (2006a), the decision whether to centralise or decentralise governance is based on a rational perspective of the organisation, in which choices are reduced to one of internal efficiency and effectiveness. This view assumes a system of goal consonance and agreement on the means for achieving goals—that is, a rational and logical trade-off between 1) efficiency and standardisation under centralisation, and 2) effectiveness and flexibility under decentralisation. In general, it is assumed that centralisation leads to greater specialisation, consistency and standardised controls, while decentralisation provides local control, ownership, and greater responsiveness and flexibility to business needs. However, there is an operational cost. Loshin (2001) identified centralisation costs as increased management overheads, bureaucracy and system integration while Gottschalk (2006a) identified the risk of flexibility under centralisation due to bounded rationality and information overload. However, most organisations do not explicitly opt for decentralised control; instead, this type of control evolves (Loshin 2001).

Organisations today are not exclusively adopting a single model. For example, in IT outsourcing, Gottschalk (2006a) noted that over the past decade, organisations have set out to achieve the best of both worlds by adopting a federal IT governance structure. Under this model, IT infrastructures are centralised while IT application decisions are decentralised. The federal IT governance model thus represents a hybrid model of both centralisation and decentralisation. Following the same path, Cohen and Young (2006) identified a global manufacturing and services company they call 'GMS'. In 15 years, its accounts-payable processes moved from being highly centralised and internal to globally decentralised, with a mix of internal and external resources. As a result of its heavy investment in governance

and management capabilities internally, the organisation is said to have the ability to manage change while delivering effective services and cutting costs. Further, it integrates its service providers seamlessly into these processes.

2.5.8 *Criteria of Good Sourcing Governance*

Cohen and Young (2006) identified five criteria for assessing whether an organisation has an effective sourcing governance: 1) a sourcing council made up of the senior executives of the organisation must exist explicitly; 2) the governance models for sourcing must be stable year to year; 3) formal and clear processes for exceptions must exist and be monitored; 4) there must be a formal method of communication; and 5) there must be a system of controls and records.

As sourcing governance mechanisms need to be monitored and modified when necessary, ITIL (2007) offers a few simple constructs that have been shown to be effective in improving governance framework weaknesses. One is to form a governance body of manageable size with a clear understanding of the service sourcing strategy. This body can discern matters without immediately escalating them to the highest levels of senior management. It must include representation from each service provider. The second construct is to identify governance domains. Domains can cover decision making for a specific area of the service sourcing strategy—for example, service delivery, communication, sourcing strategy or contract management. It should be noted that a governance domain does not include responsibility for its execution, only for its SDM. The third construct is to create a decision-rights matrix that ties all three recommendations together. If you are doing service management in a sourcing context, then ITIL states you should also use eSCMs.

2.6 Global Sourcing Portfolio Demand

2.6 Demand

• Nature of Demand: Knowledge and Service Work
• Service Categories
• Demand Sourcing Practices

'Demand' addresses the internal functions an organisation needs to undertake and how they are assembled within the context of the organisation's operating model. From a sourcing perspective, these may be viewed as discrete individual and autonomous activities requiring their own specific management, or they may be clustered based upon similarities and common management portfolios. An example would be an organisation that has separated the payroll activity and sourced it though an outsourced model compared with another organisation that has outsourced all its HR activities.

As companies have and continue to adopt outsourcing for their services provision as part of their overall sourcing strategy, services sourcing has gained importance as a field of interest, both from a practical and a theoretical perspective (Bals & Hartmann 2008).

2.6.1 Nature of Demand: Knowledge and Service Work

Dealing in intangibles is difficult. The customer has demands that are different from an environment in which tangible goods are sold. Selling knowledge includes selling the idea without the customer seeing anything, and educating the customer to ensure that the concept in the customer's view is similar to that of the seller. Creating common visions of a knowledge product is a fine art that needs to be acquired by the knowledge enterprise (Botha 2007). Thirty years ago, Wittreich (1966) commented that the tried and true rules for buying goods do not work when applied to the buying of professional services. According to him, there is a lack of an individual approach for buying professional services

compared with the sourcing of goods. Thus, both buyers and sellers need to grasp each other's expectations while dealing with a highly complex commodity.

Knowledge and services must be understood as inseparable commodities, since knowledge is embedded in the services offered. The complexity of knowledge and services can be described via four dimensions identified by Bals and Hartmann (2008): intangibility, inseparability, heterogeneity and perishability. Intangibility means that services are performances and not tangible outputs. The problem with this nature of service is that they cannot be objectively evaluated and prices are difficult to set. As a dimension, inseparability is also called simultaneity and refers to the fact that services are produced and consumed at the same time. A problem associated with this nature is the simultaneous action of production on the part of the provider-seller and consumption on the part of the customer, who is involved in the production. Heterogeneity means that a service is always subject to variation in performance, and developing common standards is extremely difficult. Its associated problems are the difficulty of standardisation and quality control. The final dimension, perishability, describes the inability to store services compared to goods. Thus, manufacturing goods are easier to discuss around the negotiation table than services goods.

In the decision to offshore services, firms weigh up two important factors: knowledge embeddedness and contact. The first factor refers to how much knowledge is embedded in the work and the second factor pertains to how much contact offshore service providers have with customers (Youngdahl & Ramaswamy 2008).

Front-office services involve direct customer contact (Chase 1978). Technical support, customer service, marketing and advertising are examples of front-office outsourcing (Verma 2009). Youngdahl and Ramaswamy (2008) stated that front-office service employees need to be empowered because they have high levels of customer contact, and need to act on the input and information of the customer. Employee empowerment is defined as pushing downwards to employees the following four key factors: 1) decisions affecting how to perform their jobs; 2) information about business performance, plans and goals; 3) rewards, which need to be based on organisational performance; and 4)

knowledge that provides the technical and interpersonal skills necessary to improve performance. For high-contact service providers, the authority to make real-time decisions and respond on behalf of customers, and the knowledge required to make good decisions, are particularly important elements of empowerment, which is less important for back-office service employees.

Back-office services are performed behind the scenes (Chase 1978) and involve low levels of customer contact. Verma (2009) enumerated some of the back-office services, including payroll, billing, logistics and HR. Some firms also offer their services in collection, credit analysis and job recruitment. Nowadays, some services—such as claims processing at insurance firms—are also being outsourced to BPOs as part of back-office outsourcing. Back-office operations requiring low or no customer contact can be identified with a production-line approach to services (Levitt 1972, 1976). By looking to mass-production principles in manufacturing, service operations managers could apply similar efficiencies to back-office service operations. Services that adopt a (mass) production-line approach focus on efficiency-oriented cost-leadership strategy (Fitzsimmons & Fitzsimmons 1994). Bowen and Youngdahl (1998) outlined the characteristics of the production-line approach as follows: 1) limited discretionary action of personnel, in which employees perform well-defined tasks resulting in service standardisation and quality; 2) division of labour in which the total job is broken down into groups of tasks, allowing specialisation of skills; 3) substitution of technology for people, in which technology such as customer databases and automated processes ensures quality and efficiency; and 4) service standardisation, which allows predictability, preplanning and easier process control.

2.6.2 Service Categories

Bals and Hartmann (2008) identified eight categories of services from potentially purchased services: 1) facility services, including cleaning, real estate and security; 2) financial services, including banking, finance and insurance; 3) information and communication technology services, including telecommunication, customisation and maintenance; 4) business organisation services, including management consultancy, accounting, auditing and legal services; 5) research, development and technical services, including technical

maintenance and assistance; 6) development, and engineering, transportation and distribution services, including warehousing, value-added logistics and transport; 7) HR development services, consisting of training and recruitment; and 8) marketing services, consisting of sales, advertisements and agents. However, Plunkett Research (2012) categorised these services simply into three broad areas: 1) logistics, sourcing and distribution services; 2) IT services, including the creation of software and the management of computer centres; and 3) BPO areas such as call centres, financial transaction processing and HR management.

From Plunkett Research's categorisation, BPO continues to be the buzzword in the outsourcing industry. Companies are looking at almost every non-core function to determine the feasibility of outsourcing the function to a third party. All of the major top-tier vendors now offer a wide range of BPO services as well as several specialty outsourcers, which focus on a particular process (Halvey & Melby 2005). As the BPO market evolves, customers and vendors will undoubtedly identify with more business processes than can—and will—be outsourced. Business processes targeted for outsourcing are expanding beyond traditional corporate support functions into the supply chain. For example, if a company has greater expertise in areas other than payroll, it might consider a vendor with particular expertise in this service (Halvey & Melby 2007)

The ORN (Offshoring Research Network) provided empirical data identifying the major functions being offshored. Its study surveyed 90 companies among 650 from the US Forbes Global 2000 list between November 2004 and March 2005. The survey further investigated the offshoring plans of the participant companies in the 18–36 months following the survey. The following are the major business categories identified, the percentage of companies that offshore the function and the expected growth rate in the next 18–36 months, respectively: IT: 66, 52; finance/accounting: 60, 43; contact centres: 54, 48; engineering services: 44, 55; research: 32, 81; HR: 24, 75; procurement: 24, 42; and other: 18, 50 (Lewin & Peeters 2006).

2.6.3 Demand-sourcing Practices

Carmel and Tjia (2009) noted the following characteristics in current demand-sourcing practices. In terms of geography, the most aggressive offshore consumers are in the US. Within Europe, the UK has been the most active in offshoring. In terms of industry, among the end-user industries, the most active in offshoring are financial services (banks, investment firms and insurance) and technology firms (software, hardware and telecommunications). On the basis of company size, companies that offshore are generally larger, with the largest global corporations, such as GE, American Express and British Telecom. The vast majority of small- and medium-sized firms (SMEs) do not offshore, with the exception of technology firms. Lastly, in terms of motivation, cost savings has always been and remains the dominant driver.

An Organisation for Economic Cooperation and Development (OECD) (2006) study confirms the observation of Carmel and Tjia in which the use of knowledge-intensive services activities (KISA) was found to be higher among firms with more resources and better-developed innovation capabilities. It was observed that, most frequently among small firms, many viewed KISA as luxuries they could not afford or as secondary to technological innovation.

2.7   Global Sourcing Vendor Supply

2.7 Supply

- Outsourcing Arrangements Based on Ownership and Control
- Outsourcing Arrangement Based on Number of Providers
- Supply-base Rationalisation

The nature of a firm's connection to its suppliers is evident in how its strategy is carried out, by the decisions made, and the relationships established. Sourcing strategy relative to supplier management is characterised by three key interrelated decisions: 1) how many suppliers to order from; 2) what criteria to use for choosing an appropriate set of suppliers; and 3) the quantity of goods to order from each supplier (Bidgoli 2010).

 'Supply' addresses how an organisation determines the optimal model for the supply of the services required to be undertaken. Specifically, it considers the concept of single versus multiple sourcing, whereby an organisation may engage a single supplier for its services, or multiple suppliers. Where these services are being acquired externally from the organisation, the concept is referred to as 'single' versus 'multi' vendor supply.

Single-sourcing strategies seek to build partnerships between buyers and suppliers to foster cooperation and achieve benefits for both players. Since the adoption of just-in-time inventory policies, supplier alliances with varying degrees of coordination have shifted supply relations towards single sourcing in order to streamline the supply network. At the strategic level, single sourcing contradicts portfolio theory. By not diversifying, a firm is assuming greater risk; therefore, tactical single-sourcing benefits need to justify the riskiness inherent in this relationship. Benefits of single sourcing are quantity discounts from order consolidation, reduced order lead times and logistical cost reductions as a result of a scaled-down supplier base. However, the tactical benefits of single sourcing are

diminishing as the proliferation of Internet procurement tools aids firms in streamlining their supply-chain process and drives ordering costs down (Bidgoli 2010).

In contrast, a larger supply base possesses greater upside volume flexibility through the summation of supplier capacities. Strategically, a manufacturer's leverage is kept intact when the corporation diversifies its total requirements among multiple sources. Additionally, alternative sources hedge the risk of creating a monopolistic supplier and the risk of a supplier integrating forwards to compete with the buying firm directly. Additionally, online exchanges and marketplaces automate many cumbersome tasks associated with multiple supplier dealings (Bidgoli 2010).

In concert with the decisions regarding the number of suppliers for a product, a firm must develop an appropriate set of criteria to determine a given supplier's abilities to satisfy the corporation's requirements. In practice, this seems to be evaluated using scoring models that incorporate quantifiable and qualitative factors related to quality, quantity, delivery and practice. While the supplier's price may be the most important criterion for generic or commodity-type goods, other dimensions are perhaps equally or more important for innovative products. Thus, supplier selection is not simply a matter of satisfying quantity and price requirements, but also needs to integrate supplier capabilities in terms of quality and delivery. It should be obvious that it is the collective suppliers' capabilities that can enable or limit supply-chain performance at its inception (Bidgoli 2010).

A firm's basic approach to negotiating contractual agreements with its suppliers may be largely influenced by the nature of the product supplied. Again, since many firms deal with a mix of products, the best-suited supplier relationship may vary across product types. A distributed negotiation is often used for commodity types of products and typically involves finding agreement on dividing a fixed pie of value between a buyer and supplier, whereas an integrative negotiation is more common for vital components and often the parties involved seek to expand the pie of value (Bidgoli 2010).

Driven by pressures of globalisation and the ensuing need to address opportunities and threats from global competition, companies are increasingly looking at less expensive

resources available in offshore locations. Outsourcing now embraces significant partnerships and alliances, referred to as co-sourcing arrangements, where client and vendor share risk and reward. These co-sourcing arrangements build on the competencies of the client and vendor to meet the client's needs (Hirschheim, Heinzl & Dibbern 2009). While supply has become globally available for vendors, forging an effective outsourcing relationship continues to be a challenge. Since vendors are largely contributory to a firm's supply chain, they must be properly evaluated and selected before being integrated into the corporation's business process.

2.7.1 Outsourcing Arrangements Based on Ownership and Control

Outsourcing goes beyond purchasing services from a vendor; it means that the supplier is responsible for all aspects of operation and maintenance of the established network. This applies in general to other outsourcing situations, although the exact definition of responsibilities is an important part of establishing an outsourcing relationship (Klatch 2005). The amount of responsibility entrusted to the supplier reflects the degree of control as well as the ownership that the buyer may share with the supplier. Hirschheim, Heinz and Dibbern (2009) depicted the diversity of control and ownership depending on the type of offshore arrangements. These arrangements stretch along a continuum from complete handover of the project to an offshore vendor in conventional offshore outsourcing arrangements to establishing a captive centre in a foreign country. At the middle of these two arrangements are joint ventures and build–operate–transfer (BOT) arrangements. These offshore arrangements come in a variety of forms to match the client's or buyer's desire for ownership and control.

In offshore outsourcing, responsibility for management and delivery of a particular service (e.g., IT services) is delegated to a vendor who is located in a different country from that of the client. Two possible scenarios exist: nearshore outsourcing and offshore outsourcing. The key difference between the two is geographical distance between the client and vendor. For US clients, nearshore refers to Mexico and Canada while offshore refers to countries such as India, China, Russia, Malaysia, Hungary, Hong Kong, Singapore, Philippines, Ireland, Israel and Eastern Europe (Hirschheim & George 2008). In a conventional offshore

outsourcing arrangement, clients usually have a low to medium level of control over the operation and delivery services (Hirschheim, Heinzl & Dibbern 2009). This is most likely the outcome when part of the business operations is conducted offshore and by another party.

In captive centres, the client builds, owns, staffs and operates its own offshore facilities. Managers must be willing to invest their own resources to build human, intellectual, technical and physical capital. Such investment is warranted if managers are strongly committed to long-term and large-volume work offshoring. Captive centres are also justified when control over the work is vital, such as when the work content is sensitive or because customers demand it (Lacity & Rottman 2008). Under this set-up, the client retains full ownership and control of the assets, personnel, management and operations. Such captive centre arrangements are not strictly outsourcing arrangements since, in outsourcing, responsibility is handed over to an external vendor. Instead, these captive centre arrangements fit under the umbrella of offshoring (Hirschheim, Heinzl & Dibbern 2009).

In joint ventures and BOT arrangements, the client is able to take advantage of the vendor's knowledge of the local market while retaining a certain amount of control. These two arrangements allow for shared ownership, which reduces the risk of offshore outsourcing (Hirschheim, Heinzl & Dibbern 2009). Joint service development is a highly innovative relationship type that is just beginning to evolve in practice. This relationship is neither a short-term commodity outsourcing type nor a fully strategic type. The focus is on collaborative service engineering, where both partners engage in working together and developing selected outsourcing services together on a risk/reward basis for a medium period. The extent of mutual dependency is high. This type also involves strategic elements such as gaining competitive advantage through joint knowledge from both partners (Leimeister & Krcmar 2008). In a BOT arrangement, a domestic client contracts with an offshore vendor to set up an offshore centre, with the goal of taking over the ownership and management of the centre once it is established (Hirschheim, Heinzl & Dibbern 2009). The BOT model is usually carried over a certain period, during which the outsourcer builds and operates an offshore development centre, after which the client has the option to purchase the centre. The BOT model thus seems to combine the benefits of outsourcing (an

experienced outsourcer who knows the offshore market) and insourcing (no vendor margin, full ownership of processes and intellectual property, no loss of control and competencies, and no dependence on the supplier). The BOT model is a way for companies to set up an offshore subsidiary in a progressive and low-risk manner (Jacques 2006).

Similar to joint service development but much more complex is another developing practice. Strategic alliance partnership is also known as transformational outsourcing and involves working together and sharing the risks and rewards. This involves long-term engagement with high commitment from both partners. Outsourcing experience is required for this practice to be successful (Leimeister & Krcmar 2008). Transformational outsourcing typically proceeds as a two-step process, with the outsourcing vendor first taking responsibility for the outsourcing customer's existing (or legacy) systems and processes, and then taking responsibility for implementing new, state-of-the-art systems and processes. By doing this, the outsourcing vendor 'transforms' the customer's environment in a shorter period than would be possible if the customer had implemented the changes themselves, and with greater resources than those available within the customer's organisation (Halvey & Melby 2005). Strategic partnering of this kind is usually driven by brand enhancement, competitive advantage and differentiation requirements (Kakabadse & Kakabadse 2002).

2.7.2 Outsourcing Arrangement Based on Number of Providers

The global scope of outsourcing has enabled many companies to outsource on a more selective basis than ever before. For instance, IT outsourcing has evolved from sole-sourcing and total sourcing arrangements, where one vendor provided all IT services to its client, to complex arrangements involving multiple vendors and multiple clients (Hirschheim, Heinzl & Dibbern 2009).

For the client, the advantage of using a single provider is that the vendor understands the client's needs and offers better service. The challenge is the loss of a best in class performance (Kakabadse & Kakabadse 2002). A single-sourced deal may include clauses on exclusivity and a price advantage may be negotiated on the basis that the entire organisation uses the supplier's services (ITIL 2004).

Dealing with multiple vendors (or more than one supplier managed by the client), the client can select from the most improved service and least cost. However, the client is required to monitor and coordinate with other vendors (Kakabadse & Kakabadse 2002). Multi-sourcing to two or more competing suppliers is most likely done where the standard services or products are readily available 'off the shelf'. It is most likely opted for where cost is the prime determinant and requirements for developing variants of the services are low, but it may also be undertaken to spread risk. Suppliers on a multi-source list may be designated the 'preferred supplier' within the organisation, limiting or removing scope for use of other suppliers (ITIL 2004).

The strength of integrated suppliers (where a single or main service provider manages a number of suppliers) is the reduced outsourced client coordination challenges, since the main service provider is responsible for the performance of all suppliers (Kakabadse & Kakabadse 2002). The supplier who seeks to be a full-service BPO outsourcer may acquire the resources and experience offered by other outside companies through an outright acquisition or some type of teaming or 'strategic alliance' relationship. For example, in recent years, Hewitt acquired Exult, a niche provider of HR outsourcing (HRO) to enhance its ability to offer HR services; IBM acquired Dasch Corp., an Indian-based provider of financial accounting outsourcing (FAO); and EDS and Towers Perrin formed a joint venture to offer a wide range of HR (Halvey & Melby 2007). However, the challenge in this arrangement is in attaining an appropriate mix of suppliers (Kakabadse & Kakabadse 2002).

Whether a company is dealing with single or multiple providers, the relationship quality is very significant to the outsourcing outcome. Gulati (2009) stressed the importance of working closely and integrating tightly with suppliers. He believes that the same systemic integration that has relevance across a firm's internal silos becomes relevant for firms' partnerships with their suppliers. Tightly integrated supplier networks can be a powerful catalyst for resiliency. These networks take some firms far beyond what they could ever achieve alone. However, despite the overwhelming benefits of tightly integrated supplier networks, developing strong, value-creating supplier relationships is a major challenge, requiring the reshaping of internal and external silos to harness the strengths of both the

company and its partners. This is where attention to connections becomes critical. An executive at Honda of America indicated that although quality problems always have a solution, the attitudes of supplier management must be right before a problem can be truly solved (Monczka et al. 2009). Thus, the important lesson is that outsourcing companies need to be careful in forging alliances with partners and able to recognise those who possess a receptive and cooperative attitude.

2.7.3 Supply-base Rationalisation

External partners typically specialise in certain areas and are capable of providing these services more efficiently with the same quality but lower costs. For example, an independent service provider (e.g., an outside bank) could perform the credit check on a new customer who intends to purchase certain goods from a business enterprise. Obviously, the bank would be more capable than the business enterprise of providing credit worthiness information about the customer because it is a part of its core business activities, and it has access to more data sources to validate the customer's credit history. Service providers can offer their unique services to multiple service requesters, which should reduce the average cost for each individual service request. However, the enterprise (the service requester) that uses the credit-check service will have to restructure its order-management process and systems so that the (internal) order-management system can gain access to the (external) credit-check service directly with properly established rules, procedures and security measures (Huang & Chung 2007).

Restructuring the supply management is even more important as multiple service providers become involved. It is difficult to manage many suppliers as efficiently as a small core group of suppliers, just as it is challenging to pursue progressive supply-management strategies with too many suppliers. A large supply base also means the duplication of a wide range of supply-management activities, adding to acquisition cost without a corresponding increase in value added (Monczka et al. 2009). Many companies have had to spend a great deal of time dealing with supply companies that were either unable or unwilling to respond to the demands of the buying organisations (Hines 2004).

Effective supplier management begins by determining an optimal number of suppliers to be maintained by an organisation. Supply-base rationalisation is the process of identifying how many and which suppliers a buyer will maintain. Supply-base optimisation involves an analysis of the supply base to ensure that only the most capable suppliers are kept in the supply base as it is rationalised. It often involves eliminating those suppliers that are unwilling or incapable of achieving supply-management performance objectives, either currently or potentially in the near future (Monczka et al. 2009). Firms taking an active role in supply-chain management seek to reduce purchases from marginal or poor-performing suppliers while increasing and concentrating purchases among their top-performing key suppliers. Such a practice is called supply-base rationalisation, supply-base reduction or supply-base optimisation, and has been a common practice since the late 1980s (Wisner, Tan & Leong 2009).

Activities aimed at fostering buyer–supplier partnerships and increasing the performance and value of suppliers are simply easier when fewer suppliers are involved. Thus, supply-base rationalisation programmes have the benefits of reduced purchase prices, fewer supplier management problems, closer and more frequent interaction between buyer and supplier, and greater overall levels of quality and delivery reliability, since only the best suppliers remain in the supply base (Wisner, Tan & Leong 2009). In terms of quality and reliability of service, the greatest appeal of the approach, aside from leverage, is its cost-effectiveness, as it synchronises business processes and operations, leading to reduced lead times, stockholding and associated costs (Hines 2004).

Supply-base rationalisation is described as a straightforward, simple sourcing strategy, and is often the initial supply-chain management effort, usually preceding the formation of long-term buyer–supplier relationships. It views the supply base as a dynamic or evolving entity. Suppliers come and go, and they often develop new and better capabilities, thus, revisiting supply bases annually or as purchasing contracts expire makes good economic sense. Obviously, monitoring the performance of existing suppliers also helps to ensure that the supply base is meeting quality, cost and service standards. There are still typically enough competing suppliers such that only the best-performing, highest quality, low-cost suppliers constitute an organisation's supply base (Wisner, Tan & Leong 2009).

2.7.3.1   *Bundling Services*

The bundling of services is perhaps the answer for outsourcing firms who are adopting a supply-base rationalisation approach to outsourcing. Bundling can be understood based on two definitions. First, it means the convergence or consolidation of existing networks and systems into one common service infrastructure. Second, it is the delivery of multiple services by one service provider in one service package (Mendelson 2000). For example, automaker Ford applies a sourcing framework designed to involve only a few suppliers with whom it has close and long-term relationships. The theory is that developing closer relationships will result in better quality, lower costs and improved innovation. Ford began a project that identified 20 items that accounted for about 50 per cent of its annual production spend and saw that for each of these items, they had seven, eight, nine or even more different suppliers. Their aim was to reduce this to three or four suppliers to supply 100 per cent of that commodity. Thus, the buyers benefit from increased quality and lower cost (Wisner, Tan & Leong 2009).

Bundling services does not only benefit the outsourcing firm but also the service providers. Banglesdorf (2002) uses the example of communications service providers, who are often engaged in a battle to win and retain customers to optimise the value of each customer relationship. As communications services become increasingly commoditised, providers are becoming eager to differentiate themselves through diverse service portfolios and bundled offerings. They are answering customer demand for a one-stop shop that can provide service and equipment, local and long distance, wireline and wireless, data and voice, content and applications. By bundling, service providers benefit by increasing their revenue per customer, which raises sales margins. Another advantage of service bundles is that they help to preventing destructive price competition because customers perceive value in bundled offerings. Bundles also help fend off competitors by eliminating entry points into accounts (since the bundle is already fulfilling all of a customer's service needs). Further, bundles can help retain customers by raising the barrier to revert to an alternative supplier, since switching providers is inconvenient and often costly for customers.

Organisations must develop supplier evaluation and measurement systems to identify the best-performing suppliers and then develop stronger business relationships with those suppliers (Monczka et al. 2009). The process of selecting and evaluating suppliers is one of the critical aspects of supply-chain management. Logically, economic factors (e.g., price competitiveness), quality of products and services (e.g., on-time delivery) and integrity (e.g., compliance with laws and regulations) are components always considered when selecting suppliers. However, sustainable supply-chain management goes beyond these common requirements because it also establishes methods of selection and evaluation in accordance with sustainable development principles. For example, policies, procedures, guidelines or principles that include social, ethical and environmental standards are commonly developed as a means of ensuring that suppliers comply with all of the requirements expressed in these documents (Ricart et al. 2005). Sustainable supply-chain management entails determining whether the supplier has the capability to deliver the required standards (McIvor 2005) and whether these standards will be adhered to while the contract remains in force.

When identifying vendors to provide services, the customer's spectrum of possible vendors will depend on the particular processes under consideration as well as the scope of the outsourcing. For instance, the vendor pool for HR will be different from the vendor pool for procurement outsourcing (Halvey & Melby 2007). Due diligence is required in identifying a vendor pool. Literally, 'due diligence' means appropriate, careful and persevering work (Sparrow 2003). Due diligence on the pool of vendors include issuing a request for information (RFI), talking to outsourcing clients, visiting outsourcing clients' sites, visiting vendor sites, checking customers' previous experience with the vendor, and obtaining annual reports and industry surveys/reports. The buyer may obtain, through formal or informal means, the following vendor information: reputation, history, financial security, organisation, resource distribution, experiences with customer environment, type of industry, employee transition and rollout or implementation of new technology. The vendor's customer base/references and its subcontractors/partners are also important sources of information. In general, buyers must establish evaluation criteria, which include

three important factors: the proposed solution, the ability to deliver services and the ability to implement new methodologies or technology (Halvey & Melby 2007).

Another factor to consider when selecting possible vendors is the geographic scope of the outsourcing. For multinational transactions or transactions in foreign countries, the customer should identify vendors with resources in locations under consideration for outsourcing (Halvey & Melby 2007). Often, companies must search worldwide for the best suppliers (Monczka et al. 2009).

With best suppliers already available in the market, outsourcing firms must be proactive in locating them and making sure that they contribute to meeting the corporation's objectives. An outsourcing relationship is unlikely to achieve both parties' desired results if it is not organised and well managed from the outset. Thus, client firms require a greater understanding of how to manage outsourcing relationships that create and sustain strategic value (Goo 2009).

2.8 Global Sourcing Capability Maturity and Optimisation

2.8 Optimise

- Capability Maturity Frameworks
- Optimisation
- Organisational Maturity

A review of the global sourcing capability maturity and optimisation literature includes Feeny and Willcocks's (1998) paper titled 'Core IS capabilities for exploiting information technology', in which the authors defined the core capabilities framework. This framework identified four faces or tasks of IT: the business face, concerned with delivering requirements; the technical face, responsible for ensuring that the business has access to the technical capability it needs; the governance face, concerned largely with the information management strategy; and the supplier face, which focuses on what to utilise or access from the marketplace. Prior to Feeny and Willcocks's (1998) paper, very little literature went into any depth about this issue, particularly in defining client capabilities around outsourcing. The core capabilities framework was further expanded by Lacity and Willcocks (2001), who took a RBV or theory perspective, stressing that these four faces are critical and determine, to some extent, which tasks firms should be outsourcing or insourcing, to which suppliers and how. They expanded the framework to include nine capabilities required by client organisations: 1) IS/IT governance; 2) business systems thinking; 3) business IT relationship building; 4) designing technical architecture; 5) making technology work; 6) informed buying of IT services; 7) contract facilitation; 8) contract monitoring; and 9) vendor development. Lacity and Willcocks (2001) stated that if organisations fail to consider this core capability framework and do not develop the maturity of these nine capabilities, where their competitors may be doing so, they will be at a disadvantage.

An interest in defining the capabilities and a focus on maturity were evident in Carmel and Agarwal's 2002 paper titled 'The maturation of offshore sourcing of information technology work'. The authors identified four stages of offshore outsourcing maturation: offshore bystander, offshore experimenter, proactive cost focus and proactive strategic focus. This was supported by Rottman and Lacity's (2004) paper, 'Twenty practices for offshore sourcing', in which five sourcing challenges were identified, with one being how organisations can move through the learning curve as they implement global sourcing strategies. In this context, the authors were referring to how client organisations need to build, improve or mature their organisational capability to support their global supply chains if they are to perform optimally.

In Gottschalk and Solli-Saether (2006a), an outsourcing maturity model is proposed across three stages. The first stage is a cost focus, the next is a focus on resources and the final stage is one of partnership. Adelakun and Wabash (2004) introduce a five-stage model of IT outsourcing maturity, from pre-decision and decision to adhoc outsourcing, more serious outsourcing and a final mature state. In Vashistha and Vashistha's (2006) publication, a chapter is devoted to the offshore maturity model, with a specific focus on the Carnegie Mellon Capability Maturity Model Integration (CMMI) that was developed in 1986. A key aspect of CMMI is the assessment framework based around five levels of maturity that display certain characteristics (refer also to Table 2.3): Level 1—Initial, Level 2—Repeatable, Level 3—Defined, Level 4—Managed and Level 5—Optimised.

Although initially constructed for software development, this framework of defining capability maturity is now broadly used industry-wide. Vashistha and Vashistha (2006) also made reference to additional maturity frameworks, including Sigma, COPC, neoIT, ISO, GS8 and Carnegie Mellon/ITSqc's eSourcing capability maturity framework designed for client organisations that are engaged in some form of outsourcing. Developed in 2006 and referred to as the eSourcing Capability Model for Client Organisations (Hefley & Loesche 2010), it was the first to model to fully define across 17 outsourcing capabilities the types of policies, processes and procedures a client organisation should have in place, depending upon its level of sourcing maturity. The eSCM-CL has a corresponding maturity framework

for providers - the eSourcing Capability Model for Service Providers (eSCM-SP), (Hyder et al 2010).

In 2006, the concept of the outsourcing learning curve was refined by Willcocks and Lacity (2006) (see Chapter 1, Figure 1.2) by introducing the notion of four sequential phases over time. Meanwhile Cullen, Seddon and Willcocks (2006) developed a model based on the outsourcing lifecycle, with building blocks of individual capabilities drawn from over 100 studies conducted between 1994 and 2003. These contributions were the beginning of an increasing focus on the capabilities an organisation requires, and the maturing of those capabilities over time, in order to optimise its overall global sourcing efforts.

Willcocks and Feeny (2006) revisited their original core capabilities framework, which focused on IT outsourcing, to determine the same model's suitability for a firm's back-office operations, and suggested that firms need to place a greater emphasis on business skills and 'soft' skills while continuing to address all of the nine capabilities on an ongoing evolutionary basis. This was an interesting insight as, in many ways, prior literature was more focused on the 'hard' skills or capabilities, and this shift to soft skills suggested the increasing complexity of cross-border/cross-cultural transactions and interactions. Meanwhile, Rottman and Lacity (2006) revisited their 20 practices for offshore sourcing and added a further nine to the original, while reinforcing the imperative for organisations to mature their global outsourcing and offshoring capabilities.

In more recent years, academic literature has provided insights into the interactions between the client and the service provider in outsourcing relationships. Some of these studies concluded that these inter-relationships are key in moving through the sourcing learning curve (Oshri, Kotlarsky & Willcocks 2008). This was further supported by case studies of two large Australian companies, from Reynolds and Willcocks (2009), and Fisher, Hirscheim and Jacobs (2009).

In the last two years, there has been an increase in academic research regarding the retained organisation, that is, the organisation post-outsourcing (Willcocks, Cullen & Craig 2010). In addition, the higher level or 'business value' capabilities, such as innovation in the

outsourcing relationship, were explored by Whitley and Willcocks (2012). They made a case for step change in driving innovation through outsourcing maturity. Lacity and Willcocks (2012) argued the need to rethink the sorts of capabilities clients need to develop now that the entire industry has reached a state of maturity. They subscribe to the belief in moving up the learning curve to a higher business value. Lacity, Willcocks & Solomon (2012 p. 15) define today's organisational capability as 'the previous experience, productive capacity, personnel and other resources that indicate that the applying organisation can carry out a proposal' (They state 12 capabilities as essential today: 1) supplier management capability; 2) technical and methodological capability; 3) risk management capability; 4) business process management capability; 5) contract negotiation capability; 6) cultural distance capability; 7) client outsourcing readiness; 8) absorptive capacity; 9) change management capability; 10) HR management capability; 11) transition management capability; and 12) proactive sense making.

Willcocks and Griffiths (2012) acknowledged the role of the middle manager in driving overall capability maturity and successful outsourcing. The authors stated that middle managers emerged from their research as the clear means by which strategic direction and executive decisions are converted into work done. Willcocks and Griffiths also defined four primary roles in outsourcing for middle managers: 1) coordinator; 2) knowledge repository; 3) social capitalist; and 4) change agent.

Finally, Kasse & Johansen's (2013) paper that presents the insights into a 3 year project of the maturity differences between customer and supplier firms have identified the challenges when firms collaborate together under an outsourcing arrangement. Here the authors use the CMMI framework and corresponding levels of maturity (ie Levels 1 to 5) and construct a model where the supplier's maturity is on the vertical axis and the client's maturity is on the horizontal axis in what they describe as the customer supplier relationship map and then test each of the 25 combinations (i.e. 5 x 5).

For a comparison of the various definitions of global sourcing maturity, see Table 2.3.

Table 2.3: Capability Maturity Rating Comparison

Capability Level	Willcocks, Cullen & Craig (2010)	Ambrose & Cohen (2010)	Moore et al. (2012)	Hefley & Loesche (2010)
Level 5	**Phase 4—Institutionalised/Re-Invented:** Focus on value added	**Level 5—Integrated:** Globally integrated services portfolio with world-class governance organisation	**Level 5—Optimised:** Well managed, formal, often automated, evaluated frequently	**Level 5—Sustaining Excellence** Demonstrated measurable, sustained, and consistent performance excellence and improvement
Level 4		**Level 4—Optimised:** Highly optimised internal and external service delivery capabilities with an effective governance organisation	**Level 4—Managed:** Continuous and effective, integrated, proactive, usually automated, institutionalised	**Level 4—Proactively Enhancing Value** Client organizations continuously enhance capability to meet evolving client requirements and deliver sourcing solutions that enhance value
Level 3	**Phase 3—Relationships Mature:** May renegotiate, switch suppliers. Richer practices emerge. Focus on costs and quality	**Level 3—Strategic:** Traditional vendor relationships with global delivery capabilities and a functional governance organisation	**Level 3—Defined:** Documented, predictable, evaluated occasionally, understood	**Level 3—Managing Organizational Sourcing Performance** Manage sourcing activities according to an organizational sourcing strategy, manage sourcing performance across the organization; and establish and share best practices across multiple sourced services
Level 2	**Phase 2—Pilots, first Relationships:** Best and worst practices emerge. Focus primarily on costs	**Level 2—Rationalised:** Functional with onshore or offshore vendor relationships and focus on vendor management	**Level 2—Repeatable:** Intuitive, not documented, occurs only when necessary	**Level 2—Consistently Managing Sourcing** Focus is on managing each sourced service and achieving required results for each sourced service
Level 1		**Level 1—Sub-optimised:** Decentralised and duplicative functions, non-standard business support services	**Level 1—Initial:** Occasional, not consistent, not planned, disorganised	**Level 1—Performing Sourcing** A client organization is performing sourcing, but they may be at risk of failure in areas where they have not implemented the necessary eSCM-CL Practices
Level 0	**Phase 1—Hype and Fear**		**Level 0—Non-existent:** Not understood, not formalised, need is not recognised	

2.9   Global Sourcing Decision Making

2.9 Organisational Decision Making

- Programmed and Non-Programmed Decision Making
- Individual Decision Making
- Organisational Decision Making

The decision-making process is the sequence of events undertaken by management to solve organisational problems (Montana & Charnov 2008). It is intertwined in all management activities, including planning, organising, leading and controlling. It is part and parcel of any organisation, for problems come in all sizes and shapes, and tend to arrive at the most inopportune times (Schmidt & Rieck 2000). Sometimes, decisions are made under conditions of risk and uncertainty, without any guarantee of success. The process can be one of trial and error, in which top managers continue to search for appropriate ways to solve complex problems. Aside from its problem-solving function, decision making introduces innovation and concretises steps to advance the organisation's interests. The growth, prosperity or failure of the organisation is an outcome of the decisions made by managers (Daft 2007).

In recent years, outsourcing deals have increased in number and the strategic importance of the decision-making process has correspondingly increased. Outsourcing decision making is multi-layered in nature. To understand how outsourcing decision making is shared at different levels in the organisation, this section examines decision-making frameworks and the hierarchy of decision-making authority within organisations. By breaking down the complexity of the outsourcing decision, the source of authority and degree of responsibility are determined in alignment with the different decision-making frameworks, and outsourcing arrangements can be properly chosen. The uniqueness of each organisation makes varied decision-making approaches necessary, so that they can blend with their particular context.

2.9.1 Programmed and Non-programmed Decision Making

Organisational decisions differ in complexity and can be categorised as programmed or non-programmed. Programmed decisions are repetitive and well defined, and procedures exist for resolving the decision problem. They are well structured because performance criteria are normally clear, good information is available about current performance, alternatives are easily specified and there is relative certainty that the chosen alternative will be successful (Daft 2009). In other words, programmed decisions are made under conditions of certainty, when all decision variables and the results of each potential course of action are known in advance (Montana & Charnov 2008).

Non-programmed decisions are used for unstructured, novel and ill-defined situations of a non-recurring nature (Koontz & Weihrich 2008). They are used when an organisation has not seen a problem before and may not know how to respond or have any existing procedures to deal with the problem. Clear-cut decision criteria do not exist. Alternatives are fuzzy. There is uncertainty about whether a proposed solution will solve the problem. Typically, few alternatives can be developed for non-programmed decision making, so a single solution is custom-tailored to the problem. Complex decisions are sometimes referred to as 'wicked' problems because simply defining the problem can turn into a major task. Wicked problems are associated with manager conflicts over objectives and alternatives, rapidly changing circumstances, and unclear linkages among decision elements. Under conditions of such extreme uncertainty, even a good choice can produce a bad outcome (Daft 2007).

Most organisational decisions are neither completely programmed nor completely non-programmed; they are a combination of both. Upper-level managers make most non-programmed decisions; this is because upper-level managers have to deal with unstructured problems. Problems at lower levels of the organisation are often routine and well structured, requiring less input by managers and non-managers (Koontz & Weihrich 2008).

2.9.2 *Individual Decision Making*

Decisions in the organisation usually start as an individual decision or the recognition of an important issue by a key organisational player. Later, the proposition gains some following until a consensus is reached. Individual decision making by managers can be described in two ways. First is the rational approach, which suggests an ideal method for how managers should try to make decisions. Second is the bounded rationality perspective, which describes how decisions actually have to be made under severe time and resource constraints (Daft 2009).

2.9.2.1   *Rational Approach*

The rational approach to individual decision making stresses the need for systematic analysis of a problem followed by choice and implementation in a logical, step-by-step sequence. The rational approach was developed to guide individual decision making because many managers were observed to be unsystematic and arbitrary in their approach to organisational decisions. According to the rational approach, decision making can be broken down into the following steps: 1) monitoring the decision environment; 2) defining the decision problem; 3) specifying decision objectives; 4) diagnosing the problem; 5) developing alternative solutions; 6) evaluating alternatives; and 7) implementing the chosen alternatives. The first four steps represent the problem-identification stage and the next three steps are the problem-solution stage of decision making (Daft 2009). Although the rational model is an ideal not fully achievable in the real world of uncertainty, complexity and rapid change, the model helps managers to think about decisions more clearly and rationally. If managers have a deep understanding of the rational decision-making process, it can help them to make better decisions even when there is a lack of clear information (Daft 2009).

2.9.2.2   *Bounded Rationality Perspective*

The point of the rational approach is that managers should try to use systematic procedures to arrive at good decisions. When managers are dealing with well-understood issues, they

generally use rational procedures to make decisions. Yet research into managerial decision making shows that managers are often unable to follow an ideal procedure. Many decisions must be made very quickly. Time pressure, a large number of internal and external factors affecting a decision, and the ill-defined nature of many problems make systematic analysis virtually impossible. Managers have only so much time and mental capacity; hence, they cannot evaluate every goal, problem and alternative. The attempt to be rational is bounded (limited) by the enormous complexity of many problems. There is a limit to how rational managers can be (Daft 2009).

Schwenk (2005) laid the groundwork for the treatment of cognitive simplification in his discussion of 'bounded rationality', which suggests that decision makers must construct simplified mental models when dealing with complex problems. These models may be subject to selective perception, since they are unable to evaluate comprehensively all of the variables relevant to a decision. Since strategic problems are almost by definition extremely complex, how do strategists with limited information processing capacities deal with this complexity in order to make sense of strategic problems? In answer to this question, the bounded rationality approach is often associated with the intuitive decision making process. In intuitive decision making, experience and judgement rather than sequential logic or explicit reasoning are used to make decisions. Intuition is not arbitrary or irrational because it is based on years of practice and hands-on experience, often stored in the subconscious. In Daft's (2009) observation, when managers use their intuition based on long experience with organisational issues, they more rapidly perceive and understand problems, and they develop a 'gut feeling' or hunch about which alternative will solve a problem, speeding up the decision-making process.

Attempts by strategists to simplify complex problems may introduce biases into their strategic assumptions. Interestingly, it is the strategic assumptions that form the basis for the frames of reference or schemata through which decision makers represent complex problems. Analogy and metaphor may be the means by which cognitive maps and schemata from other problem domains are applied to new strategic problems. If new strategic problems cannot be dealt with through analogy, then a complex diagnosis may have to be undertaken. Heuristics and biases may then come into play in developing new strategic

assumptions (Schwenk 2005). Thus, in the bounded rationality approach, assumptions and biases are not entirely negative, as they can be potential sources of solutions.

2.9.3   *Organisational Decision Making*

Organisations are composed of managers who make decisions using both rational and intuitive processes (Daft 2009). Organisational decisions are often sufficiently complex that they involve more than a single decision maker. They may involve entire tiers of managers across the departments, divisions and groups that large companies use to structure their businesses (Bower 1998). To understand the quality of decisions made within a business, the different levels of decision making must be understood. Montana and Charnov (2008) identified the different levels of decision making from the top to bottom hierarchy of the firm as strategic, administrative and operational.

2.9.3.1   *Levels of Organisational Decision Making*

2.9.3.1.1   **Strategic Decision Making**

SDs are those decisions that determine the goals of the entire business organisation, its purpose and direction. They are largely the task of top management. Top management gathers the 'big picture' of all the elements of a complex business enterprise into a coherent whole. Decisions made at this level also determine how the business will relate to external environments. As strategic policies affect the entire business, they must be made at the highest level within an organisation. These policies and goals are not very specific because they must be applied to all levels and departments within a company (Montana & Charnov 2008). Many decisions involve strategic planning, because uncertainty is great and decisions are complex. A higher percentage of non-programmed decisions occur in a rapidly changing business environment (Daft 2007).

Papadakis and Barwise (1998) view strategic SDM as greatly significant because of five characteristics of SDs: 1) they are usually big, risky and hard to reverse, with significant long-term effects; 2) they are the bridge between deliberate and emergent strategy; 3) they

can be a major source of organisational learning; 4) they play an important role in the development of individual managers; and 5) they cut across functions and academic disciplines. All of these features distinguish SDs from routine operating decisions. SDs take up much of the time of top management.

Outsourcing is an example of a SD, requiring proactive, professional decision making (Greaver 1999). Offshoring, which is a type of outsourcing, has important implications for companies and countries on both the 'demand' and the 'supply' sides of the market. At the highest level, it represents an opportunity for multinational companies to create more value at lower cost. How and where to offshore are some of the critical SDs facing top management in medium to large companies today. The potential gains may be immense, but there is equal scope for making expensive mistakes (Farrell 2006); thus, management decisions should be made with calculated risk.

2.9.3.1.2 Administrative Decision Making

Administrative decisions are those made at a lower level than SDs. Mid-level management, such as divisional or departmental managers, usually makes these decisions. The decisions concern the development of tactics to accomplish strategic goals defined by top management. Although top management's SDs are nonspecific because they are applied to all departments within the organisation, administrative decisions express corporate goals in a specific departmental manner. Therefore, administrative decisions are more specific and concrete than SDs, and more action-oriented (Montana & Charnov 2008).

2.9.3.1.3 Operational Decision Making

Operational decisions are made on the lowest or supervisory level within the company and concern the course of daily operations. These decisions determine the manner in which operations are conducted—operations assigned to accomplish the tactical decisions made by mid-management. These decisions concern the most effective and efficient way to accomplish the administrative-level goals (Montana & Charnov 2008).

The three levels of decision making are at work in the practice of outsourcing. Outsourcing addresses issues within a wide range of domains, such as political (e.g., union pressure), economical (e.g., financial feasibility) and technological (e.g., performance metrics). Managers not only need to critically analyse all aspects of the business, but they also need to interact with multiple organisational layers—strategic, tactical and operational—in order to understand the associated implications (Ho & Atkins 2006).

2.9.3.2   *Organisational Decision-making Frameworks*

The decision-making framework of organisations can be determined by the philosophies and approaches held by its management. In this section, three decision-making models offer different perspectives on how organisations make decisions to solve issues and problems.

2.9.3.2.1 Carnegie Mellon Model

The decision-making approach of Robert Cyert and James March from Carnegie Mellon University is often referred to as the Carnegie Mellon model. This approach extends in some ways to the ideas of bounded reality, and challenges the notion that an organisation makes decisions rationally as a single entity. Cyert and March believe that organisations are made up of a number of sub-units, each with diverse interests. Decision making must recognise and allow this diversity in (Slack & Parent 2006).

Organisational-level decisions are made by coalitions of managers who do not have all the time or cognitive ability to deal with all aspects of a problem. Consequently, decisions are split into sub-problems. This process of splitting problems leads to coalition building, where managers try to find out other managers' points of view and enlist their support for a particular decision. There is a continuous process of bargaining among the various groups in the organisation, as each tries to influence the decision outcome. As a result, managers spend more time managing coalitions than they do managing the problems confronting the organisation (Slack & Parent 2006).

Managers need to resolve the internal conflict that results from coalition building. While they may agree with each other on organisational goals, there is often little consensus on how to achieve these goals. Decisions are therefore broken down into sub-problems and allocated sub-units. The danger is that these sub-units address and solve the problems based on their rationality and their own interests rather than on what is best for the organisation as a whole. Further, managers become concerned with short-term solutions rather than long-term strategies. They may involve themselves in what are called problematic searches: when a problem occurs, managers quickly search for a way to handle or resolve it, and as soon as one is found, the search stops. When problems are somewhat familiar, managers tend to rely on past experiences and procedures, because relying on the past requires less time spent on politics and bargaining (Slack & Parent 2006).

2.9.3.2.2 Incremental Decision Model

An incremental approach recognises that managers are often incapable of addressing very large-scale, complicated issues in a single decision cycle. Instead, they may muddle through a series of sub-issues, with no clear outcome in mind (Schminke 2009).

Henry Mintzberg and his associates at McGill University in Montreal approached organisational decision making from a different perspective (Mintzberg, Raisinghani & Theoret 1976). They identified 25 common decisions made in organisations and traced the events associated with these decisions from beginning to end. Their research identified each step in the decision sequence. This approach to the decision making process, called the incremental decision model, places less emphasis on the political and social factors described in the Carnegie Mellon model, but tells more about the structured sequence of activities undertaken from the discovery of a problem to its solution. Using this model, researchers discovered that major organisational choices are usually a series of small choices that combine to produce major decisions. Thus, many organisational decisions are a series of nibbles rather than a big bite.

Mintzberg, Raisinghani & Theoret (1976) also identified that organisations move through several decision points and may hit barriers along the way. He called these barriers

'decision interrupts' (Daft 2009). Interrupts are events that result in a change in the pace or direction of the decision process. Interrupts cause delays because they force an organisation to go back and modify its solution, find another one or engage in political activity to remove an obstacle (Slack & Parent 2006). Decision loops or cycles are one way the organisation learns which alternatives will work. The ultimate solution may be very different from the one that was initially anticipated (Daft 2009).

2.9.3.2.3 The Garbage-can Model

The garbage-can model—proposed by Cohen in 1972, who then collaborated with March to further develop the model in 1974—gives a colourful and apt description of how decisions are made in organisations. In this approach, events and decisions are not necessarily as systematic as the bounded rationality model suggests; rather, they approach an organised anarchy, exhibiting problematic preferences, ambiguous technology and fluid participation. The garbage-can model views organisations as experiencing rapid change and as collegial, non-bureaucratic and fuzzy. No organisation exhibits these characteristics of organised anarchy all the time, but most organisations find themselves making decisions under problematic and ambiguous circumstances occasionally, particularly at the strategic level. An important characteristic of the garbage-can model is that the decision process is not a sequence of steps beginning with a problem and ending with a solution. In fact, the problem-identification and problem-solution stages may not even be connected to each other. Ideas may be proposed as a solution when no problem exists. Similarly, problems may exist and never generate a solution (Butler et al. 1993).

The reason that problems and solutions may not be connected is that decisions are often the outcome of independent streams of events within the organisation (Butler et al. 1993). A stream-of-choice opportunity refers to an occasion when a decision is usually made in an organisation. These occasions include an employee's hiring or firing, a budget finalisation, the addition of a new service or the selection of a team. A stream of participants is the people who make choices in an organisation. These people come and go as a result of hirings, firings, transfers, retirements and so forth. Participants come from different backgrounds and have different ideas about problems and solutions. A stream of solutions

relates to the ideas held strongly by participants, who may try to sell their ideas to the other members of the organisation. In some organisations, people such as planners and systems analysts are hired explicitly to come up with solutions for situations where problems do not exist. In this way, solutions can exist without problems being present (Slack & Parent 2006).

The existence of these four streams means that the process of decision making is somewhat random. The organisation is described as a garbage can into which problems, choices, participants and solutions are all placed. Managers have to act with resultant disorder; as a result, decisions are rarely systematic and logical. Choices are made when problems come together with the right participants and solutions. As a consequence, some problems are never solved, solutions are put forwards even when a problem is yet to be identified and choices are made before problems are understood. The strength of the garbage-can model is that it draws our attention to the role that chance and timing play in the decision-making process. Also, unlike other approaches, which tend to focus on single decisions, the garbage-can approach is concerned with multiple decisions (Slack & Parent 2006).

To summarise, organisational decision making involves individual decision making that can be characterised as taking either a rational sequential approach or a rationally bounded approach. From an individual's point of view, the idea is communicated to other managers at other levels in the organisation, where the decision becomes a consensus. Organisational decisions are made via coalitions and alliances (the Carnegie Mellon model), after series of small choices (incremental model) or at random (garbage-can model).

2.10 Global Sourcing Decision Models

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2.10 Sourcing Decision Models

- Friedman's Sourcing Decision Model
- King's Framework for Information System Sourcing Decision Process
- Willcocks, Feeny and Islei Sourcing Frameworks
- Yang and Huang Decision Model
- De Looff Description Framework
- Perry Matrix Analysis
- Systems Audit Grid
- Cox Methodology
- Four Outsourcing Relationship Type Framework
- Holistic Approach Business, Information, Organisation Framework

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A brief review of the definition of sourcing would be helpful before beginning the task of understanding how firms decide on their sourcing strategy. Sourcing has two different meanings: it may be viewed as a current state (static) or as a decision process (dynamic). As a current state, sourcing refers to the current organisational arrangement of an organisation's functions. Organisational arrangement refers to the formal structure of responsibility and allocation of tasks within a function. This could be handled either internally (in-house, insourcing) or externally (outsourcing). Under the second definition, sourcing is given a procedural meaning and perceived as a management action that includes the choice between alternative organisational arrangements. It implies a decision process on whether to perform a function in-house or externally, or, to put it another way, it describes a decision on whether to stay with the current organisational arrangement or to change it (Dibbern 2004). Although these two definitions were provided by Dibbern (2004) in the context of IT, the definition can be generalised to other business functions. Hence, both definitions of sourcing are adopted here.

In practice, the two definitions occur simultaneously. However, it is the second definition that paves the way to the first. That is, a decision has been made that subsequently

determines the organisation's sourcing arrangement (Dibbern 2004). This section will elaborate further on the second definition.

Crucial information and sound plans are required for the decision-making process (McIvor 2000). Sourcing has become a much more elaborate and granular process since the early 1990's (Dibbern 2004). Sourcing questions have grown sophisticated, from the simple 'to outsource or not to outsource?' to the complex 'how and where should resources and services be properly deployed?' (King 2008). The general questions being articulated by firm's seem to be: What does a decision process look like? What are the main activities included in a sourcing decision and how do they hang together? It is reasonable to assume that many organisations are aware of the options available and, at the very least, are implicitly creating sourcing decision processes (Dibbern 2004).

To review the sourcing literature, sourcing decision models/frameworks from practitioners and researchers are examined and presented here. These frameworks encompass a number of variables and seek to capture the complexities of sourcing evaluation and management. Among the key issues they identify in evaluating the implications of outsourcing for organisations are organisational capability, supplier capability, competitor actions, and supply market risk. A number of alternative models are offered, based upon an analysis of these key influences. Explanations are given into how and why these dimensions should be considered in the formulation of the sourcing decision (McIvor 2005). Frameworks are necessary to show how the sourcing decision process can be carried out effectively in an organisation to maximise stakeholder value (Kumar & Eickhoff 2006). Moreover, sourcing frameworks force executives to be more thorough in the process and to identify fully the implications of their decision and other potential problems that may arise. The frameworks direct the activities of the organisation towards the best investments and thereby ensure current and future success. Lastly, these organisational model/frameworks provide executives with a new understanding of organisational strategy as they become aware of the methodology behind the model (King 2008).

The lack of a good framework is disadvantageous to sourcing decisions. Without a corresponding set of metrics to assess sourcing arrangements, objective success estimates

are difficult to determine. Without a baseline from which to measure these and a set of service level performance criteria in place, the cost of the engagement is often used as the sole criterion to evaluate success (Koulopoulos & Roloff 2006). Aside from not having a good framework, lack of systematic and rigorous planning and evaluation makes a sourcing decision weak. Organisations commonly commit three mistakes, particularly in outsourcing ventures. First, while they spend time choosing countries, cities and suppliers, and put a significant effort into negotiations, they do not spend time on an evaluation of which processes should be outsourced and which should not. It appears that most companies have difficulty in distinguishing between 'core' processes, which they must control, 'critical' processes, which they must buy from expert vendors, and 'commodity' processes, which they can outsource. Second, most organisations do not fully consider the risks associated with outsourcing. Often, calculations are made only in relation to its costs and benefits without taking into account the fact that, after signing the deal, the supplier might gain the upper hand. Most outsourcing customers appear to disregard any risks related to the power relation between the two partners and tend to make choices that eliminate the savings from outsourcing. Third, a number of companies do not understand that outsourcing is not an all-or-nothing choice, but that there is a range of outsourcing models that they can follow (Aron & Singh 2005).

Our study of sourcing decision making leads us to two types of frameworks: management theories and sourcing models. Earlier, management theories, which form the general frameworks of sourcing decisions, were presented. They provide explanations of the general orientation or the underpinning philosophy behind organisations' business decisions. In contrast, sourcing models, which are presented in this section, are referred to as specific frameworks. They are explanations for particular and concrete organisational initiatives. They are the working frameworks stemming from the organisations' management theories. The models and theories are complementary because the sourcing models are rooted in the management theories. A matrix is shown at the end of this section to show the connection between the two frameworks (see Table 2.7).

2.10.1 Friedman's Sourcing Decision Model

This model (see Figure 2.5) distinguishes two basic motivations behind outsourcing. An organisation may decide to outsource for either strategic or tactical reasons. Whatever may be the objective of the organisation, the decision makers need to have a clear understanding of the strategic direction of the organisation. This means that the outsourcing decision must support the vision of the organisation and help position the parties as strategic business partners. The goal is to ensure that the organisation's key priorities are addressed comprehensively. This is done by properly allocating the best resources, whether internal or external, based on careful consideration, not gut feelings (Friedman 2006).

Friedman's (2006) model provides a framework for determining which initiatives to outsource and which to insource, although this may not be a simple task in reality. The model assumes that a needs assessment has been done and that there is a need to take this initiative. Using a series of questions, the model guides the user through a thought process designed to explore business priorities, factors important to sourcing decisions and associated trade-offs.

The model begins the decision process with a strategic assessment: What is the relationship between this initiative and the organisation's strategic priorities? The answer helps to establish the context for the decision making and determine the relative importance of the initiative. After determining the relationship of the initiative to strategic priorities, four factors are considered: expertise, timing, cost and context. Anyone of these factors can be a knockout factor that forces the organisation to either outsource or insource. Each factor can be assessed through some related questions. In terms of *expertise*, the questions are: Do internal staff have the credibility to accomplish the initiative? Are the skills and knowledge so specialised that outside resources are required? In terms of *timing*, the questions are: Given other priorities, can internal resources meet the deadline? Given the deadline, is there time to identify an appropriate external resource? In terms of *cost*: Are there enough funds to outsource if desired? If there is not adequate funding but outsourcing is desired, can the appropriate leaders be influenced in order to obtain the funding" Lastly, in terms of *context*: Is there some cultural/political sensitivity that requires either outsourcing or insourcing?

Does the nature of the project require the objectivity of an external perspective? By answering these questions, the user can weigh up the factors that favour insourcing or outsourcing. Sometimes in a sourcing decision, there is neither a clear knockout factor nor a conflict between factors. When the situation is ambiguous, with none of the factors strongly pointing towards insourcing or outsourcing, an exploration of the trade-offs is beneficial (Friedman 2006).

Figure 2.5: Friedman's Sourcing Decision Model
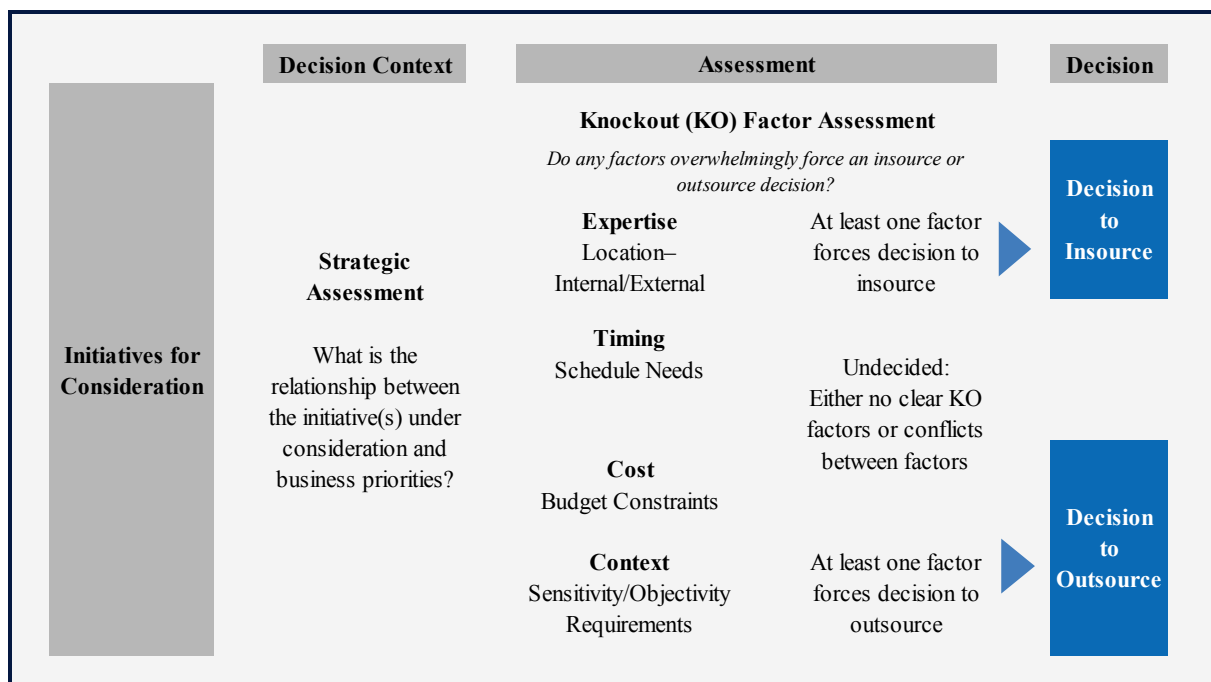
Source: Friedman (2006)

2.10.2 King's Framework for Information System Sourcing Decision Process

The framework developed by King (2008) relies on concepts from the RBT, industrial economics and specifically from CC theory. This framework anticipates that a group of executives will develop an initial evaluation of the activity based on the two key constructs —CSFs and CCs—at both a present and a future time. The framework then recommends various sourcing options such as outsourcing, insourcing, internal markets and strategic alliances that are ideal for the nature of the activity. The rationale for the working option is given in order to determine whether such an option could accomplish the goals of the organisation. By knowing the wisdom behind the sourcing option, the next step would be to

take the appropriate action. The framework also presents inevitable consequences (which are sometimes unrecognised) and the issues that are likely to materialise if the working option is selected (these issues are often unrecognised).

Table 2.4: King's IS Sourcing Decision Framework

If an activity is assessed to be:	'Working' option to be considered	Rationale for suggested option	Implications (actions required)	Other issues
Not currently or potentially a CC or a CSF	Outsource	Why do it?	Develop contract negotiations and management capability Need for baseline and benchmark measures Need for vendor monitoring	Loss of control Loss of expertise Create a competitor Create a technological ceiling Risk Develop a 'partner' relationship
Currently a CSF and a CC	Insource	Preserve Continue to improve/develop	Invest Cost/benefit (C/B) and risk assessment	Feasibility of improving through re-engineering, new incentives and so on C/B assessment
Currently a CSF and not currently a CC	Use insourcing or any other option to develop	Mandatory development	Integrate into strategic capabilities architecture Investment required	Feasibility and C/B assessment Risk of other-than-insourcing strategies Viability of the business
Currently a CC and a potential CSF	Internal markets	Refine capability Continue to improve/develop Develop necessary scale	Develop plan for transformation to internal markets	Feasibility Fit with culture Fit with incentives
Potential CC and potential CSF	Strategic alliance	Secure complementary skills for development	Develop project management system	Impact on the culture Risk Potential for losses to exceed gains of expertise and information
	or Internal markets	Provide scale for development Develop plan for transformation	Develop internal markets infrastructure Fit with culture and incentive system	Feasibility
	or Monitor	Obtain further information	Secure and develop sources of information and perform timely reassessment	CB of waiting to decide

Source: King (2008)

2.10.3 Willcocks, Feeny and Islei Sourcing Frameworks

Willcocks, Feeny and Islei (1997) suggested three dimensions by which to assess the outsourcing option: business, economic and technical. This helps the organisation decide which dimension it will prioritise and which capability it will focus on strengthening. Each of the dimensions is presented in the following matrices to illustrate how different concepts work, at least in theory.

2.10.3.1 Business Matrix

The business matrix identifies two business factors that drive sourcing decisions: business operations and competitive positioning. Each factor can be classified into particular types. Business operations (on the y-axis) can be classified as either critical or useful, while competitive positioning (on the x-axis) may be classified as a commodity or a differentiator activity.

Willcocks, Petherbridge and Olson (1997) described the four categories (see Figure 2.6) that result from the different interactions of these business factors as follows:

Critical differentiators: Called 'qualifiers', these activities are not only critical to business operations but also help to distinguish the business from its competitors. Companies with critical differentiators would probably not outsource to a third party, but they might consider offering their critical differentiator as an outsourcing service to others. The revenues generated from selling a critical differentiator may be more than the revenues generated from attracting extra customers by keeping it in-house.

Critical commodities: Order winners are activities that are critical to business operations but that fail to distinguish the business from its competitors. The decision to outsource would be based on clear evidence that an external supplier could meet stringent requirements for quality and responsiveness, as well as offer a low price. The policy is to 'best-source' not to 'cheapest-source'. Since critical commodities do not serve to

differentiate competitors, there are strong incentives for competitors to collaborate to reduce everyone's costs.

Useful commodities: These are the myriad activities that provide incremental benefits to the business but fail to distinguish it from its competitors. Payroll, benefit and accounting systems are the usual examples volunteered by most businesses. Useful commodities or 'necessary evils' are the prime candidates for outsourcing. External suppliers are likely to have achieved low costs and prices through standardisation. The business makes further gains if it can free up internal management time to focus on more critical activities.

Useful differentiators: These are activities that differentiate the business from its competitors but in a way that is not critical to business success. Useful differentiators should not exist, but they frequently do. A common reason for the creation of useful differentiators is that a potential commodity has been extensively reworked to reflect 'how we are different' or to incorporate the 'nice-to-haves'. Useful differentiators are 'distractions' and need to be eliminated from or migrated within a portfolio, but never outsourced merely to reduce costs.

Figure 2.6: Selecting IT Outsourcing Candidates
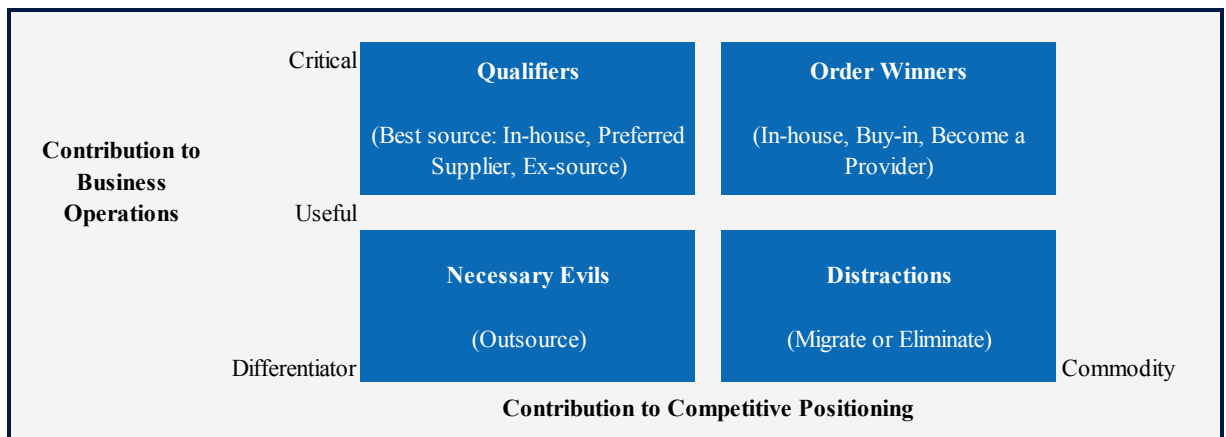
Source: Willcocks, Petherbridge & Olson (1997)

2.10.3.2 Economic Matrix

The economic matrix is a framework (see Figure 2.7) that allows for analysis of a function's in-house economies of scale (x-axis) against the standard of managerial practices (y-axis). It is commonly assumed that external service providers can reduce the operations costs via their inherent economies of scale that internal departments are unable to achieve. Contrary to this, several medium to large companies can still manage to achieve considerable economies of scale, which suggests that the key to external service providers' continued ability to underbid internal costs lies only in effective managerial practices that internal departments are unable to replicate (Ho & Atkins 2006).

Figure 2.7: Comparing Vendor Offerings and In-house Capabilities
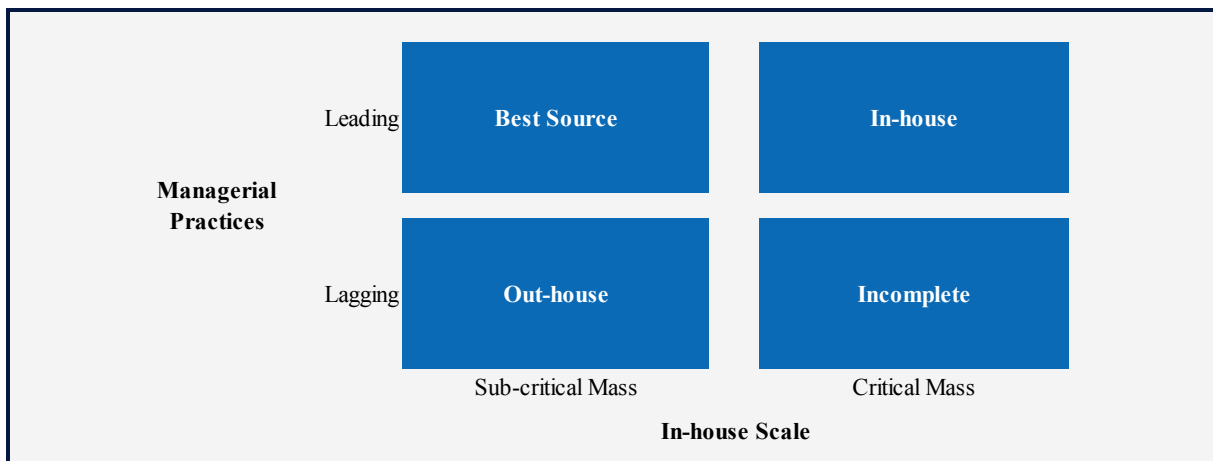
Source: Ho & Atkins (2006)

The interactions between the different types of managerial practices and in-house scale produce four possible economic options. Ho and Atkins (2006) describe the economic matrix as yielding four quadrants:

- Leading managerial practices with sub-critical mass: Functions classified under this quadrant should be 'best-sourced' to explore the possibility of extending economies of scale beyond those of internal capabilities. Viability of outsourcing is typically initiated through a market test.

- Leading managerial practices with critical mass: Given that economies of scale have reached critical mass, it is unlikely that any external service provider will be able to further reduce costs due to their inherent profit-making nature. (In contrast, internal

departments simply need to cover costs.) As such, these functions are better retained in-house.

- Lagging managerial practices with sub-critical mass: Given that both managerial practices and economies of scale are of less-than-favourable standards, there is strong justification to outsource such functions. One possibility is to 'out-house', which involves total outsourcing as a means to improve the business's financial assets and technical expertise.

- Lagging managerial practices with critical mass: In such instances, it is suggested that internal departments be encouraged to compete against bids submitted by external service providers. Such competition may provide the managers with the kind of empowerment required to overcome internal resistance to the use of outsourcing.

2.10.3.3   Technical Matrix

The technical matrix (see Figure 2.8) is a framework that allows for analysis of the company's technology maturity (x-axis) against its degree of service integration (y-axis). Technology maturity refers to the degree to which the company is familiar with the technologies utilised. High technology maturity implies well-established use of familiar technology that facilitates the company's ability to clearly and precisely define their requirements for outsourcing operations. In contrast, low technology maturity implies complications as the company would be unable to evaluate the external service provider's performance accurately without having the corresponding knowledge of the capabilities involved. The degree of service integration, such as IT, refers to the extent to which IT functions are integrated into business processes, such as manufacturing. A low degree of IT integration implies that the IT functions can be easily separated from business processes and handed over to external service providers, which facilitates the use of outsourcing (Ho & Atkins 2006).

Figure 2.8: Selecting an Appropriate Contract
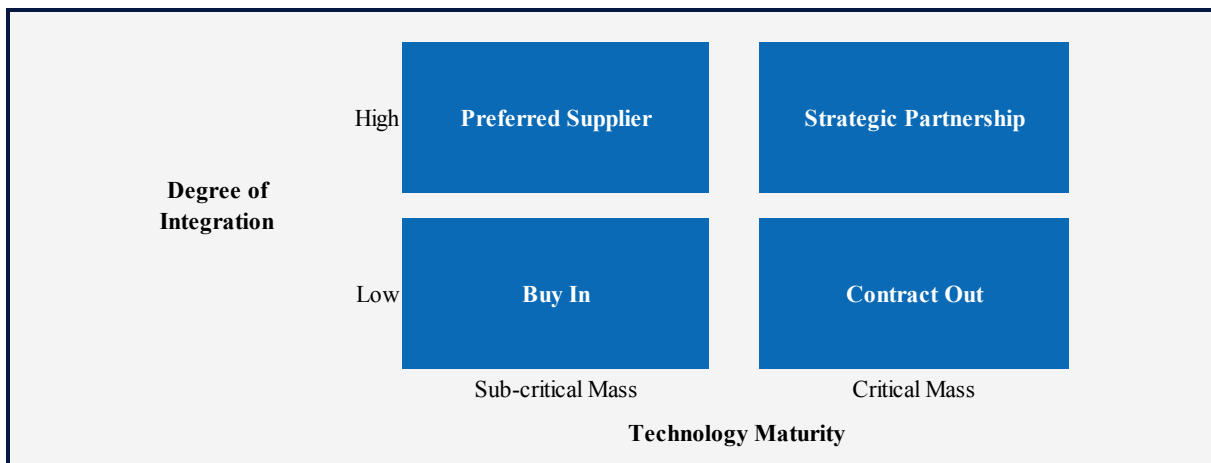
Source: Ho & Atkins (2006)

Ho and Atkins (2006) described Willcocks et al.'s matrix as falling into four quadrants:

- High degree of integration with low technology maturity: Functions classified under this quadrant are likely to be outsourced to a preferred external service provider with which the company already has a history of partnership and has cultivated a certain degree of understanding and mutual trust. A strong business relationship is necessary given that a high degree of integration implies that the success of the outsourcing operation can directly affect business processes.

- High degree of integration with high technology maturity: In this situation, it is suggested that companies engage in strategic partnerships. The high degree of integration enforces a need for close business relations to ensure the integrity of the integrated function, while a high level of technology maturity enables the company to negotiate detailed outsourcing contracts. The use of such strategic partnerships allows risk sharing between the company and the external service provider.

- Low degree of integration with low technology maturity: In this situation, in which both degree of integration and technology maturity are of less-than-favourable standards, it is suggested that the company 'buy in'. This involves integrating consultants and/or specialists from external service providers to strengthen the capabilities of internally managed functions.

- Low degree of integration with high technology maturity: In such instances, it is suggested that companies contract out to external service providers. This is because the low degree of integration implies the ease of separating, for instance, IT functions from business processes for outsourcing, while the high technology maturity implies that the company has adequate knowledge to negotiate the appropriate contract.

2.10.4 Yang and Huang Decision Model

Yang and Huang's (2000) model (see Table 2.5 and Figure 2.9) provides a quantitative framework for outsourcing decisions. It proposes a five-step process: 1) establish the expert team; 2) choose the factors and attributes; 3) construct the analytical hierarchy; 4) compute the alternatives; and 5) make the decision.

Yang and Huang's (2000) model applies the analytical hierarchy process (AHP) of Saaty (1990), which is a method of solving ambiguous decision-making problems and those involving multiple-criteria characteristics. AHP approaches complex problems by simplifying them first. This is done by decomposing the problem into several smaller sub-problems. By using AHP, a square matrix can be derived to find the eigenvector with the largest eigenvalue. The eigenvector identifies the priority ordering while the eigenvalue measures the consistency of judgement. AHP follows this three-step process: 1) constructing the hierarchy; 2) computing the weight of the elements in each level; and 3) computing the weight of the alternatives.

The process begins by constructing a hierarchy consisting of the sub-problems, which are commonly categorised into: management, strategy, technology, economics and quality. The elements in the hierarchy must not exceed seven, as it would be complicated to deal with them simultaneously. The highest level with only one element is the goal sought in this approach. The elements in the lowest levels represent the alternatives or activities. Elements in the middle levels are the criteria or attributes that evaluate the alternatives. Table 2.5 shows these factors and their distinct attributes. Firms should increase or decrease the attributes that are suitable for them while they make decisions (Yang & Huang 2000).

Table 2.5: Factors and Attributes of Outsourcing

Management
Stimulate IS department to improve their performance and enhance morale
Improve communication problems and selfishness between IS department and operational department
Solve the floating and scarcity of employees
Increase the ability of management and control of IS department
Keep the flexibility to adjust departments, including consolidation or decentralisation
Strategy
Focus on CC
Make strategic alliance with vendor to make up the shortage of resources or technology
Form a new company by concatenating CCs of these strategic alliances to develop and sell new product
Share the risks
Time-to-market advantage
Technology
Get new technology
Learn new technology of software management and development from vendors
Economics
Reduce the developing and maintaining cost of IS
Change the fixed costs to variable costs
Increase the flexibility in finance
Quality
Procure higher reliability and performance of IS
Reach higher service level

Source: Yang and Huang (2000)

Figure 2.9: Structure of the Outsourcing Problem
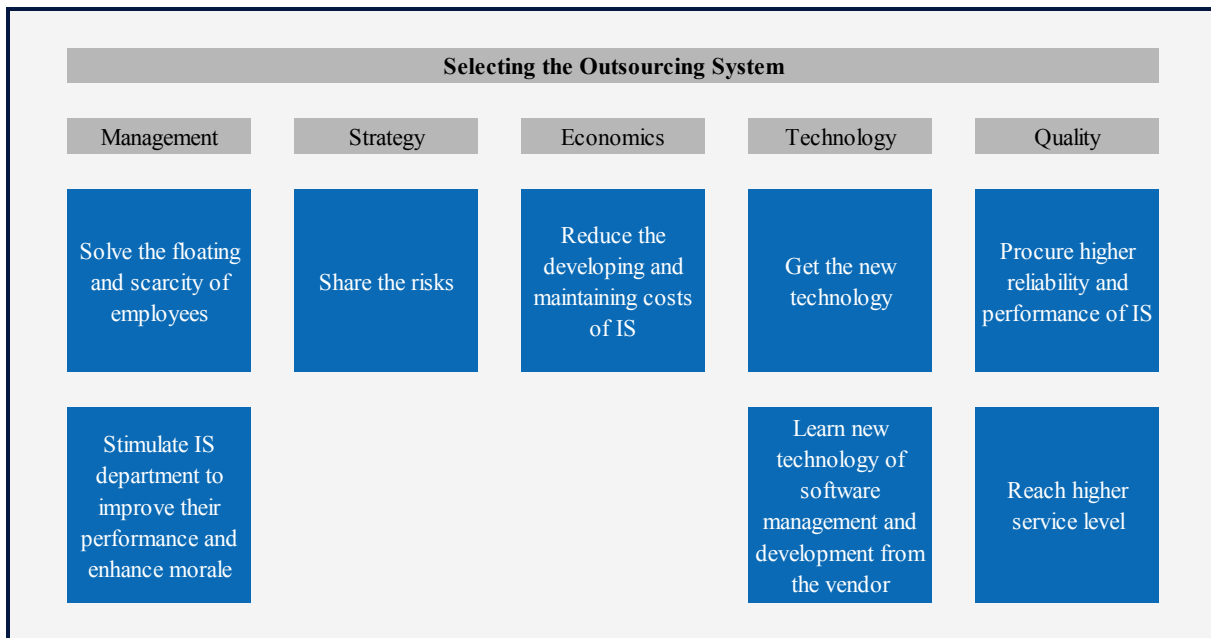
Source: Yang & Huang (2000)

After constructing the hierarchy, the next step is to compute the weight of the elements in each level through these three phases: paired comparison, computing a vector of priorities and measuring consistency. The formulae will not be presented here but numeric values will be generated that will help decision makers decide whether they should adopt the outsourcing strategy for each IS system under consideration. Table 2.6 presents the meaning of the values yielded for each element.

Table 2.6: AHP Meaning and Scale

Intensity of Importance	Definition	Explanation
1	Equal importance	Two activities contribute equally to the objective
3	Weak importance of one over another	Experience and judgement slightly favour one activity over another
5	Essential or strong importance	Experience and judgement strongly favour one activity over another
7	Very strong or demonstrated importance	An activity is favoured very strongly over another; its dominance is demonstrated in practice
9	Absolute importance	The evidence favouring one activity over another is of the highest possible order of affirmation
2, 4, 6, 8	Intermediate values between adjacent scale values	When compromise is needed
Reciprocals of above non-zero	If activity i has one of the above non-zero numbers assigned to it when compared with activity j, then j has the reciprocal value when compared with i	A reasonable assumption
Rationales	Intermediate values between adjacent scale values	When compromise is needed

Source: Yang & Huang (2000)

AHP employs two types of measurement: relative measurement and absolute measurement. In relative measurement, paired comparisons are performed throughout the hierarchy, including the alternatives in the lowest level of the hierarchy with respect to the criteria in the level above. In absolute measurement, paired comparisons are also performed throughout the hierarchy except for the alternatives themselves. The alternatives are not pairwise compared, but are simply rated with a standard scale as to which category they fall under in each criterion. Absolute measurement requires a standard scale with a unit. For example, in the evaluation of employee performance, the criteria of the best grade must be more than 80, with 80 being the standard scale (Saaty 1990).

2.10.5 De Looff Description Framework

The De Looff (1995) framework (see Figure 2.10) was formulated for management-level decision making in order to obtain a systematic description of outsourcing options. The framework allows for an outsourcing option to be described by its attributes. The framework is presented in a checklist form that covers four important sections (Ho & Atkins 2006):

- Section 1: Dimensions of the IS function. The framework advocates that an IS function can be described in terms of three dimensions, namely functional IS, analytical IS and temporal IS activities. The combination of these three dimensions allows a company to determine what activities are performed by which components of what IS.

- Section 2: Provider. This section is focused on a description of the degree to which the service provider is owned by the client, along with the degree of dependence that the provider has on the client (e.g., client is a major customer of service provider). The degree is described as no, partially or totally.

- Section 3: Relationship between client and provider. This section of the framework states whether the client and service provider are free to choose their business partners, and whether the client–provider relationship involves multiple transactions. Dispute resolution mechanisms (e.g., litigation and third-party consultation), along with payment terms and coordination mechanisms, are also covered in section.

- Section 4: Arrangement. This section provides a description of the outsourcing option based on location, ownership and control of IS components, along with its exclusiveness of use (i.e., dedicated or shared—whether the service provider is allowed to share its resources over multiple customers).

Figure 2.10: De Looff Checklist

I. Dimensions of the IS Function					
Information Systems	[] Production IS	[] Personnel IS	[] Land Registry IS	[] Fleet Management	Etc.
IS Components	[] Hardware	[] Software	[] Data	[] IS Personnel	[] A
IS Activities	[] Planning	[] Development	[] Implementation	[] Maintenance	[] B
II. Provider					
Owned by Client	[] No		[] Partially		[] Totally
Dependent on Client	[] No		[] Partially		[] Totally
III. Relationship between Client and Provider					
Client's choice of provider	[] Free	[] Limited	[] None		
Provider's choice of client	[] Free	[] Limited	[] None		
Spans multiple transactions	[] No	[] Preferred position	[] Fixed conditions	[] Guaranteed spending	
Payment based on	[] Time and material	[] Fixed fee	[] Workload	[] Benefits to client	
Coordination mechanisms	[] Mutual adjustment	[] Direct supervision	[] Work process	[] Output	[] Skills
Resolving disputes	[] Litigation	[] 3rd party	[] Escalation procedure	[] Common authorities	

IV. Arrangement of IS Components						
		Hardware	**Software**	**Data**	**IS Personnel**	**Etc.**
Location	Client	[]	[]	[]	[]	[]
	Supplier	[]	[]	[]	[]	[]
Ownership / employment	Client	[]	[]	[]	[]	[]
	Supplier	[]	[]	[]	[]	[]
Exclusiveness	Dedicated	[]	[]	[]	[]	[]
	Shared	[]	[]	[]	[]	[]
Control	Client	[]	[]	[]	[]	[]
	Supplier	[]	[]	[]	[]	[]

Source: Ho & Atkins (2006)

2.10.6 *Perry Matrix Analysis*

The Perry matrix analysis (see Figure 2.11) was conceived by Perry, Stott and Smallwood (1993) based on the concept of unit of competitive advantage (UCA). This framework is similar to the theory of CC, for use in decision making with regards to support work. It takes into account whether the support work is UCA-oriented (i.e., distinguishes the business from its competitor) and whether the support work is value-adding in nature.

Figure 2.11: Perry Matrix Analysis
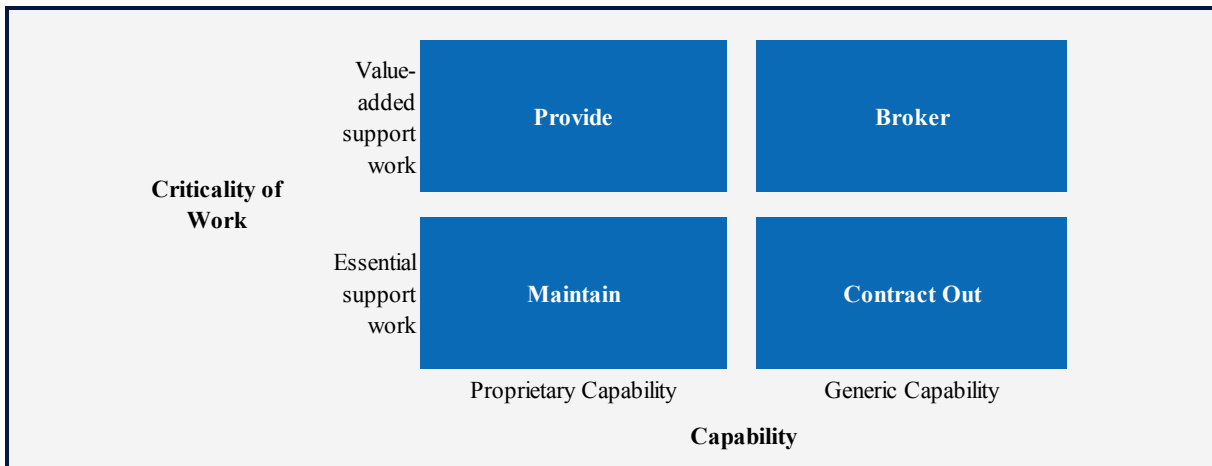
Source: Perry, Stott & Smallwood (1993)

The Petty matrix analysis provides four classifications of sourcing arrangements based on the interaction between nature of work/function (y-axis) and type of capability (x-axis):

- Value-added work with proprietary capability: Work classified under this quadrant enhances the UCA of the business and plays a vital role in differentiating the business from its competitors. The combination of this, along with its proprietary nature (i.e., it contains secret or unique characteristics) means that there is strong reason for it to be retained in-house. With this type of work, companies need to develop periodically to provide the best internal capability possible.

- Value-added work with generic capability: Work classified under this quadrant enhances the UCA of the business but is not of a proprietary nature. Under such circumstances, it is recommended that companies conduct a thorough evaluation of the external service-provider capabilities and internal capabilities in order to ensure ongoing access to the best capabilities possible. This approach is similar to best-sourcing.

- Essential work with proprietary capability: Although work classified under this quadrant is only of an essential (i.e., non-value-added) nature, its proprietary nature discourages outsourcing. Thus, such work should be retained in-house but due diligence must be observed to ensure that the work is well managed in order to achieve cost-effectiveness and meet quality standards.

- Essential work with generic capability: Work classified under this quadrant is considered to be a prime candidate for contracting out (i.e., outsourcing) as it neither enhances the UCA of the business nor involves proprietary capabilities. Companies must conduct performance monitoring of the outsourced work to ensure service compliance by the service provider.

2.10.7 Systems Audit Grid

Earl's systems audit grid (see Figure 2.12) is the work of Earl in 1989. Ho and Atkins (2006) assessed the framework as enabling companies to conduct an audit of their IS via analysis of the respective system's business value (y-axis) against its technical quality (x-axis). Business value refers to the worth of the system in the business context and is ideally evaluated by the actual users of the system. Three questions can be asked to assess the system's business value: How much impact does the system have on the business? How complex is it to use the system? How often is the system used? Technical quality can be assessed by these three questions: How reliable is the system? How easy is the maintenance of the system? How cost-efficient is the system?

Figure 2.12: Earl's Systems Audit Grid
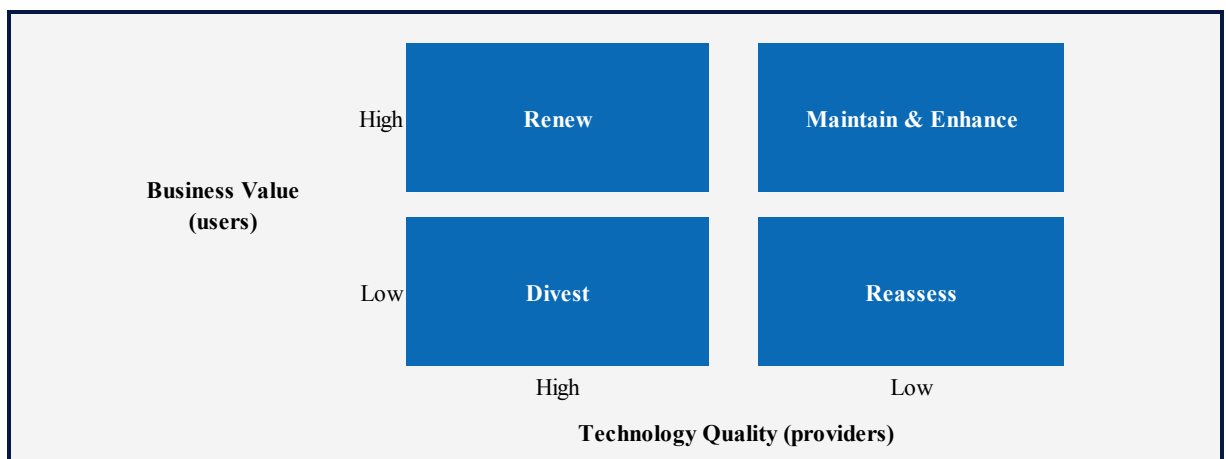
Source: Ho & Atkins (2006)

Mapping business value against technical quality, the framework provides four possible classifications and their corresponding activities:

- High business value with low technical quality: This combination implies the risks of system failure, which can consequently have a significant impact on operations and management capability. Such systems represent potential exposures and should be considered for renewal to safeguard the business.

- High business value with high technical quality: Systems classified under this quadrant are high in both business value and technical quality. They are best maintained and enhanced to sustain the benefits and competitive advantages gained.

A failure to maintain such systems can cause future business exposures as a result of which clients or consumers may no longer patronise the business.

- Low business value with low technical quality: Systems classified under this quadrant may have become obsolete because of changes in the business environment they used to support (e.g., purchased for political reasons rather than practical reasons). Hence, they are best considered as candidates for diversification (possibly by outsourcing) from the business.

- Low business value with high technical quality: The combination of low business value and high technical quality implies that the systems may be advanced in terms of business application. As such, they are in need of potential markets. It is suggested that such systems be reassessed to determine whether they should be eliminated (possibly by outsourcing) or enhanced to value add to the business.

2.10.8 Cox Methodology

The Cox framework (Cox 1996) is based on relational competence analysis, which asserts that outsourcing decision making involves an understanding of asset specificity. This is defined as the relative lack of transferability of assets intended for one use in a given transaction to other uses. The framework (see Figure 2.13) operates on the principle that a profitable exchange can be achieved by either economising or exploiting unforeseen opportunities for production.

Figure 2.13: Cox Relational Competence Analysis Methodology
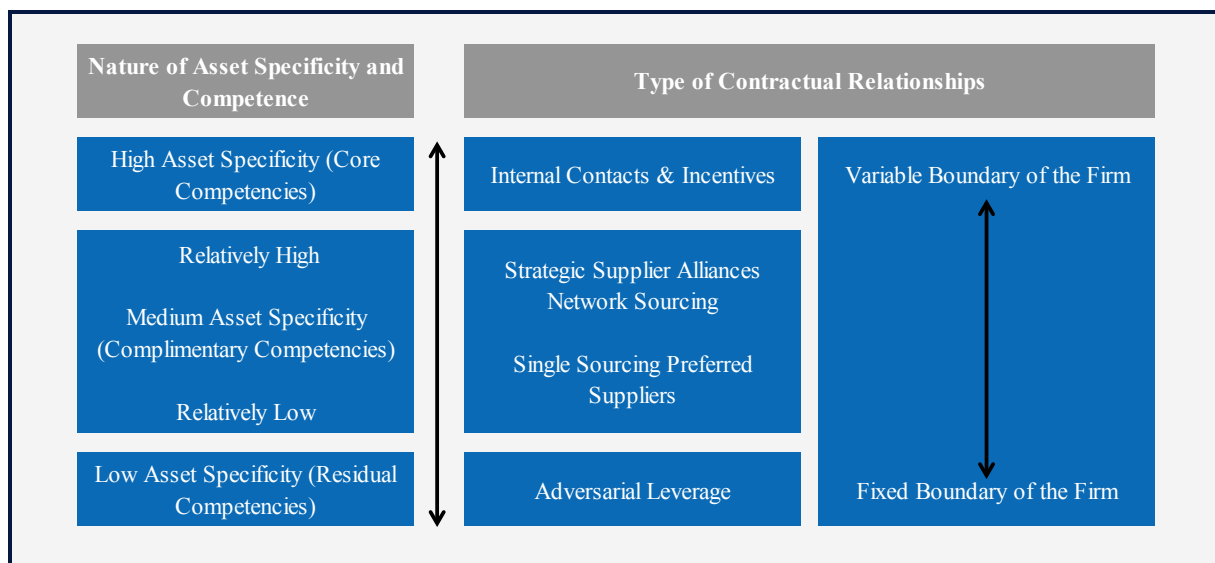
Source: Ho & Atkins (2006)

The Cox framework guides decision makers on the type of contractual relations to engage in, based on the following classifications (Ho & Atkins 2006):

- Low asset specificity: Functions classified under this category are considered residual competencies, which should be outsourced by means of arm's length contracts (i.e., adversarial leverage) to exploit the capabilities of external service providers.

- Medium asset specificity: Functions classified under this category are considered complementary competencies, which should be outsourced by means of close external contracts. The client–provider relationship for these ranges from preferred supplier (in the event where there is 'relatively low' medium asset specificity) to strategic supplier alliances (where there is 'relatively high' medium asset specificity).

- High asset specificity: Functions classified under this category are considered CCs, which should always be controlled by means of internal contracts in order to maintain the company's strategic advantage.

2.10.9 Four Outsourcing Relationship Type Framework

The four outsourcing relationship type (FORT) framework (see Figure 2.14) is the work of Kishore et al. (2003). It looks into the interaction between the extent of ownership (y-axis) and the strategic impact of the outsourced portfolio (x-axis). Four categories of activities then emerge (Ho & Atkins 2006):

- High extent of ownership substitution with low strategic impact: Client–provider relationships classified under this quadrant are of the reliance type. This relationship type requires more commitment to the relationship because a significant part of the company's in-house operations are transferred to external service providers.

- High extent of ownership substitution with high strategic impact: Client–provider relationships classified under this quadrant are of the alliance type. These relationships typically grow and build upon previous small, but successful, exchanges between the client and service provider. In such relationships, the company and external service providers work together as strategic partners due to the presence or establishment of common goals.

- Low extent of ownership substitution with low strategic impact: Client–provider relationships classified under this quadrant are of the support type. In such relationships, the role of external service providers is limited. Hence, in-house retention tends to be more prevalent than outsourcing. A support relationship is described as involving low coordination costs and easy monitoring of the relationship because of the low extent of substitution by the service providers.

- Low extent of ownership substitution with high strategic impact: Client–provider relationships classified under this quadrant are of the alignment type, which enables companies to obtain service providers' technical expertise on a single project or 'on-demand' basis.

Figure 2.14: FORT Framework
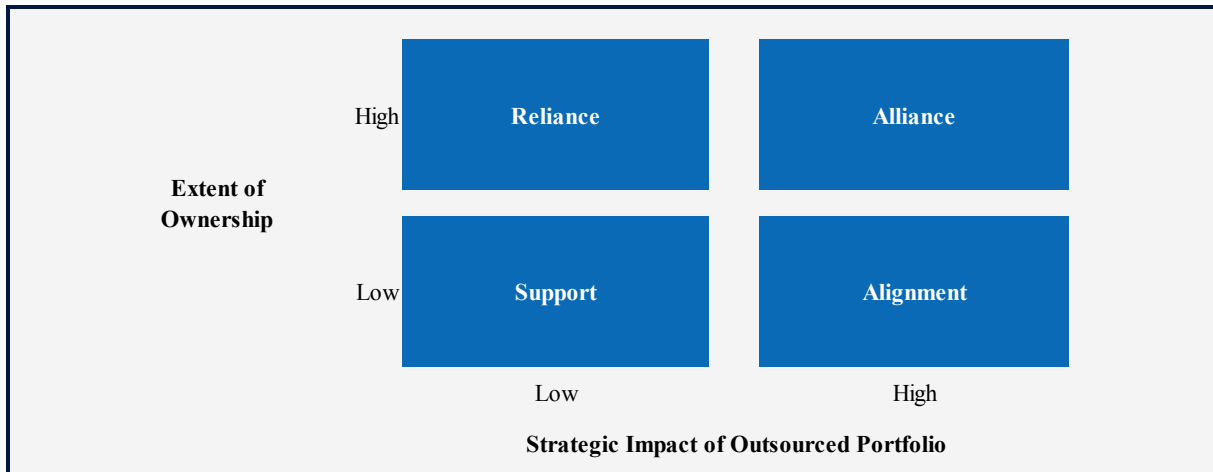
Source: Ho & Atkins (2006)

2.10.10 Holistic Approach Business, Information, Organisation Framework

The holistic approach business, information, organisational (HABIO) framework (see Figure 2.15) is the work of Ho and Atkins (2006). They propose a tri-perspective approach (i.e., organisational perspective, information perspective and business perspective) to assist business in the formulation of an effective outsourcing decision. The three perspectives are interrelated, and hence a change in one perspective will require re-evaluation of the other two so that corresponding adjustments can be made as required.

Each perspective of the framework analyses important factors. These factors are presented as decks of cards in Figure 2.15, implying that they can be addressed in any order by the management when deciding on their sourcing strategy.

Figure 2.15: HABIO Framework
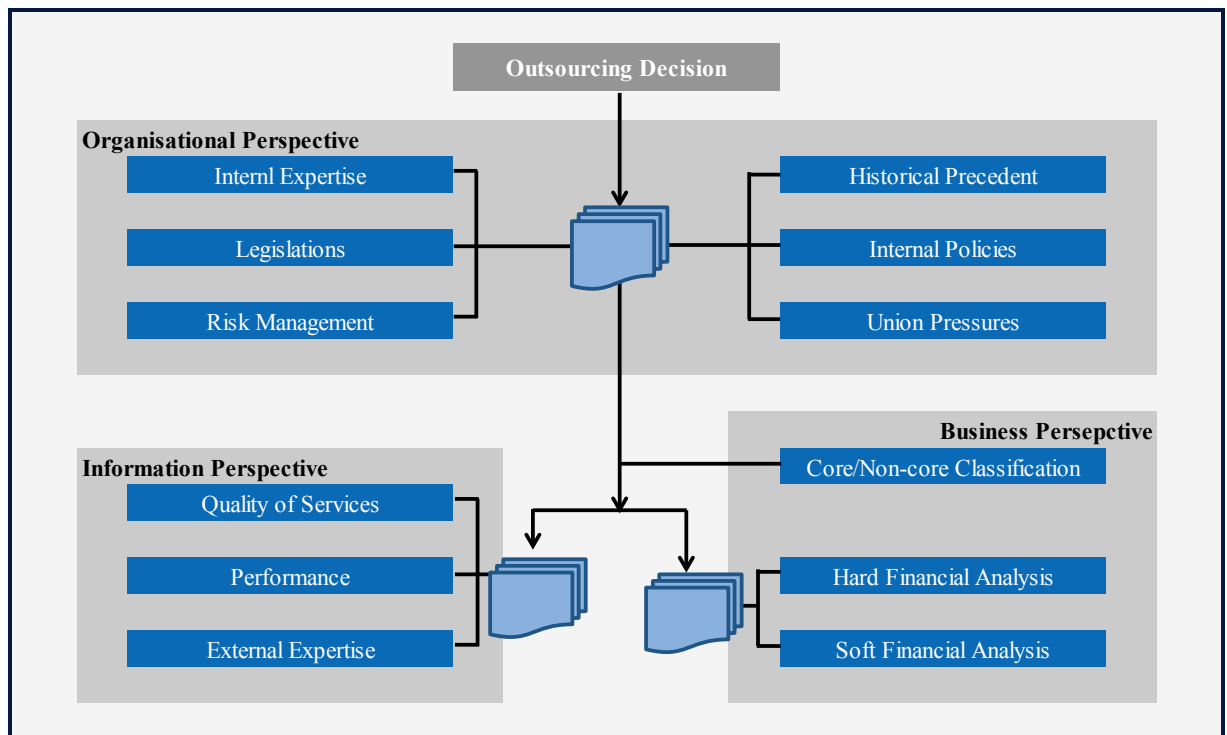
Source: Ho & Atkins (2006)

The organisational perspective looks into the following factors: internal expertise, legislations, internal policies and risk management. The internal expertise of the organisation is often endangered in outsourcing as firms become increasingly dependent on the external service provider(s). Thus, the organisation risks becoming too dependent on the service provider and therefore more vulnerable to business disruptions from service provision failures. In the outsourcing decision-making process, an organisation must take into account the degree of internal expertise (if any) that it intends to retain to ensure business continuity in the event of complications in the outsourcing arrangement. Another factor, legislations of the host country, shapes the operating environment for organisations and enforces a set of unique constraints on the outsourcing decision-making process. Risk management refers to the process of identifying, assessing and controlling risks that may result in financial loss or organisational impact in the outsourcing process. Risk-management strategies include risk avoidance, risk abatement (e.g., contingency planning), risk retention, risk transfer (e.g., corporate insurance or indemnification provisions) and risk allocation (e.g., joint venture). Historical precedent refers to a procedure or method that is not formally established within an organisation but is accepted as the standard because it

was widely used and recognised historically. For instance, the payroll function, long regarded as a 'commodity', has traditionally been outsourced (Ho & Atkins 2006). Internal policies refer to the fact that the management is endowed with higher authority (i.e., political influence) and is expected to implement internal policies and to take precedent in decision processes. Union pressures are considered one of the most significant hurdles to overcome in effective outsourcing as they can disrupt the attempts of a number of companies to outsource work traditionally carried out internally (Ho & Atkins 2006).

Information perspective assesses the quality of service, performance and external expertise. Quality of service refers to the degree to which the service provided is fit for its intended purpose. The three components of quality of use are outlined by the International Organisation for Standardisation (Ho & Atkins 2006) as effectiveness (whether the service provided fulfils the requirements of its intended users), efficiency (whether the service provided allows its intended users to perform their required tasks effectively with a minimum of effort) and satisfaction (whether the service provided meets the expectations of its intended users). Another factor that falls under the information perspective is performance. It is the standard of measurement applied in the evaluation of the activities being considered for outsourcing. A myriad of metrics can be used to track areas such as system response and to measure compliance with a set of performance standards. Each activity being considered for outsourcing should be benchmarked and compared with external and internal capabilities. In this way, the need for outsourcing is determined. External expertise, which refers to the market availability of the required skill sets (or ability of external providers) at a price considered affordable by the organisation (Ho & Atkins 2006) is also considered in this perspective.

The business perspective includes the hard financial analysis, which refers to the use of costing methods that utilise quantitative metrics to measure tangible aspects (e.g., cost per seat). For instance, the company may employ a reward/penalty approach in which it demands compensation for the failure of the service provider to deliver the agreed service level and encourages exceptional performance through bonuses (Sharp et al. 2005).

2.10.11 Global Sourcing Decision Making Models Critique

An evaluation of the sourcing decision models' practical relevance, or their value when applied in the actual sourcing context, is warranted. Ho and Atkins (2006) provide 14 criteria for evaluating outsourcing frameworks: concept/s based on, ease of understanding, ease of use, quantitative measures, qualitative measures, financial costing, classification guidelines, ranking/prioritisation, business dimension, technical dimension, organisational dimension, customisation, application guidelines and benchmarking. However, with our goal of recognising the connection between the management theories (general frameworks) and the sourcing decision models (specific frameworks), the first criterion, 'concept/s based on', proved more useful than the rest. This criterion refers to whether frameworks are based on an established concept or principle, such as the matrix analysis (i.e., strategic grid/ Boston matrix positioning grid), the score and weight technique, and the decision tree model (Ho & Atkins 2006). In this study, the established concepts or principles found in the frameworks are those of the management theories. Table 2.7 marks the point of convergence between the sourcing models and the management theories. The X-marks imply that a concept of a management theory has been applied by the sourcing model.

In this analysis of where each of the concepts found in the sourcing models fell, it should be noted that management theories are not unique in their concepts, which are also shared by the other theories. The challenge is to identify the theory that views the concept similarly to the sourcing model.

Table 2.7: Sourcing Decision Models and Sourcing Management Theories

Sourcing Models/Proponent(s)/Year	CC—Prahalad & Hamel (1990)	Activity-based—Kaplan & Cooper (1998)	Firm Boundaries—Coase (1937)	TC—Coase (1937); Williamson & Winter (1993)	Neoclassical Economic	Stakeholder—Freeman (2010)	Social Exchange	Contractual	Agency	Partnership and Alliance	Relational Exchange	Portfolio Management—Gewald (2006); Sanwal (2007)
Strategic Sourcing Decision Model —Friedman (2006)	X	X	X	X	X					X		
IS Sourcing Decision Process Framework—King (2008)	X	X	X	X	X			X	X	X		X
Business Matrix—Willcocks, Feeny & Islei (1997)	X	X	X	X	X							X
Economic Matrix—Willcocks, Feeny & Islei (1997)	X	X	X	X								X
Technical Matrix—Willcocks, Feeny & Islei (1997)	X	X	X				X	X		X		X
Decision Model—Yang & Huang (2000)	X	X		X		X	X			X	X	
Description Framework—De Looff (1995)		X					X	X		X		X
Perry Matrix Analysis—Perry, Stott & Smallwood (1993)	X	X										X
Systems Audit Grid—Earl (1989)	X	X	X									X
Relational Competence Analysis Methodology Framework—Cox (1996)	X		X	X				X		X		
FORT Framework—Kishore et al. (2003)		X					X			X		X
HABIO Framework—Ho & Atkins (2006)	X			X	X					X		X

Friedman's (2006) strategic sourcing decision model recognises the strategic and tactical motives of organisations (activity-based theory), proper allocation of best resources—whether internal or external—and expertise (RBT, CC theory and firm boundaries theory),

costs and trade-offs (TC theory and neoclassical economic theory) and context, such as cultural (partnership and alliance theory).

King's IS sourcing decision process framework (2008) consists of several constructs, basic to which are critical factors and CC (CC theory). Other concepts it includes are sourcing options such as outsourcing, insourcing, internal markets and strategic alliances that are ideal for the nature of the activity (resource-based, activity-based, firm boundary, portfolio management, TC and neoclassical economic and partnership/alliance theories). It also includes contract negotiations and management capability (contractual and CC theories); technological ceiling (resource-based); baseline and benchmark measures; cost–benefit and risk assessment; vendor monitoring (TC, neoclassical economic and portfolio management theories); re-engineering (resource-based, activity-based and portfolio management theories); new incentives (agency theory); and fit with culture (partnership alliance theory).

Willcocks, Feeny and Islei's (1997) business matrix includes the following concepts: critical and useful business operations; commodity or differentiator activities influencing the competitive positioning (activity-based and CC); and sourcing options such as best-source, in-house, outsource, migrate or eliminate activities (CC, resource-based, activity-based, portfolio management theories).

Willcocks, Feeny and Islei's (1997) economic matrix looks specifically into the managerial practices that may currently be lagging or leading (CC, resource-based, activity-based, portfolio management theories) as against the in-house scale with sub-critical or critical mass (TC). The four sourcing options—best -source, in-house, out-house and incomplete— represent the ideas of CC, resource-based, activity-based and firm boundary theories.

Willcocks, Feeny and Islei's (1997) technical matrix compares the degree of service integration of certain systems or functions in the organisation with their technology maturity. This is reflective of the views of CC, resource-based and activity-based theories in gauging internal and external resources available to the organisation. The choices of preferred supplier, strategic partnership, buy in or contract out are suggestive of activity-based, firm boundaries and portfolio management's views of resource allocation. This

framework also recognises the need for strategic partners to have mutual trust and understanding, and contract to strengthen a partner's technology capability (contractual, social exchange, and partnership and alliance theories).

Yang and Huang's (2000) model identifies five important factors or dimensions: management, strategy, technology, economics and quality. Each has different attributes that influence the sourcing decision. These factors are weighted according to their importance to the organisation's benefit (portfolio management theory). On the management dimension, the concern may be: to stimulate, improve and enhance a department's performance and morale (CC theory), to increase the control of management to certain departments (CC theory) or to solve the floating and scarcity of employees (stakeholder theory). On the strategy dimension, the organisation's concern may be: to focus on CC (CC theory), make a strategic alliance with the vendor to make up the shortage of resources or take advantage of the partner's CCs to develop and sell new product, and share risks (partnership/alliance, relational and social exchange theories), or to have time-to-market advantage (TC theory). On the technology dimension, sourcing decisions may stem from: getting or learning new technology from vendors (CC and resource-based theories). On the economic dimension, concerns may be to: reduce the developing and maintaining cost of IS, change the fixed costs to variable costs or increase the flexibility in finance (TC theory). On the quality dimension, concerns may regard procuring higher reliability and performance of a function and reaching a higher service level (CC and activity-based theories).

De Looff's (1995) description framework consists of four sections. The first section allows the company to determine what IS activities to perform by which components of the IS (activity-based theory). The section on the provider asks about the degree to which the service provider is owned by the client (social exchange and partnership/alliance theories). The section on the client–provider relationship determines the freedom of partner selection, whether the partnership spans multiple transactions (social exchange theory) and other issues such as resolution mechanisms, payment terms and coordination mechanisms (contractual theory). The final section, which is on arrangement, looks specifically into the outsourcing option in terms of location, ownership and control of IS components (portfolio management theory).

The Perry matrix analysis includes concepts highly related to CC theory, such as UCA, and proprietary and generic capability. The sourcing options, such as whether to provide, maintain, broker or contract out, are suggestive of resource-based, CC, activity-based and portfolio management theories.

Earl's (1989) systems audit grid assesses a system in terms of its business value and technical quality. It recommends four possible options: to renew, divest, maintain and balance or reassess. In assessing which investments should go where, this framework operates according to CC, resource-based, firm boundary, activity-based and portfolio management theories.

The Cox methodology (Cox 1996) includes concepts such as asset specificity and competence (TC and CC theories), types of contractual relationships (contractual and partnership/alliance theories), and variable/fixed boundary of the corporation (firm boundary theory).

The FORT framework by Kishore et al. (2003) looks into the interaction between extent of ownership substitution (social exchange, partnership/alliance theories) and strategic impact of outsourced portfolio (portfolio management theory). The options of reliance, support, alliance and alignment follow the prescripts of resource-based and activity-based theories to modify and organise resources and activities that are more important to the organisation's competitive advantage.

The HABIO framework (Ho & Atkins 2006) proposes three perspectives by which to examine sourcing decisions. The organisational perspective includes looking into internal expertise (RBT), legislations, internal policies, risk management, historical precedent and union pressures (TC, partnership/alliance and portfolio management theories). The business perspective includes the hard financial analysis, which hinges on TC and neoclassical economic theories. The information perspective assesses the quality of service, performance and external expertise, which relate to CC and resource-based theories.

2.11 Conclusion

This literature review set out to explore four themes (see Figure 2.1). First, it examined the literature more broadly across the global sourcing phenomenon, including management theories, drivers of outsourcing, trends and impacts. In essence, it sought to establish the significance of this phenomenon and, by implication, why this phenomenon should be researched. Second, the literature review addressed the 'how?', the 'where?' and the 'what?' in respect of organisations implementing global sourcing strategies. This included aspects of the make-versus-buy decision, location choices and the managing or governing of sourcing. In addition, this theme also reviewed aspects of the demand and supply side for global sourcing, where questions of single versus multiple suppliers, and taking a centralised or decentralised portfolio view within the organisation, were examined. The third theme considered by the literature review was in relation to the primary RQ, that is, how firms optimise offshoring capability. Here, it was evident how the literature has evolved over time in the same way as this global phenomenon: where initial foci and studies were around core capabilities, more recent studies centred on maturity and optimisation. The fourth theme sought to understand the various approaches to decision making within an outsourcing/global sourcing context by reviewing the various frameworks and models defined by previous authors.

Despite the diversity of literature, and the contribution this has made to our understanding of outsourcing and offshoring, recent literature reviews suggest gaps and areas where future research should focus.

The survey and analysis of IS outsourcing literature by Dibbern et al. (2004) identified five gaps that required further research: the dependent variables of ITO success, the vendor perspective, client–supplier relationships, how outsourcing changes over time and comparative studies, such as differences and similarities between public and private sectors.

In the literature review conducted by Hätönen and Eriksson (2009) across 30 years of research into the phenomenon of outsourcing, the authors were able to categorise the key themes that researchers were inquiring into with the 'what?', 'why?', 'where?' and 'how?'

questions. Their conclusions were that further research was required on success factors, offshoring and the timing of such decisions.

Beulen, Tiwari and van Heck's (2011) study of how organisations transition to suppliers concluded that over two-thirds of the problems recognised in unsuccessful engagements were the result of some issue occurring during the actual transition. In their recommendations for future research, the authors identified four areas: an in-depth longitudinal case study on transition; a quantitative analysis to understand which factors—and to what extent these factors—influence transition performance; studying transition in the scenarios with multiple service providers; and research on other offshore countries besides India.

In Lacity et al.'s (2010) review of the IT outsourcing literature, they suggested nine further areas for researchers to focus attention: more studies of strategic IT outsourcing decisions; more studies of strategic IT outcomes; more studies on the dynamic interactions between outsourcing and the firm's capabilities; more studies on the effects of the environment; more studies on configurationally and portfolio approaches to outsourcing; more studies on alternative destinations besides India; continued study of emerging models and trends; seeking to inform reference discipline theories as much as we seek to be informed; and the development of indigenous ITO theories.

A review by Lacity et al. (2011), of the BPO literature, followed by identifying nine specific areas of further research for BPO: BPO innovation effects, retained client capabilities, environment, alternative destinations besides India, supplier capabilities, pricing models, business analytics, emerging models and trends, and developing endogenous BPO theory.

In Lacity et al (2012 p. 68), future research areas across outsourcing and global sourcing were identified, including more studies on 'the dynamic interactions between outsourcing and firm capabilities'. The authors suggested that this is an emerging area and that it would be beneficial to practice if the evolution of capabilities over time were better understood.

Combining the findings of Dibbern et al. (2004), Hätönen and Eriksson (2009), Beulen, Tiwari and van Heck (2011), Lacity et al. (2010), Lacity et al. (2011) and Willcocks and Lacity (2012) regarding areas for future research, I have defined four future research themes: 1) client capabilities and success factors; 2) environment and location; 3) trends, models and theories; and 4) vendor perspectives. I have aligned these four themes to the previous authors' future research topics (27 in total) (see Table 2.8). As Table 2.8 shows, the 'client capabilities and success factors' theme has been aligned to the most number of proposed future research topics. This theme refers to the internal perspective of the client organisation regarding how it implements and executes its global sourcing strategies. As this theme has the most recognition by previous authors as a future research topic, it will be the focus of my study. In Table 2.9, against each of the 14 areas of future research for client capabilities and success factors, I have mapped my key RQs.

Table 2.8: Literature Review Future Research Areas

Ref. #	Area of Future Research Required	Source	Future Research Key Themes
1	A better understanding of the dependent variables of ITO success	Dibbern et al. (2004)	Client Capabilities and Success Factors
2	More research taken from the vendor perspective	Dibbern et al. (2004)	Vendor Perspectives
3	More research that looks at client–supplier relationships	Dibbern et al. (2004)	Client Capabilities and Success Factors
4	More research on how outsourcing changes over time	Dibbern et al. (2004)	Client Capabilities and Success Factors
5	A need for comparative studies such as differences and similarities between public and private sectors	Dibbern et al. (2004)	Environment, Location
6	More research on success factors	Hätönen & Eriksson (2009)	Client Capabilities and Success Factors
7	More research on offshoring and the timing of such decisions	Hätönen & Eriksson (2009)	Client Capabilities and Success Factors
8	An in-depth longitudinal case study on transition	Beulen et al. (2011)	Client Capabilities and Success Factors
9	Quantitative analysis to understand which factors influence transition performance	Beulen et al. (2011)	Client Capabilities and Success Factors
10	A focus on transition in the scenarios with multiple service providers	Beulen et al. (2011)	Client Capabilities and Success Factors
11	More research on other offshore countries besides India	Beulen et al. (2011), Lacity et al. (2011), Lacity et al. (2011)	Environment, Location
12	More studies of strategic IT outsourcing decisions	Lacity et al. (2011)	Client Capabilities and Success Factors
13	More studies of strategic IT outcomes	Lacity et al. (2011)	Client Capabilities and Success Factors
14	More studies on the dynamic interactions between outsourcing and the firm's capabilities	Lacity et al. (2011)	Client Capabilities and Success Factors
15	More studies on the effects of the environment	Lacity et al. (2011)	Environment, Location
16	More studies on configurationally and portfolio approaches to outsourcing	Lacity et al. (2011)	Client Capabilities and Success Factors
17	Continue to study emerging models and trends, and develop indigenous ITO theories	Lacity et al. (2011)	Trends, Models, Theories
18	Seek to inform reference discipline theories as much as we seek to be informed	Lacity et al. (2011)	Trends, Models, Theories
19	Develop indigenous ITO theories and endogenous BPO theory	Lacity et al. (2012)	Trends, Models, Theories
20	BPO innovation effects	Lacity & Willcocks (2012)	Vendor Perspectives
21	Retained client capabilities	Lacity et al. (2011)	Client Capabilities and Success Factors
22	Environment	Lacity et al. (2011)	Environment, Location
23	Supplier capabilities	Lacity et al. (2011)	Vendor Perspectives
24	Pricing models	Lacity et al. (2011)	Trends, Models, Theories
25	Business analytics	Lacity & Willcocks (2012)	Trends, Models, Theories
26	Emerging models and trends	Lacity et al. (2011)	Trends, Models, Theories
27	Understand the evolution of capabilities over time	Willcocks & Lacity (2012)	Client Capabilities and Success Factors

Table 2.9: Client Capabilities and Success Factors Mapped to RQs

Ref. #	Area of Future Research Required	RQ Alignment	Major or Minor Focus of this Research
1	A better understanding of the dependent variables of ITO success	RQ5	Major
3	More research that looks at client–supplier relationships	RQ3, RQ4	Minor
4	More research on how outsourcing changes over time	Refer Methodology	Major
6	More research on success factors	RQ5	Major
7	More research on offshoring and the timing of such decisions	RQ1	Minor
8	Conducting an in-depth longitudinal case study on transition	Refer Methodology	Major
9	Conduct quantitative analysis to understand which factors influence transition performance	RQ1, RQ2	Major
10	Focus on studying transition in the scenarios with multiple service providers	RQ1, RQ2	Minor
12	More studies of strategic IT outsourcing decisions	RQ1, RQ2	Minor
13	More studies of strategic IT outcomes	RQ3, RQ4	Major
14	More studies on the dynamic interactions between outsourcing and the firm's capabilities	RQ3, RQ4	Major
16	More studies on configurationally and portfolio approaches to outsourcing	RQ1, RQ2	Major
21	Retained client capabilities	RQ1, RQ2	Major
27	Understand the evolution of capabilities over time	Refer Methodology, RQ1– RQ5	Major

In Chapter 3, the detailed approach and steps taken to investigate the research topic will be discussed.

Chapter 3: Methodology

3.1   Introduction

Hussey and Hussey (1997) referred to methodology as the overall approach to the research process from research paradigm through to the collection and analysis of data (see Table 3.1).

Table 3.1: Alternative Terms for the Main Research Paradigms

Positivistic Paradigm	Phenomenological Paradigm
Quantitative	Qualitative
Objectivist	Subjectivist
Scientific	Humanistic
Experimentalist	Interpretivist
Traditionalist	

Source: Hussey & Hussey (1997)

Hussey and Hussey (1997) defined *methods*, in contrast to *methodology*, as being concerned specifically with why certain data was collected, what data was collected, where it was collected from, when it was collected, how it was collected and how it was analysed. This chapter explains the methodology used in carrying out the research and why the approach is appropriate for the research problem described in Chapter 1.

3.2   Research Design

3.2.1   Research Paradigm

This research seeks to understand how managers implement global sourcing strategies and optimise their firm's offshoring capabilities. By adopting a largely interpretative and qualitative research paradigm, I am seeking to understand the social phenomenon of global sourcing through the eyes of the manager. I want to know how the manager, through their own social constructions view, perceive, experience and induce their own conclusions and

subsequent responses. However I have also used a mixed methods approach and included positivist quantitative research methodology by way of survey data and statistical analysis in order to measure changes to global sourcing capability maturity over time. The purpose of this positivist approach was to determine whether what managers perceive is in fact occurring.

3.2.2 Methodology

Yin (2009) identified a classification system where RQs are defined into the 'who?', 'what?', 'where?', 'how?' and 'why?' categories, each of which requires differing research methods (see Table 3.2). My RQs are of the 'how?' and 'why?' categories, namely, *how* managers overcome (issues experienced when implementing global sourcing strategies) and optimise (their firm's sourcing strategies) based upon the actions these managers undertook, and their reasons *why* they undertook those actions at the time. Yin (2009) stated that where the researcher is seeking to explain a present circumstance, such as 'how?' and 'why?' a particular social phenomenon exists, or the RQs require an extensive in-depth description of a particular contemporary event, then the case study method will be the most relevant (see Table 3.2).

Table 3.2: Relevant Situations for Different Research Methods

Method	Form of RQ	Requires Control of Behavioural Events?	Focuses on Contemporary Events?
Experiment	How, why?	Yes	Yes
Survey	Who, what, where, how many, how much?	No	Yes
Archival Analysis	Who, what, where, how many, how much?	No	Yes/No
History	How, why?	No	No
Case Study	How, why?	No	Yes

Source: Yin (2009)

Further, as discussed in the first chapter of this thesis, prior academic literature has acknowledged the need to conduct more in-depth research (Lacity et al. 2010), such as a close study of single organisations. This led me to select the case study method—and, in particular, the single-case study method—to obtain a rich and intimate understanding of the social phenomenon in question. Type I from Yin's (2009) category descriptions for basic

designs (see Table 3.3) was used in that I conducted the study within the technology division of one firm (see Figure 3.1).

Table 3.3: Basic Types of Designs for Case Studies

	Single-case Design	Multiple-case Design
Holistic (single units of analysis)	Type I	Type III
Embedded (multiple units of analysis	Type II	Type IV

Source: Adapted from Yin (2009)

In addition, rather than the research being conducted during one period within a single-case study design, a longitudinal case study was incorporated to fully observe and analyse this same social phenomenon over time. According to Lacity et al. (2010) in their paper 'A review of the IT outsourcing empirical literature and future research directions', this research approach is still in its infancy. However, the value of using such an approach for this research is that it seeks to obtain rich insights over time when a firm is in the process of implementing a global sourcing strategy. Further, this approach is entirely relevant since the implementation of global sourcing strategies are not instant events; rather, they occur over a period of years.

Yin (2009) lists four key concerns when using the case study method: lack of rigour, little basis for scientific generalisation, takes too long and the challenge of forming causal linkages to possible outcomes. To negate the possible impact of these concerns, a mixed methods strategy for data collection was used, combining both qualitative and quantitative methods across the six sources of evidence, as illustrated in Table 3.4. For this research, interviews (which included qualitative and quantitative data sources) and participant observations served as the primary data sources, while the additional four sources made it possible to triangulate for key themes and insights.

Table 3.4: Six Sources of Evidence: Strengths and Weaknesses

Source of Evidence	Strengths	Weaknesses	Relevance to this Research
Interviews	Targeted—focuses directly on case study topics Insightful—provides perceived causal inferences and explanations	Bias due to poorly articulated questions Response bias Inaccuracies due to poor recall Reflexivity—interviewee gives what interviewer wants to hear	Senior managers and executive managers interviewed on two occasions qualitatively analysed Middle managers surveyed on four occasions qualitatively analysed Middle managers surveyed on four occasions quantitatively analysed
Participant Observations	Insightful into interpersonal behaviour and motives	Bias due to participant observer's manipulation of events	18 months of observations recorded in diary between July 2011 and December 2012
Direct Observations	Reality—covers events in real time Contextual—covers context of 'case'	Time-consuming Selectivity—broad coverage difficult without a team of observers Reflexivity—event may proceed differently because it is being observed Cost—hours needed by human observers	Recorded in personal diary from 1996 to 2011 while the researcher fulfilled the roles of advisor observer, competitor observer, service provider observer and employee observer
Documentation	Stable—can be reviewed repeatedly Unobtrusive—not created as a result of the case study Exact—contains exact names, references and details of an event Broad coverage—long span of time, many events and many settings	Retrievability—can be difficult to find Biased selectivity, if collection is incomplete Reporting bias—reflects (unknown) bias of author Access—may be deliberately withheld	These refer to the internal and external documentation accessible to the author from 2011 to 2012, during the participant observation phase of the research
Archival Records	[Same as those for documentation] Precise and usually quantitative	[Same as those for documentation] Accessibility due to privacy reasons	These refer to the internal and external documentation accessible to the author from 1996 to 2011, during the observer phase of the research
Physical Artefacts	Insightful into cultural features Insightful into technical operations	Selectivity Availability	Capture of posters publicly displayed by employee unions Photographs

Source: Adapted from Yin (2009)

3.3 Data Sample Source

3.3.1 The Case

This longitudinal case study took place within the technology division of a major global financial services organisation. This organisation was selected for the case study for two reasons: 1) it was in the process of implementing a global sourcing strategy and 2) I had major access to key managers participating in the strategy's implementation. I was allowed to conduct the case study on the condition that the organisation's real name remain

confidential. Therefore, throughout this thesis, the organisation will be referred to as either the 'Global Banking Corporation' or the 'Corporation".

In terms of scale, Acuity (2013) listed the Corporation in the top 50 global banks ranked on assets (over AU$600 billion). With a heritage of almost 200 years, the Corporation currently employs 40,000 people globally, of which the technology division represents 4,000 people or 10 per cent of the total workforce. Three thousand positions were being considered for outsourcing and, of those, a significant proportion were to be offshored (see Figure 3.1).

This longitudinal case study included data from 1996–2011, in the form of publically available archival records, mostly in the form of articles and media releases. During this period, the Corporation's technology division implemented a series of sourcing strategies that were at the time largely individually implemented. This was in contrast to the organisation's group-wide strategy, which occurred during the main period of the longitudinal case study (2011–2013). The study's main period incorporated a major event in November 2011, when the Corporation released a public statement of its intentions to implement a new sourcing strategy involving the outsourcing and offshoring of application technology development and maintenance work to India.

I have been associated with the Corporation since 1996 and was an employee within the technology division of the Corporation throughout the interview phase of the study. I also played the role of participant observer. This presented both an opportunity and a challenge, which will be discussed later in this chapter. However, in summary, the opportunity was access to rich data sources while the challenge was one of potential bias because of the proximity of the roles of researcher, participant observer and employee of the Corporation. To address this challenge and avoid any possibility of bias, my mixed methods approach of drawing upon multiple data methods and sources such as including within the participant groups, both executive managers, senior managers, middle managers, staff and supplier managers, plus including qualitative and quantitative analysis over extended periods of time and not forming insights or conslusions from any one source assisted in the potential influence of bias.

Figure 3.1: The Case Study Firm—the Corporation
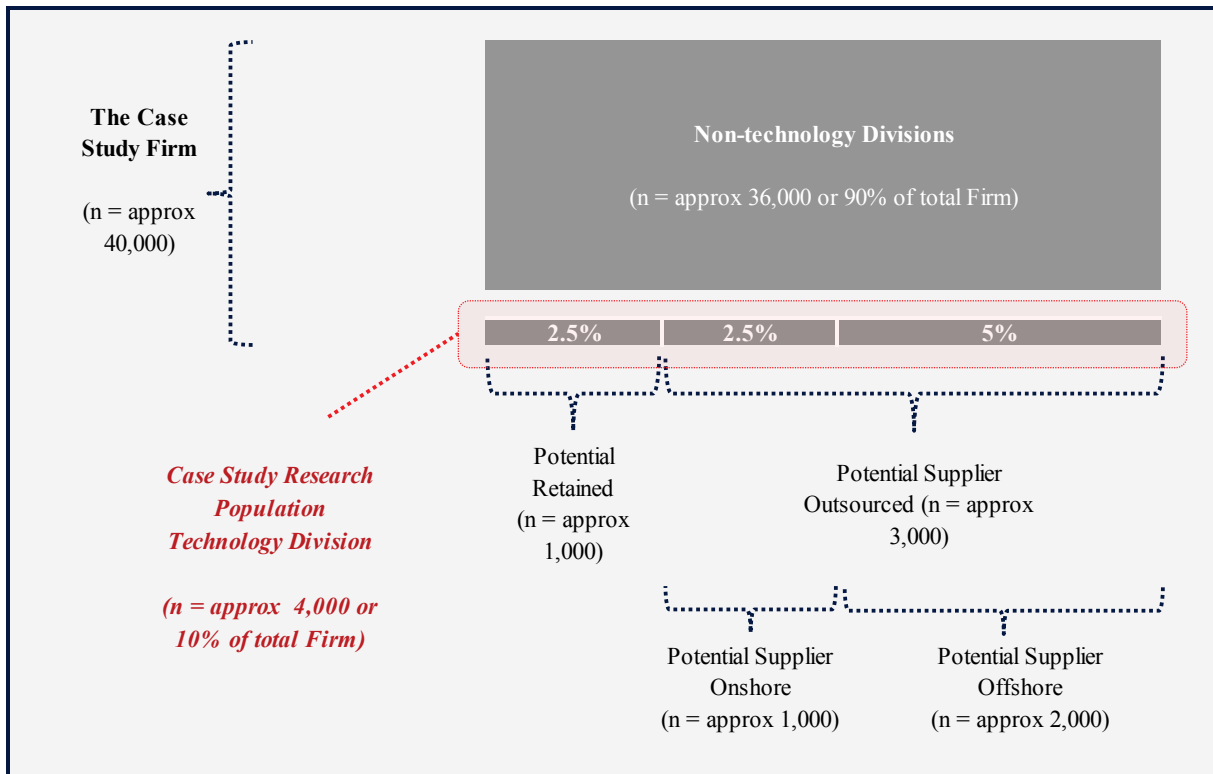
3.3.2   Case Study Data Sources

I adopted Yin's (2009) six sources of data framework (see Table 3.4) throughout this longitudinal case study and included semi-structured interviews, qualitative and quantitative surveys, participant observation, direct observation, documentation, archival records and physical artefacts. The data were collected from a cross-section of the organisation that included executive managers, senior managers, middle managers, staff and supplier managers, as detailed in Figure 3.2, which also depicts the number of interviews and surveys undertaken at any one time.

In regards to penetration or sample concentration into the targeted population, 100 per cent of executive managers and 50 per cent of senior managers were interviewed. The criteria for the senior management group selected those who were directly involved in implementing the global sourcing strategy within their business domains. Those senior managers who did not have a direct involvement were not asked to participate in the study. For the middle management layers, 38 per cent were surveyed qualitatively and a slightly

smaller proportion surveyed quantitatively. As with the senior managers, the middle managers who were selected to participate, were directly involved in implementing the global sourcing strategy. In addition, 48 per cent of supplier managers whom worked on the Corporation's account, were also surveyed qualitatively and again a slightly smaller proportion surveyed quantitatively. These supplier managers were selected based upon obtaining an even representation from the four supplier organisations engaged with the Corporation. Finally, 10 per cent of staff within the technology division had their input provided via secondary data collection sources that included voluntary staff surveys (see Figure 3.3).

This approach of using multiple methods from multiple sources captured over time has enhanced the overall depth and richness of the study.

Figure 3.2: Case Study Data Collection Time Horizon

			1996 to 2011	2011 Q3	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4	2013 Q1	2013 Q2	2013 Q3
Interviews	Semi-structured Interviews	*Executive Manager*		5				5				
		Senior Manager		20				20				
	Surveys—Qualitative	*Middle Manager*		32	38		44	40				
		Supplier Manager		32	38		44	40				
	Surveys—Quantitative	*Middle Manager*		10	12		18	20				
		Supplier Manager		22	26		26	20				
Participant Observation				X	X	X	X	X	X	X	X	X
Direct Observations			X									
Documentation				X	X	X	X	X	X	X	X	X
Archival Records			X									
Physical Artefacts				X	X	X	X	X	X	X	X	X

Figure 3.3: Case Study Penetration

	Executive Management	Senior Management	Middle Management	Staff	Supplier Management
Total Population	5	40	100	4,000	80
Sampled Population	5	20	38	400	38
Sampled Percentage	100%	50%	38%	10%	48%

The following sections provide more details about the approach to data collection and analysis.

3.4 Data Collection and Analysis

3.4.1 *Source One: Interviews—Semi-structured*

Data Collection

Five executive managers, representing 100 per cent of the targeted population at the Corporation, and 20 senior managers, representing 50 per cent of the targeted population, were each interviewed on two occasions. The first of these interviews took place during September 2011, and was followed ten months later with a second and final interview during June 2012. As I was also an employee of the Corporation during the proposed study, the targeted research population was transparent and accessible to me. To comply with the approved ethical research requirements, none of the participants reported to me, or were in the same reporting division at the Corporation as I was, nor was there any instruction or direction by senior executives to participate in the study. My invitation to the potential participants was initially an informal in-person conversation (I would have several opportunities during the course of a typical working week to interact with these targeted participants) in order to explain the intent of the research, ascertain interest and subsequently obtain initial in-principle approval to participate. I followed this up by forwarding the research consent forms (refer Appendix B) to the participants. If there was

no further clarification required for the participants, an interview appointment was made at a time mutually convenient for both parties. In summary, no targeted participant declined to participate in the study. The locations of these interviews were private meeting rooms at the offices of the Corporation. The interviews were semi-structured (refer Appendix C), audio-recorded, transcribed and uploaded into the software application NVIVO for analysis. A copy of their individual interview transcript was also emailed to each participant to ensure accuracy. There were no objections to the transcripts by any of the participants.

Data Analysis

After each semi-structured interview transcription had been uploaded into the NVIVO software program, it was coded under several categories:

- Period—i.e., Quarter 1, Quarter 2, Quarter 3

- Source—i.e., Executive Manager, Senior Manager

- Interview Question

- Key Themes

- McKinsey 7S Framework (see Figure 3.4)

- Interesting Concepts

- Interesting quotations.

The rationale for these coding categories was that they would allow for the efficient analysis of the vast amount of data collected (approximately 50 interviews of 45 minutes each resulted in over 37 hours of transcripts being coded) by tagging the 'when?', 'who?' and 'which?' RQs. As to how the key themes were identified, they emerged from the data analysis based upon the responses the participants gave to each question. Further, during coding, it was not uncommon for the same transcript text to be coded several times, particularly for the last four categories of the list above. For example, a specific text may be coded as a *Key Theme* (such as 'multi-vendor strategy'), followed by *McKinsey 7S Framework* ('structure'), then under *Interesting Concepts* ('retained organisation challenges') and finally under *Interesting Quotations*, whereby a relevant quotation was

identified that could be used later in the thesis. The McKinsey 7S framework (Waterman, Peters & Phillips 1980) was used in this process because it provided a simple though elegant way of categorising themes that may identify a particular management focus during the course of the longitudinal case study. In addition, to quote Willcocks, Cullen and Craig (2011 p. 111), 'there is a significantly increased requirement for soft skills across all roles' in the context of maturing global service delivery. Using this framework as a coding tool assisted in distinguishing between the 'soft' and 'hard' elements. Further, taking this approach to ensure consistent coding across all semi-structured interviews meant that queries across all transcripts could be undertaken within the NVIVO database to identify the relative frequency of those themes identified. To illustrate these outcomes visually, bar charts were constructed for each question and data source.

Figure 3.4: McKinsey 7S Framework
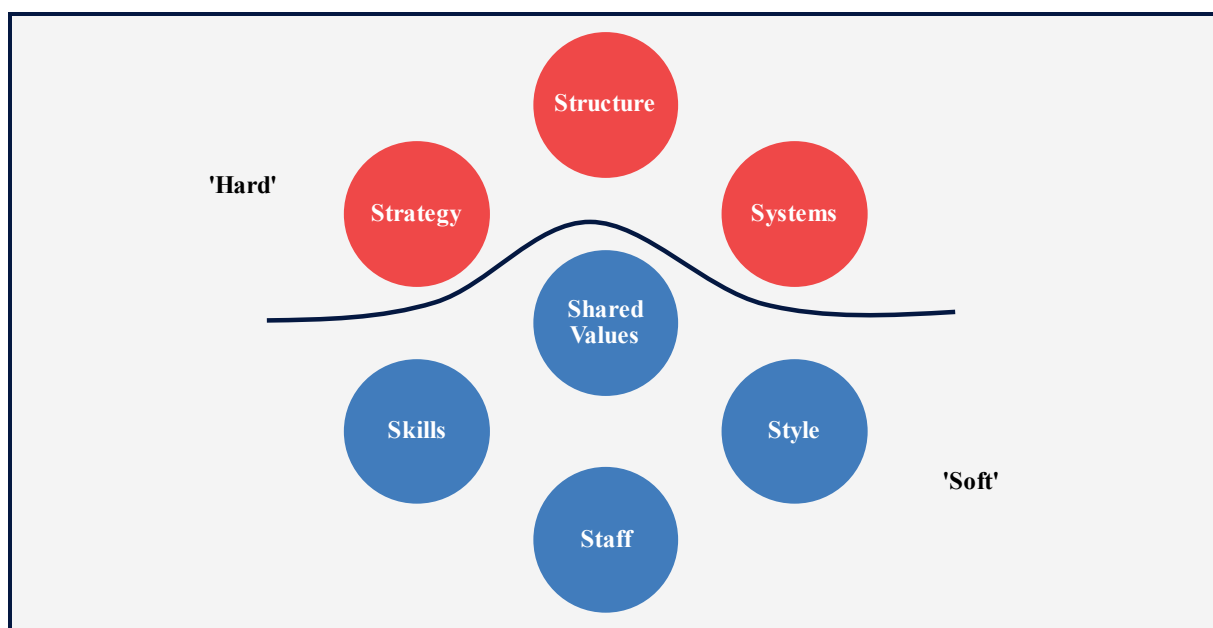
Source: Waterman, Peters & Phillips (1980)

3.4.2   *Source One: Interviews—Qualitative Surveys*

Data Collection

Thirty-two middle managers of the targeted middle management population and thirty-two supplier managers from four separate firms of the targeted supplier management population

were initially asked to complete a qualitative questionnaire on four occasions. In reality, the number of middle managers each and supplier managers each per occasion ranged from 32 to 44 (see Figure 3.2), due to the attrition of some managers and the commencement of new managers that joined during the course of the study. However, these changes did not result in any noticeable impact on the integrity of the data collection. The questionnaires were distributed in July and October 2011, and January and April 2012. Similarly to the semi-structured interviews described above, each participant was contacted directly by me to gauge initial interest in the study, and the consent forms (refer Appendix B) and questionnaire (refer Appendix C) were forwarded later by email. Upon receiving the completed questionnaires back from the participants, the qualitative data was uploaded into the NVIVO, for analysis. Limitations of using questionnaires for the middle-management population were the potential risk of participants misinterpreting questions and participants being unable to elaborate further if they desired. However, when weighed against the ability to collect data further across and deeper below the executive and senior management semi-structured interviews, these limitations seemed minimal.

Data Analysis

Data analysis for the qualitative surveys followed the same process as the semi-structured interviews as detailed in Section 3.4.1, with one exception. As the participants responded directly by entering their comments into a form (Microsoft Excel template) in comparison to an audio recording, no transcription service was required and the contents of each form were uploaded directly into NVIVO.

3.4.3   Source One: Interviews—Quantitative Surveys

Data Collection

The same middle managers and supplier managers from the qualitative surveys were also asked to complete a quantitative questionnaire over the same four occasions, though a smaller number of response were obtained (refer Appendix D). The purpose of this quantitative data source was to determine, first, whether it was feasible to measure the

Corporation's offshoring capability maturity over time and, if so, whether these results correlated in some way to the qualitative responses for the middle, senior and executive managers.

Chapter 2 of this thesis discusses several methods or approaches to measuring organisational capability maturity. In addition, Chapter 2, Section 2.8, refers to the Carnegie Mellon eSourcing capability maturity model (Hefley & Loesche 2010), which is becoming a widely accepted industry benchmark that defines 17 capabilities across the sourcing life cycle (see Figure 3.5). As I was not able to identify a similar industry framework to measure global sourcing capability maturity, the Carnegie Mellon model was modified for the purpose of this research via the development of a series of questions relevant to a global sourcing environment. By using this adapted model as an external benchmark, research participants were able to rate how they perceived the maturity of their own global sourcing across 10 'key capabilities' areas (see Figure 3.5) drawn from 28 individual questions.

For each of the 28 questions across the 10 categories in the survey, a statement using the Carnegie Mellon model was prepared describing a capability that, if present in an organisation, would suggest that there is a higher level of offshoring capability maturity than if the capability were not present. For each of these statements, participants were asked to score using a five-level rating system:

- Level 1: I strongly disagree with the statement

- Level 2: I disagree with the statement

- Level 3: I neither disagree nor agree with the statement

- Level 4: I agree with the statement

- Level 5: I strongly agree with the statement.

This data was uploaded separately into the statistical analysis software application Minitab and SPSS, for analysis.

Figure 3.5: eSourcing Capabilities

Sourcing Life Cycle	eSourcing Capabilities	
Initiation Practices	Sourcing Planning	
	Service Provider Evaluation	
	Sourcing Agreements	
	Service Transfer	
Analysis Practices	Sourcing Opportunity Analysis	
	Sourcing Approach	
Ongoing Practices	Sourcing Strategy Management	**Key Capabilities**
	Value Management	
	Threat Management	
	Technology Management	
	Relationship Management	
	Governance Management	
	Knowledge Management	
	People Management	
	Organisational Change Management	
Delivery Practices	Sourced Services Management	
Completion Practices	Sourcing Completion	

Source: Adapted from Hefley & Loesche (2010)

Data Analysis

As a result of the quantitative surveys capturing numeric data (scores between 1 and 5) from each of the 28 questions, from the targeted middle managers and targeted supplier managers (from four separate supplier firms) for each of the four data-collection periods, a total of 4,312 individual scores were obtained and sorted into various categories to be analysed. These quantitative data analysis categories are shown visually in Figure 3.6 and were constructed to determine:

- What is the overall maturity score per period and how is this changing over time (i.e. the first data row in Figure 3.6)?

- What was the maturity score per each of the 10 capabilities and how is this changing over time (i.e. the second data row in Figure 3.6)?

- What was the maturity from the middle managers' perspective and how is this changing over time (i.e. the third data row in Figure 3.6)?

- What was the maturity from the supplier managers' perspective and how is this changing over time (i.e. the fourth data row in Figure 3.6)?

- What was the maturity score per firm engagement type and how is this changing over time as this may determine specific critical success factors that are present in one specific engagement over another (i.e. the fifth to eighth data row in Figure 3.6)?

Figure 3.6: Quantitative Data Analysis Map
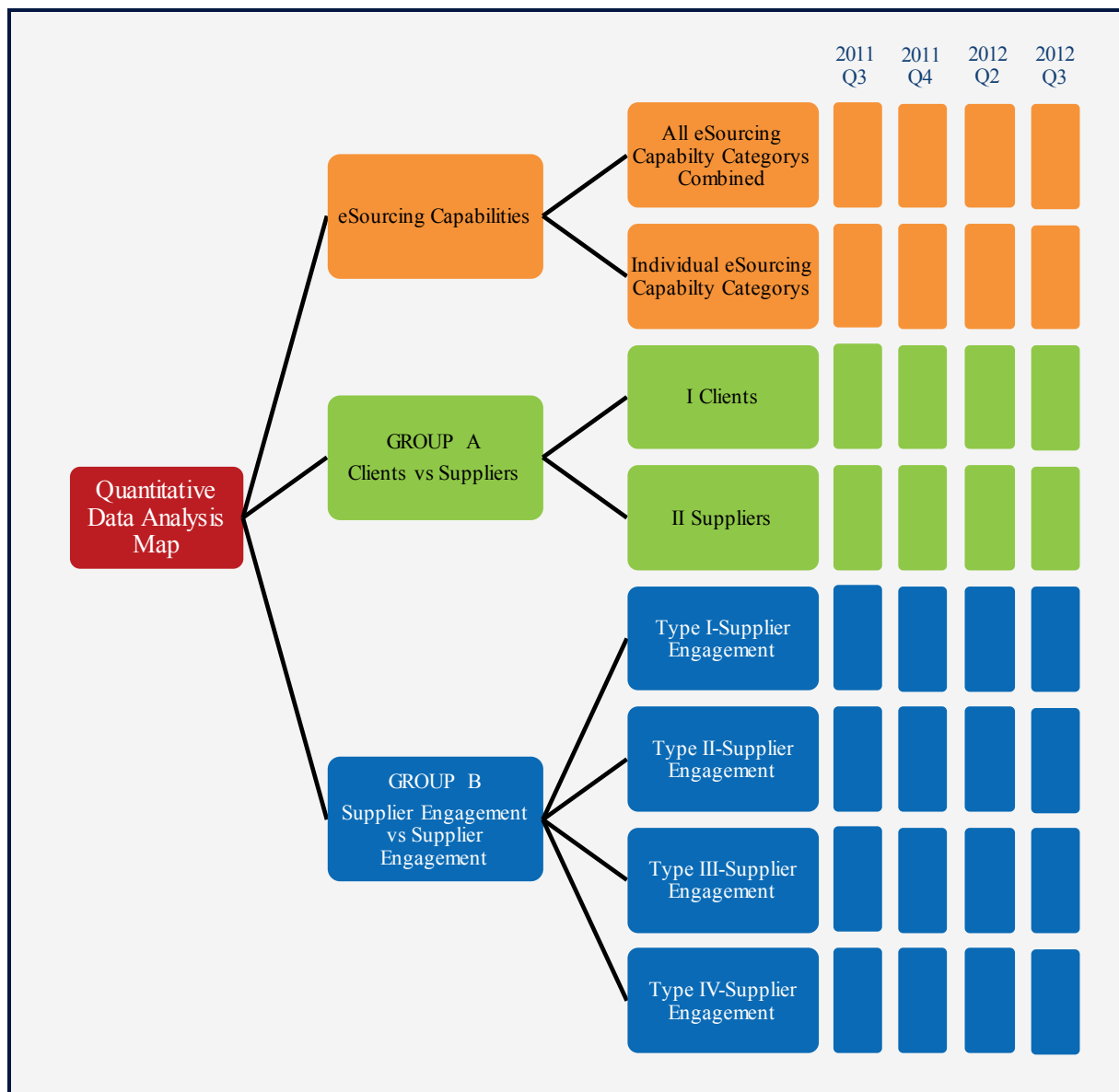
Four main statistical techniques were chosen to analyse the raw data collected over the four periods. The first technique was to conduct a reliability analysis in order to check whether the scale used in each question consistently reflected the construct of the sub-group it was measuring. Therefore, for each sub-group, Cronbach's alpha was measured. Cronbach's alpha is a common measure of scale reliability. By measuring how well each individual item in a scale correlates with the sum of the remaining items, it measures consistency among individual items in a scale.

The second technique was the calculation of a capability score (from 1 [low maturity] to 5 [high maturity]) for each group or category. To determine the capability maturity score, descriptive statistics that included the mean, median and standard deviation were calculated, whereby the mean represented the capability score for the group being analysed.

The third technique was to determine if there were any statistically significant differences within each period's sample supplier firm engagement group. To determine this, the independent sample t-test was used, and a hypothesis constructed as to whether the group was different or not different.

The fourth technique was to determine if there were any statistically significant differences between the samples over the four periods the data was collected. The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4 was the one-way analysis of variance or ANOVA test. For multiple comparisons, the Tukey test was used. The Tukey test is a single step multi comparison procedure that is often referred to as the Tukey honest significance test (HSD) (Groebner et al 2008).

The detailed calculations of these tests are included in Appendix E, while summaries in graphical format can be found in Chapter 4.

3.4.4 Source Two: Participant Observations

Data Collection and Analysis

During the research period, I performed the role of participant observer within the Corporation. Although there are potential drawbacks (particularly regarding bias) to participant observation as a sole research method, when it is combined with other methods, participant observation provides useful insights that are compatible with the interpretivist paradigm. In addition, as I was also an employee of the Corporation whose formal role gave ready access to the relevant stakeholders for this case study, it was an overall benefit to incorporate such an approach as it provided for much deeper and contextual insight through personal observations and reflections than would be the case if relying solely on interviews. Further, this level of access to any organisation is often difficult for researchers to obtain. This was a valuable opportunity: an organisation whose senior executives had endorsed the research, and whose only pre-condition was the confidentiality of the organisation's name and the study participants. The participant observations were recorded via a detailed diary maintained on a daily basis, which was progressively uploaded (generally on a weekly basis) into the NVIVO software database for analysis.

Once the diary notes were uploaded into NVIVO, they were coded similarly to the process undertaken for the interview transcripts. Often, the handwritten diary notes served as 'memory joggers', and an expanded insight or observation was recorded in NVIVO. For example, on one occasion I was attending a meeting with senior managers as part of my role as an employee in which one senior manager made a derogatory comment about 'senior leadership' regarding the Corporation's global sourcing strategy. When this remark was later recorded in NVIVO, my additional reflective observations were also recorded to provide greater contextual background as to the possible reasons why this comment was made.

3.4.5   Source Three: Direct Observations

Data Collection and Analysis

Prior to July 2011, the participant observation period, I had acquired further direct knowledge of the Corporation and its sourcing strategies because I had held professional positions within the same firm, or as a competitor, advisor or service provider since 1996. Over this period (up until July 2011), I sporadically recorded my observations, reflections and insights, which formed the basis of my personal motivation to undertake this research journey. They became a rich and rare source of data that provided an additional 16-year contribution to the study. When uploaded into NVIVO and combined with the participant observation period of 2011–2013, they became part of my observations of a single firm over 18 years. Similarly to the participant observation data uploaded into NVIVO, these direct observation diary notes were coded and, although not as structured as the primary sources, they provided additional sources for me to consider and reflect upon.

3.4.6   Source Four: Documentation

Data Collection and Analysis

Between July 2011 and September 2013, I was able to obtain external media releases, media commentary, annual reports and other publicly available documentation referencing the Corporation and its global sourcing strategy. In addition, as participant observer, I was frequently in a position to sight internal documentation that included meeting minutes, internal memos, reports and the results of internal staff surveys that were undertaken regularly, capturing the opinions of 400 staff representing 10 per cent of the Corporation's impacted teams to this global outsourcing strategy.

For my analysis of this documentation, I sorted it chronologically and in the categories of whether it was an internal communication for an internal audience, an internal communication for an external audience or an external communication. Furthermore, I also classified each document as whether it was a positive, negative or neutral communications.

As a result of the categorisation, this documentation has provided greater depth and understanding as to when events occurred, what key decisions were made, when they were made and the internal perspectives of individuals at the Corporation after these decisions were implemented. These insights have enabled me to validate some of the responses to the interviews and, where appropriate, have been referenced in this thesis.

3.4.7 *Source Five: Archival Records*

Data Collection and Analysis

As with the direct observations that occurred between 1996 and 2011, I was able to obtain external media releases, media commentary, annual reports and other publicly available documentation referencing the Corporation and its global sourcing strategy. These external and publically available records support this study by providing a richer historical context for the Corporation, leading up to the key study period between 2011 and 2013.

For my analysis of these archival records, I also sorted it chronologically and in the categories of whether it was an internal communication for an external audience or an external communication and classified each archival record as whether it was a positive, negative or neutral communications as I did with the documentation data source.

3.4.8 *Source Six: Physical Artefacts*

Data Collection and Analysis

At the commencement of this study, the capture of physical artefacts was not considered relevant. However, after the Corporation made the external announcement in November 2011 regarding its intentions to implement a new sourcing strategy involving the outsourcing and offshoring of technology functions to India, I considered that physical artefacts (e.g., photographs) may be useful. They could provide a visual representation that might supplement the other data sources collected within the Corporation while it was implementing its global sourcing strategy. Relevant samples of these artefacts have been

reproduced in Chapter 4 to bring the Corporation's global sourcing strategy journey to life in a more visual way. As to their analysis, again I sorted the artefacts chronologically and classified each as whether it was a positive, negative or neutral communications as I did with the documentation and archival records data source.

3.5   Verification, Validity and Reliability

3.5.1   *Verification*

Creswell and Miller (1997) defined eight procedures for research verification, of which two, at a minimum, should be applied in any study:

- prolonged engagement and observation, allowing the collection and comparison of data

- triangulation of data collected from multiple sources

- rich, thick descriptions in order to be able to transfer the ideas to other situations

- clarification of researcher bias (reflexivity) due to their involvement

- peer review or debriefing of the initial research

- negative case analysis

- member-checking where research participants review the findings

- external audits performed by an external consultant to assess the accuracy.

This research has applied three of these procedures. First, prolonged engagement and persistent observation occurred as I served in the role of participant throughout the study. Second, I utilised a mixed methods strategy for triangulation of data. Third, the use of rich descriptive narratives in Chapter 4 to describe the events that took place at the Corporation, and to describe the results of the data collected, and in Chapter 5 to present the major and minor insights, will assist in making connections to other situations and scenarios.

3.5.2 *Validity*

According to Hussey and Hussey (1997), validity is the condition where the actual research findings represent the true situation. They stated that research validity can be determined in multiple ways, including construct validity (non-observable phenomena such as individual emotions or motivations) and face validity (when the research methods actually measure what is intended). Yin (2009) recommended four tests to establish the quality of case studies, the first three in relation to validity and the fourth in relation to reliability, as shown in Table 3.4.

To increase the validity of the research and address Yin's (2009) 'construct validity' test, I adopted a mixed methods approach in which rich sources of data were collected from four participant groups (executive managers, senior managers, middle managers and supplier managers) in the form of interviews and surveys supplemented by quantitative surveys, participant observation, direct observation, documentation, archival records and physical artefacts. For the 'internal validity' test, I utilised the NVIVO qualitative software tool to code text from transcripts, surveys and documentation under themes or recognisable patterns. The 'external validity' test was partly addressed by conducting a longitudinal case study where interviews and surveys were repeated on several occasions, and although differences were expected as the research environment changed, this approach provided additional validity to the data being collected.

Table 3.5: Case Study Tactics for Four Design Tests

Test	Case Study Tactic	Phase of Research in which Tactic Occurs
Construct Validity	Use multiple sources of evidence	Data Collection
	Establish chain of evidence	Data Collection
	Have key informants review draft case study report	Composition
Internal Validity	Do pattern matching	Data Analysis
	Do explanation building	Data Analysis
	Address rival explanations	Data Analysis
	Use logic models	Data Analysis
External Validity	Use theory in a single-case study	Research Design
	Use replication logic in multiple-case studies	Research Design
Reliability	Use case study protocol	Data Collection
	Develop case study database	Data Collection

Source: Yin (2009)

3.5.3   Reliability

Reliability is concerned with the research findings being able to be repeated under the same conditions (Hussey & Hussey 1997). This is very important when using a largely positivist research paradigm; however, for a phenomenological paradigm, as in this study, a broader definition is required. In this study, a mixed methods approach was taken, using data from multiple sources across multiple time periods while maintaining consistent data analysis coding practices to ensure the reliability of the study. Further, the 'reliability' test described by Yin (2009) (see Table 3.5) equally stands in that I adopted a robust case study design and all relevant data—with the exception of physical artefacts such as photographs—were uploaded into a central database for analysis.

3.6 Limitations and Delimitations

Limitations are the conditions or potential weaknesses in the research, whereas delimitations are the scope or study's boundaries (Hussey & Hussey 1997).

A potential limitation in this study is that it is a single case around one firm and the findings may not necessarily be true for all organisations when implementing global sourcing strategies and optimising offshoring capabilities. That said, the uniqueness and depth of this research provides a valuable contribution to practitioners and academics alike regarding the sorts of challenges and insights that one firm has experienced.

Regarding delimitations, firstly the research questions assume a sourcing strategy. This is clearly evident within the Corporation as depicted in Figure 4.5 and Figure 4.9 with the objectives and principles of the Corporation's IT strategy. However it must be pointed out that this is not always the case across organisations and what may be referred to as a sourcing strategy is in reality a series of strategic decisions about outsourcing (Hefley and Loesche 2010 p 21).

Secondly, this longitudinal study followed the Corporation for the period 1996–2012. At time of writing, the Corporation was still in the process of implementing its global sourcing strategy in other business divisions and continuing its efforts to optimise its offshoring capabilities across the whole organisation. However, this particular research was focused within one specific division and although continuing the longitudinal case study may produce additional insights, particularly in observing the outcome of many of the Corporation's offshoring optimisation activities, I have concluded the study at this time in order to produce meaningful research in a manageable way.

3.7 Ethical Considerations

An application was made to, and subsequently approved by, Macquarie University's Human Research Ethics Committee. In addition, an agreement was made between relevant senior executives at the Corporation and me, that the real name of the Corporation would not be published. Permission was granted to publish direct quotations from managers within the Corporation provided their names were not used.

Although all application criteria were met (or are being maintained), the key ethical consideration in regards to the data collection was the potential conflict of interest of the participant observer role and my role as an employee of the Corporation. To ensure that no conflict occurred, clear boundaries were established between the Corporation and me. As the longitudinal case study progressed, so did invitations to present early insights of the research to specialised teams such as HR and the Change Management Community of Practitioners within the Corporation. I weighed up the value that some of these insights would have if shared while balancing the requirement of confidentiality as per the conditions of approval from Macquarie University's Human Ethics Committee; as a result, only high level themes were discussed at presentations, and any connection to source data was avoided.

Chapter 4: Data and Analysis

4.1 Introduction

This chapter presents the data that was collected and analysed by me across the three phases of the study, representing a total of 18 years from 1996–2013. Phase One is the period 1996–2011, when physical artefacts, archival records and direct observations were obtained. Phase Two, 2011–2012, was when the participant observations, documentation, interviews and surveys occurred. Phase Three, 2012–2013, took place after the interviews and surveys, and drew upon physical artefacts, participant observation and documentation. Throughout these three phases, the Global Banking Corporation was being driven by the need for ongoing evolution and transformation of its operations to remain competitive against its peers, and was progressively implementing a global sourcing strategy.

To explore these three phases in more detail, I have identified and named 10 themes that follow the Corporation's implementation of its global sourcing strategy from 1996–2013, commencing with 'Outsourcing 101', followed by 'Offshoring 101' and so forth, as outlined in Figure 4.1. The figure includes the data-collection methods used during these phases.

Figure 4.1: The Corporation's Case Studies, Three Phases 1996–2013
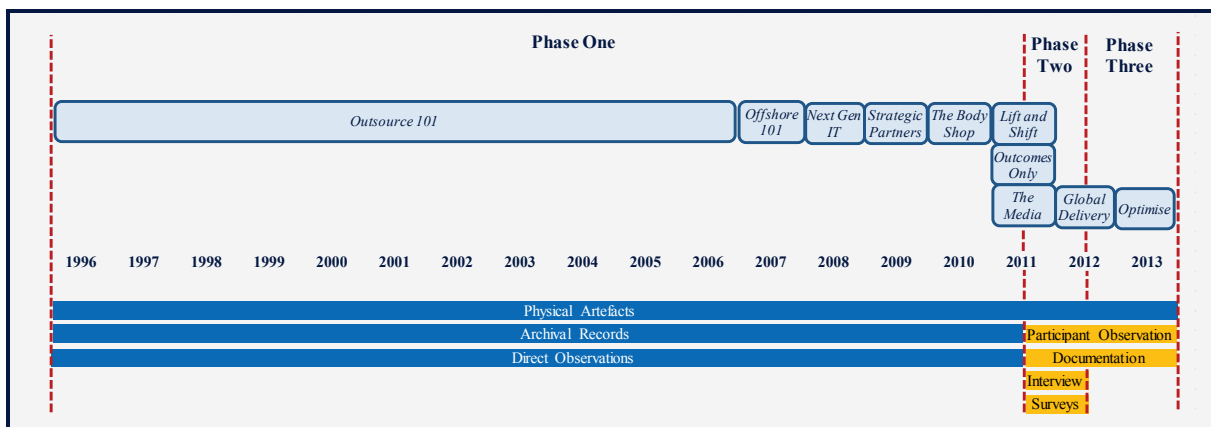
The three phases of the study, including the 10 identified themes of the Corporation's journey of 18 years, are discussed in the following sections of this chapter. Phase One is

represented in Section 4.2, 'Setting the Scene', and includes the first nine themes. (The ninth theme, 'Global Delivery', actually takes place during Phase Two but is discussed in this section). Phase Two, incorporating the analysed data from the interviews and surveys, is presented in Section 4.3, 'Answering the Research Questions'. Phase Three, which represents the tenth theme and includes more recent observations that took place after the interviews and surveys, is in Section 4.4, 'Latest Developments'.

4.2 Setting the Scene

To set the scene, I begin by describing the general external environment in which the Corporation operated during the study. Figure 4.2 displays Australian economic key measures—including the Australian Gross Domestic Product (GDP) indicator, the Reserve Bank of Australia's (RBA) interest cash rate and the overall Australian unemployment rate—for the period 1996–2013. The 18-year period covered by the study reflects an economy of boom, bust and recovery.

Figure 4.2: Australian Economic Key Metrics 1996–2013
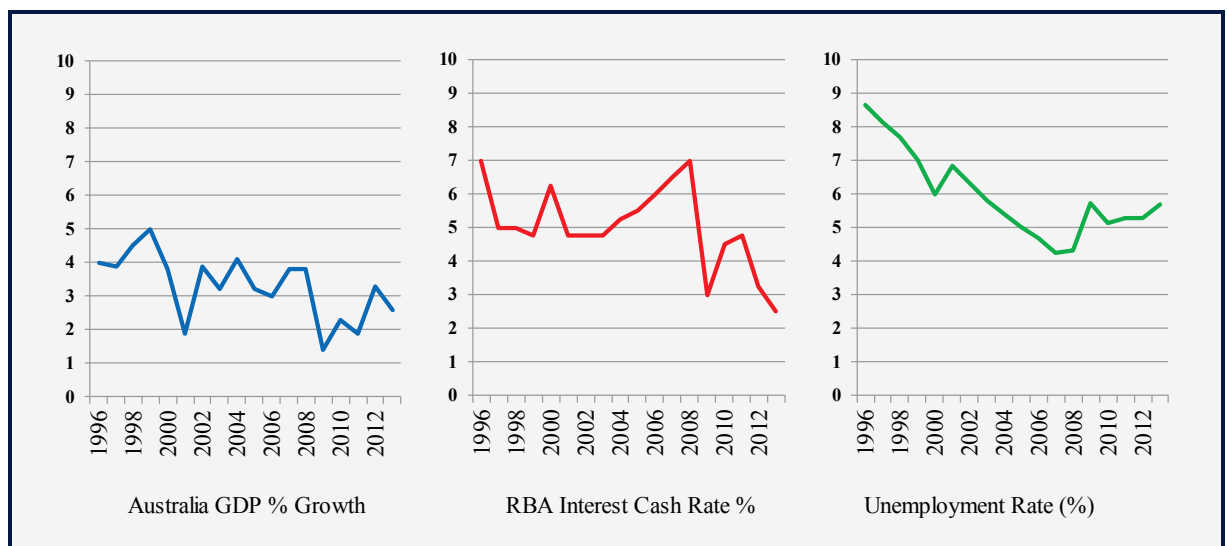
Source: ABS (2013), RBA (2013)

We will now see how the Corporation performed in this environment by responding to these economic challenges in the first of the 10 themes: Outsource 101.

4.2.1   Outsource 101

I have decided to describe the period from 1996–2006 for the Corporation in terms of the theme Outsource 101. This is where cost savings were achieved amid growing profits. In Figure 4.3, the actual data has been masked to maintain confidentiality. The first year, 1996, has been converted into a base of 1, and comparisons can be made by looking at the slope of each graph line to gain an indication of the improvements in performance over these years). During this period, a change in chief executive officer (CEO) was initiated. Also during this time, a number of major global events—including the Asian Crisis, Y2K, the Dot Com bubble burst and the Nine Eleven terrorism attacks—occurred.

Figure 4.3: The Corporation's Key Metrics 1996–2013
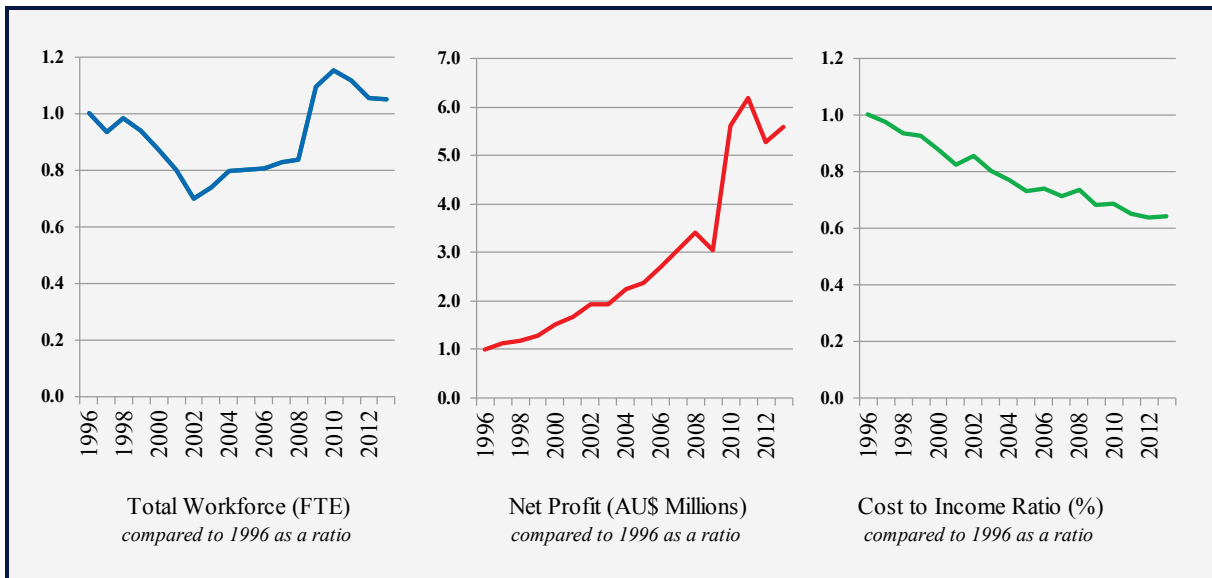
Source: The Corporation (2013)

During this period, the Corporation undertook a 'factory' or 'manufacturing' approach, where a major centralisation of business processes was undertaken, supplemented with initiatives that included business process re-engineering, total quality management and Six Sigma. In the later part of this period, significant outsourcing contracts were being awarded, including those to the global service provider firms EDS and IBM for business processes and technology infrastructure. This period and theme drew to an end when the external media speculated that the Corporation was actively reviewing plans to offshore work to

India with the BPO firm Genpact. This leads to the introduction of my next theme, Offshore 101.

4.2.2   Offshore 101

In 2007, the Corporation initiated some small outsourcing and offshoring programmes, hence the theme Offshore 101. During this period, I was employed by the global services firm Capgemini and was responsible for working with the Corporation to establish a knowledge processing and software development centre in Mumbai, India (see Figure 4.4).

Figure 4.4: Global Service Provider's Delivery Centre, Mumbai, India

Source: The Author

Although from a business unit perspective this engagement was performing to client expectations, it was isolated in the context of other sourcing activities occurring within the Corporation, largely due to no central location within the Corporation being accountable for an offshoring strategy; the approach was largely ad hoc, inconsistent and unsustainable. Nevertheless, this was the beginning of a global sourcing strategy.

4.2.3   Next Gen IT

The Next Gen IT theme represents the period throughout 2008. In this year, the Corporation announced plans to merge with a regional bank while the new chief information officer (CIO) initiated an IT transformation strategy that would refresh the Corporation's legacy

systems and platforms in order to support the broader firm's strategic objectives (see Figure 4.5).

Figure 4.5: The Corporation's IT Strategic Goals

The Way The Corporation Sources IT Services and Capabilities

Technology strategic goals	• To create a world-class, effective and efficient IT function that is positioned to enable business performance, with the following elements: - 'Reliable and stable' operations - 'Efficient IT'-the IT function is continuously driving efficiencies in IT to keep the cost of a unit of IT support reasonable and competitive... whether provided internally or purchased externally - 'Business-aligned IT'-technology is used to enable business and continuously improve effectiveness

Drives — **Enables**

Objectives of IT sourcing strategy	• To define the approach by which we will gain the right capability at the right cost from the right source to facilitate and enable the delivery of a 'world class, effective and efficient IT function' • Key outcomes: - Definition of the IT service delivery framework across The Firm's IT landscape - Decision criteria for determining how to source services (i.e. whether internal or external) - Understanding of critical capabilities The Firm must develop and retain internally - Assessment of the changes required to execute a new strategic sourcing model

Source: The Corporation (2013)

This new IT strategy led to the development of a new sourcing strategy, as the general view by the executives at the time was that the current IT capability was not fit for purpose and lacked the ability to fully transform the current operations in order to meet the future needs of the Corporation, as Figures 4.6 and 4.7 illustrate. As there was minimal in-house expertise, the Corporation brought in consultants from KPMG to assist, and the sourcing strategy commenced with the sourcing decision framework (see Figure 4.8) and a set of guiding principles to support decision making (see Figure 4.9). However, as the technology capability across the Corporation was distributed under a series of divisions, these guiding principles took some time to take effect.

Figure 4.6: The Corporation's Current Sourcing Model Issues

Issues with The Current Sourcing Model

Inefficient/ineffective service delivery processes

- Lack of transparency and accountability between internal roles and external suppliers
- Key IT processes are ineffective or not performed
- Inadequate knowledge of the applications portfolio exists

Sub-optimal leverage/management of suppliers

- High degree of fragmentation of IT vendor spend outside major strategic partnerships
- Infrastructure: Unstructured mix of in and outsourcing
- Applications Development and Maintenance: general under utilisation of external capabilities compared to peers
- Limited strategic alignment of ITO and BPO to benefits from its business and technology footprint

Sub-par service outcomes

- Enterprise solutions do not provide suitable solutions (in terms of quality and financially) for non-integrated entities to deliver services
- Services between The Firm and external service providers are not effectively integrated
- Ineffective service levels: misaligned to current environment and problematic to measure on an end-to-end

Sub-par commercial outcomes

- External service providers not adequately pro-active in bringing best-in-class solutions and are not incentivised to ensure collaboration towards longer term priorities
- Limited on-going contestability between suppliers
- Commercial disciplines need improvement, particularly around managing and holding accountable The Firm's external vendors for service delivery

Source: The Corporation (2013)

Figure 4.7: The Corporation's Lessons Learnt

Lessons From Prior Experience

Lessons learnt

- Lack of transparency and accountability between internal roles and external suppliers results in unclear and complex lines of responsibility and duplicated functions
- An unstructured mix of in-house and outsourced IT services can lead to key IT processes becoming ineffective or not performed
- A high degree of fragmentation of IT vendor spend drives sub-optimal cost position and can impact on the delivery of adequate service levels
- Inadequate commercial disciplines, particularly around managing and holding accountable external vendors for service delivery, fail to ensure collaboration towards longer term priorities and continuous improvement

Implications of the future sourcing strategy

- Keep in-house key functions that The Firm needs in order to retain control over its IT environment
- Contracts should be structured to keep accountabilities clear, minimise areas of shared responsibility and maintain as much transparency as possible
- Consolidate multiple sub-environments to simplify The Firm's sourcing arrangements
- Sourcing arrangements need to be structured to take advantage of market pricing and The Firm's scale, and to ensure suppliers are incentivised to provide continuous improvement and innovation
- Suppliers should not be asked to provide services beyond their usual capabilities

Source: The Corporation (2013)

Figure 4.8: The Corporation's Sourcing Decision Framework

The Sourcing Framework

Assess extent to which the IT service **affects** the performance of operations by considering:

– Impact on customer service
– Impact on staff
– Impact on costs

Importance to Business Operations

Critical *(High)*

Outsource/ Insource (based on risk vs. value)

Insource

Outsource

Eliminate/ Simplify

Non-Critical *(Low)*

Commodity *(Low)*

Differentiator *(High)*

Contribution to Competitive Positioning

Supply Market Ability

• **Does a competitive supplier market exist** for identified service bundle in terms of:

– **Capability:** Depth of knowledge and experience of various service providers in delivering the IT service
– **Capacity:** Potential of various service providers to deliver services to a client of The Firm's size

Assess extent to which the IT service helps **differentiate** from competitors such that this difference is externally recognisable by considering:

– Contribution to customer experience
– Contribution to equipping staff
– Contribution to process efficiency

'Strategic importance' is a key determinant of how an IT service should be sourced

Source: The Corporation (2013)

Figure 4.9: The Corporation's Sourcing Guiding Principles

Guiding Principles of The IT Sourcing Strategy

Internal perspective	External supply market perspective	Supplier engagement perspective
Align sourcing decisions with strategic positioning and imperatives	Source externally into changing competitive markets, ensure a contestable landscape internally	Specify supplier performance to meet our end-to-end service targets
Always 'best' source	Define clear roles, boundaries and governance	Recognise final accountability is ours and manage suppliers on their accountabilities
Bias towards industry standard solutions instead of bespoke solutions (buy not build)	Engage external suppliers in sustainable relationships	Secure contract terms that position both parties for success

Source: The Corporation (2013)

To provide further insight into the Corporation's thinking into this new sourcing strategy, Figures 4.10 to 4.12 have been included. The artefacts demonstrate a methodical process in

which the Corporation clearly articulated that offshoring was on the agenda. This partly went to support telling the story across the Corporation as to why they were embarking on outsourcing and offshoring. However, as I later discovered during interviews as the global sourcing strategy was being implemented, there were many managers who held different views as to why the Corporation was implementing the strategy.

The Corporation's IT sourcing strategy always maintained an offshoring objective; it was only the magnitude of the operation and the 'how to' that were uncertain. To simplify the journey, a simplistic model was created that became known as the 'nine-box model' (see Figure 4.13). This allowed managers to visualise to some degree what the future may look like; however, as alluded to, there were no instructions in direction as to where to start in the nine box model. For example, should the Corporation focus on outsourcing first, then only once maturity has been established, consider offshoring? As a result, an inconsistent approach was being implemented across the Corporation.

Figure 4.10: The Corporation's Sourcing Strategic Framework

Source: The Corporation (2013)

Figure 4.11: The Corporation's Sourcing Benefits

Benefits of The New Sourcing Strategy

Improved Visibility of Services	• Structuring of services aligned to supply market provides greater transparency of services and enables benchmarking/comparison of quality and cost outcomes
Improved Control Over Service Quality	• Retention in-house of key functions and decision rights ensures that The Firm is better able to manage and control service outcomes
Improved Quality and Value Of Services	• Best sourcing of services ensures that The Firm will gain the 'right capability at the right cost from the right source'
Improved Flexibility and Contestability	• Structuring of services aligned to supply market enables to respond quickly to a change in sourcing requirements and ensures best of breed, contestable sourcing

Economic Benefits	• Implementation of a global managed services model could deliver up to 10-15% reduction to the addressable IT spend
	  - Reduced application spend driven by productivity improvement, process maturity and labour arbitrage
	  - Reduced infrastructure spend driven

Source: The Corporation (2013)

Figure 4.12: The Corporation's Sourcing Approach

Develop Future Strategy, Model and Apply Pragmatically Over Time

Step 1
Determine What a Target State IT Sourcing Model Should Look Like

Step 2
Determine Scope, Path and Timing for Migration to the New Model

Step 3
Determine if and how Model Works for The Remainder

For infrastructure:

• Develop sourcing strategy
  - Delivery framework
  - What will retain internally vs. source externally
• Apply model first to businesses

• Transition to the future state model in the context of the timeframes for current rebuilding activities

• (Assuming model works) Consider applying to other parts only if it can be proven to provide better service and financial outcomes for these businesses or as a whole

For applications:

• Develop sourcing strategy aligned to IT strategy priorities
  - Applications bundling
  - Delivery framework
  - Retain vs. source externally
• Focus on core applications

• Migrate to the future state model:
  - Prevailing market environment conditions
  - Relevant risks vs. expected benefits
  - Timing interdependencies such as IT strategy investment roadmap
  - Opportunities to optimise BPO and ITO

• Assess opportunities to create additional value from aligning Business Unit unique applications to applications sourcing model

Source: The Corporation (2013)

Figure 4.13: The Corporation's Nine-box Model

The Corporation's Nine-box Sourcing Model

	Onsite	Offsite (Onshore)	Offsite (Offshore)
Managed Services	3A Managed services provided onsite	3B Managed services provided from onshore supplier	3C Managed services provided offshore from supplier
Project-based/Co-sourced	2A Project-based/Co-sourced services provided onsite	2B Project-based/Co-sourced services provided from on-shore supplier	2C Project-based/Co-sourced services provided from offshore supplier
Resource-based	1A Resource-based services provided onsite	1B Resource-based services provided from onshore supplier	1C Resource-based services provided from offshore supplier

Source: The Corporation (2013)

4.2.4 Strategic Partners

The theme 'Strategic Partners' occurred during 2009 and followed the previous year's sourcing strategy, which lead to a formal request for proposal (RFP) by the Corporation to an invited group of global service providers. The purpose of this exercise was to select a group of four global service providers that would become the Corporation's IT strategic partners, referred to at the Corporation as 'applications best shore' (ABS) strategic partners. (The term 'best shore' was used to communicate the fact that the suppliers would have resources located onsite and offshore in India.) Parallel to this process, formal offshoring principles were defined that would guide the Corporation in how it conducted itself when it came to opportunities to implement a global sourcing strategy, as presented in Figure 4.14.

This phase also saw increased external negative media about the Corporation, including speculation that it was in the advanced stages of sending jobs to India. Compounding this were mixed messages and media releases by the Corporation (see Figure 4.15).

Figure 4.14: The Corporation's Offshoring Principles

The Corporation's Principles For Offshoring

- We will not move call centres in Australia or New Zealand offshore
- We will always do the right thing for affected employees
- We will always protect our customers' privacy
- We will keep Australia or New Zealand critical customer data and related computer systems and servers in Australia and New Zealand
- We will insist that security and access controls in offshore suppliers are as good as or better than The Firm's internal security and access controls
- We will insist that all of our offshoring suppliers respect and support international conventions on human rights and labour standards
- We will keep our employees informed of our decisions

Source: The Corporation (2013)

Figure 4.15: Media News—Conflicting Messages

[The Corporation's] Backflip on India Jobs

Several sources confirmed [the Corporation's] contingent met with technology firms Accenture, IBM, EDS, Wipro Technologies, Tata Consultancy Services and Infosys, as well as one or two others.

A fortnight ago [the CEO] announced she had put the brakes on [the Corporation's] offshoring of Australian-based jobs, a decision prompted by the recession and expectations that unemployment could rise next year to 8.5 per cent.

'I've decided to suspend further offshoring until conditions improve,' [the CEO] said.

Mahesh Sharma
***The Australian*, 18 May 2009**

These external stories led to much internal speculation and unease among staff members at the Corporation. I later discovered, during the interviews, that managers found it a difficult time to provide genuine care for their teams due to intense uncertainty around jobs.

4.2.5 *The Body Shop*

I have used 'The Body Shop' as the theme for the period during 2010 at the Corporation, as the RFP process had concluded and four global services firms had been appointed to the Corporation's IT sourcing panel. The firms were IBM, Infosys, TCS and Wipro. Three of these four firms were what industry jargon refers to as 'Indian pure plays', as their corporate history originated from India. This theme focused on meeting current work demands, which were still largely onshore. Internal communications articulated the drivers for the new sourcing strategy as:

- capacity—to meet urgent skill needs

- capability—to leverage service-provider experience

- cost—to reduce cost largely from offshore labour arbitrage

As a consequence of the rapid increase in skill demand and an executive mandate to use only 'panel' resources, what was once a managed implementation of a sourcing strategy became a land grab in the eyes of the suppliers, as they pushed resources across all portfolios at the Corporation. The suppliers often use the military term 'establish a beach headland' to describe the building of a base from where they can expand. Although it was not fully understood by many of the Corporation's managers at the time, this practice resulted in multiple suppliers with resources in the same technology portfolios and domains, as illustrated in Figure 4.16 (an artefact produced at the Corporation). The impact of this became apparent once ideas about shifting work offshore to specific suppliers were being pursued. Having no single supplier aligned to any specific domain meant that the knowledge the individual supplier employee had acquired from working on the corporation's IT systems would have to be transferred to another individual supplier employee in order for it to be taken offshore to a single supplier's delivery centre.

Figure 4.16: The Corporation's Outsourcing Penetration
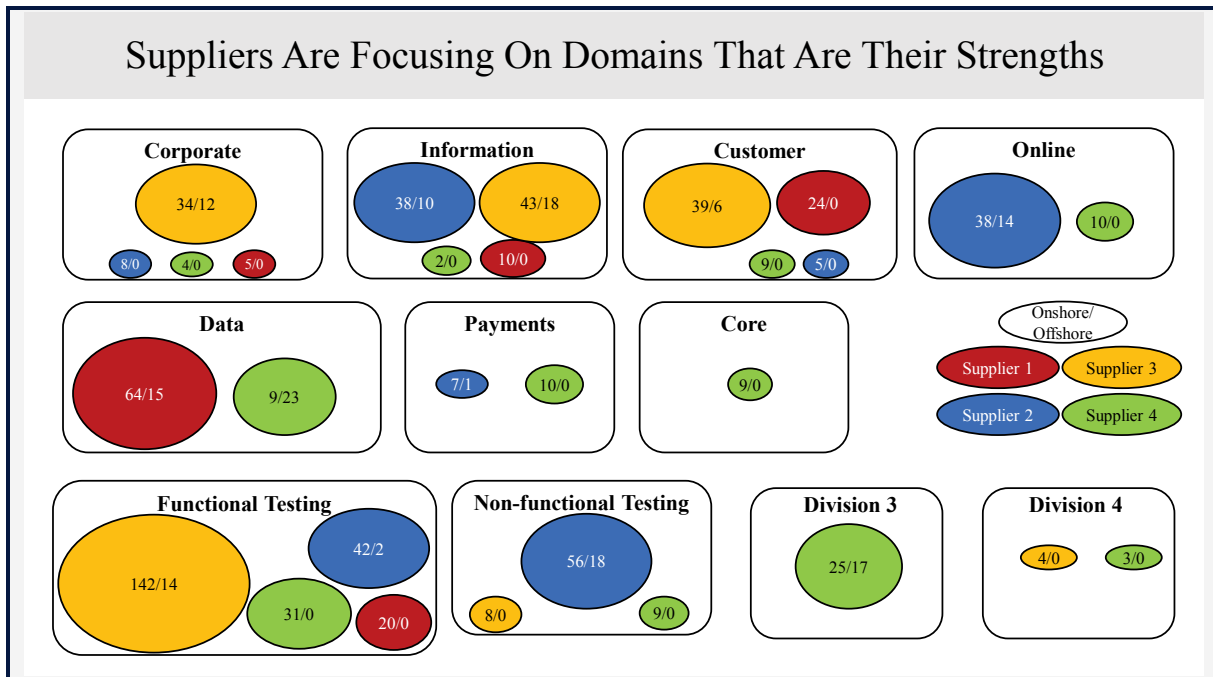
Source: The Corporation (2013)

Figure 4.17: The Corporation's Onsite 'One Team' Cultural Integration

Source: The Author

4.2.6   Lift and Shift

For the early part of 2011, I use the 'Lift and Shift' theme because the Corporation was moving towards a global delivery model, with work being transferred and shifted to the supplier's operations in India. A new role was established at the Corporation, in which a representative would be based in India, managing the transition on the ground. This role

was filled by me and, during this period of the longitudinal case study, I was a formal 'participant observer'. At the same time, as a result of the Corporation's supplier portfolio penetration review (see Figure 4.16), work commenced in assigning specific technology portfolios to specific suppliers. This maintained the advantages of a multi-sourcing strategy—for example, by maintaining competitive tension—while also enabling each supplier to focus on their own specific domains. Although negative media about the Corporation's offshoring plans continued, more and more work was progressively transferred to India, and strong client-focused supplier teams were established to support the Corporation's day-to-day operations (see Figures 4.18 and 4.19).

Figure 4.18: Global Service Provider's Delivery Centres, India

Source: The Author

Figure 4.19: Global Service Provider's Offshore Account Teams
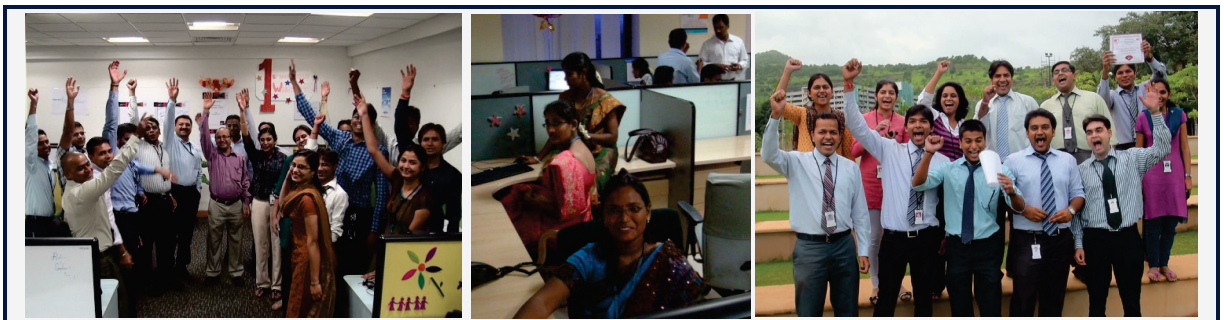
Source: The Author

4.2.7   Outcomes Only

By mid-year of 2011, the Corporation's senior executive agreed to the recommendations of a business case to accelerate the transition of work to India. I have labelled this period with the theme 'Outcomes Only', as a key component of these recommendations was the move from largely 'time and material–based' contracts to 'outcome-based' contracts. This shift

was still in alignment with the original sourcing strategy (see Figure 4.13, boxes 2C and 3C), but the timeline to achieve it was reduced, largely because external economic uncertainty was making internal cost reduction and cost containment initiatives an imperative across the Corporation. This led to the commencement of the Corporation's souring transformation (see Figure 4.20).

Figure 4.20: The Corporation's Sourcing Transformation Background and Scope
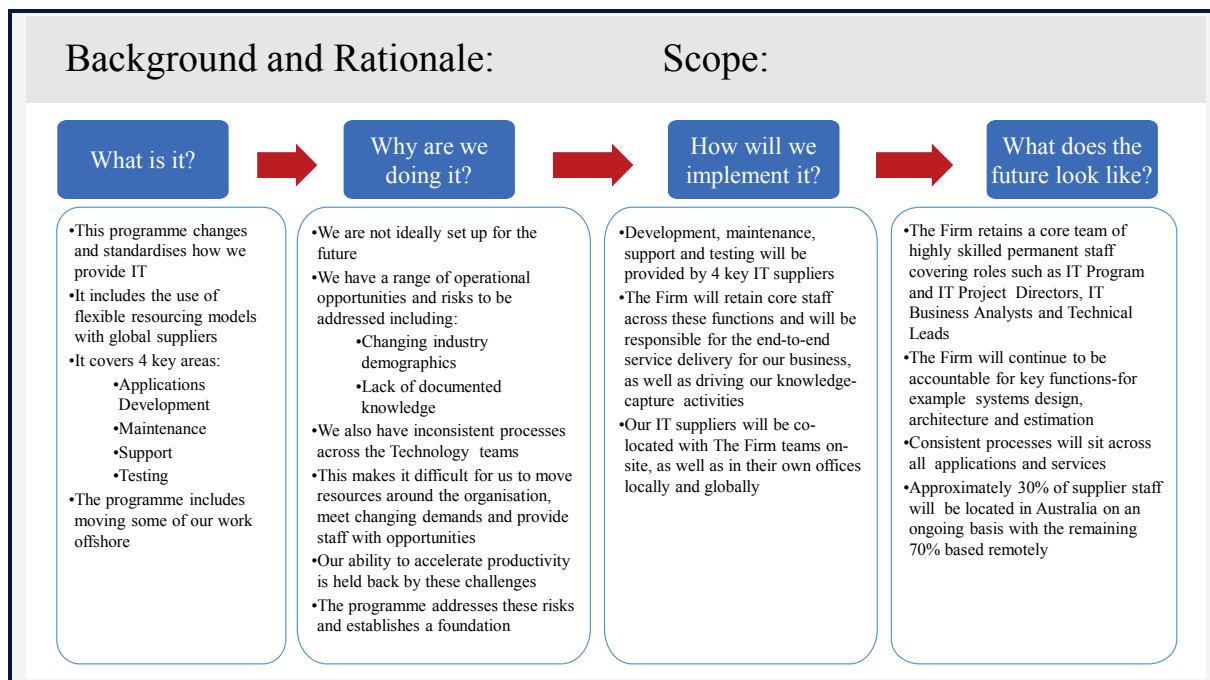
Source: The Corporation (2013)

The programme would eventually affect many of the Corporation's employees directly, as many of the roles would no longer be performed by the Corporation, and the vast majority of the work would be transferred to India. As a result of this sensitivity, a higher degree of structure and diligence was implemented (see Figure 4.21) to ensure minimal disruption during transition.

Figure 4.21: The Corporation's Sourcing Transformation Transition

Each Wave will be Executed by Following a Structured Process

1. Due Diligence

Provide suppliers with the opportunity to understand The Firm requirements including applications, services, processes and underlying technology within each domain or portfolio of applications

2. Transition Planning

Develop detailed transition plan including acquisition of knowledge and implementation of required processes and technology to support new operating model and global delivery

3. Transition

Execute transition plan to transition services to the suppliers and implement required processes and technology to support new operating model and global delivery

4. Steady State

Operate in new operating model with suppliers providing outcomes-based services for run and change

MONTHS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Source: The Corporation (2013)

4.2.8   The Media

In November 2011, a significant event took place within the Corporation, which I have themed 'The Media'. This is the last theme for Phase One of the study. In announcing internally to its employees and externally to the market that it was formally implementing a sourcing strategy to transition work to global service providers in India, the Corporation advised that, as a result, job losses could be expected. This announcement drew much attention because of the emotive nature of the subject of offshoring jobs. Disgruntled Corporation employees, including one leak ended up on prime-time television (see Figure 4.22).

Figure 4.22: Media News—Response to the Corporation's Offshoring Plans

Job Threat Betrayal

There's a new threat to Australian workers and their jobs, with big financial institutions planning to shift employment to Asia to reduce costs.

Helen Wellings
***Today Tonight*, Seven Network, 5 March 2012**
(Job Threat Betrayal 2012)

The Financial Sector Union (FSU) increased its visibility within the media and onsite at the Corporation, with campaigns such as those illustrated in Figure 4.23. This 'noise' in the daily media may have been the reason why the chairman of the Australian financial services regulator, the Australian Prudential Regulation Authority (APRA), commented on the subject of banks and offshoring in an address in May 2012 (see Figure 4.24).

Figure 4.23: FSU Reactions to the Corporation's Offshoring Plans

Source: FSU brochure distributed freely at the Corporation's offices

Figure 4.24: APRA Speech

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Life in the Slow Lane

We are increasingly convinced that major outsourcing [offshoring] projects require close involvement of ADI [Authorised Deposit-taking Institution] boards to ensure that the trade-offs involved are well understood and that the risks are being considered in a transparent manner.

John Laker, Chairman
APRA, 11 May 2012

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In addition to the negative external reactions to the Corporation's public decision and announcement, internal opposition increased, particularly by employees adamant that this was not the right direction for the firm. Much of this opposition was demonstrated in subtle ways. The poster in Figure 4.25 demonstrates how simple signage in the toilets at the Corporation was altered to suggest a more sinister message. Further, informal comments made regarding the signage suggested that 'only Indians need to be told that'.

Figure 4.25: The Corporation's Onsite Cultural Challenges
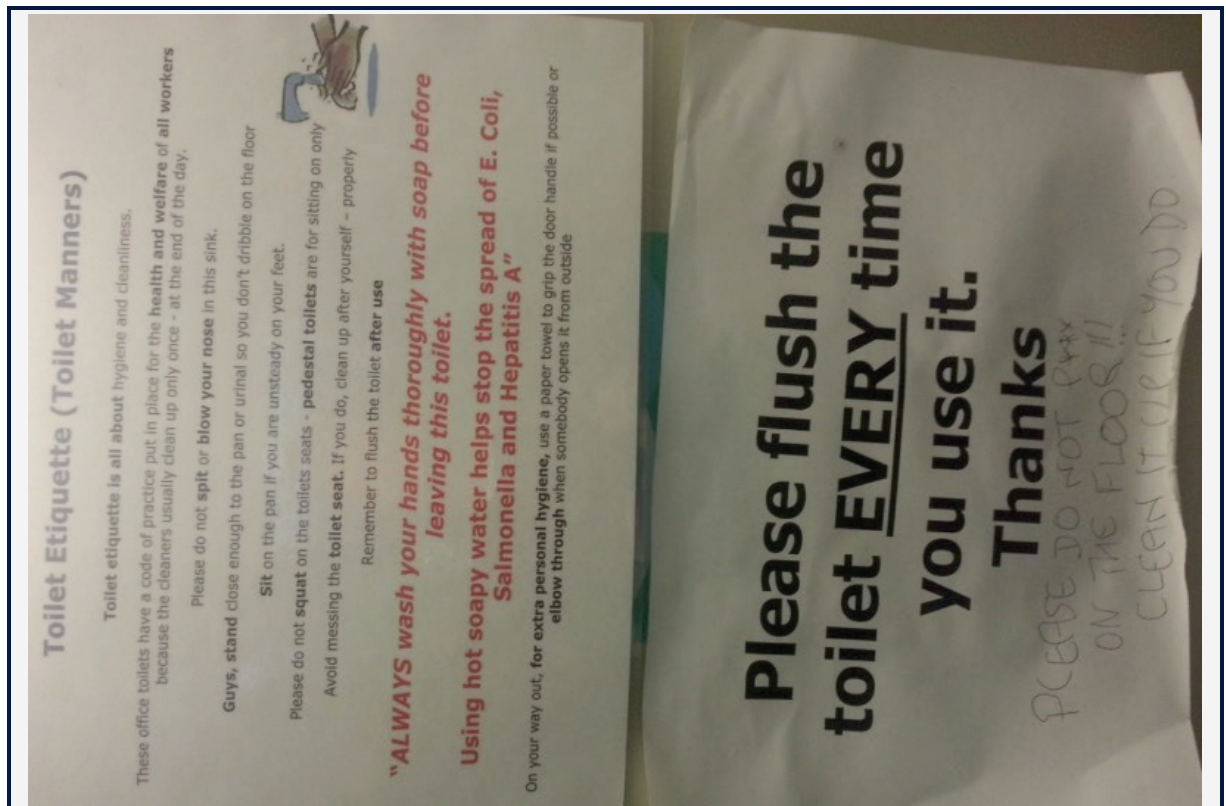
Source: The Author

4.2.9 *Global Delivery*

Phase Two of the study commences with the theme 'Global Delivery' and occurred in late 2012. The number of supplier staff based in India had risen significantly from the previous six months and the portfolios or business domains had become more aligned per supplier (i.e., improved from the position illustrated in Figure 4.16). As a result, the Corporation was now seeing a shift from the original drivers of capacity to greater capability and cost. However, with this increased offshore exposure and APRA's previously stated position on offshoring, the Corporation found itself changing its position with the regulator; it went from keeping APRA informed to seeking APRA's approval. As for the regulator, it also found itself on the back foot initially; to catch up to industry developments, it assembled its own team to research and investigate (see Figure 4.26).

Figure 4.26: Media News—APRA Indian IT Outsourcing

Regulator readies for India

The prudential regulator is sending a team to India to evaluate the standards of service providers in that country as Indian firms play an increasingly important role for the Big Four banks, overseeing critical back-office functions.

The move mirrors similar visits by the United States Securities and Exchange Commission and the UK's Financial Services Authority. The Australian Prudential Regulation Authority's delegation will assess the operations of companies that outsource for local financial services players, the Indian operations of other multinational IT suppliers, and the ring-fenced operations of Australian institutions, such as ANZ Banking Group, it is understood.

Paul Smith
Australian Financial Review, **3 July 2012**

Meanwhile, within the Corporation, managers' travel to India increased. For many of these managers, it was the first time they had visited India. Preconceived negative stereotypes regarding the depth of the suppliers' capabilities were positively challenged, contributing to deeper working relationships between client and supplier, onshore and offshore (see Figure 4.27).

Figure 4.27: Global Service Provider's Global Mindset

Source: The Author

APRA continued to issue media releases on its views of offshoring (see Figure 4.28). In late 2012, after subsequent APRA visits to the Corporation's Indian-based supplier operations as well as detailed onsite reviews with the Corporation's key management personnel, APRA provided formal approval for the Corporation's transition to Indian-based operations. An extract of this communication (see Figure 4.29) was copied and printed in poster format, and placed on relevant office walls within the Corporation as a symbol of achievement.

Figure 4.28: Media News—APRA Outsourcing Red Flag

APRA Raises Red Flag on Outsourcing

The Australian Prudential Regulator Authority is worried that banks are taking increased risks sending technology and other functions offshore without undertaking adequate due diligence.

John Kehoe
***Australian Financial Review*, 21 September 2012**

Figure 4.29: Response to the Corporation's Offshoring Transition

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Regulator's No Objections Letter

During the course of consultation, APRA noted that lessons learned have been embedded. The knowledge capture and transfer process of application knowledge, key processes and key controls appears to be comprehensive and rigorous, ensuring both [the Corporation] and supplier resources are trained and competent across the scope of their roles. The formalisation of [the Corporation's] IT key controls framework has led to a clearly defined and documented IT control environment, introduced a level of formalisation and consistency in the Global Delivery Process by the suppliers, and improved system and data security through stronger user access and data control processes.

APRA, 9 November 2012

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Source: The Corporation (2013)

Having set the scene with Phase One of the study and introduced the beginning of Phase Two, I will now turn to answering the RQs in the next section.

4.3   Answering the Research Questions

This section provides the interview and survey data that was collected by me during 2011–2012 in what I refer to as Phase Two of the study (see Figure 4.1), for each of the five RQs as defined in Chapter 1 and reproduced here:

RQ1: How do managers implement their firm's global sourcing strategies?

RQ2: What are the types of issues managers experience when implementing their firm's global sourcing strategies, how do they overcome them and do they change over time?

RQ3: What are the types of issues managers expect to experience in the future with their firm's offshoring capabilities and are they taking action to mitigate these potential issues?

RQ4: How do managers optimise their firm's offshoring capabilities and does this change over time?

RQ5: What CSFs can be identified when managers implement global sourcing strategies and optimise offshoring capability?

For each RQ where qualitative data sources were collected and coded using NVIVO software, the results are presented visually, supplemented by an explanation of what the data is actually representing. Table 4.1 shows the amount of data coded from these qualitative sources and Table 4.4 shows the amount of individual quantitative data points collected and analysed. In Figure 4.30, an explanation of how to interpret the visual representations is provided. Selected research-based quotations from the studies participants have also been included to provide richer insights.

Table 4.1: Summary of Qualitative NVIVO Coding per Question per Interval

	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months	Total
RQ1	707	461	785	526	2,479
RQ2	526	354	585	355	1,820
RQ3	330	246	534	367	1,477
RQ4	394	299	493	341	1,527
RQ5	165	129	415	387	1,096
Total	2,122	1,489	2,812	1,976	8,399

Figure 4.30: Data Visualisation Explanation
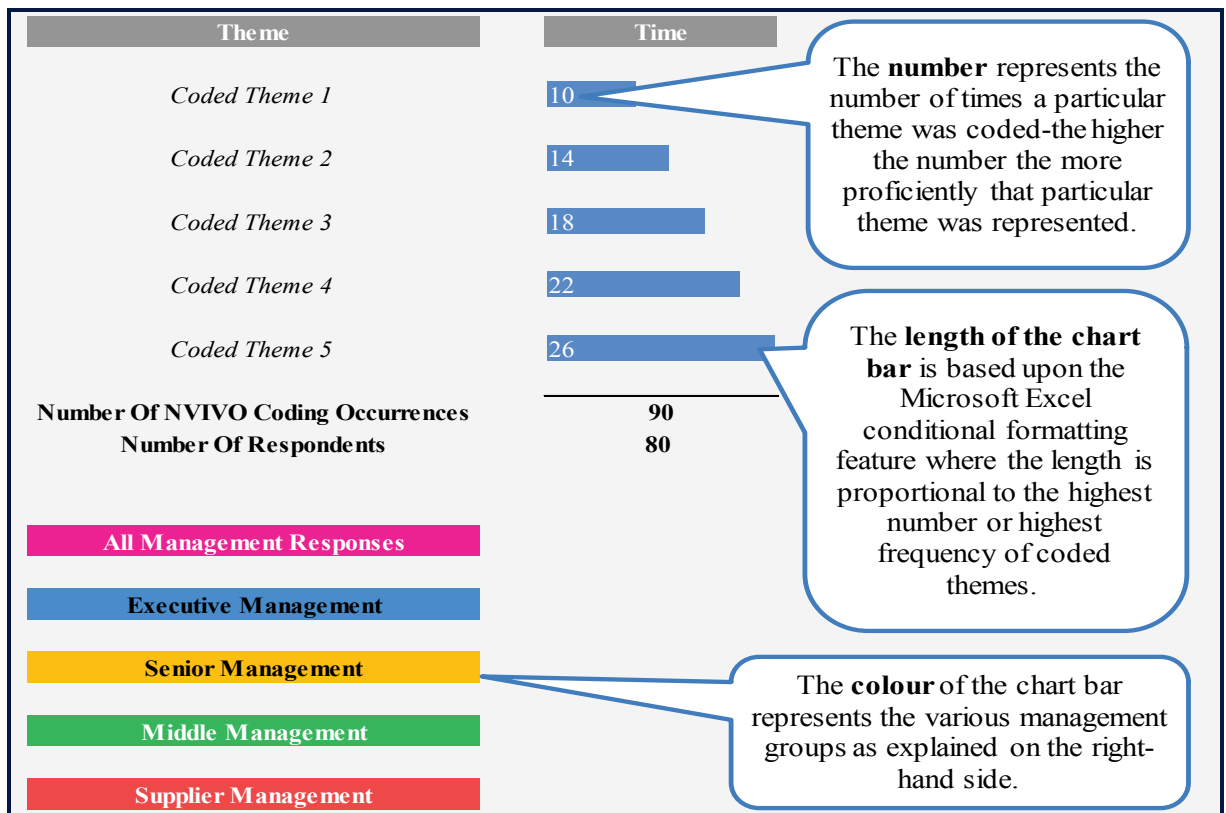
4.3.1 RQ1—Implementing Global Sourcing Strategies

When I asked the research participants 'How have you implemented your global sourcing strategy?' repeatedly in the interviews and surveys over the course of the longitudinal case study, I wanted to understand the sorts of criteria managers had or were considering when implementing their respective global sourcing strategies. Were particular themes present over time or consistent across the organisational layers, or did the themes vary? Obviously, the interviews, in comparison to the surveys, allowed for a richer exploration with each respondent as I was able to probe more deeply into the why and how, as well as additional factors that they may had considered during their decision making. As an outcome, I was able to code each of the responses under one of 20 themes, of which 14 were two sides of a single concept that did not exist together in a single interview or survey, and six were standalone concepts that repeated within a single interview or survey, as summarised in Table 4.2.

Table 4.2: RQ1—Coded Themes

Theme Concepts—Continuum	
from… Top-down Decision Making	*to…* Bottom-up Decision Making
from… Resource-augmentation Commercials	*to…* Outcome-based Commercials
from… Onsite Delivery	*to…* Offshore Delivery
from… Centralised Governance	*to…* Decentralised Governance
from… Single Vendor	*to…* Multi-vendor
from… Single Portfolio	*to…* Multi-portfolio
from… Tight Vendor Selection	*to…* Loose Vendor Selection
Theme Concepts—Static	
Cost Drivers	Corporate Strategy Alignment
Capacity Drivers	External Environment Factors
Capability Drivers	Internal Environment Factors

Figure 4.31 shows the consolidated responses across all management layers of these coded themes. The consolidated responses are then separated to detail the responses for each separate management layer, with Figure 4.32 representing the executive managers, Figure

4.33 representing the senior managers, Figure 4.34 representing the middle managers and Figure 4.35 representing the supplier managers.

From the consolidated responses (see Figure 4.31), we can identify the themes that do not change over time and those that do. For instance, themes that are continuous throughout the study are 'cost drivers' and 'top-down decision making', with little evidence of 'bottom-up decision making' present. The themes that change over the course of the study are 'resource augmentation', which changes to 'outcome-based commercials', 'onsite delivery', which changes to 'offshore delivery', 'decentralised governance', which changes to 'centralised governance', 'single vendor', which changes to 'multi-vendor', 'single portfolio', which changes to 'multi-portfolio' and 'tight vendor selection', which changes to 'loose vendor selection'. The theme of 'capacity drivers' becomes less prominent later in the study, potentially being replaced by the theme 'capability drivers'. The last two themes, 'external environment factors' and 'internal environment factors', also become more prominent as the study progresses.

Figure 4.31: Implementing Global Sourcing Strategies—All Responses

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Top-down Decision Making	84	64	84	64
Bottom-up Decision Making	5	0	5	0
Resource-augmentation Commercials	89	39	22	0
Outcome-based Commercials	0	17	66	64
Onsite Delivery	89	30	11	5
Offshore Delivery	5	10	72	64
Centralised Governance	25	37	69	64
Decentralised Governance	47	16	13	0
Single Vendor	74	32	21	8
Multi-vendor	19	14	62	61
Single Portfolio	57	27	15	2
Multi-portfolio	5	19	51	32
Cost Drivers	37	32	57	32
Capacity Drivers	88	49	38	3
Capability Drivers	5	5	18	17
Tight Vendor Selection	69	35	23	0
Loose Vendor Selection	5	17	56	46
Corporate Strategy Alignment	8	2	0	0
External Environment Factors	0	9	50	25
Internal Environment Factors	0	9	52	39
Number Of NVIVO Coding Occurrences	707	461	785	526
Number Of Respondents	89	76	113	80

When the consolidated responses are broken down into each of the five management layers, similar results are obtained, as displayed in Figures 4.32–4.35.

The key feature from the executive management group (see Figure 4.32) is the shift in thinking from resource augmentation–type contracts to those termed outcome-based. A key feature of these types of contracts between client and supplier is the transfer of risk. This change is also followed by a shift to more of an offshore focus, decentralised governance and a multi-vendor environment. Further, the original objective of the use of external suppliers was to support the Corporation's IT project demand. However, this objective shifted to one of cost reduction, as the following comment shows:

The whole reason for this programme is to provide the capacity of our organisation in implementing our strategic priorities.

Executive Manager at beginning of study

I am measuring the success of this programme in a number of ways and reducing costs is a key focus.

Executive Manager at end of study

Figure 4.32: Implementing Global Sourcing Strategies—Executive Managers

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Top-down Decision Making				
Bottom-up Decision Making	5		5	
Resource-augmentation Commercials	5			
Outcome-based Commercials			5	
Onsite Delivery	5			
Offshore Delivery			5	
Centralised Governance	5			
Decentralised Governance			5	
Single Vendor	5			
Multi-vendor			5	
Single Portfolio	5			
Multi-portfolio			5	
Cost Drivers	1		5	
Capacity Drivers	5			
Capability Drivers	1		5	
Tight Vendor Selection	5		1	
Loose Vendor Selection			4	
Corporate Strategy Alignment	5			
External Environment Factors			5	
Internal Environment Factors			5	
Number Of NVIVO Coding Occurrences	47	0	55	0
Number Of Respondents	5	Nil	5	Nil

The approach of the senior managers to implementing the global sourcing strategy (see Figure 4.33) also changed over time. However, a distinct difference between this group and the executive managers is evident in their view of 'top-down' versus 'bottom-up' decision making and direction. In the senior managers' view, there was little room to negotiate

direction with their respective executive managers, while, in contrast, the executive management group thought they had empowered their senior managers to make decisions. In one meeting I attended, a senior manager said to me, 'They never consult with us.' There were only a few people this senior manager could have been referring to within the executive management ranks.

Figure 4.33: Implementing Global Sourcing Strategies—Senior Managers

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Top-down Decision Making	20		20	
Bottom-up Decision Making				
Resource-augmentation Commercials	20			
Outcome-based Commercials			20	
Onsite Delivery	20			
Offshore Delivery	3		20	
Centralised Governance	5		15	
Decentralised Governance	15		5	
Single Vendor	5			
Multi-vendor	15		20	
Single Portfolio	20			
Multi-portfolio			20	
Cost Drivers	4		20	
Capacity Drivers	20		15	
Capability Drivers			5	
Tight Vendor Selection	15		3	
Loose Vendor Selection	5		17	
Corporate Strategy Alignment				
External Environment Factors			13	
Internal Environment Factors			20	
Number Of NVIVO Coding Occurrences	**167**	**0**	**213**	**0**
Number Of Respondents	**20**	**Nil**	**20**	**Nil**

Another interesting change regards the Corporation's location strategy. It seemed to me as though many of the senior managers did not even contemplate that offshoring would be considered for their respective domains or business units. The focus shifted offshore just short of 12 months after this comment:

At this stage, we will not be considering moving any work offshore—all these applications are just too critical to have them sitting in another country. Besides, I do not think our regulator would support this.

Senior Manager at beginning of study

Well, certainly, when you visit the suppliers' campuses in India, you get an impression of the scale and capability of these organisations and how we would be short-sighted not to factor this into our decision making and future strategies.

Senior Manager at end of study

Similarly to the senior managers, the middle managers also reinforced the perception of 'top-down' decision making (see Figure 4.34). However, this group never bought into the explanation that 'capacity' was the main driver; they stated very clearly throughout the study that it was all about cost.

Figure 4.34: Implementing Global Sourcing Strategies—Middle Managers

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Top-down Decision Making	32	32	32	32
Bottom-up Decision Making				
Resource-augmentation Commercials	32	23	13	
Outcome-based Commercials		9	18	32
Onsite Delivery	32	14	5	
Offshore Delivery		5	27	32
Centralised Governance		5	22	32
Decentralised Governance	32	16	3	
Single Vendor	32	12	5	
Multi-vendor		2	17	32
Single Portfolio	32	27	15	2
Multi-portfolio	5	19	26	32
Cost Drivers	32	32	32	32
Capacity Drivers	32	26	11	1
Capability Drivers	2	3	5	2
Tight Vendor Selection	18	15	11	
Loose Vendor Selection		17	23	28
Corporate Strategy Alignment	3	2		
External Environment Factors		4	27	25
Internal Environment Factors		5	21	32
Number Of NVIVO Coding Occurrences	**284**	**268**	**313**	**314**
Number Of Respondents	**32**	**38**	**44**	**40**

Also, the middle managers' views were more focused around individual supplier capabilities and, to some extent, personal preferences as a result of past experiences, as this next quotation emphasises:

The selection of the panel of vendors was a very drawn-out and robust process with full transparency to ensure we end up with the best of the best.

Middle Manager at beginning of study

My manager and I provided clear criteria why we need to go with this particular vendor but we were overruled and as a result the vendor we now have is not best-in-class for this domain.

Middle Manager at end of study

The responses by the supplier managers (see Figure 4.35) were similar to the Corporation's middle managers (the group that they interacted with on a daily basis).

Figure 4.35: Implementing Global Sourcing Strategies—Supplier Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Top-down Decision Making	32	32	32	32
Bottom-up Decision Making				
Resource-augmentation Commercials	32	16	9	
Outcome-based Commercials		8	23	32
Onsite Delivery	32	16	6	5
Offshore Delivery		5	20	32
Centralised Governance	15	32	32	32
Decentralised Governance				
Single Vendor	32	20	16	8
Multi-vendor	4	12	20	29
Single Portfolio				
Multi-portfolio				
Cost Drivers				
Capacity Drivers	31	23	12	2
Capability Drivers			3	15
Tight Vendor Selection	31	20	8	
Loose Vendor Selection			12	18
Corporate Strategy Alignment				
External Environment Factors		5	5	
Internal Environment Factors		4	6	7
Number Of NVIVO Coding Occurrences	**209**	**193**	**204**	**212**
Number Of Respondents	**32**	**38**	**44**	**40**

A key observation here was around what the suppliers said and how that changed over time. As the Corporation changed its focus from onsite to offshore delivery, from single- to multi-vendor strategies and to an increasing drive for cost reduction, the suppliers were struggling to keep up with the changes. As the following quotation suggests, the excitement of working with a new client was followed by the realities of delivering to the client's expectations:

The Corporation is recognised as a 'must win' account for us and we are getting our best people on to it to meet the demand and ramp up.

Supplier Manager at beginning of study

We have seen a change in thinking with our client with the multi-vendor strategy, as now all they want to know is when we will be providing capability and not just bodies.

Supplier Manager at end of study

4.3.2   RQ2—Issues Managers Experience

Having asked the research participants in the previous question about the 'how?', I wanted to learn more about their challenges in the implementation of the global sourcing strategy. I asked them, 'What are the types of issues managers experience when implementing their firm's global sourcing strategies, how do they overcome them and do they change over time?' Here, I was able to identify and code 20 themes, which were later sorted using the McKinsey 7S framework (see Table 4.3). I found this approach an effective way to aggregate large volumes of data into key themes. I could then interpret the data more easily, particularly to identify whether any single themes changed over time, either overall or within each management group.

From the data collected, it is evident that the types of issues managers experienced did change over time (see Figure 4.36). For instance, at the beginning of the study, which corresponded with the time the Corporation made a decision to implement a global sourcing strategy, managers were dealing with issues of 'change and transformation', 'communications', 'supplier', 'displaced organisation' and 'financial'. However, as time progressed, these issues changed to 'leadership', 'culture', 'people', 'capability maturity', 'strategic versus tactical', 'retained organisation' and 'risk'.

Table 4.3: RQ2—Coded Themes

Theme Concepts—Static	McKinsey 7S Category
Change and Transformation	Shared Values (soft)
Communications	Shared Values (soft)
Uniqueness of Programme	Shared Values (soft)
Leadership	Style (soft)
Culture	Style (soft)
People	Staff (soft)
Industrial Relations	Staff (soft)
Knowledge Management	Skills (soft)
Capability Maturity	Skills (soft)
Internal Stakeholders	Strategy (hard)
External Stakeholders	Strategy (hard)
Supplier	Strategy (hard)
Strategic v. Tactical	Strategy (hard)
Organisational Structure	Structure (hard)
Retained Organisation	Structure (hard)
Displaced Organisation	Structure (hard)
Financial	Systems (hard)
Risk	Systems (hard)
Technology	Systems (hard)
Process	Systems (hard)

These changes can be clearly demonstrated when the data are sorted under the McKinsey 7S framework (see Figure 4.37), where the themes of 'style' and 'staff' become more frequent as the study progresses, while 'shared values' becomes less frequent. However, the changes within each of the management groups also differ from each other over time.

Figure 4.36: Issues Managers Experience

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Change & Transformation	88	39	9	5
Communications	27	27	26	23
Uniqueness Of Program	37	11	1	0
Leadership	14	30	55	62
Culture	16	9	42	33
People	5	5	39	27
Industrial Relations	0	0	32	0
Knowledge Management	0	17	41	0
Capability Maturity	1	0	9	13
Internal Stakeholders	12	0	1	0
External Stakeholders	0	0	29	5
Supplier	38	21	8	0
Strategic v Tactical	0	0	13	20
Organisational Structure	0	0	12	0
Retained Organisation	0	0	29	28
Displaced Organisation	58	21	9	0
Financial	71	35	27	0
Risk	0	0	54	54
Technology	69	76	108	80
Process	92	63	41	7
Number Of NVIVO Coding Occurrences	**526**	**354**	**585**	**355**
Number Of Respondents	**89**	**76**	**113**	**80**

Figure 4.37: Issues Managers Experience—McKinsey 7S Framework

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Shared Values	152	77	36	26
Style	30	39	97	95
Staff	3	5	71	27
Skills	1	17	50	13
Strategy	50	21	51	25
Structure	58	21	50	28
Systems	232	174	230	141
Number Of NVIVO Coding Occurrences	**526**	**354**	**585**	**355**
Number Of Respondents	**89**	**76**	**113**	**80**
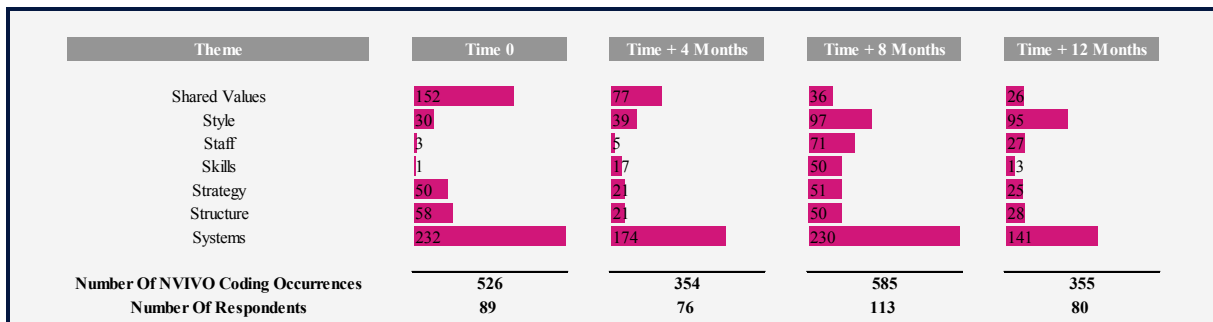
The key feature of the responses by the executive managers is that their focus in the initial stages of the transformation, and their respective involvement on day-to-day issues, was on the impact of the employees, as represented in the 'displaced organisation' theme and in the overall financial objectives of the business case (see Figure 4.38). Later in the study, their focus shifted to issues of 'risk' and 'external stakeholders', notably media and regulators. Being a participant observer, I also observed many reactive communications by the Corporation, both internally and externally, during this period.

Figure 4.38: Issues Managers Experience—Executive Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Change & Transformation	5		2	
Communications				
Uniqueness Of Program	5		1	
Leadership				
Culture	2		5	
People			2	
Industrial Relations				
Knowledge Management				
Capability Maturity	1		4	
Internal Stakeholders				
External Stakeholders			5	
Supplier	2		3	
Strategic v Tactical			5	
Organisational Structure				
Retained Organisation			5	
Displaced Organisation	5			
Financial	5		2	
Risk			5	
Technology				
Process				
Number Of NVIVO Coding Occurrences	25	0	39	0
Number Of Respondents	5	Nil	5	Nil

When this data is viewed using the McKinsey 7S framework, the change in manager's perspectives from 'shared values' to 'strategy' is apparent (see Figure 4.39). Most of this was referring to the alignment of the new global operating model with the Corporation's internal and external stakeholders.

Figure 4.39: Issues Managers Experience—Executive Management 7S

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Shared Values	10		3	
Style	2		5	
Staff	0		2	
Skills	1		4	
Strategy	2		13	
Structure	5		5	
Systems	5		7	
Number Of NVIVO Coding Occurrences	25	0	39	0
Number Of Respondents	5	Nil	5	Nil
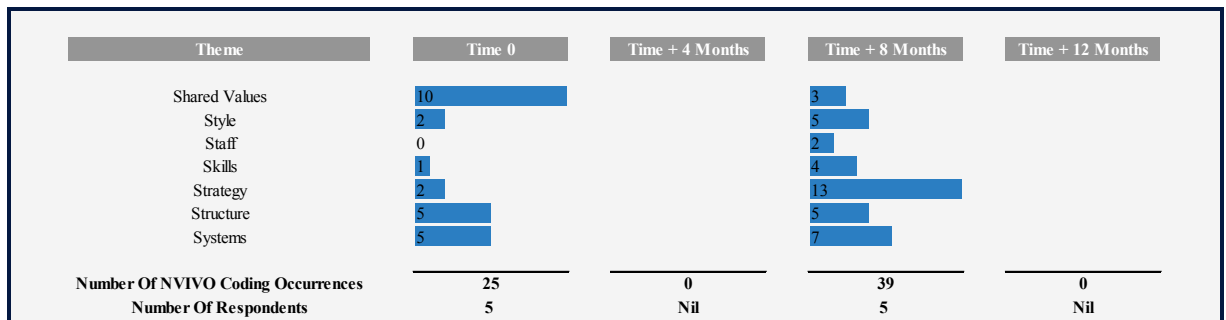
When I reflect upon the interviews with the executive managers, there was some degree of hubris in their comments, which were generally positive. There was very little self-reflection as to what was not working well, or did not work well. That said, the following quotations around culture are worth highlighting:

Of particular interest were the changes that occurred over time within the senior management group, as their attention shifted from initially kicking off and executing a programme to driving a cultural change across their teams, and the realities of the new operating model, which now included a global sourcing strategy (see Figures 4.40 and 4.41). When I interviewed this group, I could also sense that some individuals were struggling to reconcile their own beliefs about offshoring with their employer's SDs. Since those interviews, several of those senior leaders have left the Corporation.

Figure 4.40: Issues Managers Experience—Senior Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Change & Transformation	20			
Communications				
Uniqueness Of Program	20			
Leadership			5	
Culture	6		20	
People			20	
Industrial Relations			15	
Knowledge Management				
Capability Maturity			5	
Internal Stakeholders	12		1	
External Stakeholders			20	
Supplier	13		5	
Strategic v Tactical			5	
Organisational Structure			12	
Retained Organisation			20	
Displaced Organisation	20			
Financial	20		11	
Risk				
Technology	5		20	
Process	22			
Number Of NVIVO Coding Occurrences	**138**	**0**	**159**	**0**

Figure 4.41: Issues Managers Experience—Senior Management 7S

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Shared Values	40		0	
Style	6		25	
Staff	0		35	
Skills	0		5	
Strategy	25		31	
Structure	20		32	
Systems	47		31	
Number Of NVIVO Coding Occurrences	**138**	**0**	**159**	**0**
Number Of Respondents	**20**	**Nil**	**20**	**Nil**
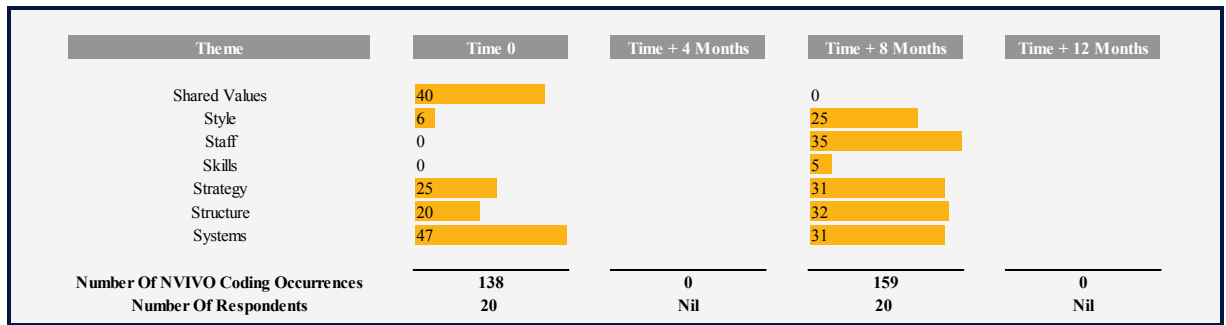
The following quotations by senior managers illustrate some of the frustrations previously noted, particularly in regards to the executives. I found this interesting, as this particular group was still very senior in the organisation but seemed to be passing responsibility upwards rather than being accountable for the strategy. This aspect was also identified previously in regards to 'top-down' versus 'bottom-up' decision making, whereby the senior management group held the view that there was more 'top-down' decision making, or directives by the executive managers, and that they themselves were not being empowered to make decisions.

I get why we are doing this as it is much about cost as it is anything else but I do not think the executives have communicated the reasons clearly to the organisation—they are leaving it to be interpreted and that is why we are having all these issues and reactions at present.

Senior Manager at beginning of study

I just think we underestimated the cultural change—we asked our staff to trust us but we never earned the trust from the mistakes we made at the start around being fully transparent.

Senior Manager at end of study

From the middle-management group, whose members are closer to the day-to-day running of the operations, there was frequent mention of the importance of having the tools and processes to be able to operate in this new model (see Figures 4.42 and 4.43). In particular, the enabling technologies and connectivity between onsite operations at the Corporation and the offshore operations of the suppliers were a major focus in the later stages of this study. In addition, as work was increasingly being carried out from offshore locations, the middle managers' focus on risk became more prominent.

Figure 4.42: Issues Managers Experience—Middle Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Change & Transformation	40	18	7	3
Communications	12	18	26	23
Uniqueness Of Program				
Leadership	11	19	26	31
Culture	1	5	17	33
People	3	5	17	27
Industrial Relations			17	
Knowledge Management			22	
Capability Maturity				
Internal Stakeholders				
External Stakeholders				
Supplier	23	21		
Strategic v Tactical				5
Organisational Structure				
Retained Organisation			4	28
Displaced Organisation	33	21	9	
Financial	31	22	11	
Risk			38	32
Technology	32	38	44	40
Process	38	33	12	
Number Of NVIVO Coding Occurrences	224	200	250	222
Number Of Respondents	32	38	44	40

Figure 4.43: Issues Managers Experience—Middle Management 7S

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Shared Values	52	36	33	26
Style	12	24	43	64
Staff	3	5	34	27
Skills	0	0	22	0
Strategy	23	21	0	5
Structure	33	21	13	28
Systems	101	93	105	72
Number Of NVIVO Coding Occurrences	224	200	250	222
Number Of Respondents	32	38	44	40
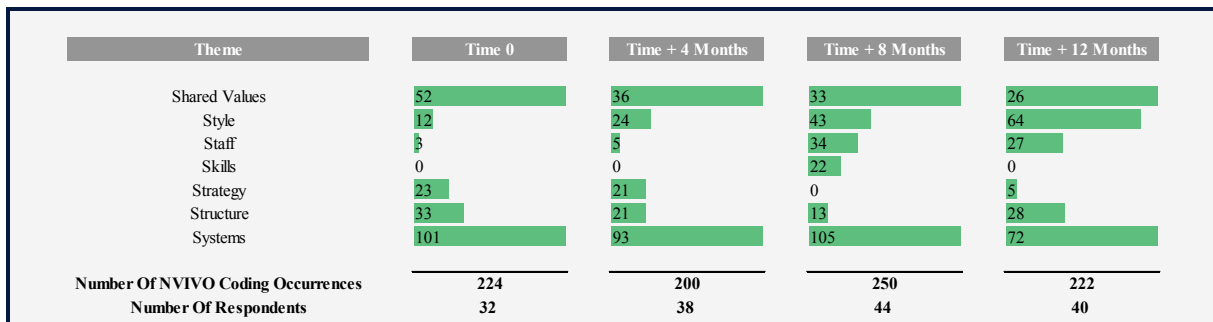
As one could appreciate, if there were failures in delivery, this management group would be held accountable. The quotations that follow are representative of their frustrations in not being fully supported by their senior managers:

> *The biggest issue we have is with the technology and how were are able to effectively work with our suppliers seamlessly.*
>
> **Middle Manager at beginning of study**
>
> *The management is requesting us to move more work offshore but we do not have the technology to support this, and when things go wrong, they will have me accountable for it.*
>
> **Middle Manager at end of study**

The supplier management group had fewer issues around the transitions in their organisations as time progressed (see Figure 4.44). However, the challenges around the perceived lack of direction and the Corporation managers' inability to address issues became increasingly problematic for them over time. For example, onboarding of supplier personnel required the Corporation to provide individual access to secure systems. However, prior to accessing these systems, contracts needed to be in place. The challenge was that the Corporation was moving away from resource-augmentation to outcome-based contracts, which by their nature do not call for the need to identify individuals by name. As a result, a mismatch was occurring between commercial contracts and the systems and process that underpinned delivery.

When the data are sorted using the McKinsey 7S framework (see Figure 4.45), the notable change is less emphasis on 'shared values' and a growing emphasis on 'skills', which centres largely around the supplier's ability to deliver to the Corporation the required services under the new outcome-based commercial contracts.

The next two quotations illustrate how much of the supplier management group's perceived difficulties were around communication, culture and behaviour, and the client not performing effectively from their perspective:

Figure 4.44: Issues Managers Experience—Supplier Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Change & Transformation	23	21		
Communications	15	9		
Uniqueness Of Program	12	11		
Leadership	3	11	24	31
Culture	7	4		
People				
Industrial Relations				
Knowledge Management		17	19	
Capability Maturity				13
Internal Stakeholders				
External Stakeholders			4	5
Supplier				
Strategic v Tactical			3	15
Organisational Structure				
Retained Organisation				
Displaced Organisation				
Financial	15	13	3	
Risk			11	22
Technology	32	38	44	40
Process	32	30	29	7
Number Of NVIVO Coding Occurrences	139	154	137	133
Number Of Respondents	32	38	44	40

Figure 4.45: Issues Managers Experience—Supplier Management 7S

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Shared Values	50	41	0	0
Style	10	15	24	31
Staff	0	0	0	0
Skills	0	17	19	13
Strategy	0	0	7	20
Structure	0	0	0	0
Systems	79	81	87	69
Number Of NVIVO Coding Occurrences	139	154	137	133
Number Of Respondents	32	38	44	40
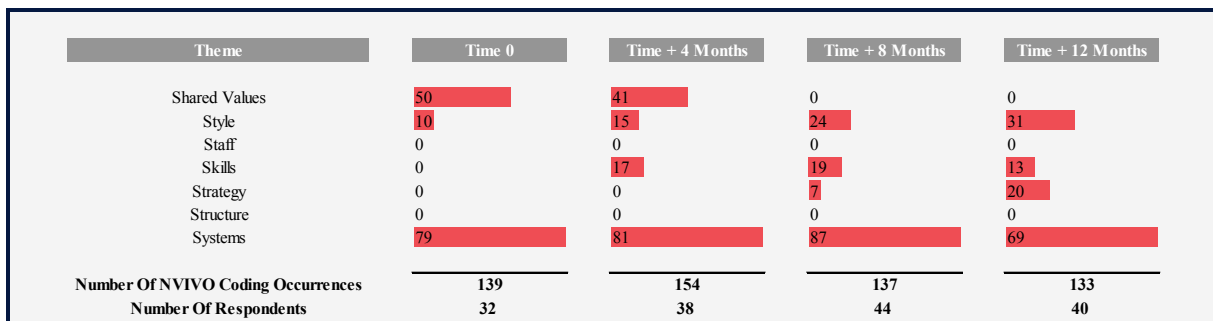
4.3.3   RQ3—Future Issues Anticipated

Having previously asked the managers about the sorts of issues being experienced, I wanted to get their perspectives on the possible future issues they may experience. Since I was repeating these questions over the course of the longitudinal case study, I was also able to determine whether in fact the sorts of issues managers anticipated actually came to fruition, or whether other issues 'blindsided' the managers. Again, to assist in the analysis, I used the same primary codes and the McKinsey 7S framework from RQ2.

The key feature of the responses in the consolidated results in Figure 4.46 is that in the early stages of the study, managers were anticipating potential issues with the change itself, issues around working with suppliers and issues managing the impacted employees. However as time went on, these same managers anticipated that there would be issues around culture and the retained organisation, and growing issues or concerns around overall risk management.

Figure 4.46: Future Issues Anticipated

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Change & Transformation	29	12	17	0
Communications	35	15	45	33
Uniqueness Of Program	5	0	0	0
Leadership	0	7	41	26
Culture	12	11	60	59
People	9	3	36	21
Industrial Relations	0	4	10	6
Knowledge Management	0	0	0	0
Capability Maturity	8	7	44	32
Internal Stakeholders	28	20	0	0
External Stakeholders	0	0	11	0
Supplier	52	15	18	0
Strategic v Tactical	5	5	9	22
Organisational Structure	0	0	0	0
Retained Organisation	2	4	49	33
Displaced Organisation	35	21	11	2
Financial	20	0	4	0
Risk	0	3	43	26
Technology	49	60	94	80
Process	41	59	42	27
Number Of NVIVO Coding Occurrences	**330**	**246**	**534**	**367**
Number Of Respondents	**89**	**76**	**113**	**80**

Using the McKinsey 7S framework (see Figure 4.47), these changes in anticipated issues over time are defined by the shift of 'hard' systems to 'soft' systems or elements of the framework ('style', 'staff' and 'skills'). In my observations, there was significant focus

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around the documentation of process and the capture of knowledge in the early stages of the planning. However, consideration for the new operating model and the retained workforce was in many ways an afterthought. For example, career succession planning was only considered when staff asked about it.

Figure 4.47: Future Issues Anticipated—McKinsey 7 S Framework

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Shared Values	69	27	62	33
Style	12	18	101	85
Staff	9	7	46	27
Skills	8	7	44	32
Strategy	85	40	38	22
Structure	37	25	60	35
Systems	110	122	183	133
Number Of NVIVO Coding Occurrences	330	246	534	367
Number Of Respondents	89	76	113	80
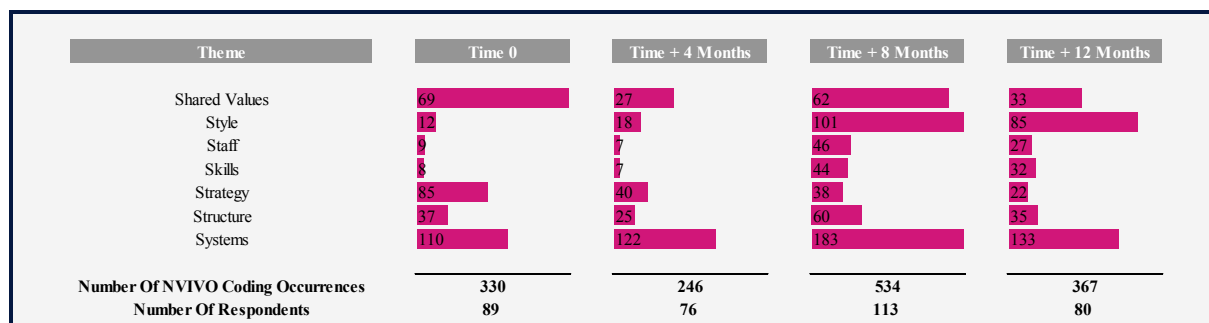
In the early stages of the study, the executive managers recognised that they would anticipate issues arising as a result of the scale and uniqueness of the programme, or, as once executive commented, 'change management stuff 101'. However, in the later stages of the study, the executives reconsidered this, recognising that they would need to address potential issues of leadership and cultural integration, focusing on what they called 'one team' (see Figure 4.48 and summarised in Figure 4.49). This was because a 'them and us' culture was creeping into the lexicon, creating a divisive environment.

The data regarding the 'future issues' responses do not show the way these executive managers answered this particular question. Although I received responses, it appeared to me that the executive managers were slightly disconnected from the reality of what was occurring in their organisation in respect to these changes, and their responses were more hypothetical or theoretical than considered. As a participant observer, I was aware of much of the context within the existing environment at the Corporation during this time. The following quotations from this management group reflect this disconnection, particularly the second quotation, which was a reaction to a current issue with the banking regulator that had become a distraction for this group at the time of interview:

Figure 4.48: Future Issues Anticipated—Executive Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Change & Transformation	5			
Communications	5			
Uniqueness Of Program	5			
Leadership			4	
Culture	1		5	
People	1		5	
Industrial Relations				
Knowledge Management				
Capability Maturity				
Internal Stakeholders				
External Stakeholders				
Supplier				
Strategic v Tactical	5			
Organisational Structure				
Retained Organisation			5	
Displaced Organisation				
Financial				
Risk			5	
Technology				
Process				
Number Of NVIVO Coding Occurrences	**22**	**0**	**24**	**0**
Number Of Respondents	**5**	**Nil**	**5**	**Nil**

Figure 4.49: Future Issues Anticipated—Executive Management 7S

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Shared Values	15		0	
Style	1		9	
Staff	1		5	
Skills	0		0	
Strategy	5		0	
Structure	0		5	
Systems	0		5	
Number Of NVIVO Coding Occurrences	**22**	**0**	**24**	**0**
Number Of Respondents	**5**	**Nil**	**5**	**Nil**
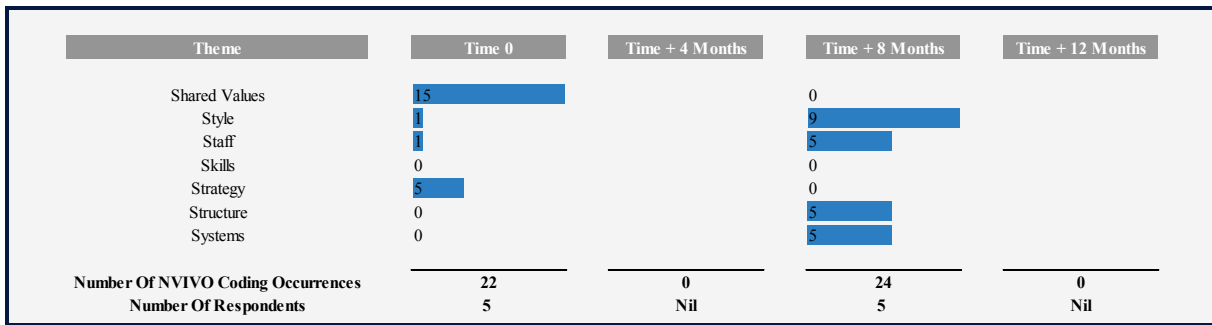
The senior management group was initially more concerned with the potential issues of dealing with the supplier and meeting the financial numbers of the business case. However, as time progressed, additional concerns arose. I sensed that this group was slightly disconnected in the early stages from the enormity of the transformation that was about to take place in their organisation, and would have to catch up later. This view is supported by the data in Figures 4.50 and 4.51, where the number of anticipated issues being called out by the senior managers increased in the later stages of the study.

Figure 4.50: Future Issues Anticipated—Senior Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Change & Transformation	2		17	
Communications	4		20	
Uniqueness Of Program				
Leadership			16	
Culture	11		20	
People	8		20	
Industrial Relations			3	
Knowledge Management				
Capability Maturity	3		18	
Internal Stakeholders				
External Stakeholders			11	
Supplier	20		11	
Strategic v Tactical				
Organisational Structure				
Retained Organisation	2		20	
Displaced Organisation	5		5	
Financial	20		4	
Risk			20	
Technology	5		20	
Process	4		3	
Number Of NVIVO Coding Occurrences	**84**	**0**	**208**	**0**
Number Of Respondents	**20**	**Nil**	**20**	**Nil**

Figure 4.51: Future Issues Anticipated—Senior Management 7S

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Shared Values	6		37	
Style	11		36	
Staff	8		23	
Skills	3		18	
Strategy	20		22	
Structure	7		25	
Systems	29		47	
Number Of NVIVO Coding Occurrences	84	0	208	0
Number Of Respondents	20	Nil	20	Nil
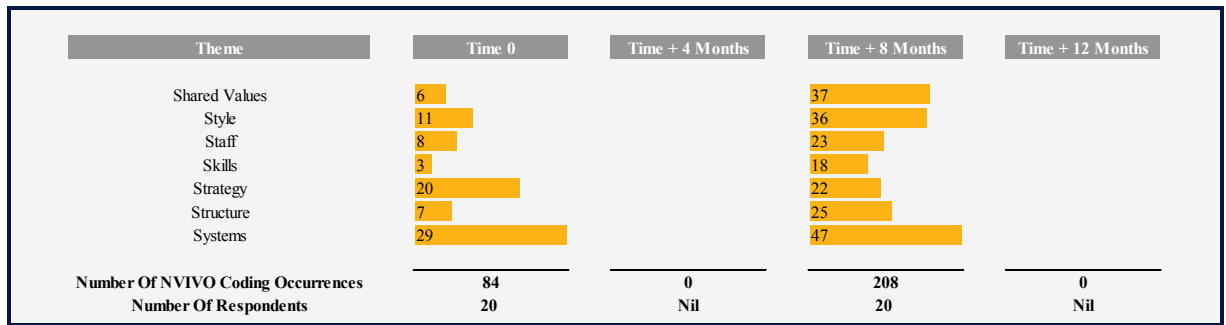
Similar to the executive managers' focus on future issues, this group of senior managers tended to respond to this question based on what they were currently experiencing, and not necessarily on other possibilities. This suggests that the ability to anticipate and thereby take an alternative direction is not common, but in circumstances such as those at the Corporation, it might be a worthwhile skill to develop.

I am concerned about our suppliers being competent with our business. My experience with some of these suppliers so far has not been favourable and, frankly, I am not sure if they are up to it.

Senior Manager at beginning of study

We did not appreciate the effort that had to go in to convince the regulator and manage the external comms [communications]—it was very chaotic and we seemed to be tripping over all the time. However, we are in a better place now but will require ongoing investment and I am not sure there is an appetite for this anymore.

Senior Manager at end of study

The managers at the 'coalface' were middle managers. This group was fundamentally responsible for implementing the global sourcing strategy while also keeping its business operations running without exception. The key feature of the responses from the middle managers is their ongoing concerns around the technology and enabling processes (see Figure 4.52). As global delivery became part of the norm rather than the exception of their respective operations, middle managers anticipated more issues with their retained organisation and less with their supplier. Further, as with the previous groups, more of the 'soft' elements of the McKinsey 7S framework (see Figure 4.53) were anticipated in the later stages. For example, on several occasions, individual middle managers expressed their

concern and frustration that some of the senior managers were not taking seriously or acting upon some of their concerns, and the impact that these concerns may have on the day-to-day operations. One middle manager said, 'They do not want to know about it.'

Figure 4.52: Future Issues Anticipated—Middle Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Change & Transformation				
Communications	5	11	25	33
Uniqueness Of Program				
Leadership			3	5
Culture		6	12	27
People		3	11	21
Industrial Relations		4	7	6
Knowledge Management				
Capability Maturity				
Internal Stakeholders	28	20		
External Stakeholders				
Supplier	32	15	7	
Strategic v Tactical				
Organisational Structure				
Retained Organisation		4	24	33
Displaced Organisation	30	21	6	2
Financial				
Risk		3	18	26
Technology	32	38	44	40
Process	32	38	22	15
Number Of NVIVO Coding Occurrences	159	163	179	208
Number Of Respondents	32	38	44	40

Figure 4.53: Future Issues Anticipated—Middle Management 7S

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Shared Values	5	11	25	33
Style	0	6	15	32
Staff	0	7	18	27
Skills	0	0	0	0
Strategy	60	35	7	0
Structure	30	25	30	35
Systems	64	79	84	81
Number Of NVIVO Coding Occurrences	159	163	179	208
Number Of Respondents	32	38	44	40
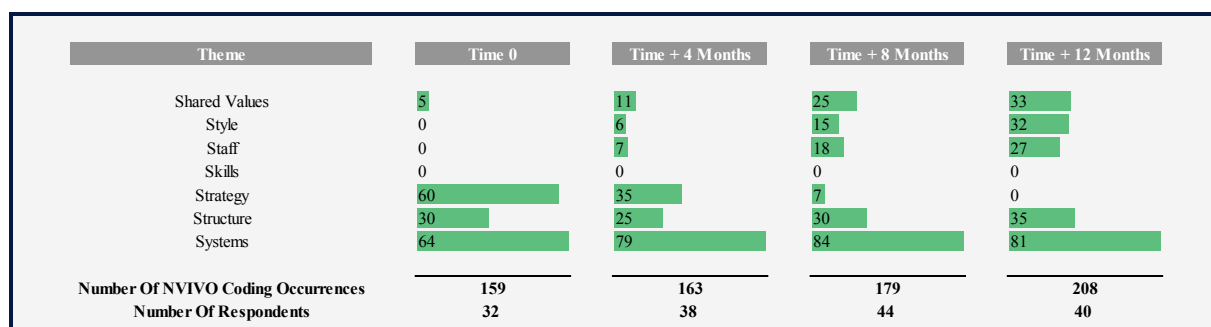
The changing views of this group of middle managers regarding the sorts of future issues they anticipated would require some form of intervention are best summarised by the next quotations. Initially, the middle managers saw the source of the potential issues lying externally, with their supplier, but later in the study, they viewed the source as internal:

At the beginning of the study, the supplier management group (see Figure 4.54) anticipated issues around the details of the transition, and the respective roles and responsibilities that their team members were expected to play. However, as time progressed, the types of issues anticipated shifted to those around the mindset change of the client organisation and how this might be holding back the maturing of the engagement.

Figure 4.54: Future Issues Anticipated—Supplier Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Change & Transformation	22	12		
Communications	21	4		
Uniqueness Of Program				
Leadership		7	18	21
Culture		5	23	32
People				
Industrial Relations				
Knowledge Management				
Capability Maturity	5	7	26	32
Internal Stakeholders				
External Stakeholders				
Supplier				
Strategic v Tactical		5	9	22
Organisational Structure				
Retained Organisation				
Displaced Organisation				
Financial				
Risk				
Technology	12	22	30	40
Process	5	21	17	12
Number Of NVIVO Coding Occurrences	65	83	123	159
Number Of Respondents	32	38	44	40

Using the McKinsey 7S framework, in Figure 4.55, the views of the suppliers are summarised. A decrease in the importance of the 'shared values' theme and an increase in

'style', 'skills' and 'strategy' are evident. The future issues anticipated by the suppliers are similar to those that they actually experienced, as illustrated in Figure 4.45.

Figure 4.55: Future Issues Anticipated—Supplier Management 7S

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Shared Values	43	16	0	0
Style	0	12	41	53
Staff	0	0	0	0
Skills	5	7	26	32
Strategy	0	5	9	22
Structure	0	0	0	0
Systems	17	43	47	52
Number Of NVIVO Coding Occurrences	65	83	123	159
Number Of Respondents	32	38	44	40
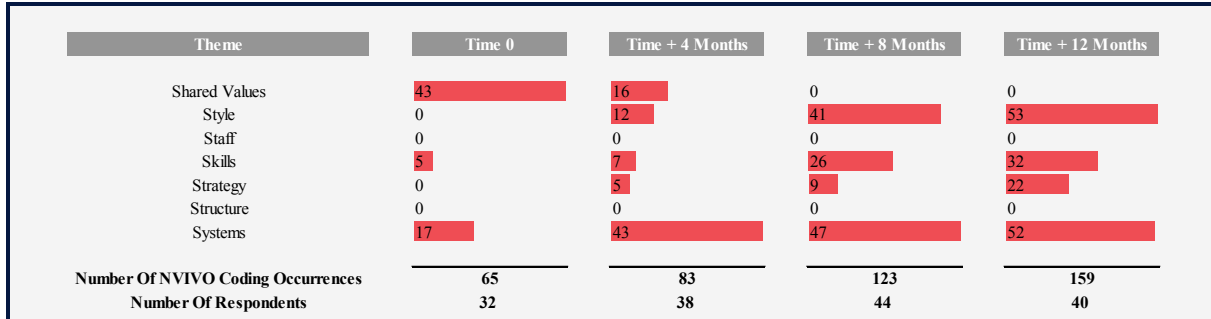
On one occasion, around the midpoint of the study, I had the opportunity to discuss with supplier managers this question of the anticipation of issues. One supplier manager expressed their frustration in the current working relationship they had with the Corporation managers. They also shared their concern that if things did not change, it would affect the future relationship that will have with the Corporation managers. This insight was somewhat unique as it was rare for me, during the course of the study, to receive a self-reflective comment from the Corporation's own middle, senior or executive managers.

The client needs to let us do what we have been asked to do. It's not right that they are micro-managing us, or for that matter do not show any respect for our senior team members. We deliver value adds but the client says this is our day job, not appreciating the thought leadership we are providing. We have to address this if we are to truly build a partnership.

Supplier Manager at midpoint of study

4.3.4   RQ4—Optimising Offshoring Capabilities

In this RQ, I was seeking to understand how managers optimise their firm's offshoring capabilities—that is, the Corporation's ability to perform global sourcing and offshoring at greater levels of effectiveness. In the case where this does occur, I also wanted to discover whether or not these approaches differed over time. However, initially, I asked the managers for their views on their current offshoring capability maturity. I asked the

question, "How is it going?', as I was seeking a broad response and not wanting to direct them into answering the question in terms of, for example, relationships, technology or governance. The key feature of this consolidated group of data representing all the management groups is that, over the course of the study, the managers' perception was that offshoring capability maturity improved over time (see Figure 4.56). However, no participant in the study considered that the Corporation was 'very mature'. I followed this question with an external reference model with definitions of levels of maturity. This model was based on Figure 1.2, which identifies five levels of maturity, beginning with *Level 1– Sub-optimised* and going through to *Level 5—Integrated*. Using these definitions in a more structured way, I then asked each manager to assign a specific maturity level to how they perceived their respective business's offshoring capability. The consolidated data (see Figure 4.57), using an external reference mode, demonstrates that their perception of their offshoring capability maturity is lower than it was previously (see Figure 4.57).

Figure 4.56: Maturity Current State Perception

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Not Even A Consideration	16	3	8	0
Not Very Mature	36	17	11	1
Good In Some Areas	27	26	38	28
On Our Way	10	30	56	51
Very Mature	0	0	0	0
Number Of NVIVO Coding Occurrences	89	76	113	80
Number Of Respondents	89	76	113	80
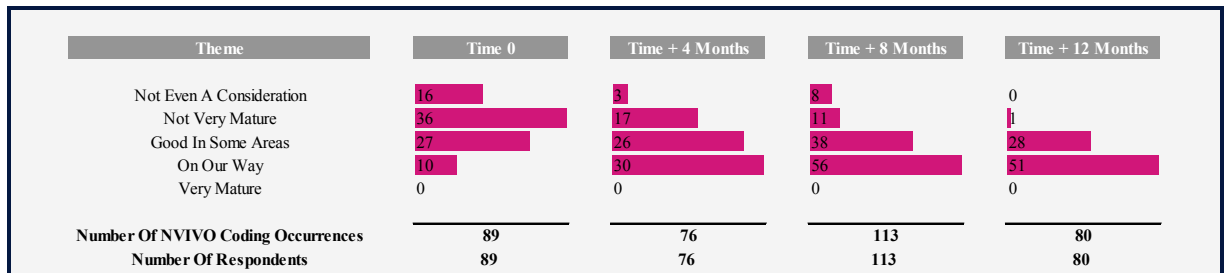
Figure 4.57: Maturity Current State Defined

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Level 1—Sub-optimised	89	74	107	70
Level 2—Rationalised	0	2	6	10
Level 3—Strategic	0	0	0	0
Level 4—Optimised	0	0	0	0
Level 5—Integrated	0	0	0	0
Number Of NVIVO Coding Occurrences	89	76	113	80
Number Of Respondents	89	76	113	80
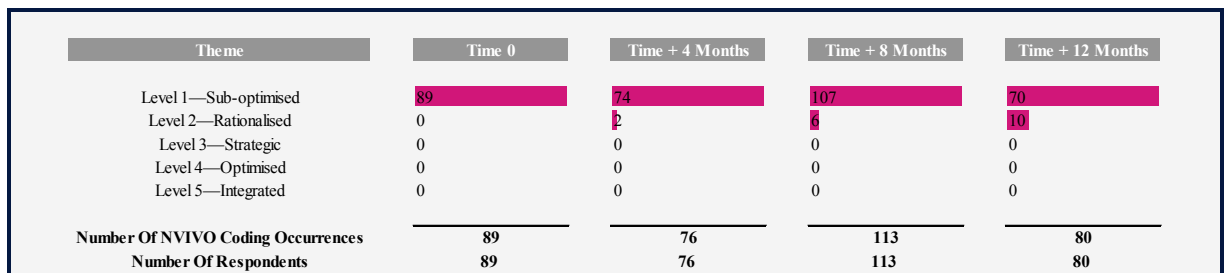
The key feature of the executive management data (see Figure 4.58) is that in later stages of the study, all members of this group considered the Corporation's offshoring capability to have improved. However, this perspective is less optimistic once the external reference model is used, when these managers are assessing offshoring maturity (see Figure 4.59).

Figure 4.58: Maturity Current State Perception—Executive Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Not Even A Consideration				
Not Very Mature	5			
Good In Some Areas			4	
On Our Way			1	
Very Mature				
Number Of NVIVO Coding Occurrences	5	0	5	0
Number Of Respondents	5	Nil	5	Nil
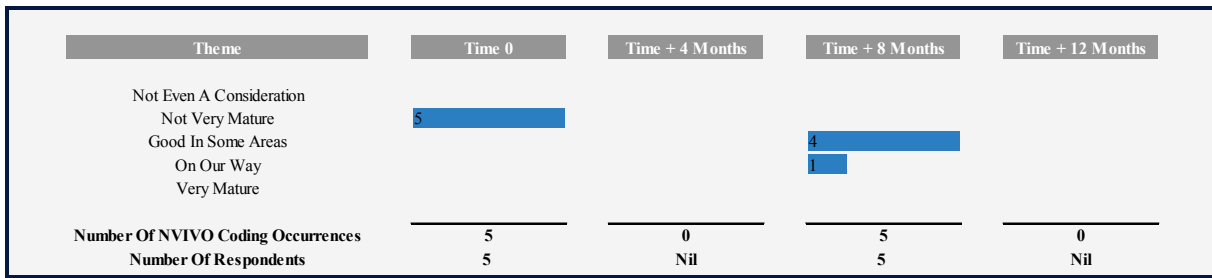
Figure 4.59: Maturity Current State Defined—Executive Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Level 1—Sub-optimised	5		4	
Level 2—Rationalised			1	
Level 3—Strategic				
Level 4—Optimised				
Level 5—Integrated				
Number Of NVIVO Coding Occurrences	5	0	5	0
Number Of Respondents	5	Nil	5	Nil
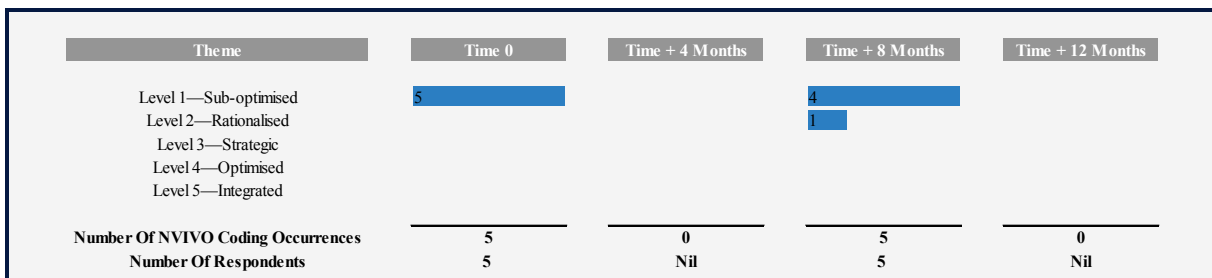
In the senior management group, there were some individuals who had had very little exposure to outsourcing, let alone offshoring, so their initial understanding of terms such as 'maturity' was limited. However, over the course of the study, I could sense that their personal knowledge had increased and they were more able to lead a discussion on this topic. As the data shows (see Figure 4.60), their response were similar to those of the executive managers in both their initial perceptions and those when using an external reference model (see Figure 4.61).

Figure 4.60: Maturity Current State Perception—Senior Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Not Even A Consideration	11		7	
Not Very Mature	5		6	
Good In Some Areas	2		3	
On Our Way	2		4	
Very Mature				
Number Of NVIVO Coding Occurrences	20	0	20	0
Number Of Respondents	20	Nil	20	Nil
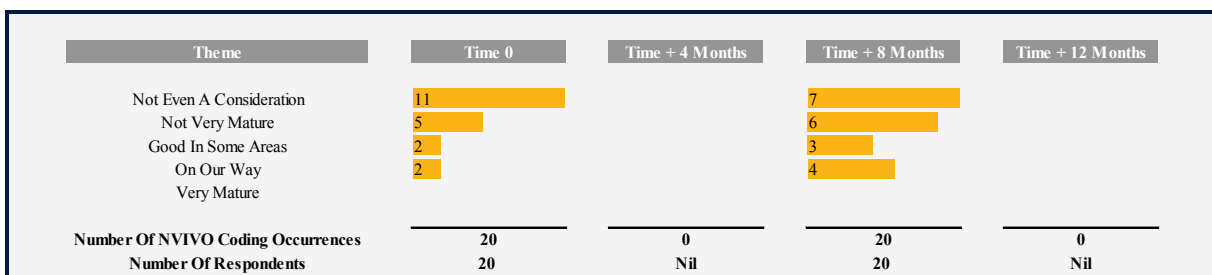
Figure 4.61: Maturity Current State Defined—Senior Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Level 1—Sub-optimised	20		19	
Level 2—Rationalised			1	
Level 3—Strategic				
Level 4—Optimised				
Level 5—Integrated				
Number Of NVIVO Coding Occurrences	20	0	20	0
Number Of Respondents	20	Nil	20	Nil
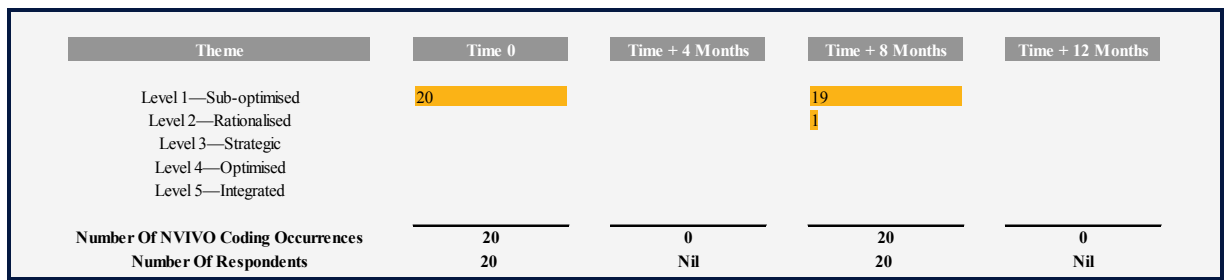
In members' initial responses, the middle-management group was more optimistic in their views on maturity compared to the senior and executive managers. A possible explanation for this is that their frame of maturity was much more narrow, as they most likely assessed maturity in the context of their own business accountability and not from a broader, group-wide perspective (see Figure 4.62). That said, when they assessed their maturity using the external reference model, their results were similar to the two preceding groups of managers (see Figure 4.63).

Figure 4.62: Maturity Current State Perception—Middle Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Not Even A Consideration	5	3	1	
Not Very Mature	9	7	5	1
Good In Some Areas	10	13	16	17
On Our Way	8	15	22	22
Very Mature				
Number Of NVIVO Coding Occurrences	32	38	44	40
Number Of Respondents	32	38	44	40
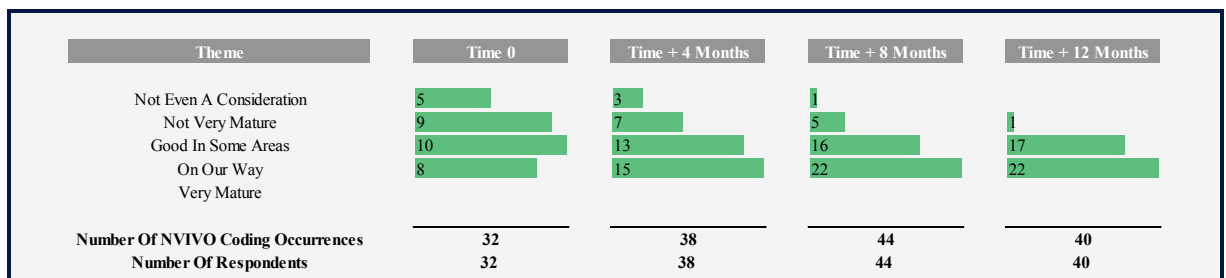
Figure 4.63: Maturity Current State Defined—Middle Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Level 1—Sub-optimised	32	36	40	33
Level 2—Rationalised		2	4	7
Level 3—Strategic				
Level 4—Optimised				
Level 5—Integrated				
Number Of NVIVO Coding Occurrences	32	38	44	40
Number Of Respondents	32	38	44	40
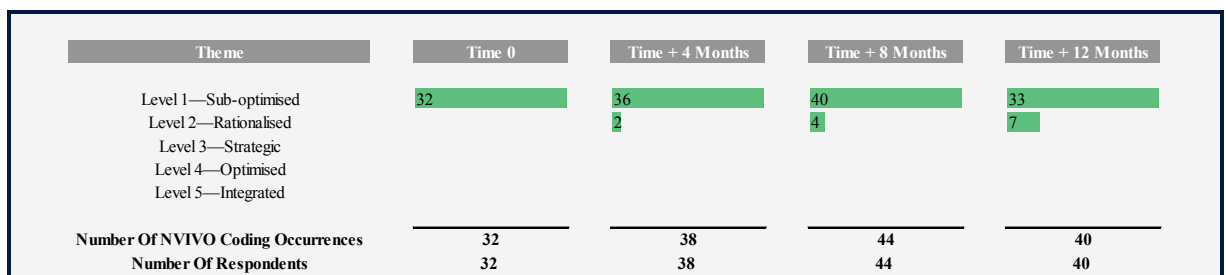
The key finding from the supplier management data on this initial question was that their perceptions of offshoring maturity were similar to those of the middle managers (see Figure 4.64). However, in this group, many of the supplier managers' perceptions were influenced by physical changes, such as a shift by the Corporation towards sending more work

offshore, leading to a growth in the supplier's offshore team size. This is in contrast to the improvement of processes, improved delivery outcomes, and so forth, that the Corporation was seeking. Also, when the external reference model was used for the supplier managers to undertake a second assessment, the data presents a similar result as the one obtained based upon the supplier manager's perceptions (see Figure 4.65).

Figure 4.64: Maturity Current State Perception—Supplier Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Not Even A Consideration				
Not Very Mature	17	10		
Good In Some Areas	15	13	15	11
On Our Way		15	29	29
Very Mature				
Number Of NVIVO Coding Occurrences	32	38	44	40
Number Of Respondents	32	38	44	40
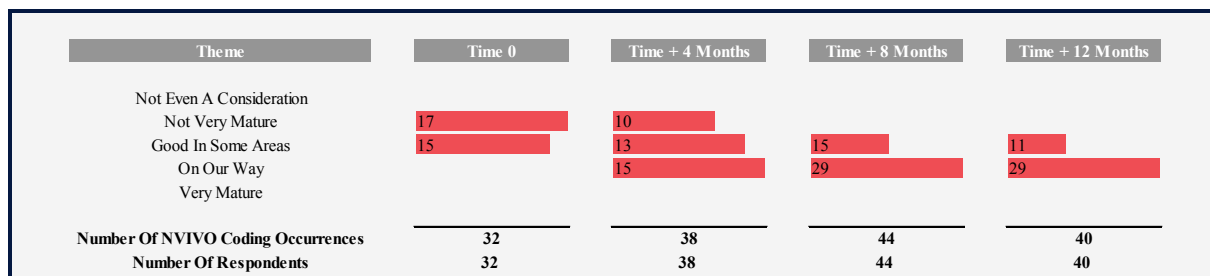
Figure 4.65: Maturity Current State Defined—Supplier Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Level 1—Sub-optimised	32	38	44	37
Level 2—Rationalised				3
Level 3—Strategic				
Level 4—Optimised				
Level 5—Integrated				
Number Of NVIVO Coding Occurrences	32	38	44	40
Number Of Respondents	32	38	44	40
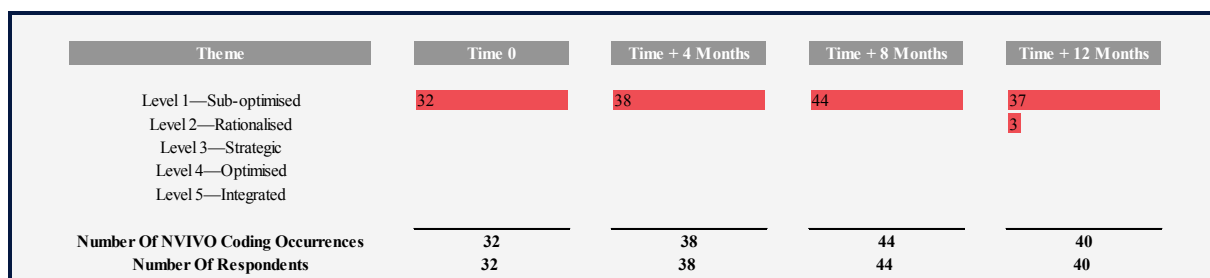
Taking this further, I shifted my questions from 'How mature do you think you are?' to 'What are you doing to lift your offshoring capability maturity?', as I was now interested in exploring and capturing the specific activities or approaches the managers were taking to optimise their offshoring operations. As a result, I was able to determine that a varied number of approaches was used and, as offshoring maturity increased, so too did the relative complexity of the individual approach being used at the time to further improve offshoring capability. This finding is illustrated in Figure 4.66, in which the improvement themes are listed according to increasing management complexity, beginning with 'no focus currently' and ending with 'integrated approach'. The consolidated response shown in Figure 4.66 demonstrates that the approaches of 'sharing best practices' and 'relying on suppliers' increased over time during the course of the study, whereas 'continuous improvement programmes' decreased.

Figure 4.66: Current Capability Maturity Focus

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
No Focus Currently	20	11	3	0
Adhoc or Inconsistent Approach	19	13	15	13
Sharing Best Practices	40	39	68	70
Training & Skills Development	70	40	46	12
Continuous Improvement Programs	49	32	48	23
Internal Benchmarking	0	0	14	13
External Benchmarking	0	0	1	0
Frameworks i.e. eSourcing, CMMI	0	0	1	1
Business Case Imperatives	0	0	2	0
Relying on Contractually Driven	1	0	6	6
Relying on Suppliers	14	12	46	29
Relying on Own Organisation	1	0	1	0
Collaborating with Suppliers	2	0	16	12
Formal Shared Objectives	0	0	0	1
Integrated Approach	0	0	0	1
Number Of NVIVO Coding Occurrences	216	147	267	181
Number Of Respondents	89	76	113	80

When discussing with the executive managers their focus around uplifting current global service delivery capability maturity during the course the study (Figure 4.67), I observed an increased degree of sophistication in the responses as time progressed. It was as though the executives were on their own learning journey in terms of offshoring maturity.

Figure 4.67: Current Capability Maturity Focus—Executive Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
No Focus Currently				
Adhoc or Inconsistent Approach	4			
Sharing Best Practices	5		5	
Training & Skills Development	5		5	
Continuous Improvement Programs	2		2	
Internal Benchmarking			2	
External Benchmarking				
Frameworks i.e. eSourcing, CMMI				
Business Case Imperatives				
Relying on Contractually Driven				
Relying on Suppliers	5		5	
Relying on Own Organisation				
Collaborating with Suppliers			3	
Formal Shared Objectives				
Integrated Approach				
Number Of NVIVO Coding Occurrences	21	0	22	0
Number Of Respondents	5	Nil	5	Nil

In the early stages of the study, the executive managers were interested in knowledge capture, but as time progressed, and partly influenced by their conversations with their peers from the supplier organisations, they spoke of external benchmarking, certification and collaboration with suppliers. The two quotations that follow demonstrate this:

Although in the past we have undertaken some very complex projects, we have not been good at institutionalising knowledge; it has been left in people's heads so when they leave the company, we lose this knowledge. Therefore, a key focus for us has to be in knowledge management and our suppliers' capability to help us with this.

Executive Manager at beginning of study

Our suppliers tell us we should consider becoming CMMI Level 5 certified—this is probably a good initiative so we should take a look at it and what it means.

Executive Manager at end of study

The senior managers' focus (Figure 4.68) was similar to the executive managers as per the previous quotations. Although still reliant on suppliers to drive improvements, the senior managers were also being influenced by the executive managers to achieve improvements.

Figure 4.68: Current Capability Maturity Focus—Senior Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
No Focus Currently	5			
Adhoc or Inconsistent Approach			3	
Sharing Best Practices	7		12	
Training & Skills Development	20		20	
Continuous Improvement Programs	12		17	
Internal Benchmarking				
External Benchmarking			1	
Frameworks i.e. eSourcing, CMMI			1	
Business Case Imperatives			2	
Relying on Contractually Driven	1		3	
Relying on Suppliers	4		8	
Relying on Own Organisation	1		1	
Collaborating with Suppliers	2		2	
Formal Shared Objectives				
Integrated Approach				
Number Of NVIVO Coding Occurrences	52	0	70	0
Number Of Respondents	20	Nil	20	Nil

I recall one conversation I had with a senior manager who had just come back from a meeting with his manager—one of the executive managers. Apparently, at a recent supplier governance forum, where executives from the Corporation and the supplier firm met to discuss strategic themes, the supplier advised the executive manager of the need to become CMMI Level 5 certified. Without a discussion of what this certification meant, the executive was requesting as to when the Corporation was going to become certified. From

the senior manager's perspective, the executive manager wanted to know 'when' certification would occur; there was apparently to be no discussion around 'should we?'.

> *My focus right now is to get all my team through the compliance training and to get the basics in place. It is too early to start any formal innovation programs.*
>
> **Senior Manager at beginning of study**
>
> *I have been asked by the executives when we are going to be CMMI Level 5 certified. It appears the goal has already been set without any understanding of what this means. We are a bank and not a service provider. I am concerned this will be a waste of time just because the supplier got in the ear of the executive.*
>
> **Senior Manager at end of study**

The middle-management focus (see Figure 4.69) of driving capability maturity shifted from formal training that was part of the transition programme to greater collaboration and interaction with their colleagues. I attended a meeting in which one of the middle managers commented that were it not for the programme, we would not be talking and sharing ideas with each other. In addition, greater focus was emphasis was placed on the suppliers lifting their game and providing greater value on top of contractual obligations.

Figure 4.69: Current Capability Maturity Focus—Middle Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
No Focus Currently	15	11	3	
Adhoc or Inconsistent Approach	15	13	12	13
Sharing Best Practices	2	11	20	33
Training & Skills Development	23	23	16	12
Continuous Improvement Programs	3			
Internal Benchmarking			12	13
External Benchmarking				
Frameworks i.e. eSourcing, CMMI				
Business Case Imperatives				
Relying on Contractually Driven				
Relying on Suppliers	5	12	33	29
Relying on Own Organisation				
Collaborating with Suppliers			11	9
Formal Shared Objectives				
Integrated Approach				
Number Of NVIVO Coding Occurrences	63	70	107	109
Number Of Respondents	32	38	44	40

This tension of what is defined as 'value add' was a recurring theme and, even as I write this, remains ongoing.

A key feature of Figure 4.70 is that it shows how relatively consistently the supplier managers maintained their focus on capability maturity, although in the very late stages of the study, there was some activity around more sophisticated methods. This is certainly in contrast to the Corporation's managers and, as mentioned earlier, there was growing tension regarding the supplier's ability to provide value add on top of contractual obligations.

Figure 4.70: Current Capability Maturity Focus—Supplier Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
No Focus Currently				
Adhoc or Inconsistent Approach				
Sharing Best Practices	26	28	31	37
Training & Skills Development	22	17	5	
Continuous Improvement Programs	32	32	29	23
Internal Benchmarking				
External Benchmarking				
Frameworks i.e. eSourcing, CMMI				1
Business Case Imperatives				
Relying on Contractually Driven			3	6
Relying on Suppliers				
Relying on Own Organisation				
Collaborating with Suppliers				3
Formal Shared Objectives				1
Integrated Approach				1
Number Of NVIVO Coding Occurrences	80	77	68	72
Number Of Respondents	32	38	44	40

However, in discussing this with the supplier managers, I also heard their frustrations. They were suggesting ideas and highlighting opportunities for mutual collaboration, but not making progress with the Corporation's managers.

> *We are providing many improvements to the client's business but we are not working on many tasks together. I think when we get into more collaboration then we will get some real wins.*
>
> **Supplier Manager at beginning of study**
>
> *There is a lot of talk and when the executives come to India to visit us, we have excellent conversations, but nothing goes anywhere—it just seems as though they get distracted when they return back to their own offices and the conversations we had get forgotten until six months later, and we do it all again.*
>
> **Supplier Manager at end of study**

For this RQ, I wanted to understand how managers optimise their firm's offshoring capabilities and whether the approach they take changes over time. I set about answering this by first asking the managers for their perspectives on current levels of offshoring maturity, based upon their own respective paradigms. I followed this by asking the managers to compare the Corporation's situation to an external reference model when answering the same question. Finally, I asked the managers what they were doing to improve current levels of offshoring maturity. This qualitative and interpretative method provided significant insights, but I also wanted to measure, in a quantitative and independent way, the changes that the managers perceived were—or were not—taking place.

In answering this RQ, I used the Carnegie Mellon eSCM (see Figure 3.5) to provide a quantitative perspective. Table 4.4 provides a summary of the total number of individual quantitative data points collected and analysed. Figures 4.71–4.75 summarise the results of this quantitative analysis and are supported with detailed calculations in Appendix E.

Table 4.4: Summary of Quantitative Data Points Analysed in Minitab

	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months	Total
Data Points	896	1,064	1,232	1,120	**4,312**

The first of the quantitative results, Figure 4.71, shows the overall capability maturity score from 0–5, where 0 represents low maturity and 5 represents high maturity (5 is where a

firm should be aiming for, ultimately). This was calculated across four time periods of the study. Visually from the bar graphs below, there is an increase in the score's mean over time. Statistically analysis using the ANOVA and Tukey tests are presented in Table E.68 of Appendix E. This is an interesting observation as the collective manager's qualitative responses (see section 4.3.4) suggest over the course of the study, offshoring capability maturity at the Corporation improved.

Figure 4.71: Overall Capability Maturity (Score 0–5)

Theme	Time 1	Time 2	Time 3	Time 4
All Responses / All Questions	3.68	3.89	4.24	4.44
Number Of Questions	28	28	28	28
Number Of Respondents	32	38	44	40
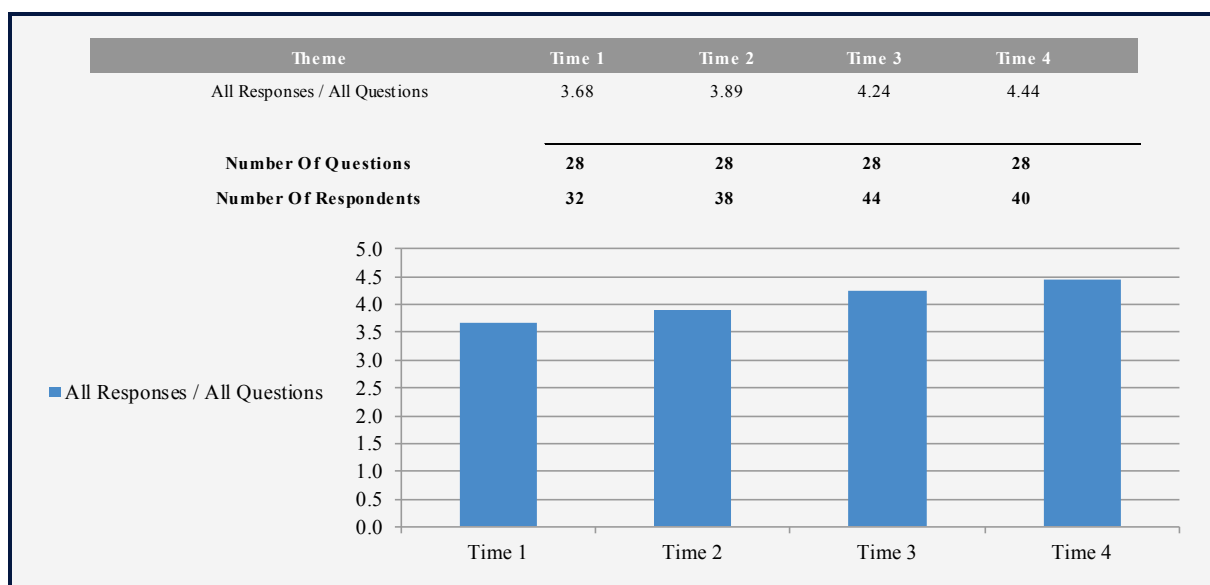
I then separated the same survey quantitative data into each of the ten eSourcing capabilities to see whether the result was similar (see Figure 4.72). The key feature of this analysis was that even within each of the individual capabilities, the score's mean showed an increase over time (see Table E.69 of Appendix E). However, it is important to note that of all the individual capabilities, the one that received the highest mean score at the end of the study was 'relationship management', while 'technology management' maintained the lowest score mean overall. These mean scores are consistent with many comments by managers from both the Corporation and the suppliers, who expressed their frustrations at the poor performance level of basic technology connecting the offshore operations with the Corporations' onshore teams.

Figure 4.72: Detailed eSourcing Capability Maturity (Score 0–5)

Theme	Time 1	Time 2	Time 3	Time 4
Value Management	3.48	3.54	4.11	4.55
Change Management	3.91	3.87	4.39	4.40
Knowledge Management	3.78	3.97	3.93	4.33
People Management	3.63	3.84	4.25	4.40
Relationship Management	3.42	4.11	4.55	4.88
Technology Management	3.38	3.58	3.89	4.18
Threat Management	3.89	4.13	4.26	4.36
Performance Management	3.62	3.78	4.20	4.31
Transfer Management	3.91	4.14	4.55	4.55
Service Delivery	3.84	4.03	4.18	4.37
Number Of Questions	**28**	**28**	**28**	**28**
Number Of Respondents	**32**	**38**	**44**	**40**

As the Corporation had in place a multi-vendor strategy whereby four global services firms provided the outsourcing and offshoring services, I thought it essential to separate the quantitative data into these four engagement types (Group B Engagement Types: I, II, III, IV) to see whether capability maturity varied among the different supplier groups. Essentially, I wanted to investigate whether any one particular supplier was achieving a greater improvement than another. If this was the case, I could potentially identify which practices achieved better outcomes. Using the same statistical tests as before, over time it can be said tha the score means improved, as represented in Figure 4.73 (see Tables E.77, E.78, E.80 and E.81 of Appendix E for the detailed statistical calculations). A noticeable difference was that two of the four suppliers achieved a higher mean score earlier in the study, but as the study concluded, all four suppliers achieved a similar mean score overall.

Figure 4.73: Multi-vendor Engagement Type Capability Maturity (Score 0–5)

Theme	Time 1	Time 2	Time 3	Time 4
Group B Engagement Type I	3.27	3.28	4.32	4.36
Group B Engagement Type II	3.68	4.06	4.23	4.42
Group B Engagement Type III	4.14	4.10	4.21	4.49
Group B Engagement Type IV	3.32	3.36	4.25	4.47
Number Of Questions	**28**	**28**	**28**	**28**
Number Of Respondents	**32**	**38**	**44**	**40**
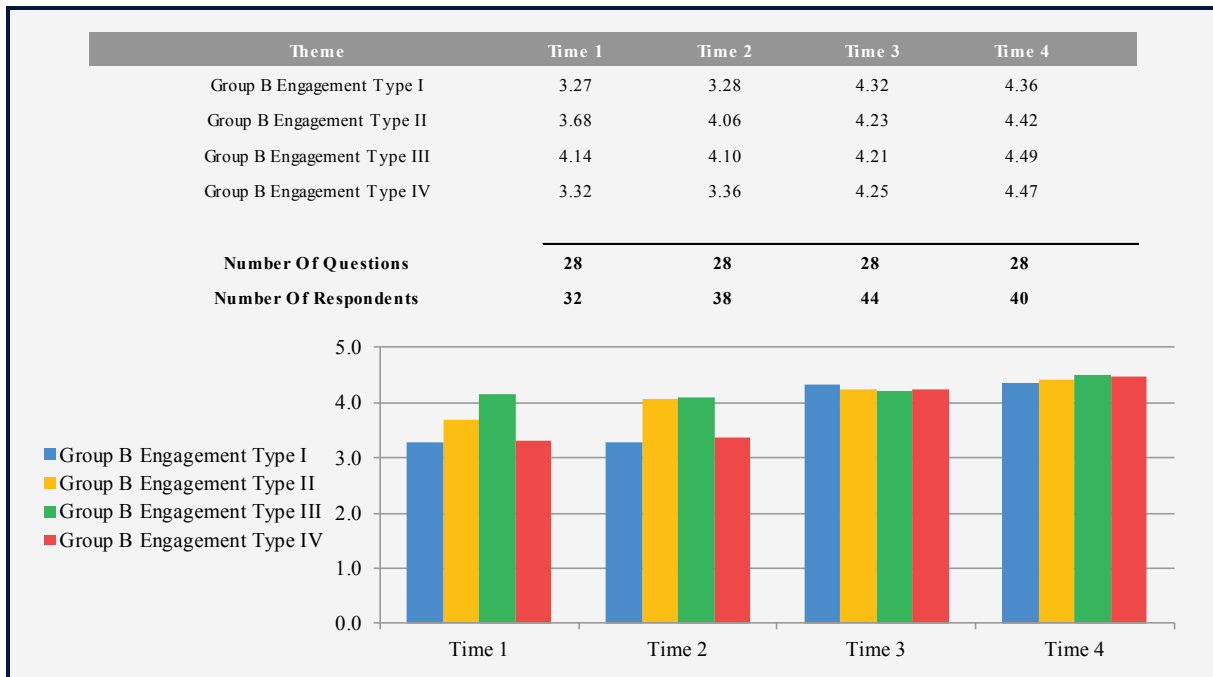
The final series of quantitative analysis I conducted on this data separated the supplier responses from the Corporation managers' responses (Group A Clients vs Group A Suppliers). I wanted to determine whether there were differences of perspective from the clients versus the suppliers. I carried out the same statistical tests (see Figure 4.74 and Tables E.72 and E.74 of Appendix E) and again, similar results as the previous three were obtained. Figure 4.74 shows that the supplier managers rated the engagements more optimistically in the early stages of the study. Although I did not explore this further, one could hypothesise that as they had 'won' the business, they were convinced that things were going well, while there were client individuals who were less enthusiastic about the introduction of a global sourcing strategy, and their self-assessments reflected this slightly.

Figure 4.74: Client versus Supplier Capability Maturity (Score 0–5)

Theme	Time 1	Time 2	Time 3	Time 4
Group A: Clients	3.52	3.35	4.27	4.40
Group A: Suppliers	3.75	4.15	4.22	4.47
Number Of Questions	**28**	**28**	**28**	**28**
Number Of Respondents	**32**	**38**	**44**	**40**
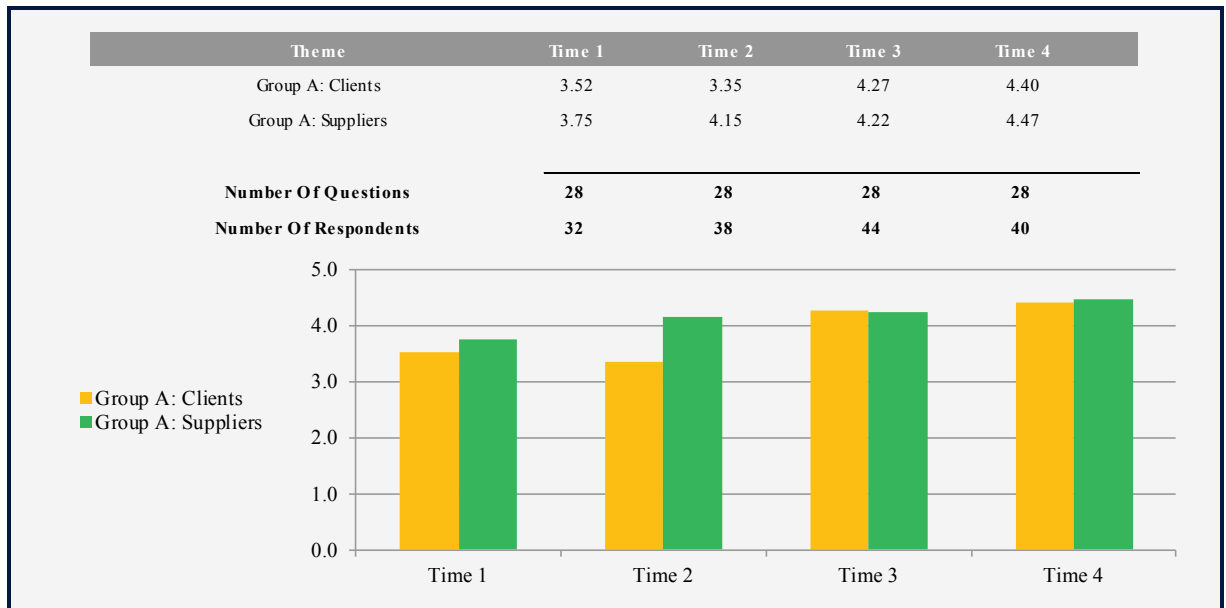
4.3.5 RQ5—Critical Success Factors

My final RQ was, 'What CSFs can be identified when managers implement global sourcing strategies and optimise offshoring capability?' This was important for two reasons. First, I wanted to uncover from the managers' own experiences important insights that could be framed as 'lessons learnt', and shared with future and inexperienced managers conducting similar activities. Second, I wanted to see whether the Corporation managers were able to identify CSFs. In other words, were they able to extract themselves from what could only be described as a very intense and emotional transformation journey in order to be rational and thoughtful? As with the previous qualitative questions, I initially identified fifteen themes (or critical success factors CSF's) with NVIVO codings and subsequently categorised these themes down further into seven using the McKinsey 7S framework. The results of this coding are shown graphically in Figures 4.75–4.84. From an overall perspective across all management groups (see Figures 4.75 and 4.76), the earlier responses show clearly that the managers considered getting the 'enabling processes' right to be a CSF. Particularly during the interviews, I found these responses driven by the managers' own experiences and frustrations as they grappled with this new operating model and the extended organisational ecosystem. However, the same graph shows that, over time, additional CSFs were called out and, in particular, many made mention of the need to operate in this new global world—that is, the need for a 'global mindset'.

Figure 4.75: CSFs

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Global Mind Set	0	0	56	67
Change Management	16	32	77	41
Cultural Awareness and Alignment	6	0	28	31
Build Collaboration Not Adversaries	1	6	16	25
Site Visits or Rotation	0	0	12	23
Consistent Leadership	0	0	15	23
Build Capability	39	20	47	43
Experienced Practitioners	2	5	9	13
Knowledge Management	0	12	25	31
Account-centric View	0	0	35	30
Business-centric View	0	0	25	28
Formal Benchmarking	0	0	2	0
Collaboration Tools	7	3	11	22
Robust Risk Practices	5	0	20	0
Enabling Processes	89	51	37	10
Number Of NVIVO Coding Occurrences	**165**	**129**	**415**	**387**
Number Of Respondents	**89**	**76**	**113**	**80**

Upon reflection, when managers called out particular CSFs, it was often the result of having dealt with issues rather than the result of having particular successes. In effect, the managers were telling me that 'if we had only focused on this (success factor), we would have achieved a better result'. When this is summarised (see Figure 4.76), it is evident that the managers initially considered the hard components of the framework (i.e., the 'systems') to be critical, but as time progressed and they reflected upon their mixed experiences, 'skills' and 'strategy' were also called out. Finally, the softer elements of the model began to emerge, in particular, 'shared values' and 'style'.

Figure 4.76: CSFs—McKinsey 7S Framework

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Shared Values	16	32	133	108
Style	7	6	71	102
Staff	0	0	0	0
Skills	41	37	81	87
Strategy	0	0	60	58
Structure	0	0	0	0
Systems	101	54	70	32
Number Of NVIVO Coding Occurrences	**165**	**129**	**415**	**387**
Number Of Respondents	**89**	**76**	**113**	**80**
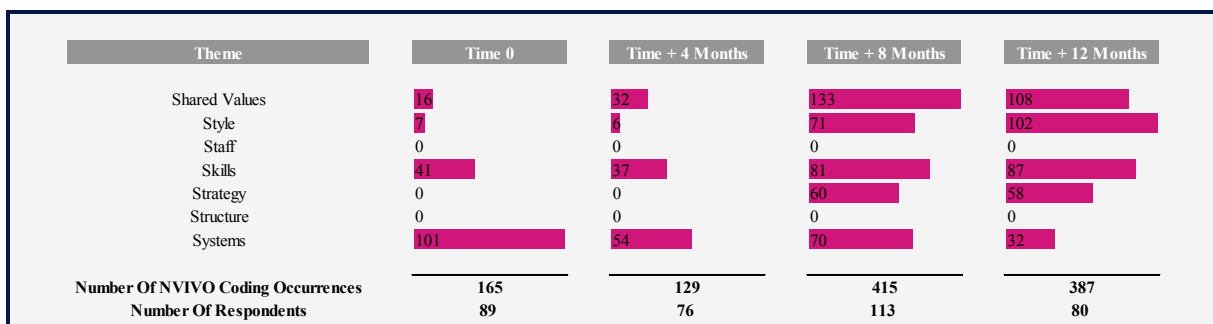
Separating these responses within each respondent or management group showed up some subtle differences—for example, the executive management (sees Figures 4.77 and 4.78) considered 'change management' and 'building capability' to be CSFs from the start, largely based on what they thought would be required. However, further into the journey, as they reflected upon what they were seeing within the organisation, this same executive

management group expanded this list to include 'cultural awareness and alignment' and the need for the suppliers to take a more 'account-centric view'. In total, only eight of the fifteen total CSF's that were identified by all responsant groups were identified by this specific respondent group.

Figure 4.77: CSFs—Executive Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Global Mind Set			3	
Change Management	5		4	
Cultural Awareness and Alignment			4	
Build Collaboration Not Adversaries				
Site Visits or Rotation				
Consistent Leadership				
Build Capability	5		4	
Experienced Practitioners			1	
Knowledge Management				
Account-centric View			5	
Business-centric View			1	
Formal Benchmarking			2	
Collaboration Tools				
Robust Risk Practices				
Enabling Processes				
Number Of NVIVO Coding Occurrences	**10**	**0**	**24**	**0**
Number Of Respondents	**5**	**Nil**	**5**	**Nil**

Figure 4.78: CSFs—Executive Management 7S

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Shared Values	5		7	
Style	0		4	
Staff	0		0	
Skills	5		5	
Strategy	0		6	
Structure	0		0	
Systems	0		2	
Number Of NVIVO Coding Occurrences	**10**	**0**	**24**	**0**
Number Of Respondents	**5**	**Nil**	**5**	**Nil**
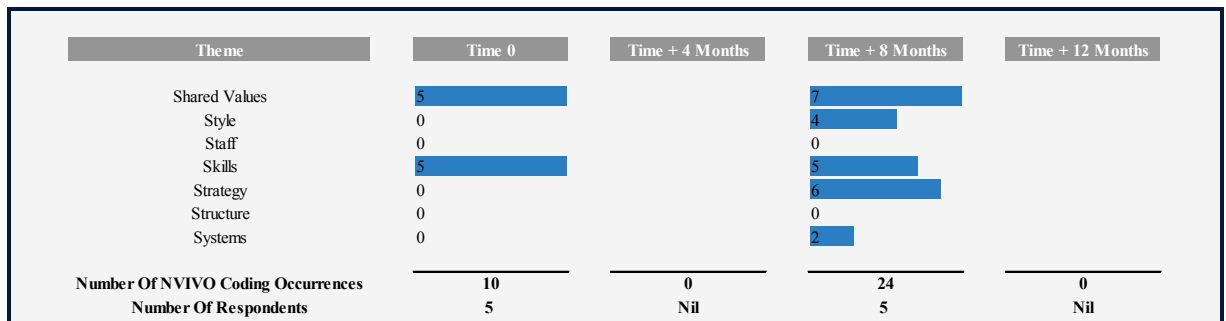
In the executive management's own words (in the following quotations), their emphasis on a more global perspective as a key factor for success is evident:

Success will be measured by our ability to lift our overall capability. Whether it be a customer-facing task, or a process between us and our suppliers, we need to ensure we are continually lifting our game on both quality and cost. Now, the challenge with this is to also ensure we implement this transformation of the organisation with no detrimental impacts. If we can come out the other end and put hand on heart and say we achieved this, then this can be called a success.

Executive Manager at beginning of study

I think we underestimated the scale of change required for our people to accept. We are a strong and resilient bank but more and more we are operating in a global world where if we take our eye off the ball, our competitors will take advantage. So for me, with hindsight, I believe a critical success factor is indeed being able to take a more global perspective, whether that be overall corporate strategy for the executives, or business or operational strategy for the senior management team.

Executive Manager at end of study

The senior management's responses to CSFs were broader than the executive management's responses, highlighting the importance of 'enabling processes', as this group were closer to the daily challenges of implementing the strategy while being accountable for the running of a business unit (see Figures 4.79 and 4.80). The senior managers also continued to emphasise the importance of a mindset change, particularly towards the end of the study, when they were reflective of their own experiences to date. In total, only ten of the fifteen total CSF's that were identified by all responsent groups were identified by this specific respondent group.

Figure 4.79: CSFs—Senior Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Global Mind Set			11	
Change Management	7		20	
Cultural Awareness and Alignment	6		12	
Build Collaboration Not Adversaries	1		7	
Site Visits or Rotation				
Consistent Leadership				
Build Capability	20		11	
Experienced Practitioners				
Knowledge Management				
Account-centric View			18	
Business-centric View			17	
Formal Benchmarking				
Collaboration Tools	2			
Robust Risk Practices	5		20	
Enabling Processes	20		12	
Number Of NVIVO Coding Occurrences	61	0	128	0
Number Of Respondents	20	Nil	20	Nil

One of the reasons why we partnered with these suppliers was capability. Yes, initially it was around capacity, as we had an aggressive portfolio of work to be completed and needed people, but ultimately we also need to be smart and leverage the experiences of these suppliers, who—as they constantly tell us—have done it all before. So, I would say a key factor will be our ability to stop doing it our way and be open to doing it the suppliers' way, which hopefully is best practice.

Senior Manager at beginning of study

Where I am seeing great progress in day-to-day delivery is where there are excellent interpersonal relationships between us and the supplier teams across all levels. When I reflect on how this has come about, I would have to say that some of my managers have a more mature and commercial ability as compared to their peers. This is partly due to their own individual career backgrounds. For example, the leaders I am thinking about used to work for service-provider organisations, whereas some of my longer term employees have had little exposure to outsourcing, let alone offshoring.

Senior Manager at end of study

Figure 4.80: CSFs—Senior Management 7S

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Shared Values	7		31	
Style	7		19	
Staff	0		0	
Skills	20		11	
Strategy	0		35	
Structure	0		0	
Systems	27		32	
Number Of NVIVO Coding Occurrences	61	0	128	0
Number Of Respondents	20	Nil	20	Nil
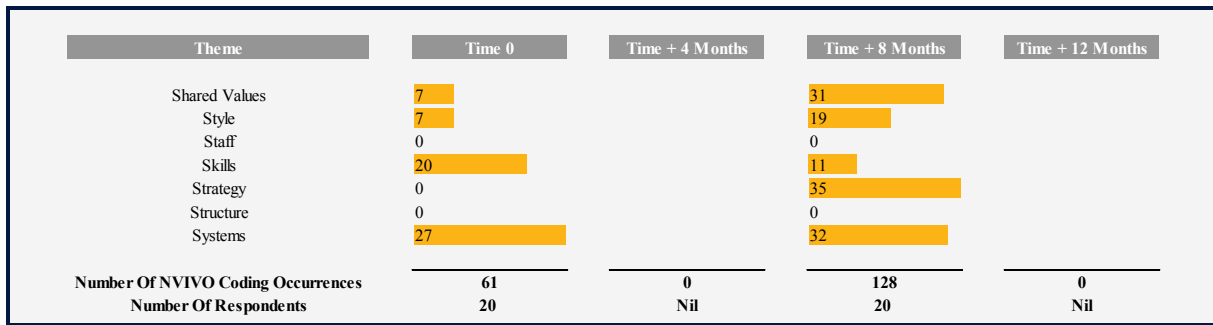
The middle managers' view of CSFs (see Figures 4.81 and 4.82) also expanded substantially over the duration of the study, from the initial 'enabling processes' perspective to a recognition of 'knowledge management' as critical. This occurred as the group experienced first-hand the challenges of transitioning organisational knowledge—which had largely been undocumented and retained only in people's minds—to a formal system via robust policies, procedures and processes. In addition, 'global mindset' and 'cultural awareness' were called out as critical by the end of the study. In total, only thirteen of the fifteen total CSF's that were identified by all responsent groups were identified by this specific respondent group.

Figure 4.81: CSFs—Middle Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Global Mind Set			13	33
Change Management	4	5	23	16
Cultural Awareness and Alignment			12	31
Build Collaboration Not Adversaries				12
Site Visits or Rotation				12
Consistent Leadership			15	23
Build Capability	4	6	11	18
Experienced Practitioners			1	4
Knowledge Management		12	25	31
Account-centric View			12	30
Business-centric View			7	28
Formal Benchmarking				
Collaboration Tools	5	3	11	22
Robust Risk Practices				
Enabling Processes	32	29	15	4
Number Of NVIVO Coding Occurrences	45	55	145	264
Number Of Respondents	32	38	44	40

Figure 4.82: CSFs—Middle Management 7S

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Shared Values	4	5	36	49
Style	0	0	27	78
Staff	0	0	0	0
Skills	4	18	37	53
Strategy	0	0	19	58
Structure	0	0	0	0
Systems	37	32	26	26
Number Of NVIVO Coding Occurrences	45	55	145	264
Number Of Respondents	32	38	44	40
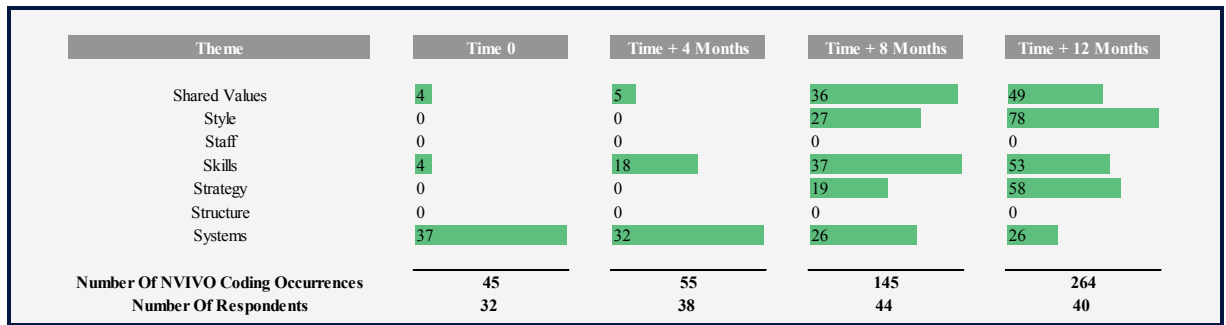
From my perspective as a participant observer during this study, the middle managers had the most difficult role. They were charged with delivering the day-to-day business and technology services while also being responsible for implementing the strategy, which required them to spend significant amounts of time figuring out the new processes and handovers with the suppliers as well as addressing major people issues within the retained organisation. This is apparent in the following quotations:

If I was to provide advice, I would say really understand the processes that will link you to your supplier and the IT systems that underpin them. We have been only just keeping one step ahead of a disaster, running from fire to fire, but for some reason, when we escalate, it's not what people want to hear.

Middle Manager at beginning of study

Having consistent leadership on both our side and the suppliers' side for the duration of at least the transition is essential. We have not always had this and as a result, the focus and priorities seemed to have changed, leaving me to manage a very confused team.

Middle Manager at end of study

The supplier managers' viewpoint on CSFs also changed over time (see Figures 4.83 and 4.84). This surprised me initially, as I had thought that since they were the experts in global delivery, they would be able to identify the CSFs. However, as with the previous two respondent groups, the processes in place between the two organisations—referred to as 'enabling processes'—were the supplier managers' initial focus because of the problems they were experiencing and the subsequent pressure on the suppliers to deliver the outsourced services effectively. Later on in the process, from the suppliers' perspective, the softer elements became more important as CSFs. In total, only seven of the fifteen total

CSF's that were identified by all responsent groups were identified by this specific respondent group.

Figure 4.83: CSFs—Supplier Management

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Global Mind Set			29	34
Change Management		27	30	25
Cultural Awareness and Alignment				
Build Collaboration Not Adversaries		6	9	13
Site Visits or Rotation			12	11
Consistent Leadership				
Build Capability	10	14	21	25
Experienced Practitioners	2	5	7	9
Knowledge Management				
Account-centric View				
Business-centric View				
Formal Benchmarking				
Collaboration Tools				
Robust Risk Practices				
Enabling Processes	37	22	10	6
Number Of NVIVO Coding Occurrences	49	74	118	123
Number Of Respondents	32	38	44	40

Figure 4.84: CSFs—Supplier Management 7S

Theme	Time 0	Time + 4 Months	Time + 8 Months	Time + 12 Months
Shared Values	0	27	59	59
Style	0	6	21	24
Staff	0	0	0	0
Skills	12	19	28	34
Strategy	0	0	0	0
Structure	0	0	0	0
Systems	37	22	10	6
Number Of NVIVO Coding Occurrences	49	74	118	123
Number Of Respondents	32	38	44	40
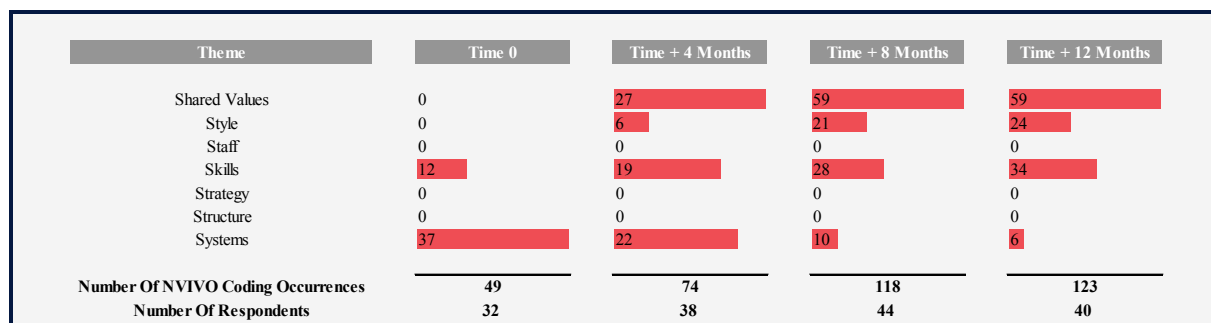
Finally, the supplier managers' comments supporting Figures 4.83 and 4.84 were directed at the Corporation's managers and team members. They referred to a necessary mindset change if things were to move forwards, and the client and supplier organisations were to work effectively together:

There needs to be more investment by our client into processes and collaboration tools to enhance our partnership. There is a limit as to what we can do and I don't think this was thought out by the client. As a result, whenever something is going wrong, we get blamed.

Supplier Manager at beginning of study

This section has addressed the interview and survey questions. I will now turn to the final phase of the study, Phase Three, which presents data collected during 2013, and to what I have labelled the 'Optimise' theme.

4.4 Latest Developments

4.4.1 *Optimise*

As 2012 was coming to a close, external media continued to carry the offshoring story (see Figure 4.85) and the Corporation's CEO added to their point of view when asked about the organisation's achievements (see Figures 4.86 and 4.87).

Figure 4.85: Media News—Job Losses

More Jobs to Go, You Can Bank On It

The Financial Services Union says some 4,483 people in the big banks and insurers lost their jobs to redundancy or offshoring in the past year.

Andrew White & Michael Bennet
***Weekend Australian*, 15–16 December 2012**

Figure 4.86: Media News—The Corporation's CEO

Chief Executive Survey 2012—The Corporation's CEO

Key themes next year: Increasing weight of regulation, simplify banking, deepen customer relationships.

Request to Government: Chance to bed down new financial services regulation, look for long-term funding model.

Top three priorities: Ensure we stay strong, simplify the bank, targeted growth.

Three key challenges and achievements: Growth in the face of offshore challenges, deposit growth, across-the-board success.

John Durie
***Weekend Australian*, 15–16 December 2012**

Figure 4.87: Media News–CEO Thoughts

[CEO] Turns Around [Global Banking Corporation's] Fortunes

By year end [the Corporation] had assumed the mantle of market leader. [A competitor] still commanded a premium but investors were looking forward. [The CEO], defensive early in the year, now laughs at rumours of [their] demise. [They] point to three critical elements of [their] reign: the purchase of [another bank] and the multi-brand strategy; a technology overhaul now delivering measurable of results; and shifting the balance sheet from a position of vulnerability to funding disruptions to one of strength.

Andrew Cornell
***Australian Financial Review*, 21 December 2012**

Internally within the Corporation, the focus was shifting to a new stage. Although across the organisation transitions to suppliers and offshore were still in progress, the conversations were around capability maturity and the fear of falling backwards unless the behaviours of the Corporation's managers did not change in this new global delivery operating model. This focus led to the formation of a Global Delivery Centre of Excellence (CoE). Its mandate was to drive consistency and improvement across the Corporation on all aspects of global delivery, while embarking on continuous improvement using internal benchmarking between business divisions engaged in global sourcing and the use of external capability maturity assessment frameworks such as Carnegie Mellon's eSCM framework. The artefacts in Figures 4.88 and 4.89 were developed to communicate this new direction.

Figure 4.88: The Corporation's Road to Maturity 1

Where We Are Today

The programme has now established a solid platform for the target operating model, and has taken us to the Strategic Level (Level 3) in the Global Delivery Capability Maturity framework. In the journey so far, there has been significant investment in knowledge transition, organisation transformation, contractual framework, processes and controls, operational and risk governance, to support our global delivery capabilities and establish a functional governance organisation.

The immediate challenge is to further mature the steady state. This includes:

1. Strengthening the newly implemented processes, controls, and performance metrics and continually striving to improve capabilities to deliver simplification, efficiency, and sustainability.

2. Optimising the potential of our global delivery engagement and driving more value through a innovation-driven relationship with sourcing partners, and 'deliver more for less'.

Level 5–Integrated
Level 4–Optimised
Level 3–Strategic
Level 2–Rationalised
Level 1–Sub-optimised

Matured State
Maturing Steady State
Traditional Sourcing
Time

Source: The Corporation (2013)

In August 2013, the Corporation's commercial division reviewed its sourcing strategies as a growing need to obtain greater value from the strategic partners was recognised. The recently established CoE, which had reported to the head of business operations, was repositioned to report to the head of the sourcing and commercial division. As part of this shift, the CoE was rebranded to the 'Best Sourcing Centre of Excellence' though still referred internally by the Corporation's managers as the 'CoE'. Part of the CoE's role was to consider external best practices and emerging trends in global sourcing. Further, a refocus around strategic partners, and a more prescriptive approach to driving outsourcing and offshoring capability maturity, was developed, as shown in Figures 4.90 and 4.91.

Figure 4.89: The Corporation's Road to Maturity 2

The Maturation Journey - Strategy

Maturation Journey: Secure – Strengthen - Mature

2013 | 2014 to 2015 | 2016 to 2017

High Compliance

Strength & Optimise

Renew

Secure

Integrate & Consolidate

Low Compliance

Low Value   High Value

Source: The Corporation (2013)

Figure 4.90: The Corporation's Road to Maturity 3

The Immediate Need To Formalise Steady State Management

1. Teams are still on the journey to embed the standard processes and controls, and knowledge management practice effectively
2. The workforce mix is "edging" slowly towards the planned model, thus impacting on the ability to deliver the expected value
3. Operational teething problems are emerging quickly which require clear ownership and responsibilities to resolve them consistently
4. Performance management is in its infancy and a consistent and focussed data mining function will accelerate the maturation
5. Staff turnover is already happening in Supplier teams and will occur in the retained team

We recommend to immediately formalise the management of steady state, with the specific initial focus to **Secure and Strengthen** the adoption of standard processes and controls, to sustain and improve the compliance level, and to accelerate the implementation of the operating model.

3 organisation models have been considered: Centralised, De-Centralised, and Hybrid.

The Hybrid model is recommended as:
1. It provides clear local and consolidated accountabilities
2. Responsibilities are owned by the most appropriate areas, resulting in stronger and more effective decision-making
3. It drives consistency in practice and priorities while preserving clear accountabilities

Service Delivery will:
1. Own the capabilities, retain the expert knowledge and practices, and foster continuous improvement
2. Own the budget with the accountability that this limited resource is efficiently utilised to achieve the steady state goals
3. Manage the use of process and procedure assets to ensure compliance, consistency, and reusability
4. Manage the performance of sourced services and ensure ongoing alignment of performance with objectives
5. Sustain and optimise value from strategic relationships

Centralised Service Delivery Team

| Compliance Oversight | Value Management | Data Mining & Reporting |
| CIO (A) | CIO (B) | CIO (C) |
| Compliance Management |
| Performance Management |

DSS
Risk
Security
Audit
HR/Comms
Commercial
Technology

Source: The Corporation (2013)

Figure 4.91: The Corporation's Road To Maturity 4

Alignment With Best Sourcing Strategy

The Best Sourcing CoE has the objective to industrialise and standardise the policy and procedure frameworks supporting transition to ensure we eliminate duplication and increase opportunity across our Global capacity. It will establish a consistent transition model and BAU support, to ensure we eliminate duplication and increase opportunity across our Global capacity.

Co-ordination Layer

Best Sourcing Centre of Excellence

Commercial Sourcing | Business Sourcing | IT Sourcing | Workstream #4 | Workstream #5

Delivery Layer (Projects)

Service Delivery | HR & Comms | Legal | Sourcing | Risk | Finance | IT

Common Infrastructure Layer

Most of the individual specialist CoE's have been established and are functional, providing a unified support to various Best Sourcing programs. The Service Delivery function, however, is not fully operational yet across the programs, particularly in the technology space.

There are a number of major considerations in the recommendation of the organisation model for Steady State Management:
1. Program steady state has started on a 'higher ground' in key control framework and knowledge transition, with a significant organisational transformation agenda. There is a greater demand on the focus to ensure compliance to the control framework, and to ensure the newly implemented program roles are embedded and that our retained organisation moves its mindset into an Outcomes Based world.
2. There are 7 application services domains under 3 CIOs covered by the program. We need a strong and consistent focus to ensure compliance and value-generation are carried out across all domains.
3. The drive for continuous compliance and value-generation in the program through effectiveness, efficiency, productivity, utilisation, cost & quality, can be different from BPO in some aspects due to its nature.

Source: The Corporation (2013)

Figure 4.92: The Corporation's Future Sourcing Directions 1

The Sourcing Capabilities are Supported by Two Complementary Teams

Before…

Technology

IT Commercial

Product & Operations

Group Sourcing

Consolidation Value Principles

1. Standardise the approach to sourcing across The Firm, aligned to the strategy
2. Consolidate sourcing opportunities across The Firm
3. Strengthen partner relationships to fully leverage from the capabilities available through these Partners
4. Become a trusted advisor to identify opportunities and drive better commercial outcomes
5. Develop end-to-end strategic, relationship and commercial accountabilities to create long-term sustainable value

After…

Strategic Partnerships | Enterprise Sourcing

Best Sourcing – Centre Of Excellence

Governance & Enablement

Source: The Corporation (2013)

Finally, the commercial and sourcing division created a model via which to score each of the Corporation's suppliers to determine whether or not they fell into the strategic

partnership category, or should be considered more broadly as an enterprise supplier (see Figures 4.92, 4.93, 4.94, 4.95 and 4.96). The aim of this refocus of the commercial and sourcing division was, for the next 12 months, to ensure foundations are in place to support the Corporation's corporate strategy implementation over the next four years, leading up to the year 2017.

Figure 4.93: The Corporation's Future Sourcing Directions 2

Focus will be on Extracting Mutual Value from Our Strategic Partners		
Levers to Enable Our Strategic Relationships		
Key Lever	**Immature**	**Mature**
Scope	Fragmented, tactical	Integrated, forward looking
Performance Metrics	Input focused, directive	Outcomes based, shared
Policy & Procedures	Prescriptive, misaligned	Descriptive, aligned
Engagement	Inconsistent, opaque	Consistent, transparent
Decision Making	Unclear, slow	Clear, rapid
Culture & Communication	Conflicting, sceptical	Understood, trusting

Our Strategic Partners and The Firm's relationship with them are at different levels of maturity

Source: The Corporation (2013)

Figure 4.94: The Corporation's Future Sourcing Directions 3

The Levers will be Operationalised to Reflect The Type of Activity

Levers	Run	Cont. Improv.	Change	Innovation	Monitoring, Tools & Techniques
Scope					
Performance Metrics					
Policy & Procedures					
Engagement					
Decision Making					
Culture & Communication					

Type Of Activity

Reporting and Tracking

Relationship Management

Planning and Execution

Operationalising the levers is highly dependent on the type of activity

Source: The Corporation (2013)

Figure 4.95: The Corporation's Future Sourcing Directions 4

Current Strategic Partners will be Reviewed and Rationalised

Assessment Criteria

Complexity Of Relationship (High / Low)

Strategic Partners

?

Opportunity To Leverage The Relationship (Low → High)

Principles

- **Consolidate** the current set of 23 partners to 12-15, covering four portfolios (with 2-4 partners per portfolio)
  - Infrastructure
  - Telecommunications
  - Applications
  - Best Sourcing

- **'Complexity'** is defined as the aggregate scale of the supplier across the multiple operational areas of The Firm

- **'Opportunity'** is defined as how much untapped value there is in the relationship

Our Partners will all need to demonstrate on-going commitment to the levers

Source: The Corporation (2013)

Figure 4.96: The Corporation's Future Sourcing Directions 5
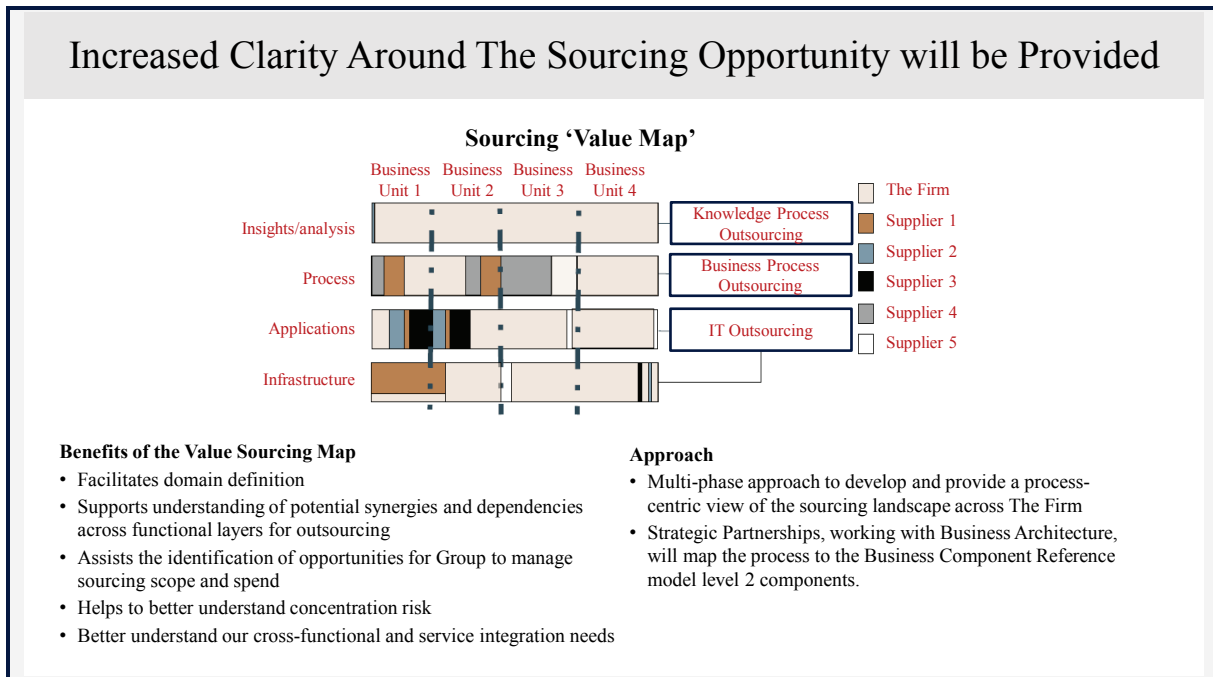
Source: The Corporation (2013)

4.5 Conclusion

This chapter has provided a description of the journey undertaken by the Corporation since 1996 across three phases of the study. External and internal data and insights have been intertwined. Further, the RQs during Phase Two produced some useful insights, summarised below.

RQ1: How do managers implement their firm's global sourcing strategies?

From the responses to this question, I was able to identify 20 themes, of which 14 were contradictory (seven pairs of a single concept that did not exist together) and six were standalone concepts. Some of these themes had greater or lesser emphasis, depending upon the management level, and some of them varied over time as the case study progressed.

RQ2: What are the types of issues managers experience when implementing their firm's global sourcing strategies, how do they overcome them and do they change over time?

Here I was also able to identify 20 themes and, based upon the data, these varied over time. Further, some of these themes had greater or lesser emphasis depending upon the management level.

RQ3: What are the types of issues managers expect to experience in the future with their firm's offshoring capabilities and are they taking action to mitigate these potential issues?

For this question, I used the same themes as per RQ2 and found that the frequency of their occurrence changed over time and/or across the different management layers. However, interestingly, when the responses to RQ2 (issues being experienced) are compared with those to RQ3 (potential issues that may be experienced) over time, the data suggests that the managers are not effective in anticipating likely scenarios. This will be discussed further in the next chapter.

RQ4: How do managers optimise their firm's offshoring capabilities and does this change over time?

In RQ4, I first asked the managers to evaluate how mature they perceived their offshoring capabilities to be, then followed this further using an external reference model. In this case, the data suggests that the self-evaluations tended to provide a more positive picture in terms of capability maturity compared to when an external framework was used. I also found that a broad range of approaches were being used to improve overall capability maturity and that these changed over time.

RQ5: What CSFs can be identified when managers implement global sourcing strategies and optimise offshoring capability?

For this final question, I identified 15 themes that managers considered to be CSFs. The frequency or emphasis that the managers placed on these themes varied over time and across the different management layers.

The Corporation's journey will continue as it delivers on its strategies, and the phenomenon of global sourcing will continue to remain controversial in the media, as demonstrated in Figures 4.97, 4.98 and 4.99.

Figure 4.97: Media News—Data Privacy

APRA Handballs Privacy Concern

The financial regulator has brushed aside recommendations from a federal agency that it remind banks of their privacy obligations when lenders are sending customers' personal data overseas.

In a guidance note this week, the Australian Prudential Regulation Authority urged companies to take a 'cautious and measured' approach to managing data when offshoring. But it did not follow a recommendation from the Australian Privacy Commissioner, Timothy Pilgrim, to draw banks' attention to their obligations under the Privacy Act. After a wave of offshoring in financial services, privacy has emerged as a key flashpoint, causing some state government agencies to restrict what information can be stored overseas.

Clancy Yeates
***The Age*, 4 September 2013**

Figure 4.98: Media News—The Corporation

Send 83 Jobs to India in Cost Cutting Program

'The practice of offshoring Australian jobs whilst deriving profit from the Australian community is unfair to local communities, staff and customers,' the FSU said. '[The Corporation] can afford to invest in Australian jobs and skills, and the bank has an obligation to do so.'

Michael Bennet
***The Australian*, 18 October 2013**

Figure 4.99: Media News—Offshore Halted

ANZ Staff Claim Victory as Offshore Move Halted

A concerted campaign by workers to save their jobs has been credited with forcing ANZ to reverse a decision to send nearly 600 call centre positions overseas.

The plan, floated this year, to send the jobs offshore has now been shelved with the bank's decision to consolidate its Melbourne offices at one site, the key finance union claims.

Finance Sector Union spokeswoman Leanne Shingles said the bank's announcement was a victory for ANZ workers, who had enlisted the help of their local communities and politicians to stop the potential job losses.

'It was a concerted effort from the workers at ANZ and they are certainly celebrating their very successful campaign today with the news that 590 jobs are to remain in Australia,' Ms Shingles said.

It was the first time a proposal to send ANZ jobs offshore had been overturned, she said.

'It is a really significant win … We think this is really going to resonate across the finance sector.'

The union said the decision was made after ANZ staff launched a community campaign to save their jobs when a leaked internal document raised the possibility the percentage of staff based in Melbourne would drop from 87 per cent to 42 per cent in 2015.

Glenda Kwek, Ben Schneiders
***The Age*, 9 October 2013**

In summary, during this longitudinal case study of the Corporation, I found that—when implementing global sourcing strategies and optimising offshoring capability—approaches to implementation, the issues being experienced or anticipated, approaches to optimising and overall CSFs change over time and vary in emphasis within different management layers of the organisation. In the final chapter, I will discuss the implications of these findings.

Chapter 5: Conclusion

5.1 Introduction

Chapter 4 presented the results of the data collected during the course of the longitudinal case study undertaken at the Global Banking Corporation. This chapter will draw conclusions about this data, beginning with my reflections on the Corporation in the context of the most recent developments. This will be followed by my five distinctive contributions (one primary and four secondary) to professional practice.

Primary contribution to the improvement of professional practice:

- RQ1—the *Global Services Sourcing Model*

Secondary contributions to the improvement of professional practice:

- RQ2—*Leadership Incongruence*

- RQ3—the *Retained Organisation*

- RQ4—the *Global Services Maturity Model*

- RQ5—*Global Mindset*

5.2 Primary Contribution—The Global Services Sourcing Model

Managers' responses to the question, 'How have you implemented your global sourcing strategy?' enable me to identify 20 themes (see Table 4.2). During the course of the study, I had the opportunity to ask this question several times to the same groups of managers, and discovered that the focus on each of the themes changed over time as the Corporation implemented its global sourcing strategy (see Figure 4.31). For example, the focus on resource augmentation shifted to outcome-based commercials; onsite delivery shifted to offshore delivery; decentralised governance shifted to centralised governance; the use of a single vendor or suppliers shifted to multi-vendor suppliers; and the single-business unit

portfolio perspective shifted to a group-wide—or at least multi-portfolio—perspective. Further, the data showed that, from an initial focus on meeting capacity needs, the strategy focus shifted to cost reduction and, in the later stages, to capability development. In addition, the initial tight vendor selection that was built around formal RFPs shifted to a looser approach later in the study, as the Corporation established a vendor or supplier panel. Finally, as Figure 4.31 shows, in the later stages of the study, internal and external factors such as managing the retained organisation and the external media reaction to the Corporation's global sourcing strategy influenced decisions more than they had earlier.

One explanation for these changes over time might be that this was a logical evolution of the Corporation's sourcing strategy. However, when examining the responses of managers during the course of this study, as presented in Chapter 4, the opposite was occurring in practice—that is, one decision evolved into the next in a relatively chaotic and disruptive manner. Although the Corporation tried to articulate the journey (see Figure 4.13) using what it called the 'nine-box model', there was no real consideration of all the possible permutations or of a global sourcing strategy over a much more extended period.

Reflecting on the management theories and contributions of Dibberns (2004), Gottschalk and Solli-Saether (2006), and Hätönen and Eriksson (2009), as discussed in Chapter 2, I discovered that there was no one particular theory behind global sourcing. However, it could be suggested that at the Corporation initially, RBT was the driver, as the Corporation was seeking to meet capacity yet did not have the resources to meet internal demand. Around the midpoint of the study, the data showed that cost reduction was playing a greater role in decisions, suggesting that TC theory was the key influence. Finally, towards the end of the study, managers' key focus was capability, and aspects of CC theory could be considered the driver.

The literature review in Chapter 2 touches on sourcing decision-making models. Significant contributions to this discussion include De Loof (1995), Yang and Huang (2000), Friedman (2006), Ho and Atkins (2008), King (2008), and Graaf and Mudambi (2009). However, these models are static, in that that they do not explore or illustrate how aspects of an organisation's global sourcing strategy may change over time, as has been the case for the

Corporation. Finally, as discussed in Chapter 3, my justification for the use of the longitudinal case study research methodology was based upon previous researchers' (Beulen, Tiwari & van Heck 2011; Willcocks & Lacity 2012) recommendations for the need for a more in-depth understanding of the impacts of outsourcing and offshoring and how that may change the organisation over time.

As a result of this study, it is my conclusion that practitioners need to have a dynamic sourcing model that brings together holistically the variables that should be considered and factored in when making decisions regarding the implementation of a global sourcing strategy over an extended period. What follows is my attempt to construct such a dynamic sourcing model, beginning with elements across five separate sourcing strategies.

5.2.1   The Five Strategies

Strategy One: Sourcing Equity—Classic 'Make versus Buy'

The first sourcing strategy being considered, *sourcing equity*, is the historic view of sourcing that addresses the make-versus-buy question (Balakrishnan & Cheng 2005). The strategy involves procuring resources required by the firm. Where the firm's own resources are used, the process is generally referred to as 'internal sourcing'; when suppliers external to the firm are used, the process is regarded as 'outsourcing'. Figure 5.1 depicts the sourcing equity strategy decision. On the left-hand side of the scale is the decision to make in-house, and on the right-hand side, the decision to buy externally or to outsource. In between the two can be found various forms of equity models, including joint ventures and partnerships.

Figure 5.1: Sourcing Equity Strategy
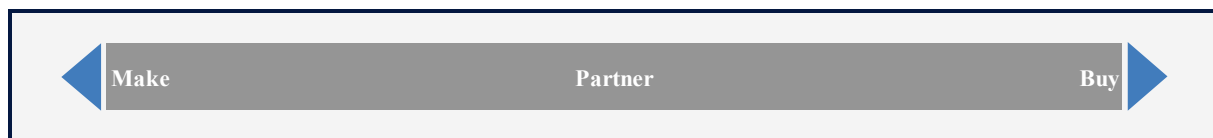
Strategy Two: Sourcing Location

The second strategy, *sourcing location*, is concerned with where a firm receives the required services from. Similar to the previous strategy, sourcing location can be explained as a scale (see Figure 5.2). In this case, on the left-hand side, the services are performed onsite or in-house. The right-hand side refers to offshore. In between sit the industry terms 'offsite', 'onshore', 'nearshore' and 'farshore', as well as terms used to describe hybrid sourcing location strategies, including 'rightshore' and 'bestshore'.

Figure 5.2: Sourcing Location Strategy

Onshore   Onshore & Offshore   Offshore
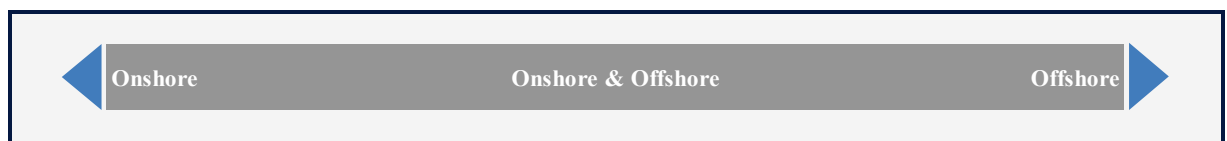
Strategy Three: Sourcing Governance

The strategy of *sourcing governance* is the third sourcing strategy and refers to how the services are managed (governed). In some firms, a central department is established to manage sourcing relationships; this can be described as a 'centralised' governance model. In others, the business area owns the relationship; this model can be described as 'decentralised' or autonomous. Again, hybrid variations—as depicted in Figure 5.3—can be identified; these are sometimes described as 'federated' forms of governance.

Figure 5.3: Sourcing Governance Strategy

Centralised   Hybrid   Decentralised
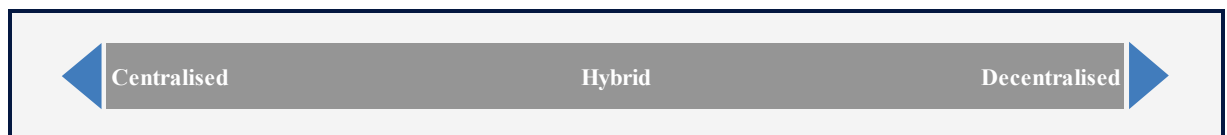
Strategy Four: Sourcing Portfolio Demand Management

The fourth sourcing strategy is *portfolio demand management* and, in this context, refers to the origin of the 'demand' for services within the firm, and how these services are bundled together based on common criteria. For example, customer service touching services, back-

office administration, corporate finance, HR and payroll, and technology and product development are all services that may be bundled into discrete portfolios. In the technology functions, the 'design', 'build' and 'run' functions could be bundled separately and differing sourcing strategies applied—for example, the 'design' and 'build' functions could be retained in-house while the 'run' phase could be outsourced. Figure 5.4 depicts this concept as a linear scale, along which there can be iterations between the two extremes of single versus bundled portfolio.

Figure 5.4: Sourcing Portfolio Management (Demand)

◄ Single Portfolio   Bundled Portfolio ►

Strategy Five: Sourcing Vendor Supply Management

The final strategy of my model, *vendor supply management*, considers the supply side of sourcing with regard to leveraging single versus multi-suppliers. This is depicted in Figure 5.5 as a linear scale, with single supply at the opposing end to multiple supply, and iterations in between. From an internal supply view of the firm, this model could be represented by the establishment of shared service environments providing a single point of services across the whole firm, or multi-shared services based along geographic lines; however, in both cases, all services are retained within the firm.

Figure 5.5: Sourcing Vendor Management (Supply)

◄ Single Supply   Multiple Supply ►

5.2.2 Global Services Sourcing Frameworks

The next phase of my model is to establish two frameworks that incorporate the five sourcing strategies. The frameworks are the *Engagement Framework* and the *Delivery Framework*, as described in the next section.

Engagement Framework

The *engagement framework* brings together the first three sourcing strategies of equity, location and governance into a three-dimensional picture, as depicted in Figure 5.6. The picture illustrates that, depending upon the individual decisions made for each strategy, the engagement 'outcome' can be mapped. For example, a firm may decide on an equity strategy of buying (outsourcing). The same firm may conclude that a combination of onsite and offshore delivery is the most appropriate for the location strategy, before deciding on the governance strategy, which might end up being centralised. At this stage, there is no right, wrong or optimised solution, but the three strategy outcomes can be represented by the framework.

Figure 5.6: Global Services Sourcing Engagement Framework
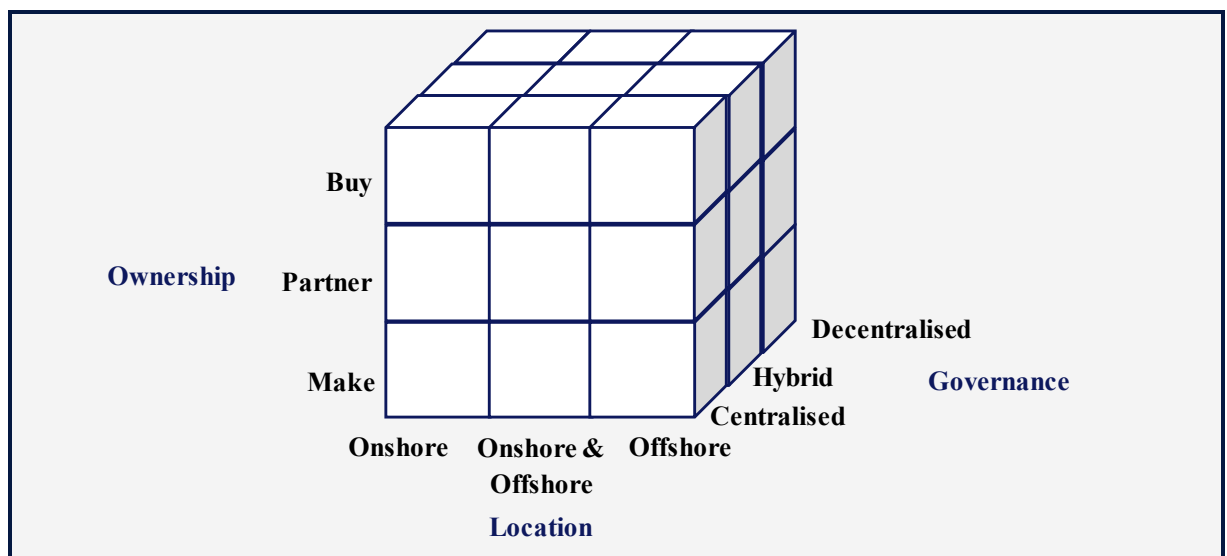
Delivery Framework

The *delivery framework* (Figure 5.7) brings together the final two sourcing strategies, demand and supply, based upon the previous discussion of single versus multi-portfolios and/or suppliers. Similar to the engagement framework, the delivery framework illustrates the outcomes of individual decisions in a two-by-two matrix. On its own, the delivery framework has limited value. However, when integrated with the engagement framework to form my *Global Services Sourcing Model*, its real value is obtained.

Figure 5.7: Global Services Sourcing Delivery Framework
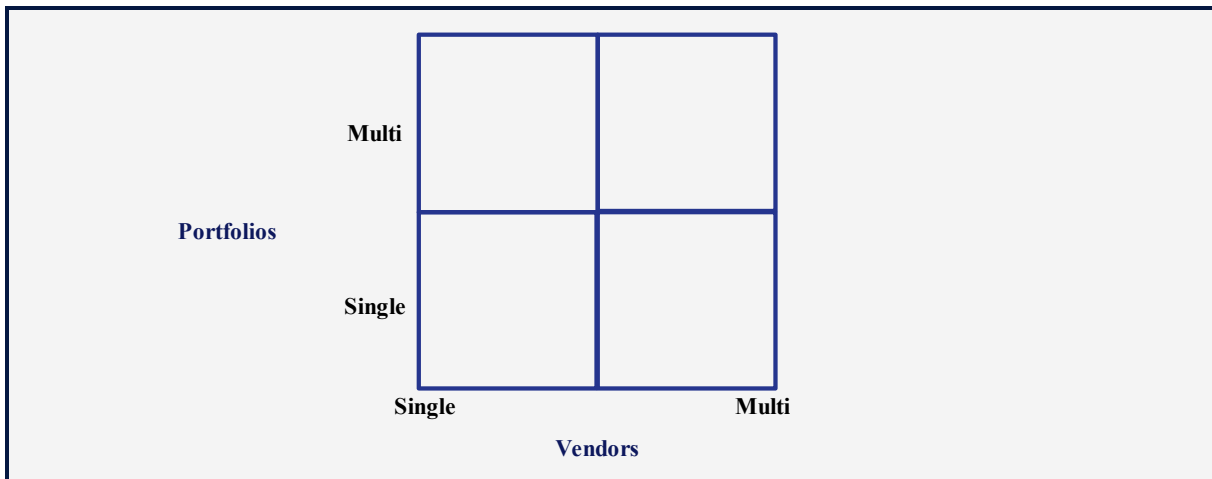
5.2.3   Global Services Sourcing Model

The *Global Services Sourcing Model* brings together, in the one illustration, the two sourcing frameworks (which include all the five sourcing strategies). My intention is to synthesise the complexity of global services sourcing into individual components (strategies) and depict how iterations can produce a variety of outcomes. In Figure 5.8, the small cubes illustrate potential individual outcomes (the results of the decisions of each of the five strategies). In the same figure, the shaded cubes illustrate hypothetical outcomes. If this figure were a representation of an individual firm, we could easily recognise that the firm has implemented various sourcing models, as noted across the quadrants I–IV.

Figure 5.8: Global Services Sourcing Model
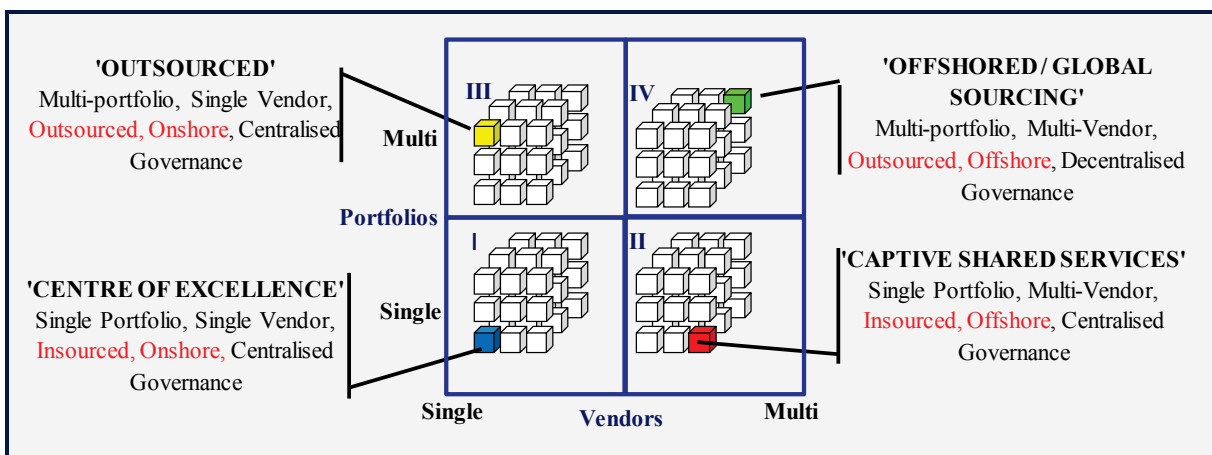
The importance or usefulness of such a conceptual model for practitioners implementing global sourcing strategies is to place greater focus or visibility on possible variables, resulting in hypothesis or scenario testing before any real commitments are made, and therefore leading to potentially better outcomes. Finally, the model will ensure that all stakeholders are engaged and clearly understand the organisation's strategic sourcing direction.

5.2.4   Global Services Sourcing Model and the Corporation

To see how the Global Services Sourcing Model may work in practice, we can retrospectively map the Corporation's sourcing strategy implementation across six numbered phases of the last several years (see Figure 5.9).

Although the Corporation constructed what it called the 'nine-box model', incorporating the elements of ownership strategy with those of location strategy (see Figure 4.13), had the additional elements (centralised v decentralised governance, single v multi-vendor strategy, single v multi-portfolio) been considered, then implementation of the global sourcing strategy may have been greatly enhanced. If individuals were asked pointed questions and encouraged to visualise and think through possible scenarios that may arise, obstacles would be less likely to arise and risks would be mitigated. In the Corporation's situation, implementation was chaotic and reactive to events that were never anticipated but, with hindsight, were obvious. One of the more compelling examples was the reaction by the external media as they became aware of the Corporation's offshoring intentions—see quotation following:

I cannot believe we missed this. Of course, the Unions would be up in arms about what we are doing—that is their job. Why didn't we have a plan to communicate proactively and another plan as a contingency? It just seems either no one gets it, or worse, no one takes accountability when hell breaks out.

Senior Manager at beginning of study

Figure 5.9: The Corporation's Global Services Sourcing Model

Key To Phased Implementation at the Corporation:

① Pre-global Sourcing Strategy (2008)

② Outsouring (2009)

③ Centralise Governance & Multi-vendors (2010)

④ Muli Portfolios & Offshore (2011)

⑤ Managed Service, Reduce Vendors, Unbundle Portfolios (2012)

⑥ Reduce Vendors, Unbundle Portfolios (2013)
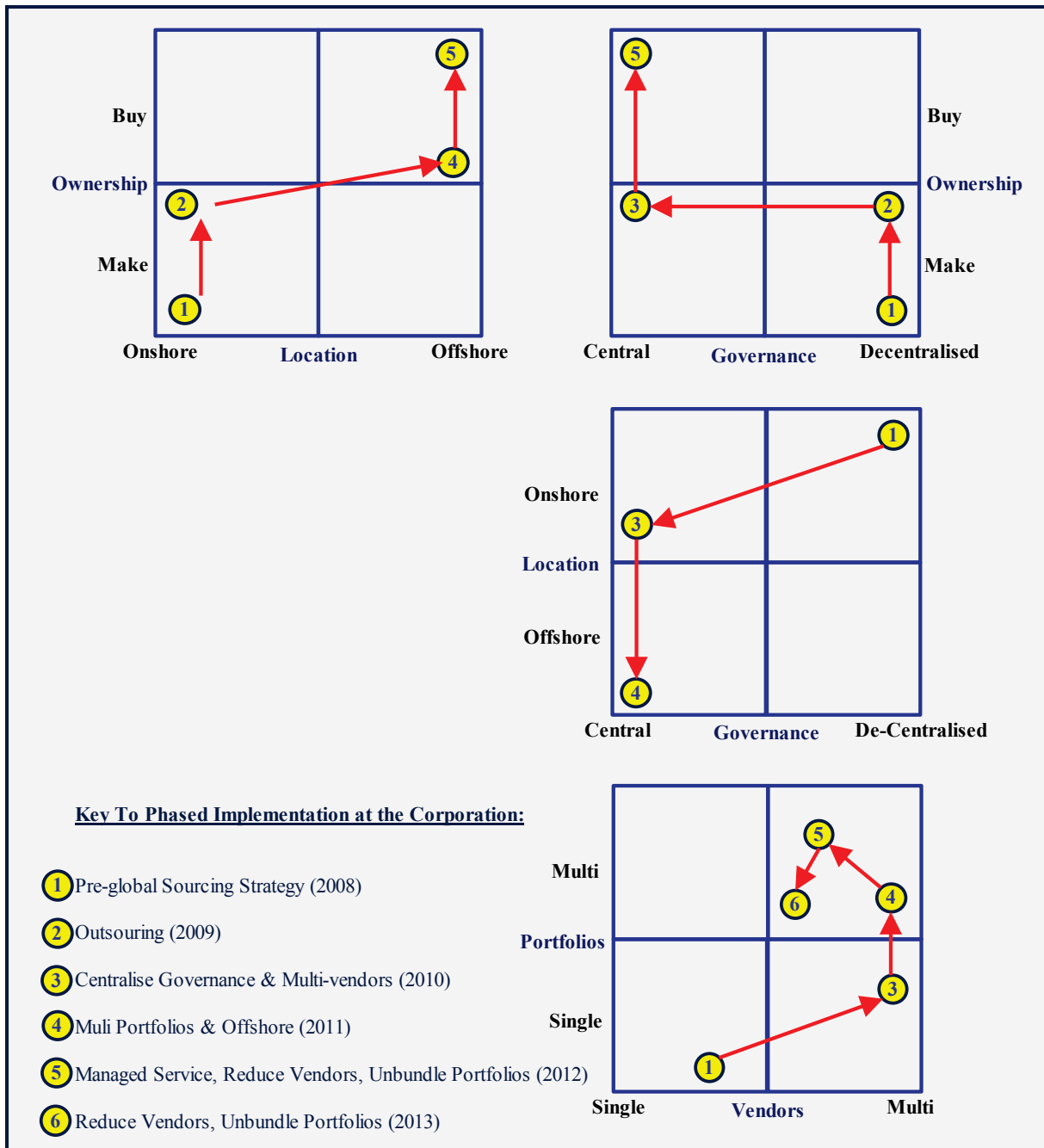
Although the Global Services Sourcing Model and component frameworks may initially appear complex, it will be of significant benefit and provide a major contribution to practice. Having seen the model evolve over the course of the longitudinal study as managers have grappled with real problems, I believe that it will provide future practitioners with a set of tools to either avoid or minimise the same challenges. In the next section, I will present a further four insights that, although relatively minor, nevertheless provide significant value for practitioners and industry alike.

5.3   Secondary Contributions

In addition to the major contribution of this study to the improvement of professional practice (the *Global Services Sourcing Model*), a further four contributions have been identified. The first of these secondary contributions is *Leadership Incongruence*.

5.3.1   *Leadership Incongruence*

For firms embarking on a global sourcing strategy for the first time, it is likely that the leadership capabilities required for successful implementation may be lacking. This may be due to inexperience or because the executive leadership did not satisfactorily explain to the lower levels of management why such a strategy was being implemented. In this situation, mixed messages can become widespread, resulting in the slow uptake of new practices or, in some cases, a complete refusal to do so. As the data presented in Chapter 4 shows, the managers at the Corporation experienced numerous issues. However, on top of these issues, I observed a cynicism among the managers that was directed at the senior leaders, particularly after an external interview given by the CIO, giving the reason for going offshore as a skills shortage. The reaction to this comment and online public media blogs is summed up by the following comment:

> *How can [the CIO] go out publically and say it is a skills shortage when he is swapping out local contractors and making experienced staff redundant after they have trained up Indians to do the work in Hyderabad? Why can't he just be upfront and honest with us?*
>
> **Middle Manager**

This cynicism was exacerbated by an internal communications from senior executives at the Corporation (see Figure 5.10). Just three weeks after this internal memo, another memo was distributed more broadly (see Figure 5.11) to provide a context and rationale for the Corporation's global sourcing strategy. However, the reaction by managers and staff to these internal communications was either indifference or a belief that they were 'too little too late'.

Figure 5.10: Internal Memo—Best Sourcing Messaging

Internal Memo—Best Sourcing Messaging

As part of developing our clear simple messaging for our best-sourcing strategy, [the CEO] would like to ensure that the words 'outsourcing and offshoring' be taken totally out of any communications. We should use words along the lines of 'best-sourcing', 'partnering' etc. instead. Please cleanse all of our material to ensure we remove these words.

Senior Executive
Internal Memo, 16 February 2012

Source: The Corporation (2013)

Laying off staff and losing jobs to offshore nations are extremely sensitive topics. Although sound arguments could be provided for both sides of the onshore/offshore argument (i.e., protecting local jobs versus allowing global market forces to dictate), this is not the purpose of this study. The significance of the study is that it highlights the need for congruence in leadership. In this context, congruence refers to actual intent, in contrast to what is communicated or left to individuals/groups to interpret. On many occasions in the Corporation, the executive manager's 'intent' was not clear, or it was misinterpreted by the broader management of the Corporation, resulting in 'incongruence' of leadership being perceived and observed. As a result, senior and middle managers were often placed in situations where they had to deliver messages to their teams, knowing full well that the talking points prepared by internal communications teams were contradicting reality and failing to address the real issues. This had a flow-on effect: not only were senior managers not trusting of the executive, middle managers were not convinced of the senior managers and team members could no longer count on transparency from the middle managers. Compounding this was the fact that many of the management team were under non-disclosure agreements, leading to further distrust.

As mentioned earlier, the subject of offshoring is extremely sensitive. Judging by how it is reported externally, still may not necessarily obtain agreement by individuals to the proposition of transferring work to other geographic jurisdictions. However, if leaders are upfront from the beginning, by providing clarity and rationale for the decisions being made, the transformative programme—which ultimately relies on the breadth and depth of an

organisation's ecosystem—is much more likely to be successful. Further, to avoid these potentially contentious situations, this research suggests that it is an imperative to gain alignment across all layers of management to inform, educate and, where possible, collaborate in order to achieve leadership buy-in to the overall strategy. This may mean extensive site visits, case studies and training prior to the commencement of the global sourcing strategy implementation. Attention to these 'softer' themes of the McKinsey 7S framework (see Figure 3.4) earlier in the process would contribute to alleviating this distrust of management and/or perception of leadership incongruence.

Figure 5.11: Internal Memo—Operating Model Change

Internal Memo—Operating Model Change

Until now, we have managed most of our various technology applications in-house. In order to meet demand when development occurs on our applications, we typically grow our employee base and supplement with staff from our global supplier firms as well as local contractors. We believe this model is no longer sustainable. We cannot meet the demand for change in the time required, and finding enough of the right skills is very difficult in the local market. We are therefore moving to a model where we partner with our global strategic suppliers, asking them to manage a number of our applications to outcomes that we specify. This involves a handover of work, and during that handover, we ensure that processes are once and for all rigorously documented (not the case now). It is important to note that the end-to-end accountabilities for management of our applications will always remain with [the Corporation's] employees.

Our suppliers, who we ensure have deep pools of skills in the area, then manage the work, including any change and development requirements for the particular applications they are accountable for. Some of the work they do is done in Australia and some is done offshore (hence the term 'offshoring').

I recognise that change is difficult. It is also essential—an inevitable consequence of the global and local trends and challenges we are dealing with. Your bank is a very strong bank. We are determined that it remains strong and relevant for the many years ahead.

Senior Executive
Internal Memo, 9 March 2012

Source: The Corporation (2013)

5.3.2   *The Retained Organisation*

In Chapter 5, the results from RQ3 (*What are the types of issues managers expect to experience in the future with their firm's offshoring capabilities and are they taking action to mitigate these potential issues?*) showed that numerous issues were identified and that they varied over time. Of particular interest was that these issues shifted from having an external focus—that is, issues with the supplier, transitioning work and of staff negatively affected by these changes—to having an internal focus—that is, issues with the retained organisation and what was required of it over the medium to longer term. As a participant observer, at no time during the early stages of implementation did I observe any effort by the Corporation to fully understand what a global sourcing strategy meant and how it would affect the post-transition organisation. Only in the later stages of the study did Corporation managers begin to critically analyse the sorts of future skills and operating model required to operate effectively; by this time, many staff with solid and respected credentials had left the organisation. The following quotation by one of the study research participants is indicative of the situation:

> *Where are the traditional career paths for graduates now and what sort of promotion expectations can my leaders have? With limited opportunities for career progression, and considering salaries and bonuses are average despite record profits, the only place to go now is to find another job in another company—is that what the executives want?*
>
> **Middle Manager**

In Chapter 2, various frameworks and models were discussed that touch on aspects of this post-outsourcing HR challenge. In particular, Willcocks and Feeny (2006) and their revised core capabilities framework focused on IT outsourcing and listed nine key capabilities, of which HR is one. Lacity and Willcocks (2012) expanded the core capabilities framework to a 12-capability framework that includes HR management. It is apparent that, from an academic point of view, this discussion is not new. The question is why did the Corporation not fully appreciate the softer elements of change and human resources, as though it were a blind spot? After all, as illustrated in Figure 3.1, a significant proportion of the organisation was transforming.

Perhaps the blind spot occurred because, in many ways, the Corporation was being driven by a business case centred on financial imperatives. There was little time for envisioning the future—the business had to run while it was being transformed. As a result, an unconscious trade-off contributed to a disruptive environment that later shone light on the deficiencies of the newly implemented operating model. My study does not provide a single answer to this retained organisation issue; the answer is likely to be situational. However, I recommend that a key part of implementing a global services strategy must be to understand the likely impacts on the future retained organisation and to mitigate these impacts be creating the new organisation. Further, an important aspect of this 'creating' must be to involve as many people across the breadth and depth of the organisation as possible.

5.3.3   *The Global Services Maturity Model*

In Chapter 2, the concept of capability maturity was introduced. Previous authors have identified core capabilities for outsourcing and also the need to mature these capabilities over time, to ensure that the outsourced engagement is fully optimised. Various frameworks were discussed in measuring 'maturity', including those summarised in Table 2.3. Chapter 4 described how the data collected during the course of the study showed that Corporation managers focused on improving their respective outsourcing engagements. However, the study also showed that no one approach was taken and often the approach chosen was a reaction to a particular event or issue that required corrective action (see Figure 4.66). In addition, the interviews with Corporation managers identified a level of frustration that no funds were set aside post-transition to further improve, uplift or mature processes and capabilities. For example, *collaboration tools* such as video teleconferencing that are frequently cited as useful infrastructure for improving client–supplier interactions, and *training* on cultural awareness and/or commercial vendor management, was not adequately budgeted for in the original business case and therefore was either unavailable or required funding from sources outside of the original business case.

When managers implement a global sourcing strategy and optimise their firm's offshoring capabilities, it is typical that the business case drives the achievement of the benefits, which

are generally focused on the financial elements over a shorter period rather than on maturity, which requires an ongoing focus and may also require ongoing additional investments. In summary, the business case is seldom linked to the benefits of driving ongoing maturity and, with no resources being allocated once transition to a global sourcing strategy has been completed, it is possible that the new global operating model will be sub-optimised, as demonstrated by the managers at the Corporation.

A further consideration is that managers often look to the contract in order to define the expectations and obligations between the client firm and the service provider firm. However it is not practical to define every activity required, particularly when it comes to driving maturity. While also a significant oversight during the selection and due diligence phase by the client firm could be that the focus was more on the 'what' and less on the 'how'. In other words, attention during due diligence by client firms must be to understand how service provider firms will support the client firm in maturing and transforming its operations and not just on how many specialist resources that the service provider firm may have.

To lessen the potential impact of this scenario on firms implementing global sourcing strategies, I have produced the *Global Services Maturity Model* (see Figure 5.12), in which a more holistic or 'end-to-end' view of the sourcing lifecycle and capability maturity is incorporated into a single framework. This will assist managers to ensure that they consider the ongoing needs of their 'future state' operations at the same time as they are preparing initial business cases. The *Global Services Maturity Model* is based on six components: 1) sourcing lifecycle, 2) sourcing maturity, 3) the business case, 4) the contract, 5) supplier ability, 6) client capability (see Figure 5.12).

Figure 5.12: Global Services Maturity Model Overview
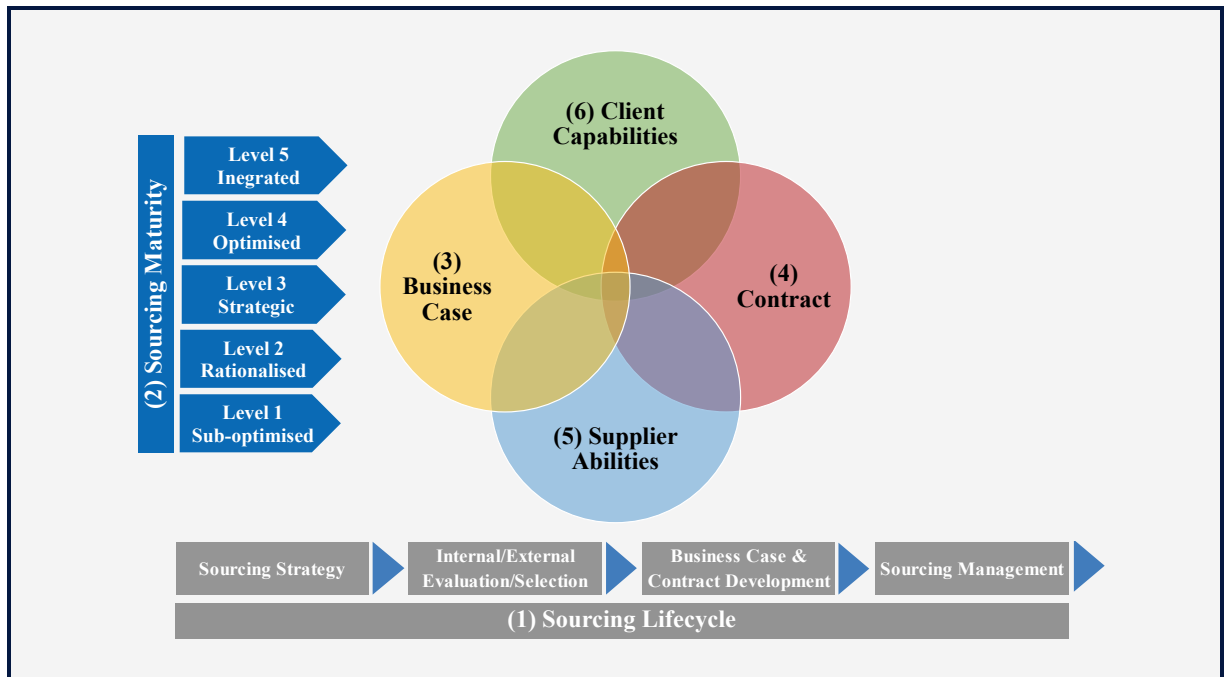
Source: Author's construction with inputs from Ambrose & Cohen (2010); Gartner (2012)

1) Sourcing Lifecycle

The horizontal axis representing the sourcing lifecycle is the component of the model that frames the sourcing activity over time. It highlights that there are different stages and therefore different activities required from the beginning of a sourcing engagement to one that is coming to the end of its agreed contractual period - in some instances ten years or more. Here I have drawn on Gartner for a simplistic version of the lifecycle across four phases (Gartner 2012) but this can easily be expanded with further sub categories. The key point of this is to recognise that differing demands will be placed on the client firm over time during the course of a sourcing engagement of which will require equally differing capabilities to be drawn upon by the client firm in response.

2) Sourcing Maturity

The vertical axis is the component of the model that introduces the concept of maturity and recognises there are also differing levels of maturity that can defined i.e. from low (Level 1) to high (Level 5). The assumption of this is that firms (client or supplier) should be striving

for a higher level of maturity in their sourcing engagements in order to achieve optimal results. Here I have drawn on Ambrose & Cohen (2010), however there are several frameworks, some of which I referenced in Chapter 2.

3) The Business Case

The business case component of the model is where the previous two components (sourcing lifecycle and sourcing maturity) are integrated. It is also here where costs and benefits are identified and future funding needs allocated by the client firm. By taking a broader and holistic perspective of the investment needs over a more extended period of time, will result in greater assurance that higher levels of maturity will be achieved over time by the client firm due to the availability of resources (i.e. funding dollars).

4) The Contract

During my interviews and observations at the Corporation, I became aware that managers new to outsourcing tended to rely more on the contract to manage expectations with each other, after-all it was black, white and tangible. However as time progressed in the sourcing relationship, there was less of a need by these managers to now refer to the contract. This insight only became apparent to me when one manager at the Corporation asked how you manage the white space outside of the contract. It was at this point I then realised how important the contract was in setting up the longer term sourcing relationship and although the contract alone will not drive maturity, it will assist by hard wiring metrics and establishing mutual expectations at the early stages of the sourcing relationship and beyond.

5) Supplier Ability

Willcocks, Cullen & Craig (2011 pp. 78-79) identify three competencies (delivery, relationship and transformation competencies) and twelve capabilities that supplier organisations need to develop to ensure effective sourcing. From a client firm perspective, it is therefore important to assess (will tend to be largely qualitative initially, though still methodical), these supplier capabilities and competencies throughout the sourcing lifecycle

to ensure an optimal sourcing relationship is being achieved at each step in the lifecycle and at each stage in the maturity journey. For example, at the evaluation phase the client can request case studies from the prospective supplier that are relevant to their own organisation. They can also conduct site visits to other clients to obtain clarity of implementation and transformation expectations with a focus on these competencies and capabilities. The client firm can also test scenarios with the prospective supplier to obtain clear insights as to how the supplier would approach the client to ensure implementation and uplift of the competencies and capabilities. At the contracting phase the client can focus more in the transformational capabilities of the supplier firm including seeking clarity for the requirements for maturity uplift against external frameworks and standards. Finally at the sourcing management or service delivery phase the client can introduce metrics and key performance indicators (contractual and non-contractual), use balanced score cards, implement governance structures across all management levels, instigate health assessments, surveys, benchmarking and ongoing reviews (reviews against contractual and non-contractual metrics, cross account and cross multi-vendor panel), and conduct third party audits for the compliance against controls.

6) Client Capability

The final component of the model is client capability. This is where the client firm looks within itself to appraise its own capability and competency to drive an effective sourcing relationship and be able to achieve a higher level of maturity over time. Where there are gaps in current versus required capabilities or competencies, the client firm purposely takes action to address these. Where there are financial investments required, funding has been obtained in order to move forward.

In its simplest form, the *Global Services Maturity Model* transforms the financial business case modelling from a 'lift and shift' paradigm—where, between the contract development phase and the sourcing management phase (as per Figure 5.13), consideration of ongoing maturity uplift is assumed but not planned for—to a 'lift, shift and uplift' paradigm—where a series of stage gates and funding blocks (i.e., across Levels 1 to 5 maturity) are incorporated over an extended period. Of course, this may affect the business case in that

the financial returns will no longer be as attractive. However, it is my view that this approach will provide a more holistic and representative cost/benefit to the outsourcing proposition while also encouraging managers to uplift the capability maturity of their operations using external capability maturity frameworks such the Carnegie Mellon eSCM (Hefley & Loesche 2010).

Figure 5.13: Global Services Maturity Model Detail
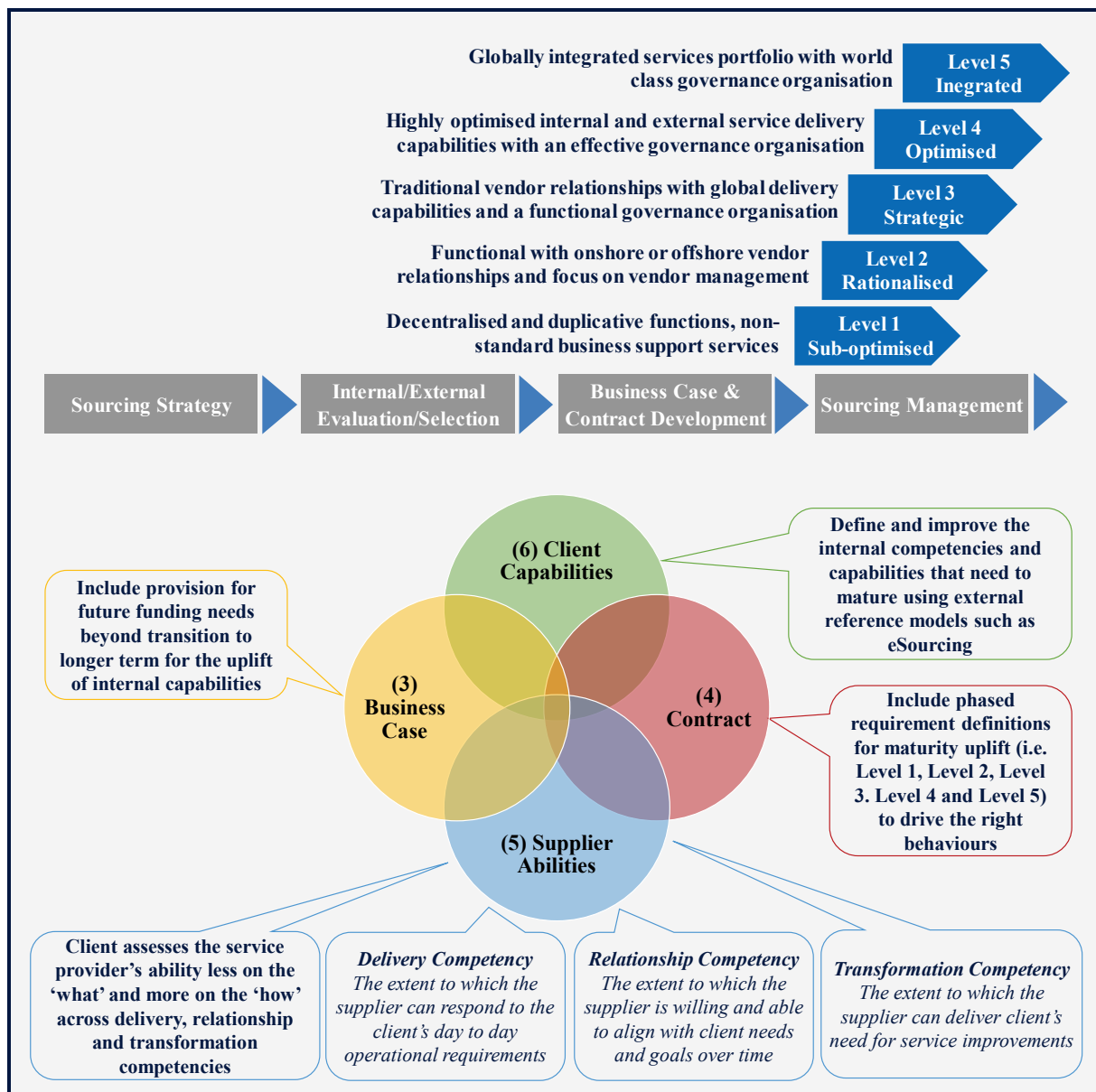
Source: Author's construction with inputs from Ambrose & Cohen (2010); Gartner (2012); Willcocks, Cullen & Craig (2011 pp. 78-79

5.3.4 Global Mindset

The final and unexpected insight from this longitudinal case study is the importance of organisations developing a 'global mindset' when implementing global sourcing strategies. This is not a new concept and significant literature has been devoted to it. Earlier authors such as Perlmutter (1969) stated that geocentric orientation is a characteristic of managers who understand the significance of nationality and cultural differences in determining who is competent. More recently, Bartlett and Ghoshal (1989) discussed transnational mentality as a set of competencies required for managers working in a global environment. Hannertz (1996) introduced the term 'cosmopolitan', defining it as a willingness by managers to engage across differing cultural environments. Beechler and Woodward (2009) suggested that a global mindset helps managers to see the world from multiple perspectives, while Javidan, Teagarden and Bowen (2010) viewed global mindset as made up of three components: intellectual capital, psychological capital and social capital. In Khilji, Davis and Cseh's (2010) paper titled 'Building competitive advantage in a global environment: leadership and the mindset', the authors conducted a review of the literature pertaining to global mindset, focusing on the increasing integration of global leadership and global mindset (an area of interest for scholars and practitioners alike).

At the Corporation, conducting business globally is not new, and nor is the practice of employing people who have had experience working from other countries or within multinational organisations. However, despite this cultural exposure, interviews, surveys and observations during the course of the longitudinal case study highlighted the fact that a degree of inward focus towards the country of origin existed. Therefore, I welcome the increasing interest by scholars, as suggested by Khilji, Davis and Cseh (2010). However, if the personal reflections of the Corporation managers regarding CSFs is anything to go by, it will be vital that future practitioners consider this prior to implementing global sourcing strategies.

5.4 Post-study Reflections—The Global Banking Corporation

As this longitudinal study draws to a close and the implementation of the Corporation's global sourcing strategy nears completion, it is appropriate that I provide a final commentary on, and insights into, the status of the Corporation's current efforts in optimising its offshoring capabilities. To do this, I will return to a study by Rottman and Lacity (2006) that defined 29 practices when offshoring.

Against each of the practices I have provided my own rating of the Corporation, based upon my time as participant observer. 'Yes' indicates that the practice was observed, 'no' that it was not observed, and 'some' that the practice was observed to a small extent (see Table 5.1). From my observations, only six of the 29 Rottman and Lacity (2006) practices were implemented, with a further seven being used to a much smaller extent. This means that a further 16 practices, defined by Rottman and Lacity as 'leading practices' in contributing towards optimising a firm's offshoring capabilities, were not considered and, most likely, managers at the Corporation were not even aware of their importance or potential.

This brings me to an interesting insight into the inability of firms to leverage both internal and external knowledge to aid in the formulation and implementation of strategy. Rottman and Lacity's (2006) study was publically available, as is the case with all the papers referenced in this study (with the exception of the Corporation's artefacts). From my recollections, the strategy design and execution at the Corporation was left to a small group of managers who were influential but relatively inexperienced when it came to global sourcing strategy. As a result, the thought leadership that was leveraged came from a smaller talent pool than may have been optimal.

Looking beyond this longitudinal study, it is also useful to consider whether the nine pressures facing global sourcing identified by Willcocks and Lacity (2012) and discussed in Chapter 2 will have any bearing on the Corporation in the near future, as it continues to optimise its offshoring capabilities.

Table 5.1: Offshoring IT Work—29 Practices

Sourcing challenge	Practices to overcome challenge	Equally important for both domestic and offshore	More important for offshore	Unique to offshore	The Corporation's rating by the author of this study
How can we develop and implement a global sourcing portfolio?	Escalate the strategic importance of new sourcing options after conquering the learning curve	X			No
	Select an offshore sourcing destination based on business objectives			X	No
	Select an offshore sourcing model that balances costs and risks		X		No
	Create a centralised programme management office to consolidate management	X			Yes
	Hire an intermediary consulting firm to serve as a broker and guide		X		No
	Diversify the supplier portfolio to minimise risk and maximise competition	X			Yes
How can we mitigate risks?	Use pilot projects to mitigate business risks	X			No
	Give customers a choice of sourcing location to mitigate business risks			X	No
	Hire a legal expert to mitigate legal risks		X		Yes
	Unitise projects into segments to protect intellectual property		X		Some
	Openly communicate the sourcing strategy to all stakeholders to mitigate political risks		X		No
	Use secure information links or redundant lines to mitigate infrastructure links		X		Yes
	Use fixed-priced contracts to mitigate workforce risks		X		No
How can we effectively work with suppliers?	Design effective organisational interfaces		X		Yes
	Elevate your own organisation's CMM certification to close the process gap between you and your supplier			X	No
	Bring in a CMM expert with no domain expertise to flush out ambiguities in requirements			X	No
	Negotiate 'flexible CMM'			X	No
	Tactfully cross-examine, or replace the supplier's, employees to overcome cultural communication barriers		X		Some
	Require supplier to submit daily status reports			X	Yes
	Let the project team members meet face-to-face to foster camaraderie		X		Some
	Consider innovative techniques, such as real-time dashboards, to improve workflow verification, synchronisation and management		X		No
	Manage bottlenecks to relieve the substantial time-zone differences			X	Some
How can we ensure cost savings while protecting quality?	Consider both transaction and production costs to realistically calculate overall savings		X		No
	Size projects large enough to receive total cost savings		X		No
	Establish the ideal in-house/onsite/offshore ratio only after the relationship has stabilised			X	No
	Give offshore suppliers domain-specific training to protect quality and lower development costs		X		Some
	Overlap onshore presence to facilitate supplier-to-supplier knowledge transfer			X	Some
	Develop meaningful career paths for subject-matter experts, project managers, governance experts and technical experts to help ensure quality	X			No
	Create balanced scorecard metrics	X			Some

Source: Adapted from Rottman & Lacity (2006)

In summary, the nine pressures facing global sourcing identified by Willcocks and Lacity (2012) are:

- the India factor

- the multi-tower trend

- multi-sourcing and partnering

- multiple alternative locations

- cost plus innovations—rising demand

- unending search for new skills and better labour models at attractive prices

- more mature, more demanding clients

- clients developing global sourcing strategies

- large provider location strategy

All of these nine pressures are currently influencing either directly or indirectly the Corporation's future direction in terms of its global sourcing strategy. However, the multi-tower trend is having a more sizeable impact today. The multi-tower trend is where a service provider may take over both business and technology processes of a specific domain within a client firm. For banking clients, this could be mortgage processes and technology or credit card processes and technology. The advantage is that this allows the service provider greater opportunity to transform the client's domain. This was the strategy at the Corporation with one particular supplier; however, that supplier has recently made a SD within their own firm to divest their BPO business from their current ITO and have it acquired by another company. From the Corporation's perspective, the original reason they chose that particular service provider is no longer valid. As a result, the Corporation has assembled an internal team to evaluate options and strategies in response to their service provider's recent decision to divest. This goes to demonstrate once again that no matter how robust a strategy may seem, external events occur that necessitate new directions and the formulation of new strategies.

The implementation of global sourcing strategies remains an activity about which financial services organisations have difficulty communicating openly and transparently to the

marketplace. In Australia, the four major banks (Australia and New Zealand Banking Group Limited/ANZ, Commonwealth Bank of Australia/CBA, National Australia Bank/NAB and Westpac Banking Corporation/WBC) are considered the 'four pillars' by the government. All are listed in the global top 50 banks in the world today (Accuity 2013). Their combined assets would place this new entity at the top of the list as the world's largest bank. However, when one reviews the most recent media releases and financial results for each of these banks' strategies and performances, there is no mention of a global sourcing strategy (see Figures 5.14–5.17). Meanwhile, employee union organisations and other independent media make it public (see Figure 4.85) that the banks are engaged in some form of global sourcing strategy and offshoring.

Figure 5.14: ANZ Strategy 2013

Source: ANZ (2013)

Figure 5.15: CBA Strategy 2013
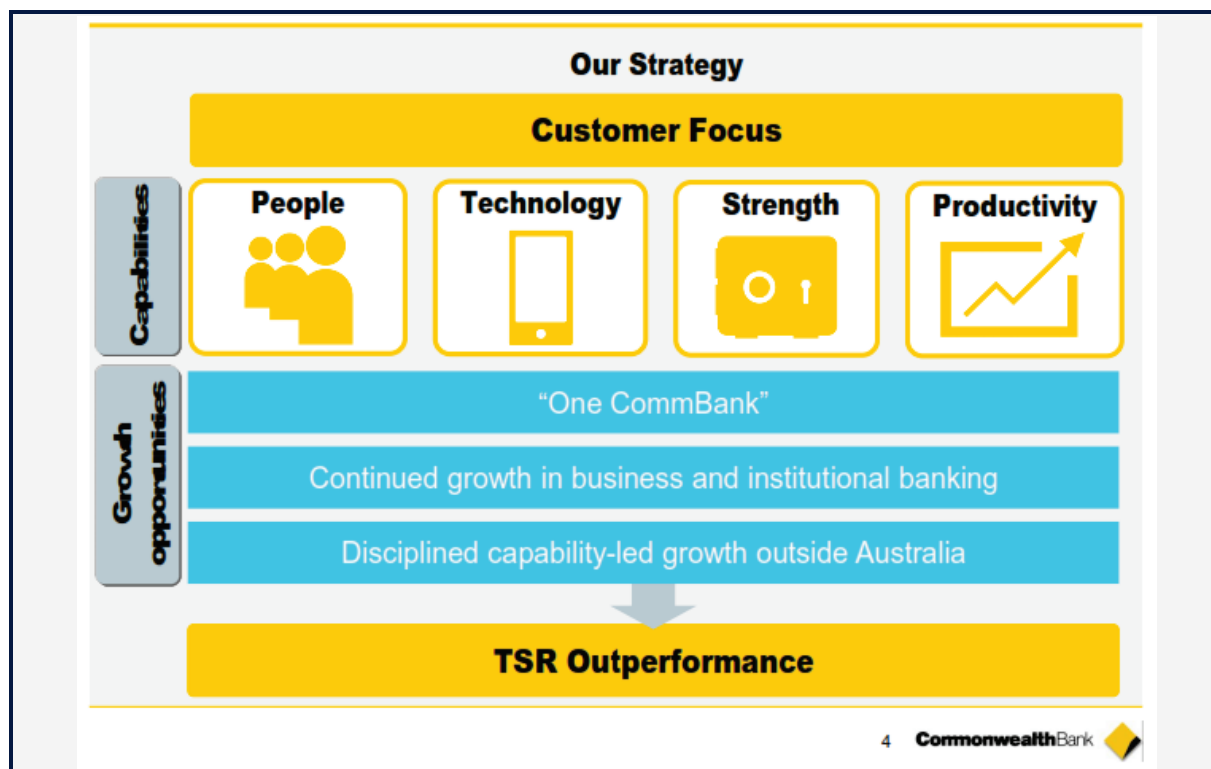
Source: CBA (2013)

Figure 5.16: NAB Strategy 2013
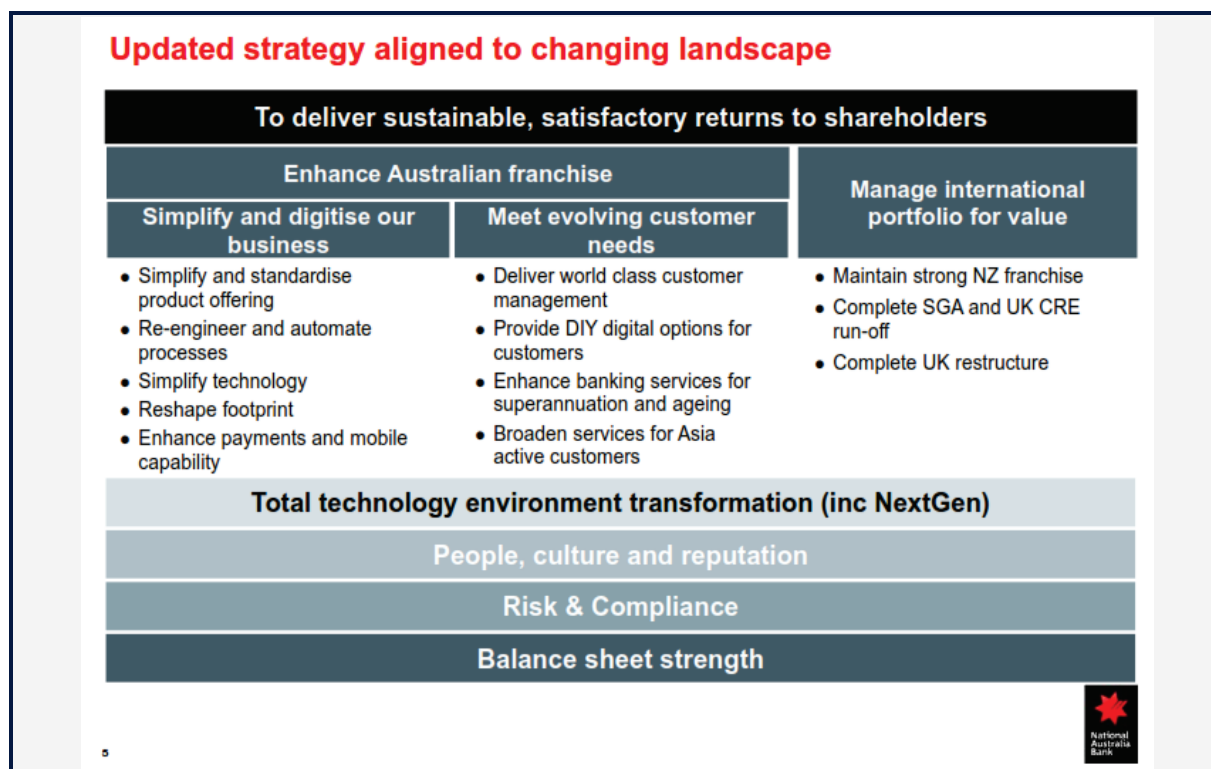
Source: NAB (2013)

Figure 5.17: WBC Strategy 2013
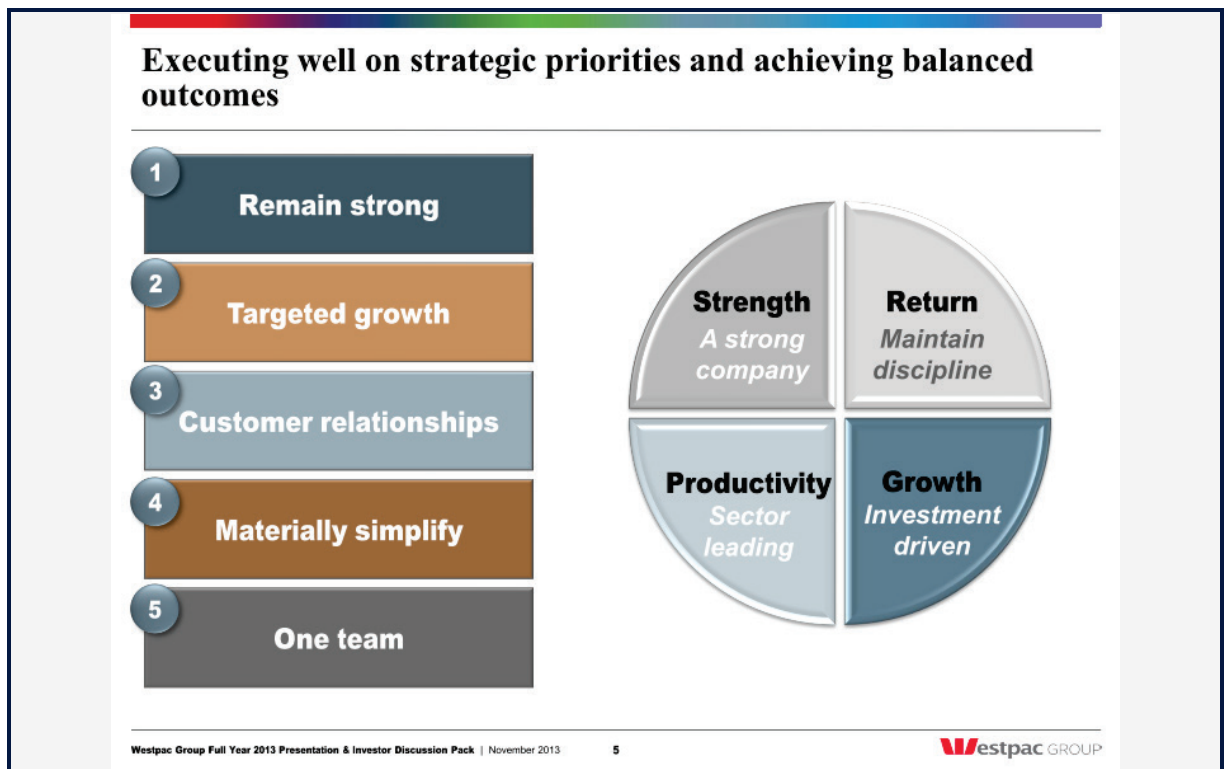
Source: WBC (2013)

We could add a potential additional pressure to Willcocks and Lacity's (2012) nine pressures—the pressure from the communities in which these institutions conduct business and their perception of offshoring as an appropriate activity in which their bank should be engaging. With various studies looking into how many jobs could feasibly be offshored, the figure of 25 per cent is often reported for service industries (Blinder 2009). For financial services professionals working at any of the major four banks in Australia that in 2013 employed over 140,000 (sourced from ANZ, CBA, NAB and Westpac 2013 annual reports) people, this could result from 15,000 to more than 30,000 jobs being transitioned offshore. This is certainly food for thought, while recognising the potential of these external factors that may influence the implementation of a global sourcing strategy if the intentions and activities of the banks were more transparent. Based on growing media coverage, as Figure 5.18 suggests, greater transparency is progressively occurring.

Figure 5.18: Media News—Big Four Banks' Profits

Big Four: Jobs Go as Profits Soar

Profits at Australia's largest banks may have swelled to a record $27.4 billion this year, but staff numbers at three of the big four are heading in the other direction.

Westpac, NAB and ANZ have cut more than 1900 full-time jobs between them in the past year, taking employee numbers at the big four to 170,200, figures from the banks' results show.

The cuts have been driven by a push to lift productivity and cut costs in response to soft revenue growth, including moves by Westpac, NAB and ANZ to replace some local staff with lower-paid workers overseas. Commonwealth Bank was the only lender to expand its employee ranks over the financial year.

National Australia Bank unleashed the deepest cuts to its workforce, cutting 1172 positions over the year to September, including 504 in the second half.

A stock exchange filing said the reductions were due to 'continued focus on efficiency programs and convergence activities', alongside a restructure of its Australian business announced earlier this year.

ANZ cut 727 jobs over the year, while Westpac reduced numbers by 78 compared with a year earlier. CBA, which reports on June financial year and is expected to reveal first-quarter earnings of about $2 billion on Wednesday, expanded its staff numbers by 125 over the full year and 606 in the most recent half.

The reduction in staff is the latest evidence that banks are trying to contain costs in an environment of weak credit growth, which detracts from revenue. Despite the job cuts, research from UBS analyst Jonathan Mott said total costs were higher than expected across the industry, detracting 1.3 per cent from earnings per share.

Although the banks have delivered hefty dividend rises and share-price gains to shareholders this year, analysts said the sector might find it harder to grow at the same pace in the year ahead unless there was an economy-wide lift in credit growth.

Clancy Yeates
***Sydney Morning Herald*, 6 November 2013**

To conclude this section of post-study reflections on the Global Banking Corporation, I will revisit Figure 4.5, which provided the Corporation's 2008 IT strategic goals over the period of study that I labelled 'Next Gen IT'. It was these goals that led the Corporation to implement the global sourcing strategy that has been the focus of this study. Figure 5.19 presents the next iteration of the Corporation's IT strategic goals, for 2014–2019. These two figures of six years apart demonstrate that strategy formulation and implementation is an ongoing process and it is likely that these latest goals will influence the Corporation's global sourcing strategy in the next six years. The difference this time is that the Corporation will be starting from a higher point in terms of offshoring capability.

Figure 5.19: The Corporation's IT Future Focus 2014–2019
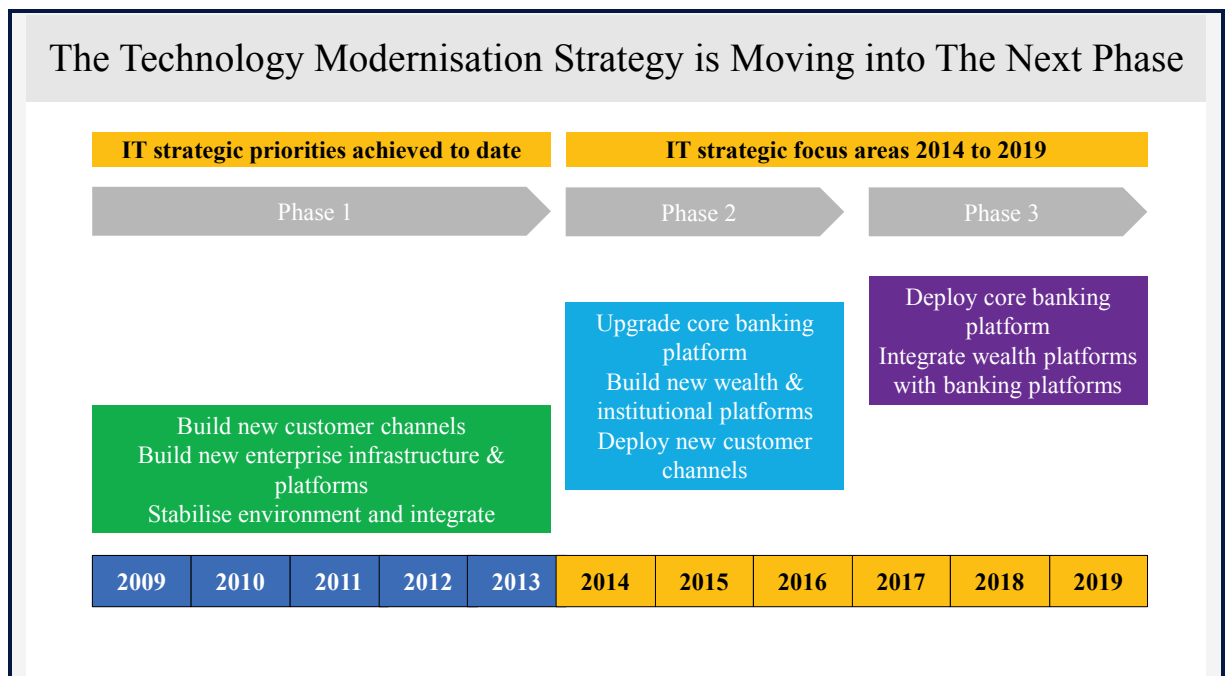
Source: The Corporation (2013)

5.5 Additional Insights for Further Research

As a result of conducting a longitudinal case study at the Corporation, I have presented one primary practitioner contribution: the *Global Services Sourcing Model*. A possible limitation of this model is that it is drawn from the experience of only one organisation and therefore the levers that constitute the model may possibly differ for another firm. Nevertheless, I consider future research to test and validate this dynamic model (in contrast to those that are static or at a single point in time) to be a worthwhile pursuit for future scholars. Further, my four secondary contributions—*Leadership Incongruence,* the *Retained Organisation,* the *Global Services Maturity Model* and *Global Mindset*—are also important topics for further investigation by scholars.

During the course of my research, I had received the occasional comment by managers at the Corporation as to why we are offshoring to India, a country they stated that has questionable labour practices when compared to Australia. Furthermore, even my own observations as participant observer, I had sighted workers who for all purposes appeared to be children, working in dangerous and manual roles. Therefore with this growing conscious awareness of corporate social responsibility, an additional topic that I suggest as worthwhile for further exploration is the subject I refer to as *Ethical Supply Chains for Services*. For example, many are likely to be familiar with the controversial news of building collapses in the textile trade in Bangladesh, where multinational companies had outsourced garment manufacture to lower cost suppliers. The *Australian Fashion Report* (Nimbalker, Cremen & Wrinkle 2013) investigated 40 Australian companies that own 128 clothing brands sold in Australia. The report ranked these 40 companies on the transparency and monitoring of their supply chains and ethical codes and made transparent of the various associations within their respective supply chains where poor practices were identified despite being outsourced and offshored. Wreford et al. (2013) provide another perspective. They researched the concept of 'opaque indifference', considering the less-than-favourable attitudes towards offshoring in both the giving and receiving countries. However, based upon my own interactions with managers at the Global Banking Corporation and reading of the business literature, there has been little discussion to date regarding ethical supply chains in terms of the provision of services. As highlighted in

Chapter 1, as the global sourcing phenomenon continues to grow and societies become more aware of these global supply chains, the external perceptions about a firm and whether it is behaving ethically or not are likely to have a greater bearing on a firm's decision-making process. For the Corporation, as Figure 4.31 showed, external factors began influencing decisions only later in the implementation process. In the future, external influences may be a factor much earlier in the global sourcing strategy process.

5.6   Chapter Conclusion

In his book *The future* (Gore 2013), former US Vice President and Noble Laureate Al Gore defined six critical drivers of global change for the decades to come. The first, 'Earth Inc', speaks of outsourcing as a driver of massive change that is migrating labour from wealthy economies such as the US, Europe and Australia to emerging and developing economies with large populations and lower wages, like India and even Kenya. Gore's second critical driver is 'The Global Mind' and it addresses the impact of the way in which technology is connecting people globally. Gore explores how this will change individuals and communities, from new business models to how societies interact. A report published by the analyst firm Forrester as recently as September 2013 (Giron, Cao & Malhotra 2013) continued to highlight the growth of global sourcing and how firms must adapt to this phenomenon. Of course, Gore and Forrester were not referring to the Corporation in their respective publications, but Gore's drivers and Forrester's insights do have relevance to the central focus of this study and its increasing importance to firms today and into the future.

The objective of this study was to understand how managers in organisations implement global sourcing strategies and optimise offshoring capabilities. By examining this subject, I not only addressed a global phenomenon, as described in Chapter 1 and reinforced by Gore (2013) and Forrester (2013), but I also addressed gaps in the literature identified by previous researchers (see Table 2.8). I focused my attention on 14 research gaps, which I grouped under the theme 'client capabilities and success factors' (see Table 2.9).

To fill the literature gaps, the 14 research requirements are:

- a better understanding of the dependent variables of ITO success

- more research into client–supplier relationships

- more research on how outsourcing changes over time

- more research on CSFs

- more research on offshoring and the timing of such decisions

- an in-depth longitudinal case study on transition

- quantitative analysis to understand which factors influence transition performance

- a focus on studying transition in the scenarios with multiple service providers

- more studies of strategic IT outsourcing decisions

- more studies of strategic IT outcomes

- more studies on the interactions between outsourcing and the firm's capabilities

- more studies on configurationally and portfolio approaches to outsourcing

- more studies on retained client capabilities

- a better understanding of the evolution of capabilities over time.

To achieve my study's objective, I undertook a review of the relevant literature across four themes: first, the broad context of the global sourcing phenomenon; second, the implementation aspects of global sourcing; third, optimising global sourcing; and fourth, the sourcing decision-making models. I then conducted a longitudinal case study over two years, as well as drawing upon an additional 16 years of archival records at the Corporation, resulting in 18 years of data collection. In addition, as this study serves as my thesis to support the award of a Doctorate of Business Administration qualification where a significant contribution to practice is required (in contrast to the objective of a PhD, being a significant contribution towards theory), I have presented five 'practitioner contributions'. The first of these I define as the *Global Services Sourcing Model*. This is followed by four secondary contributions: *Leadership Incongruence*, the *Retained Organisation*, the *Global Services Maturity Model* and *Global Mindset*. All of these, individually or collectively, will provide a valuable contribution for future practitioners and managers alike, when considering this phenomenon in their own organisations.

Concluding this study, I also suggest *Ethical Supply Chains for Services* as an area for future research. This topic may resonate with many practitioners, as organisations are increasingly being asked to explain to their shareholders and broader stakeholders their corporate social responsibility and sustainability policies. For some individuals, whose personal philosophies or beliefs about sending jobs to developing countries where labour laws are often not as sophisticated in the protection of workers' rights, this practice is difficult to reconcile. Also, the situation is often exacerbated by the possibility that for some firms less-than-perfect global supply chains are in place than their own corporate social responsibility credentials would acknowledge. For example, I have observed what appeared to be young children working in the back kitchen of a staff canteen at a global services provider's operations in India. I also later discovered that the canteen had been outsourced to a local Indian company. Should the executives of the client organisation based in Sydney who now outsources its IT functions to this global services provider in India care or have a responsibility? This represents one of the darker sides of global sourcing that I consider worthy of exploration.

Upon reflection, the events that occurred at the Global Banking Organisation during the course of the study were not always planned and a new direction or focus was often taken by managers as a result of new insights being obtained. What took place during the implementation of the global sourcing strategy was not always best practice. From my perspective, it represented the contingency or situational approach to change (Donaldson 2001). This underlines the need for firms today to develop the ability to be more agile, more adaptive and more cognisant of potential scenarios and outcomes in an increasingly complex ecosystem. These capabilities are, in my view, critical if these firms are to adapt effectively to internal and external impacts in order to prosper in an increasingly global and complex environment. One way to achieve this is to develop appropriate leadership competencies, such as those referred to as Lominger's 'Big 8' (Lombardo & Eichinger 2002) of which 'dealing with ambiguity' is mentioned. What this term refers to is the ability of managers to develop effective insights and make sound decisions in a dynamic environment based upon the available information. This also reinforces the importance of the softer elements of the McKinsey 7S framework (Waterman, Peters & Phillips 1980) and of the core capability framework developed by Lacity and Willcocks (2012). Finally, it is my view that this study goes beyond the five practitioner contributions presented by also

serving as an overall contribution for future scholars of the global sourcing phenomenon. The longitudinal case study provides an insight into one organisation, the Global Banking Corporation, whose managers—from the executive down—grappled with this phenomenon on their own terms. Further, the *Global Services Sourcing Model* may serve as the starting point for further scholarly examination of the feasibility of more dynamic models such as this one, and the objective testing of these models in similar environments in the future.

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Appendices

Appendix A: Definition of Terms

backsourcing

A practice in which a company takes back in-house assets, activities and skills that are part of its operations but were previously outsourced to one or more outside service providers (Hirschheim, Heinzl & Dibbern 2006).

bestshore

A recently coined term that describes the 'shore' or location that offers the best 'deal' for the customer (Selig 2008).

bundled services

A mix of business process and/or IT services purchased separately or at the same time from the same supplier where synergies and efficiencies are sought in end-to-end processing, governance, relationship management, cost and performance (Hindle, Willcocks & Oshri 2010).

captive services centre

Also known as a 'captive facility', this is a wholly owned entity that provides services principally to a parent organisation or its affiliates and is located in a separate country or region. The management of the captive services centre, together with the vast majority of workers, are supervised directly by the parent company. Captives are used for IT outsourcing (ITO) services, the provision of high-value 'knowledge process' outsourcing (KPO) that requires a degree of specialised domain expertise (Howie 2011).

decision making

A process involving a sequence of actions taken by management to solve organisational problems (Montana & Charnov 2008). It is intertwined in all management activities, including planning, organising, leading and controlling for problems, which come in all sizes and shapes, and arrive at the most inopportune times (Schmidt & Rieck 2000).

global sourcing

The orientation of companies' procurement activities to available sourcing markets worldwide (Kerkhoff 2006).

insourcing

A practice in which services are obtained through internal organisations that own some or all of the necessary resources, and where control and management of the resources and activities reside (Hirschheim, Heinzl & Dibbern 2006).

make versus buy

The make-or-buy decision is the act of making a strategic choice between producing an item internally (in-house) or buying it externally (from an outside supplier). The 'buy' side of the decision is also referred to as 'outsourcing' (Balakrishnan & Cheng 2005).

multi-sourcing

A new operational model that obtains business services through disciplined provisioning and blending of multiple sources inside and outside corporate walls to obtain best business outcomes (Cohen & Young 2006).

nearshore service delivery

The service provider is located in a country that is geographically close to the client's country. Hence, countries that share borders or are neighbours can be considered 'nearshore' countries. This is also known as 'nearshore sourcing' (Kehal & Singh 2006).

offshore service delivery

The service provider is located in a country that is geographically distant from the client's country. This is also known as 'offshore sourcing' (Kehal & Singh 2006).

onshore service delivery

The service provider is located in the same country as the client. This is also known as 'domestic sourcing' or 'onshore sourcing' (Kehal & Singh 2006).

outsourcing

The transfer of activities and processes previously conducted internally to an external party (Ellram & Billington 2001).

rightshore

This concept means at the right place, at the right time, with the right resources. It indicates clearly the flexibility required for distributed delivery projects to leverage existing project execution and infrastructure in order to reduce the overall cost of ownership for the client. It attempts to deliver the same high-quality product as an onsite project team but at reduced costs and without compromising on the associated risk (Ghag 2008).

rightsourcing

This term describes the identification, procurement and execution of various services. It is not necessarily the same as the current state of an organisation's outsourced activities after a period of changes, modifications and finetuning. Instead, rightsourcing is a defined strategy from the outset, aimed at mixing in-house services, multi-sourced services, shared services and best-of-breed solutions in the most suitable way to optimise benefits for the organisation and provide it with a competitive edge (Cheung 2007).

services/service delivery

A process consisting of a series of more or less intangible activities that normally take place in interactions between the customer and service employees or systems of the service provider, which are provided as solutions to customer problems (Grönroos 2008).

shared services

A form of insourcing; a process of consolidating business functions into a single, dedicated, in-house administrative facility to achieve economies of scale and cost efficiencies. Shared service centres (SSCs) are generally composed of three parts: a centre of expertise (COE), which is focused on defining policies and leveraging specialised, difficult-to-find skills; a centre of scale (COS), which is concerned with achieving efficiencies in high-volume transaction processing; and business partners, HR professionals working closely with the business unit leaders to carry out the day-to-day functions (Beaman 2004).

sourcing/strategic sourcing

An act through which work is contracted or delegated to an external or internal entity that could be physically located anywhere. It encompasses various insourcing (keeping work in-house) and outsourcing arrangements, such as offshore outsourcing, captive offshoring, nearshoring and onshoring (Oshri, Kotlarsky & Willcocks 2009).

sourcing governance

This term refers to the assignment of rights and responsibilities for all decisions regarding the use and management of internally and externally provided resources and services, with the objective of upholding the organisation's sourcing philosophies, ensuring service coordination and achieving business results (Cohen & Young 2006). It is a sourcing strategy of my model, which ranges from centralised to decentralised forms, and includes a hybrid form—described as 'federated governance'—between the two.

Appendix B: Ethics Approval and Research Participant Consent Forms

Figure B.1: Macquarie University Ethics Approval Letter

From:	Ethics Secretariat
To:	Dr Steven Segal
Cc:	email@rossmckenzie.org
Subject:	Final Approval- Ethics application reference 5201100446
Date:	Monday, 27 June 2011 11:55:19 AM

Dear Dr Segal

Re: "How managers implement global sourcing strategies and optimise their firm's offshoring capabilities" (Ethics Ref: 5201100446)

Thank you for your recent correspondence. Your response has addressed the issues raised by the Human Research Ethics Committee and you may now commence your research.

The following personnel are authorised to conduct this research:

Dr Steven Segal- Chief Investigator/Supervisor
Mr Alexander Ross McKenzie- Co-Investigator

NB. STUDENTS: IT IS YOUR RESPONSIBILITY TO KEEP A COPY OF THIS APPROVAL EMAIL TO SUBMIT WITH YOUR THESIS.

Please note the following standard requirements of approval:

1. The approval of this project is conditional upon your continuing compliance with the National Statement on Ethical Conduct in Human Research (2007).

2. Approval will be for a period of five (5) years subject to the provision of annual reports. Your first progress report is due on 27 June 2012.

If you complete the work earlier than you had planned you must submit a Final Report as soon as the work is completed. If the project has been discontinued or not commenced for any reason, you are also required to submit a Final Report for the project.

Progress reports and Final Reports are available at the following website:

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms

3. If the project has run for more than five (5) years you cannot renew approval for the project. You will need to complete and submit a Final Report and submit a new application for the project. (The five year limit on renewal of approvals allows the Committee to fully re-review research in an environment where legislation, guidelines and requirements are continually changing, for example, new child protection and privacy laws).

4. All amendments to the project must be reviewed and approved by the Committee before implementation. Please complete and submit a Request for Amendment Form available at the following website:

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms

5. Please notify the Committee immediately in the event of any adverse effects on participants or of any unforeseen events that affect the continued ethical acceptability of the project.

6. At all times you are responsible for the ethical conduct of your research in accordance with the guidelines established by the University. This information is available at the following websites:

http://www.mq.edu.au/policy/

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/policy

If you will be applying for or have applied for internal or external funding for the above project it is your responsibility to provide the Macquarie University's Research Grants Management Assistant with a copy of this email as soon as possible. Internal and External funding agencies will not be informed that you have final approval for your project and funds will not be released until the Research Grants Management Assistant has received a copy of this email.

If you need to provide a hard copy letter of Final Approval to an external organisation as evidence that you have Final Approval, please do not hesitate to contact the Ethics Secretariat at the address below.

Please retain a copy of this email as this is your official notification of final ethics approval.

Yours sincerely
Dr Karolyn White
Director of Research Ethics
Chair, Human Research Ethics Committee

Figure B.2: Information and Consent Form

<div style="border:1px solid black;">

Information and Consent Form

You are invited to participate in a study of how managers implement and optimise the global sourcing strategies and offshoring capabilities of their organisations.

The purpose of the study is determine whether managers experience common issues and challenges and whether these issues and challenges can determine critical success factors that need to be present when implementing global sourcing strategies or optimising offshoring capabilities.

The study is being conducted to meet the requirements of the Doctorate of Business Administration degree for Ross McKenzie (the Co-Investigator), under the supervision of Dr Steven Segal, telephone: +61 2 9850 9907, email: steven.segal@mgsm.edu.au of the Macquarie Graduate School of Management, Macquarie University. Ross McKenzie is an employee of the (removed) and will also serve in the capacity of a "participant observer" for this research.

If you decide to participate, you will be asked to respond to a series of questions based on your experience in how you have implemented global sourcing strategies at your firm, what were the issues and challenges that you needed to address in regards to offshoring, how you increased the maturity of your firm's offshoring and looking into the future, the potential issues and challenges you foresee in regards to your firm's offshoring activities.

The series of questions asked will either be in the form of a questionnaire, or in the form of an interview. You will not be asked to respond / participate to both questionnaires and interviews. For interviews, an audio recording may be used and later transcribed in order to analyse the responses of the interviewees to the questions asked by the Co-Investigator.

In terms of the frequency of your participation, it is requested that you either partake in four questionnaires over a twelve month period, or, for interviews, it is requested you partake in two interviews over a twelve month period. This will allow thorough analysis of the types of issues organisations experience over time when implementing their global sourcing strategies.

Any information or personal details gathered in the course of the study are confidential (*except as required by law)*. No individual or organisation will be identified in any publication of the results. The Co-Investigator (Ross McKenzie) will have sole access to all data with the exception of the interview audio recordings, which will be provided to a third party for the purpose of transcription from audio to a document. A summary of the results of the data can be made available to you on request by contacting the Co-Investigator directly via email: alexander.mckenzie1@students.mq.edu.au.

Participation in this study is entirely voluntary: you are not obliged to participate and if you decide to participate, you are free to withdraw at any time without having to give a reason and without consequence.

I, *(participant)* have read and understand the information above and any questions I have asked have been answered to my satisfaction. I agree to participate in this research, knowing that I can withdraw from further participation in the research at any time without consequence. I have been given a copy of this form to keep.

Participant's Name: _____
  (Block letters)

Participant's Signature: _____ Date: _____

Co-Investigator's Name: _____
  (Block letters)

Co-Investigator's Signature: _____ Date: _____

The ethical aspects of this study have been approved by the Macquarie University Human Research Ethics Committee. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Director, Research Ethics (telephone (02) 9850 7854; email ethics@mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

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Appendix C: Qualitative Questions

Table C.1: Qualitative Interview Questions

Preamble
How long have you been at XXXXX for - how many years?
How many years of outsourcing experience either directly or indirectly would you say you've got with outsourcing?
Q1 - Global Sourcing Strategy Implementation
What criteria have you considered (or are considering) around the implementation of your global sourcing strategy?
Why this criteria?
How are you actually implementing the strategy?
Why this way?
What factors did you consider?
Why these factors?
Q2 - Issues Or Concerns Experienced
What issues or concerns if any, did you experience (are now experiencing) while implementing your global sourcing strategy?
How did you overcome (are you overcoming) these issues or concerns?
Q3 - Current Global Sourcing Offshoring Capability
In respect to your organisation's current maturity in executing a global sourcing strategy, how would you describe the organisation's offshoring capability today?
Why do you say that?
Q4 - Optimising Current Global Sourcing Offshoring Capability
What are you changing or what would you change, if anything, to improve or optimise your organisation's current global sourcing offshoring capability?
Q5 - Potential Issues Or Concerns
What issues or concerns if any, do you expect to experience in the future in regards to implementing your organisation's global sourcing strategy?
If you do anticipate issues or concerns in the future, how will you overcome them?
Q6 - Future View
How do you see the future in regards to your firm's implementation of its global sourcing strategy?
What were the critical success factors?
What is your overall view – highly confident, reserved or somewhat cautious?
Q7 - Final Comments
Do you have any final comments or personal reflections that you would like to make in regards to your firm's implementation of its global sourcing strategy?

Table C.2: Qualitative Survey Questions

Q1 - Global Sourcing Strategy Implementation

What criteria have you considered (or are considering) around the implementation of your global sourcing strategy?

Why this criteria?

How are you actually implementing the strategy?

Why this way?

What factors did you consider?

Why these factors?

Q2 - Issues Or Concerns Experienced

What issues or concerns if any, did you experience (are now experiencing) while implementing your global sourcing strategy?

How did you overcome (are you overcoming) these issues or concerns?

Q3 - Current Global Sourcing Offshoring Capability

In respect to your organisation's current maturity in executing a global sourcing strategy, how would you describe the organisation's offshoring capability today?

Why do you say that?

Q4 - Optimising Current Global Sourcing Offshoring Capability

What are you changing or what would you change, if anything, to improve or optimise your organisation's current global sourcing offshoring capability?

Q5 - Potential Issues Or Concerns

What issues or concerns if any, do you expect to experience in the future in regards to implementing your organisation's global sourcing strategy?

If you do anticipate issues or concerns in the future, how will you overcome them?

Q6 - Future View

How do you see the future in regards to your firm's implementation of its global sourcing strategy?

What were the critical success factors?

What is your overall view – highly confident, reserved or somewhat cautious?

Appendix D: Quantitative Questions

Table D.1: Quantitative Survey Questions

Question	Global Delivery Capability	Capability Statement	Capability Rating (1 to 5)	Importance Rating (1 to 5)	Your Comments
1	Value Management	There is a clearly defined process for capturing improvement opportunities, ideas and thought leadership between XXXXXX and onshore and offshore supplier teams			
2	Value Management	Process and technology "accelerators" that drive performance and efficiencies in delivery are used by all, between XXXXXX and onshore and offshore supplier teams			
3	Organisational Change Management	Effective and thorough onboarding and inductions take place on The XXXXXX Group, XXXXXX Technology and specific project / domain environments for all team members between XXXXXX and onshore and offshore supplier teams			
4	Organisational Change Management	Formal communications including emails, newsletters, meetings, teleconferences are relevant and effective (ie: all participants can be heard during teleconference and/or they are held at times respectful of time zone differences) between XXXXXX and onshore and offshore supplier teams			
5	Knowledge Management	Knowledge transfer is formalised and include agreed deliverables, playback and exit tests between XXXXXX and onshore and offshore supplier teams			
6	Knowledge Management	Structured knowledge repository's are in place and regularly maintained using XXXXXX Share Point and is accessed by all XXXXXX and onshore and offshore supplier teams			
7	People Management	There is ongoing skill proficiency assessment to ensure that resources are properly equipped to carry out IT's strategies between XXXXXX and onshore and offshore supplier teams			
8	People Management	There is a pro-active / preventative / detective team "culture" in place between XXXXXX and onshore and offshore supplier teams			
9	People Management	Teams and team members are recognised formally for their achievements, success is celebrated between XXXXXX and onshore and offshore supplier teams			
10	Relationship Management	There is a strong focus on establishing and managing long term relationships between XXXXXX and onshore and offshore supplier teams			
11	Technology Management	Collaboration tools are used by all team members between XXXXXX and onshore and offshore supplier teams			
12	Technology Management	There is appropriate access to the technologies and infrastructure required to be effective between XXXXXX and onshore and offshore supplier teams			
13	Threat Management	Potential risks are defined and monitored with actions implemented based on performance against risk-related targets between XXXXXX and onshore and offshore supplier teams			
14	Threat Management	There is strong comprehension by all team members of XXXXXX's data security policies and procedures and why they are in place, between XXXXXX and onshore and offshore supplier teams			
15	Performance Management	There is consistent and accurate measurement of the health of the performance of IT's service delivery between XXXXXX and onshore and offshore supplier teams			
16	Performance Management	Formal specific project performance reviews for all team members take place at least twice a year, or when rolling of project between XXXXXX and onshore and offshore supplier teams			
17	Performance Management	Dashboards / metrics / leading indicators are used to track performance and detect potential issues between XXXXXX and onshore and offshore supplier teams			
18	Service Transfer	A Project Manager has been appointed, with the appropriate skills and scope to best support the project management efforts between XXXXXX and onshore and offshore supplier teams			
19	Service Transfer	Transitions from onshore to offshore are seamless and without fault as a result of clearly defined and documented plans and deliverables (all team members understand and comply to the requirements defined in the XXXXXX Global Delivery Handbook and individual XXXXXX Transition Documents) between XXXXXX and onshore and offshore supplier teams			
20	Service Delivery	Common IT processes to manage all of IT's key activities — such as program management, project management, IT services management is in place between XXXXXX and onshore and offshore supplier teams			
21	Service Delivery	Roles & Responsibilities and well defined hand off points, are known between XXXXXX and onshore and offshore supplier teams			
22	Service Delivery	Daily and weekly review meetings are scheduled, with agendas, start on time, run to time and appropriately chaired, with key decisions and actions recorded centrally between XXXXXX and onshore and offshore supplier teams			
23	Service Delivery	Independent reviews / post implementation reviews / quality reviews / buddy checks, coaching and mentoring take place between XXXXXX and onshore and offshore supplier teams			
24	Service Delivery	There is a clearly defined escalation process between XXXXXX and onshore and offshore supplier teams			
25	Service Delivery	Deliverables, commitments and assigned actions / tasks are always within agreed time line expectations between XXXXXX and onshore and offshore supplier teams			
26	Service Delivery	Deliverables, commitments and assigned actions / tasks are always within agreed quality specifications expectations between XXXXXX and onshore and offshore supplier teams			
27	Service Delivery	Forecasting demand pipeline and managing supply resources tales place between XXXXXX and onshore and offshore supplier teams			
28	Service Delivery	Delivery from offshore to onshore is seamless and without fault as a result of clearly defined plans and deliverables (all team members understand and comply to the requirements defined in the XXXXXX Global Delivery Handbook and individual XXXXXX Transition Documents) between XXXXXX and onshore and offshore supplier teams			

Table D.2: Quantitative Survey Questions Scoring

Capability Score Definition	Rating (1 to 5)
Level 1 - I strongly disagree with the statement	1
Level 2 - I disagree with the statement	2
Level 3 - I neither disagree or agree with the statement	3
Level 4 - I agree with the statement	4
Level 5 - I strongly agree with the statement	5
Importance Score Definition	**Rating (1 to 5)**
Level 1 - This is definitely not important	1
Level 2 - This is not important	2
Level 3 - This is potentially important	3
Level 4 - This is important	4
Level 5 - This is definitely important	5

Appendix E: Quantitative Results

Questionnaire 1

Composition of the Sample

This section gives an inside view of the sample used in Questionnaire 1. It reports the frequency distribution of the 28 variables.

Table E.1: 28 Questionnaire One Variables

Value Management—Continuous Improvement					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	3.1	3.1	3.1
	Disagree	3	9.4	9.4	12.5
	Neither agree nor disagree	12	37.5	37.5	50
	Agree	12	37.5	37.5	87.5
	Strongly agree	4	12.5	12.5	100.0
	Total	32	100.0	100.0	

Value Management—Accelerators					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	5	15.6	15.6	15.6
	Neither agree nor disagree	8	25.0	25.0	40.6
	Agree	17	53.1	53.1	93.8
	Strongly agree	2	6.3	6.3	100.0
	Total	32	100.0	100.0	

Organisational Change Management—Onboarding					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	6	18.8	18.8	18.8
	Neither agree nor disagree	6	18.8	18.8	37.5
	Agree	13	40.6	40.6	78.1
	Strongly agree	7	21.9	21.9	100.0
	Total	32	100.0	100.0	

Organisational Change Management—Communications					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	1	3.1	3.1	3.1
	Neither agree nor disagree	2	6.3	6.3	9.4
	Agree	20	62.5	62.5	71.9
	Strongly agree	9	28.1	28.1	100.0
	Total	32	100.0	100.0	

Knowledge Management—Transfer					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	1	3.1	3.1	3.1
	Neither agree nor disagree	11	34.4	34.4	37.5
	Agree	14	43.8	43.8	81.3
	Strongly agree	6	18.8	18.8	100.0
	Total	32	100.0	100.0	

Knowledge Management—Retention

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	3.1	3.1	3.1
	Disagree	3	9.4	9.4	12.5
	Neither agree nor disagree	10	31.3	31.3	43.8
	Agree	16	50.0	50.0	93.8
	Strongly agree	2	6.3	6.3	100.0
	Total	32	100.0	100.0	

People Management—Skill Proficiency

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	3.1	3.1	3.1
	Neither agree nor disagree	15	46.9	46.9	50.0
	Agree	12	37.5	37.5	87.5
	Strongly agree	4	12.5	12.5	100.0
	Total	32	100.0	100.0	

People Management—Proactive Culture

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	1	3.1	3.1	3.1
	Neither agree nor disagree	17	53.1	53.1	56.3
	Agree	7	21.9	21.9	78.1
	Strongly agree	7	21.9	21.9	100.0
	Total	32	100.0	100.0	

People Management—Recognition

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	4	12.5	12.5	12.5
	Neither agree nor disagree	5	15.6	15.6	28.1
	Agree	14	43.8	43.8	71.9
	Strongly agree	9	28.1	28.1	100.0
	Total	32	100.0	100.0	

Relationship Management—Long Term

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	3.1	3.1	3.1
	Disagree	5	15.6	15.6	18.8
	Neither agree nor disagree	13	40.6	40.6	59.4
	Agree	5	15.6	15.6	75.0
	Strongly agree	8	25.0	25.0	100.0
	Total	32	100.0	100.0	

Technology Management—Collaboration Tools

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	3	9.4	9.4	9.4
	Neither agree nor disagree	11	34.4	34.4	43.8
	Agree	16	50.0	50.0	93.8
	Strongly agree	2	6.3	6.3	100.0
	Total	32	100.0	100.0	

Technology Management—Infrastructure

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	10	31.3	31.3	31.3
	Neither agree nor disagree	8	25.0	25.0	56.3
	Agree	10	31.3	31.3	87.5
	Strongly agree	4	12.5	12.5	100.0
	Total	32	100.0	100.0	

Threat Management—Risks

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	3.1	3.1	3.1
	Disagree	1	3.1	3.1	6.3
	Neither agree nor disagree	11	34.4	34.4	40.6
	Agree	11	34.4	34.4	75.0
	Strongly agree	8	25.0	25.0	100.0
	Total	32	100.0	100.0	

Threat Management—Security Policies

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	1	3.1	3.1	3.1
	Neither agree nor disagree	6	18.8	18.8	21.9
	Agree	16	50.0	50.0	71.9
	Strongly agree	9	28.1	28.1	100.0
	Total	32	100.0	100.0	

Performance Management—Measurement

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	3.1	3.1	3.1
	Disagree	1	3.1	3.1	6.3
	Neither agree nor disagree	12	37.5	37.5	43.8
	Agree	11	34.4	34.4	78.1
	Strongly agree	7	21.9	21.9	100.0
	Total	32	100.0	100.0	

Performance Management—Reviews

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	3.1	3.1	3.1
	Disagree	2	6.3	6.3	9.4
	Neither agree nor disagree	10	31.3	31.3	40.6
	Agree	14	43.8	43.8	84.4
	Strongly agree	5	15.6	15.6	100.0
	Total	32	100.0	100.0	

Performance Management—Detection

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	3	9.4	9.4	9.4
	Neither agree nor disagree	11	34.4	34.4	43.8
	Agree	14	43.8	43.8	87.5
	Strongly agree	4	12.5	12.5	100.0
	Total	32	100.0	100.0	

Service Transfer—Project Manager

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	2	6.3	6.3	6.3
	Neither agree nor disagree	6	18.8	18.8	25.0
	Agree	12	37.5	37.5	62.5
	Strongly agree	12	37.5	37.5	100.0
	Total	32	100.0	100.0	

Service Transfer—Transitions

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	3.1	3.1	3.1
	Neither agree nor disagree	11	34.4	34.4	37.5
	Agree	14	43.8	43.8	81.3
	Strongly agree	6	18.8	18.8	100.0
	Total	32	100.0	100.0	

Service Delivery—Common Processes

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	3.1	3.1	3.1
	Neither agree nor disagree	7	21.9	21.9	25.0
	Agree	17	53.1	53.1	78.1
	Strongly agree	7	21.9	21.9	100.0
	Total	32	100.0	100.0	

Service Delivery—Roles and Responsibilities

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	1	3.1	3.1	3.1
	Neither agree nor disagree	6	18.8	18.8	21.9
	Agree	18	56.3	56.3	78.1
	Strongly agree	7	21.9	21.9	100.0
	Total	32	100.0	100.0	

Service Delivery—Review Meetings					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	3.1	3.1	3.1
	Disagree	2	6.3	6.3	9.4
	Neither agree nor disagree	4	12.5	12.5	21.9
	Agree	17	53.1	53.1	75.0
	Strongly agree	8	25.0	25.0	100.0
	Total	32	100.0	100.0	

Service Delivery—Post-implementation Reviews					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Neither agree nor disagree	14	43.8	43.8	43.8
	Agree	15	46.9	46.9	90.6
	Strongly agree	3	9.4	9.4	100.0
	Total	32	100.0	100.0	

Service Delivery—Escalation					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	1	3.1	3.1	3.1
	Neither agree nor disagree	4	12.5	12.5	15.6
	Agree	21	65.6	65.6	81.3
	Strongly agree	6	18.8	18.8	100.0
	Total	32	100.0	100.0	

Service Delivery—Agreed Timelines					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	1	3.1	3.1	3.1
	Neither agree nor disagree	6	18.8	18.8	21.9
	Agree	15	46.9	46.9	68.8
	Strongly agree	10	31.3	31.3	100.0
	Total	32	100.0	100.0	

Service Delivery—Agreed Quality					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	1	3.1	3.1	3.1
	Neither agree nor disagree	6	18.8	18.8	21.9
	Agree	17	53.1	53.1	75.0
	Strongly agree	8	25.0	25.0	100.0
	Total	32	100.0	100.0	

Service Delivery—Demand Pipeline					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	3.1	3.1	3.1
	Disagree	7	21.9	21.9	25.0
	Neither agree nor disagree	10	31.3	31.3	56.3
	Agree	11	34.4	34.4	90.6
	Strongly agree	3	9.4	9.4	100.0
	Total	32	100.0	100.0	

Service Delivery—Global Delivery Handbook					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Neither agree nor disagree	11	34.4	34.4	34.4
	Agree	16	50.0	50.0	84.4
	Strongly agree	5	15.6	15.6	100.0
	Total	32	100.0	100.0	

Reliability Analysis

A reliability analysis is conducted in order to check whether the scale used in each question consistently reflects the construct of the sub-group it is measuring. For each sub-group, Cronbach's alpha—a common measure of scale reliability—is measured and shown in the following table. Cronbach's alpha measures consistency among individual items in a scale by measuring how well each item in the scale correlates with the sum of the remaining items. Where Cronbach alpha scores are 0.70 or higher, they should be treated as reliable.

Table E.2: Reliability Analysis Questionnaire One

Category	Cronbach's Alpha	Decision
Value Management	0.702	Reliable
Organisational Change Management	0.441	
Knowledge Management	0.263	
People Management	0.751	Reliable
Relationship Management	N/A	N/A
Technology Management	0.412	
Threat Management	0.457	
Performance Management	0.859	Reliable
Service Transfer	0.735	Reliable
Service Delivery	0.833	Reliable

According to Table E.2, Cronbach's alpha has not recorded any unusual values, such as negative alphas.

Capability Scores

For each category, capability mean scores are created by averaging the responses. Ten categories are created, as shown in Table E.3.

Table E.3: Capability Scores Criteria

Category	Used Variables
Value Management	Average (Continuous Improvement, Accelerators)
Organisational Change Management	Average (Onboarding, Communications)
Knowledge Management	Average (Transfer, Retention)
People Management	Average (Skill Proficiency, Proactive Culture, Recognition)
Relationship Management	Average (Long Term)
Technology Management	Average (Collaboration Tools, Infrastructure)
Threat Management	Average (Risks, Security Policies)
Performance Management	Average (Measurement, Reviews, Detection)
Service Transfer	Average (Project Manager, Transitions)
Service Delivery	Average (Common Processes, Roles and Responsibilities, Review Meetings, Post-implementation Reviews, Escalation, Agreed Timelines, Agreed Quality, Demand Pipeline, Global Delivery Handbook)

Table E.4 shows the descriptive analysis of the new categories. The central tendency measurements used here are mean and median. Standard deviation is used as the measure of dispersion.

Table E.4: Descriptive Analysis of Categories

Category	Mean	Median	Standard Deviation
Value Management	3.4844	3.5000	0.78786
Organisational Change Management	3.9063	4.0000	0.70066
Knowledge Management	3.6250	3.5000	0.63500
People Management	3.6875	3.3333	0.73293
Relationship Management	3.4375	3.0000	1.13415
Technology Management	3.3906	3.5000	0.72662
Threat Management	3.8906	4.0000	0.71543
Performance Management	3.6354	3.5000	0.80926
Service Transfer	3.9063	4.0000	0.79755
Service Delivery	3.8403	3.8889	0.52643

According to Table E.4, all the categories have recorded means above the average level of three. This indicates that the processes are matured from an organisational perspective. This pattern can also be observed by examining the medians: no single category recorded a median below the average level of three. Except for the standard deviation of relationship management category, all the categories recorded standard deviations of less than 1, which indicates little variation in the responses.

Research Questions

The data from Questionnaire One has been calculated to have a mean of 3.7248 and a standard deviation of 0.8967 and has been determined as normally distributed with 99.7 per cent of the 896 individual scores falling within three standard deviations of the mean. Therefore, the mean is selected as the measure of central tendency.

The overall capability score across all categories and all respondents is the grand mean which is 3.6804 and is based on the means of the capability scores for each of the 10 categories and all respondents and is shown in Table E.5.

Table E.5: Capability Score for Each Category

Category	Capability Score
Value Management	3.4844
Organisational Change Management	3.9063
Knowledge Management	3.6250
People Management	3.6875
Relationship Management	3.4375
Technology Management	3.3906
Threat Management	3.8906
Performance Management	3.6354
Service Transfer	3.9063
Service Delivery	3.8403

According to Table E.5, the highest capability score is recorded by the categories of organisational change management and service transfer. It is important to calculate the overall capability score across all categories for Group A clients versus Group A suppliers. This can be calculated by averaging the capability scores of Group A clients and Group A suppliers. It is shown in Table E.6.

Table E.6: Capability Score for Group A Clients and Suppliers

Group A	Capability Score
Clients	3.53
Suppliers	3.75

Group A suppliers demonstrate a capability mean score of 3.75 compared to Group A clients of 3.53. The overall capability mean score for each of the 10 categories for Group A clients versus Group A suppliers can be calculated by averaging the capability mean scores of Group A clients and Group A suppliers, and subdividing by each category, as shown in Table E.7.

Table E.7: Capability Score for Group A Clients and Suppliers by Category

Category	Capability Score	
	Clients	Suppliers
Value Management	3.20	3.61
Organisational Change Management	3.75	3.98
Knowledge Management	3.35	3.75
People Management	3.57	3.74
Relationship Management	3.20	3.55
Technology Management	3.55	3.32
Threat Management	3.55	4.05
Performance Management	3.20	3.83
Service Transfer	4.05	3.84
Service Delivery	3.83	3.84

It is important to calculate the overall capability mean score across all categories for Group B engagement types of type I, type II, type III and type IV. This can be calculated by

averaging the capability mean scores of Group B engagement types and is shown in Table E.8

Table E.8: Capability Score for Group B Engagement Types

Group B	Capability Score
Type I	3.27
Type II	3.68
Type III	4.14
Type IV	3.32

The overall capability mean score for each of the 10 categories for Group B engagement types can be calculated by averaging the capability mean scores of Group B engagement types and subdividing by each category, as shown in Table E.9.

Table E.9: Capability Score for Group B Engagement Types by Category

Category	Capability Score			
	Type I	Type II	Type III	Type IV
Value Management	3.00	3.67	3.94	2.86
Organisational Change Management	3.50	3.79	4.61	3.43
Knowledge Management	3.13	3.50	4.00	3.64
People Management	3.33	3.67	4.15	3.33
Relationship Management	2.75	3.42	4.00	3.14
Technology Management	3.13	3.13	3.78	3.50
Threat Management	3.75	3.83	4.39	3.43
Performance Management	3.17	3.83	4.00	3.10
Service Transfer	3.63	4.00	4.28	3.43
Service Delivery	3.33	3.96	4.27	3.37

Group A Clients versus Group A Suppliers

The desired test for checking the differences in capability mean scores of Group A clients and Group A suppliers is the independent sample t-test.

The hypothesis tested here is:

H$_0$: There is no difference between the capability scores of Group A clients and Group A suppliers.

H$_1$: There is a difference between the capability scores of Group A clients and Group A suppliers.

Table E.10: Group A Clients versus Group A Suppliers

	Mean of Capability Score	p-Value	Conclusion
Group A clients	3.5250	0.334	Not Significant
Group A suppliers	3.7510		

Since the p-value of 0.334 is greater than the significance level of 0.05, we have to not reject H$_0$. Therefore, we can say that there is no significant difference between the capability mean scores of Group A clients and Group A suppliers, under 95 per cent confidence.

Group B Engagement Types I, II, III and IV

The desired test for checking the differences in capability mean scores of Group B engagement types is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

The hypothesis tested here is:

H$_0$: There is no difference between the capability scores of all Group B engagement types/

H$_1$: There is a difference between the capability scores of at least a pair of Group B engagement types.

Table E.11: Group B Engagement Types I, II, III and IV

ANOVA—Overall Capability Score					
	Sum of Squares	**df**	**Mean Square**	**F**	**Significance**
Between Groups	3.486	3	1.162	4.167	.015
Within Groups	7.810	28	.279		
Total	11.296	31			
Multiple Comparisons—Dependent Variable: Overall Capability Score—Tukey HSD					
Engagement Type A	**Engagement Type B**	**Mean Difference (A–B)**	**Std Error**	**Sig.**	**95% Confidence Interval**
					Lower Bound / **Upper Bound**
Type I	Type II	−.40880	.30491	.546	−1.2413 / .4237
	Type III	−.87114*	.31736	.048	−1.7376 / −.0046
	Type IV	−.05139	.33102	.999	−.9552 / .8524
Type II	Type I	.40880	.30491	.546	−.4237 / 1.2413
	Type III	−.46235	.23288	.218	−1.0982 / .1735
	Type IV	.35741	.25117	.496	−.3284 / 1.0432
Type III	Type I	.87114*	.31736	.048	.0046 / 1.7376
	Type II	.46235	.23288	.218	−.1735 / 1.0982
	Type IV	.81975*	.26615	.023	.0931 / 1.5464
Type IV	Type I	.05139	.33102	.999	−.8524 / .9552
	Type II	−.35741	.25117	.496	−1.0432 / .3284
	Type III	−.81975*	.26615	.023	−1.5464 / −.0931
*The mean difference is significant at the 0.05 level					

As shown in Table E.11, the p-value of 0.015 is less than the significance level of 0.05 and we have to reject H_0. Therefore, we can say that there is a difference between the capability mean scores of at least a pair of Group B engagement types, under 95 per cent confidence. The Tukey results show that the p-values between type I and type III is 0.048, and between type III and type IV is 0.023, where both p-values are less than the significance level of 0.05. This illustrates that the capability mean scores between type I/type III pair and type III/type IV pair are significantly different. The mean difference further demonstrates that the capability score of type III is significantly higher than that of type I and the capability score of type III is significantly higher than that of type IV.

Questionnaire 2

Composition of the Sample

This section gives an inside view of the sample used in Questionnaire 2. It reports the frequency distribution of the 28 variables.

Table E.12: 28 Questionnaire Two Variables

Value Management—Continuous Improvement					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	7	18.4	18.4	18.4
	Neither agree nor disagree	6	15.8	15.8	34.2
	Agree	23	60.5	60.5	94.7
	Strongly agree	2	5.3	5.3	100.0
	Total	38	100.0	100.0	

Value Management—Accelerators					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	3	7.9	7.9	7.9
	Disagree	3	7.9	7.9	15.8
	Neither agree nor disagree	8	21.1	21.1	36.8
	Agree	18	47.4	47.4	84.2
	Strongly agree	6	15.8	15.8	100.0
	Total	38	100.0	100.0	

Organisational Change Management—Onboarding					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	2	5.3	5.3	5.3
	Disagree	6	15.8	15.8	21.1
	Neither agree nor disagree	7	18.4	18.4	39.5
	Agree	15	39.5	39.5	78.9
	Strongly agree	8	21.1	21.1	100.0
	Total	38	100.0	100.0	

Organisational Change Management—Communications					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	2	5.3	5.3	5.3
	Neither agree nor disagree	4	10.5	10.5	15.8
	Agree	17	44.7	44.7	60.5
	Strongly agree	15	39.5	39.5	100.0
	Total	38	100.0	100.0	

Knowledge Management—Transfer					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	3	7.9	7.9	7.9
	Neither agree nor disagree	6	15.8	15.8	23.7
	Agree	18	47.4	47.4	71.1
	Strongly agree	11	28.9	28.9	100.0
	Total	38	100.0	100.0	

Knowledge Management—Retention					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	2	5.3	5.3	5.3
	Neither agree nor disagree	10	26.3	26.3	31.6
	Agree	14	36.8	36.8	68.4
	Strongly agree	12	31.6	31.6	100.0
	Total	38	100.0	100.0	

People Management—Skill Proficiency					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	2	5.3	5.3	5.3
	Disagree	5	13.2	13.2	18.4
	Neither agree nor disagree	6	15.8	15.8	34.2
	Agree	19	50.0	50.0	84.2
	Strongly agree	6	15.8	15.8	100.0
	Total	38	100.0	100.0	

People Management—Proactive Culture

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	2.6	2.6	2.6
	Disagree	3	7.9	7.9	10.5
	Neither agree nor disagree	7	18.4	18.4	28.9
	Agree	17	44.7	44.7	73.7
	Strongly agree	10	26.3	26.3	100.0
	Total	38	100.0	100.0	

People Management—Recognition

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	4	10.5	10.5	10.5
	Neither agree nor disagree	6	15.8	15.8	26.3
	Agree	14	36.8	36.8	63.2
	Strongly agree	14	36.8	36.8	100.0
	Total	38	100.0	100.0	

Relationship Management—Long Term

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	2	5.3	5.3	5.3
	Neither agree nor disagree	5	13.2	13.2	18.4
	Agree	18	47.4	47.4	65.8
	Strongly agree	13	34.2	34.2	100.0
	Total	38	100.0	100.0	

Technology Management—Collaboration Tools

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	2.6	2.6	2.6
	Disagree	4	10.5	10.5	13.2
	Neither agree nor disagree	4	10.5	10.5	23.7
	Agree	24	63.2	63.2	86.8
	Strongly agree	5	13.2	13.2	100.0
	Total	38	100.0	100.0	

Technology Management—Infrastructure

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	2.6	2.6	2.6
	Disagree	7	18.4	18.4	21.1
	Neither agree nor disagree	8	21.1	21.1	42.1
	Agree	19	50.0	50.0	92.1
	Strongly agree	3	7.9	7.9	100.0
	Total	38	100.0	100.0	

Threat Management—Risks

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	2	5.3	5.3	5.3
	Neither agree nor disagree	14	36.8	36.8	42.1
	Agree	15	39.5	39.5	81.6
	Strongly agree	7	18.4	18.4	100.0
	Total	38	100.0	100.0	

Threat Management—Security Policies

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	17	44.7	44.7	44.7
	Strongly agree	21	55.3	55.3	100.0
	Total	38	100.0	100.0	

Performance Management—Measurement

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	4	10.5	10.5	10.5
	Neither agree nor disagree	7	18.4	18.4	28.9
	Agree	24	63.2	63.2	92.1
	Strongly agree	3	7.9	7.9	100.0
	Total	38	100.0	100.0	

Performance Management—Reviews

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	2.6	2.6	2.6
	Disagree	2	5.3	5.3	7.9
	Neither agree nor disagree	12	31.6	31.6	39.5
	Agree	8	21.1	21.1	60.5
	Strongly agree	15	39.5	39.5	100.0
	Total	38	100.0	100.0	

Performance Management—Detection

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	2	5.3	5.3	5.3
	Disagree	2	5.3	5.3	10.5
	Neither agree nor disagree	7	18.4	18.4	28.9
	Agree	19	50.0	50.0	78.9
	Strongly agree	8	21.1	21.1	100.0
	Total	38	100.0	100.0	

Service Transfer—Project Manager

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	2.6	2.6	2.6
	Disagree	1	2.6	2.6	5.3
	Neither agree nor disagree	3	7.9	7.9	13.2
	Agree	14	36.8	36.8	50.0
	Strongly agree	19	50.0	50.0	100.0
	Total	38	100.0	100.0	

Service Transfer—Transitions

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	3	7.9	7.9	7.9
	Neither agree nor disagree	5	13.2	13.2	21.1
	Agree	19	50.0	50.0	71.1
	Strongly agree	11	28.9	28.9	100.0
	Total	38	100.0	100.0	

Service Delivery—Common Processes

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	2	5.3	5.3	5.3
	Neither agree nor disagree	2	5.3	5.3	10.5
	Agree	19	50.0	50.0	60.5
	Strongly agree	15	39.5	39.5	100.0
	Total	38	100.0	100.0	

Service Delivery—Roles and Responsibilities

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	0	1	2.6	2.6	2.6
	Disagree	3	7.9	7.9	10.5
	Neither agree nor disagree	2	5.3	5.3	15.8
	Agree	18	47.4	47.4	63.2
	Strongly agree	14	36.8	36.8	100.0
	Total	38	100.0	100.0	

Service Delivery—Review Meetings

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	4	10.5	10.5	10.5
	Neither agree nor disagree	6	15.8	15.8	26.3
	Agree	15	39.5	39.5	65.8
	Strongly agree	13	34.2	34.2	100.0
	Total	38	100.0	100.0	

Service Delivery—Post-implementation Reviews				
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	4	10.5	10.5	10.5
	Neither agree nor disagree	13	34.2	34.2	44.7
	Agree	16	42.1	42.1	86.8
	Strongly agree	5	13.2	13.2	100.0
	Total	38	100.0	100.0	

Service Delivery—Escalation				
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	3	7.9	7.9	7.9
	Neither agree nor disagree	2	5.3	5.3	13.2
	Agree	15	39.5	39.5	52.6
	Strongly agree	18	47.4	47.4	100.0
	Total	38	100.0	100.0	

Service Delivery—Agreed Timelines				
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	1	2.6	2.6	2.6
	Neither agree nor disagree	5	13.2	13.2	15.8
	Agree	18	47.4	47.4	63.2
	Strongly agree	14	36.8	36.8	100.0
	Total	38	100.0	100.0	

Service Delivery—Agreed Quality				
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	2.6	2.6	2.6
	Disagree	1	2.6	2.6	5.3
	Neither agree nor disagree	5	13.2	13.2	18.4
	Agree	20	52.6	52.6	71.1
	Strongly agree	11	28.9	28.9	100.0
	Total	38	100.0	100.0	

Service Delivery—Demand Pipeline				
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Strongly disagree	1	2.6	2.6	2.6
	Disagree	1	2.6	2.6	5.3
	Neither agree nor disagree	12	31.6	31.6	36.8
	Agree	15	39.5	39.5	76.3
	Strongly agree	9	23.7	23.7	100.0
	Total	38	100.0	100.0	

Service Delivery—Global Delivery Handbook				
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	1	2.6	2.6	2.6
	Neither agree nor disagree	7	18.4	18.4	21.1
	Agree	20	52.6	52.6	73.7
	Strongly agree	10	26.3	26.3	100.0
	Total	38	100.0	100.0	

Reliability Analysis

A reliability analysis is conducted to check whether the scale used in each question consistently reflects the construct of the sub-group it is measuring. For each sub-group, Cronbach's alpha is measured and shown in Table E.13. Where Cronbach alpha scores are 0.70 or higher, they should be treated as reliable.

Table E.13: Reliability Analysis Questionnaire Two

Category	Cronbach's Alpha	Decision
Value Management	0.868	Reliable
Organisational Change Management	0.601	
Knowledge Management	0.611	
People Management	0.616	
Relationship Management	N/A	N/A
Technology Management	0.598	
Threat Management	0.680	
Performance Management	0.813	Reliable
Service Transfer	0.538	
Service Delivery	0.794	Reliable

According to Table E.13, Cronbach's alpha has not recorded any unusual values such as negative alphas.

Capability Scores

For each category, capability mean scores are created by averaging the responses. Ten categories are created as shown in Figure E.14.

Table E.14: Capability Scores Criteria

Category	Used Variables
Value Management	Average (Continuous Improvement, Accelerators)
Organisational Change Management	Average (Onboarding, Communications)
Knowledge Management	Average (Transfer, Retention)
People Management	Average (Skill Proficiency, Proactive Culture, Recognition)
Relationship Management	Average (Long Term)
Technology Management	Average (Collaboration Tools, Infrastructure)
Threat Management	Average (Risks, Security Policies)
Performance Management	Average (Measurement, Reviews, Detection)
Service Transfer	Average (Project Manager, Transitions)
Service Delivery	Average (Common Processes, Roles and Responsibilities, Review Meetings, Post-implementation Reviews, Escalation, Agreed Timelines, Agreed Quality, Demand Pipeline, Global Delivery Handbook)

Table E.15 shows the descriptive analysis of the new categories. The central tendency measurements used here are mean and median. Standard deviation is used as the measure of dispersion.

Table E.15: Descriptive Analysis of Categories

Category	Mean	Median	Standard Deviation
Value Management	3.5395	4.0000	0.9327
Organisational Change Management	3.8684	4.0000	0.8517
Knowledge Management	3.9605	4.0000	0.7568
People Management	3.8070	4.0000	0.7697
Relationship Management	4.1053	4.0000	0.8315
Technology Management	3.5789	4.0000	0.8014
Threat Management	4.1316	4.0000	0.6005
Performance Management	3.7807	3.8333	0.8285
Service Transfer	4.1447	4.5000	0.7435
Service Delivery	4.0146	4.1111	0.5457

According to Table E.15, all the categories have recorded means above the average level of three. This indicates that the processes are matured from an organisational perspective. This pattern can also be observed by examining the medians: no single category recorded a median below the average level of three. The standard deviations of all categories recorded standard deviations of less than 1, which indicates little variation in the responses.

Research Questions

The data from Questionnaire Two has been calculated to have a mean of 3.9125 and a standard deviation of 0.9404 and has been determined as normally distributed with 99.7 per cent of the 1064 individual scores falling within three standard deviations of the mean. Therefore, the mean is selected as the measure of central tendency.

The overall capability score across all categories and all respondents is the grand mean which is 3.8931 and is based on the means of the capability scores for each of the 10 categories and all respondents and is shown in Table E.16.

Table E.16: Capability Score for Each Category

Category	Capability Score
Value Management	3.5395
Organisational Change Management	3.8684
Knowledge Management	3.9605
People Management	3.8070
Relationship Management	4.1053
Technology Management	3.5789
Threat Management	4.1316
Performance Management	3.7807
Service Transfer	4.1447
Service Delivery	4.0146

It is important to calculate the overall capability score across all categories for Group A clients versus Group A suppliers. This can be calculated by averaging the capability mean scores of Group A clients and Group A suppliers and is shown in Table E.17.

Table E.17: Capability Score for Group A Clients and Suppliers

Group A	Capability Score
Clients	3.35
Suppliers	4.15

The overall capability score for each of the 10 categories for Group A clients versus Group A suppliers can be calculated by averaging the capability mean scores of Group A clients and Group A suppliers, and subdividing by each category. This is shown in Table E.18.

Table E.18: Capability Score for Group A Clients and Suppliers by Category

Category	Capability Score	
	Clients	Suppliers
Value Management	2.75	3.90
Organisational Change Management	3.29	4.13
Knowledge Management	3.54	4.15
People Management	3.22	4.08
Relationship Management	3.58	4.35
Technology Management	3.04	3.83
Threat Management	3.75	4.31
Performance Management	3.06	4.12
Service Transfer	3.63	4.38
Service Delivery	3.61	4.20

It is important to calculate the overall capability score across all categories for Group B engagement types (type I, type II, type III and type IV). This can be calculated by averaging the capability mean scores of Group B engagement types and is shown in Table E.19.

Table E.19: Capability Score for Group B Engagement Types

Group B	Capability Score
Type I	3.28
Type II	4.06
Type III	4.10
Type IV	3.35

The overall capability score for each of the 10 categories for Group B engagement types can be calculated by averaging the capability mean scores of Group B engagement types and subdividing by each category. This is shown in Table E.20.

Table E.20: Capability Score for Group B Engagement Types by Category

Category	Capability Score			
	Type I	Type II	Type III	Type IV
Value Management	2.75	3.88	3.63	2.60
Organisational Change Management	3.25	4.02	4.19	3.20
Knowledge Management	3.25	4.14	4.19	3.40
People Management	3.00	4.00	4.17	3.07
Relationship Management	3.50	4.05	4.63	4.00
Technology Management	2.63	3.76	3.81	3.20
Threat Management	3.75	4.17	4.44	3.80
Performance Management	3.42	4.05	3.67	3.13
Service Transfer	3.63	4.38	4.06	3.70
Service Delivery	3.58	4.17	4.18	3.44

Group A Clients versus Group A Suppliers

The desired test for checking the differences in capability mean scores of Group A clients and Group A suppliers is the independent sample t-test.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores of Group A clients and Group A suppliers.

H_1: There is a difference between the capability mean scores of Group A clients and Group A suppliers.

Table E.21: Group A Clients versus Group A Suppliers

	Mean of Capability Score	p-Value	Conclusion
Group A clients	3.3472	0.000	Significant
Group A suppliers	4.1451		

Since the p-value of 0.000 is less than the significance level of 0.05, we have to reject H_0. Therefore, we can say that there is a significant difference between the capability mean scores of Group A clients and Group A suppliers, under 95 per cent confidence. Further, the mean values demonstrate that the capability score of Group A suppliers is significantly higher than that of Group A clients.

Group B Engagement Types I, II, III and IV

The desired test for checking the differences in capability mean scores of Group B engagement types is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

The hypothesis tested here is:

H0: There is no difference between the capability mean scores of all Group B engagement types.

H1: There is a difference between the capability mean scores of at least a pair of Group B engagement types.

Table E.22: Group B Engagement Types I, II, III and IV

ANOVA—Overall Capability Score					
	Sum Of Squares	df	Mean Square	F	Significance
Between Groups	3.906	3	1.302	4.931	.006
Within Groups	8.978	34	.264		
Total	12.884	37			
Multiple Comparisons—Dependent Variable: Overall Capability Score—Tukey HSD					
Engagement Type A	Engagement Type B	Mean Difference (A–B)	Std Error	Sig	95% Confidence Interval	
					Lower Bound	Upper Bound
Type I	Type II	−.78717*	.28033	.039	−1.5443	−.0300
	Type III	−.82014	.31467	.062	−1.6700	.0297
	Type IV	−.07944	.34471	.996	−1.0104	.8515
Type II	Type I	.78717*	.28033	.039	.0300	1.5443
	Type III	−.03297	.21350	.999	−.6096	.5436
	Type IV	.70772*	.25570	.043	.0171	1.3983
Type III	Type I	.82014	.31467	.062	−.0297	1.6700
	Type II	.03297	.21350	.999	−.5436	.6096
	Type IV	.74069	.29295	.073	−.0505	1.5319
Type IV	Type I	.07944	.34471	.996	−.8515	1.0104
	Type II	−.70772*	.25570	.043	−1.3983	−.0171
	Type III	−.74069	.29295	.073	−1.5319	.0505
*The mean difference is significant at the 0.05 level					

As shown in Table E.22, the p-value of 0.006 is less than the significance level of 0.05, and we have to reject H0. Therefore, we can say that there is a difference between the capability mean scores of at least a pair of Group B engagement types, under 95% confidence.

The Tukey results show that the p-value between type I and type II is 0.039, and between type II and type IV is 0.043, where both p-values are less than the significance level of 0.05. This illustrates that the capability mean scores between type I/type II pair and type II/type IV pair are significantly different. Further, the mean difference demonstrates that the capability score of type II is significantly higher than that of type I and the capability score of type II is significantly higher than that of type IV.

Questionnaire 3

Composition of the Sample

This section gives an inside view of the sample used in Questionnaire 3. It reports the frequency distribution of the 28 variables.

Table E.23: 28 Questionnaire Three Variables

	Value Management—Continuous Improvement			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	44	100.0	100.0	100.0

	Value Management—Accelerators			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	34	77.3	77.3	77.3
	Strongly agree	10	22.7	22.7	100.0
	Total	44	100.0	100.0	

	Organisational Change Management—Onboarding			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Neither agree nor disagree	13	29.5	29.5	29.5
	Agree	21	47.7	47.7	77.3
	Strongly agree	10	22.7	22.7	100.0
	Total	44	100.0	100.0	

	Organisational Change Management—Communications			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	7	15.9	15.9	15.9
	Strongly agree	37	84.1	84.1	100.0
	Total	44	100.0	100.0	

	Knowledge Management—Transfer			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Neither agree nor disagree	13	29.5	29.5	29.5
	Agree	21	47.7	47.7	77.3
	Strongly agree	10	22.7	22.7	100.0
	Total	44	100.0	100.0	

	Knowledge Management—Retention			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Disagree	10	22.7	22.7	22.7
	Agree	21	47.7	47.7	70.5
	Strongly agree	13	29.5	29.5	100.0
	Total	44	100.0	100.0	

	People Management—Skill Proficiency			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	44	100.0	100.0	100.0

	People Management—Proactive Culture			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	30	68.2	68.2	68.2
	Strongly agree	14	31.8	31.8	100.0
	Total	44	100.0	100.0	

People Management—Recognition

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	7	15.9	15.9	15.9
	Strongly agree	37	84.1	84.1	100.0
	Total	44	100.0	100.0	

Relationship Management—Long Term

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Neither agree nor disagree	10	22.7	22.7	22.7
	Strongly agree	34	77.3	77.3	100.0
	Total	44	100.0	100.0	

Technology Management—Collaboration Tools

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	44	100.0	100.0	100.0

Technology Management—Infrastructure

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Neither agree nor disagree	10	22.7	22.7	22.7
	Agree	34	77.3	77.3	100.0
	Total	44	100.0	100.0	

Threat Management—Risks

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Neither agree nor disagree	10	22.7	22.7	22.7
	Agree	21	47.7	47.7	70.5
	Strongly agree	13	29.5	29.5	100.0
	Total	44	100.0	100.0	

Threat Management—Security Policies

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	24	54.5	54.5	54.5
	Strongly agree	20	45.5	45.5	100.0
	Total	44	100.0	100.0	

Performance Management—Measurement

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	37	84.1	84.1	84.1
	Strongly agree	7	15.9	15.9	100.0
	Total	44	100.0	100.0	

Performance Management—Reviews

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	24	54.5	54.5	54.5
	Strongly agree	20	45.5	45.5	100.0
	Total	44	100.0	100.0	

Performance Management—Detection

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	44	100.0	100.0	100.0

Service Transfer—Project Manager

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	7	15.9	15.9	15.9
	Strongly agree	37	84.1	84.1	100.0
	Total	44	100.0	100.0	

Service Transfer—Transitions

		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Neither agree nor disagree	13	29.5	29.5	29.5
	Agree	7	15.9	15.9	45.5
	Strongly agree	24	54.5	54.5	100.0
	Total	44	100.0	100.0	

Service Delivery—Common Processes				
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	44	100.0	100.0	100.0

Service Delivery—Roles and Responsibilities				
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	30	68.2	68.2	68.2
	Strongly agree	14	31.8	31.8	100.0
	Total	44	100.0	100.0	

Service Delivery—Review Meetings				
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	31	70.5	70.5	70.5
	Strongly agree	13	29.5	29.5	100.0
	Total	44	100.0	100.0	

Service Delivery—Post-implementation Reviews				
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	44	100.0	100.0	100.0

Service Delivery—Escalation				
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	31	70.5	70.5	70.5
	Strongly agree	13	29.5	29.5	100.0
	Total	44	100.0	100.0	

Service Delivery—Agreed Timelines				
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Neither agree nor disagree	13	29.5	29.5	29.5
	Agree	17	38.6	38.6	68.2
	Strongly agree	14	31.8	31.8	100.0
	Total	44	100.0	100.0	

Service Delivery—Agreed Quality				
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	30	68.2	68.2	68.2
	Strongly agree	14	31.8	31.8	100.0
	Total	44	100.0	100.0	

Service Delivery—Demand Pipeline				
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	30	68.2	68.2	68.2
	Strongly agree	14	31.8	31.8	100.0
	Total	44	100.0	100.0	

Service Delivery—Global Delivery Handbook				
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Neither agree nor disagree	13	29.5	29.5	29.5
	Agree	17	38.6	38.6	68.2
	Strongly agree	14	31.8	31.8	100.0
	Total	44	100.0	100.0	

Reliability Analysis

A reliability analysis is conducted to check whether the scale used in each question consistently reflects the construct of the sub-group it is measuring. For each sub-group, Cronbach's alpha is measured and shown in Table E.24. Where Cronbach alpha scores are 0.70 or higher, they should be treated as reliable.

Table E.24: Reliability Analysis Questionnaire Three

Category	Cronbach's Alpha	Decision
Value Management	0.000	
Organisational Change Management	−0.069	
Knowledge Management	−17.329	
People Management	0.336	
Relationship Management	N/A	Reliable
Technology Management	0.000	
Threat Management	0.817	Reliable
Performance Management	0.469	
Service Transfer	0.160	
Service Delivery	0.649	Reliable

Capability Scores

For each category capability, scores are created by averaging the responses. Ten categories are created as shown in Table E.25.

Table E.25: Capability Scores Criteria

Category	Used Variables
Value Management	Average (Continuous Improvement, Accelerators)
Organisational Change Management	Average (Onboarding, Communications)
Knowledge Management	Average (Transfer, Retention)
People Management	Average (Skill Proficiency, Proactive Culture, Recognition)
Relationship Management	Average (Long Term)
Technology Management	Average (Collaboration Tools, Infrastructure)
Threat Management	Average (Risks, Security Policies)
Performance Management	Average (Measurement, Reviews, Detection)
Service Transfer	Average (Project Manager, Transitions)
Service Delivery	Average (Common Processes, Roles and Responsibilities, Review Meetings, Post-implementation Reviews, Escalation, Agreed Timelines, Agreed Quality, Demand Pipeline, Global Delivery Handbook)

Table E.26 shows the descriptive analysis of the new categories. The central tendency measurements used here are mean and median. Standard deviation is used as the measure of dispersion.

Table E.26: Descriptive Analysis of Categories

Category	Mean	Median	Standard Deviation
Value Management	4.1136	4.0000	.21196
Organisational Change Management	4.3864	4.5000	.40150
Knowledge Management	3.8864	4.0000	.21196
People Management	4.3864	4.3333	.22668
Relationship Management	4.5455	5.0000	.84783
Technology Management	3.8864	4.0000	.21196
Threat Management	4.2614	4.0000	.57555
Performance Management	4.2045	4.0000	.25126
Service Transfer	4.5455	5.0000	.50369
Service Delivery	4.1768	4.0000	.26175

According to Table E.26, all the categories have recorded means above the agreed level of four. This indicates that the processes are well matured from an organisational perspective. This pattern can also be observed by examining the medians: no single category recorded a median below the average level of four. The standard deviations of all categories are less than 1, which indicates little variation in the responses.

Research Questions

The data from Questionnaire Three has been calculated to have a mean of 4.2167 and a standard deviation of 0.6105 and has been determined as normally distributed with 99.7 per cent of the 1232 individual scores falling within three standard deviations of the mean. Therefore, the mean is selected as the measure of central tendency.

The overall capability score across all categories and all respondents is the grand mean which is 4.2393 and is based on the means of the capability scores for each of the 10 categories and all respondents and is shown in Table E.27.

Table E.27: Capability Score for Each Category

Category	Capability Score
Value Management	4.1136
Organisational Change Management	4.3864
Knowledge Management	3.8864
People Management	4.3864
Relationship Management	4.5455
Technology Management	3.8864
Threat Management	4.2614
Performance Management	4.2045
Service Transfer	4.5455
Service Delivery	4.1768

It is important to calculate the overall capability score across all categories for Group A clients versus Group A suppliers. This can be calculated by averaging the capability mean scores of Group A clients and Group A suppliers and is shown in Table E.28.

Table E.28: Capability Score for Group A Clients and Suppliers

Group A	Capability Score
Clients	4.27
Suppliers	4.22

The overall capability score for each of the 10 categories for Group A clients versus Group A suppliers can be calculated by averaging the capability mean scores of Group A clients and Group A suppliers and subdividing by each category. This is shown in Table E.29.

Table E.29: Capability Score for Group A Clients and Suppliers by Category

Category	Capability Score	
	Clients	Suppliers
Value Management	4.08	4.13
Organisational Change Management	4.39	4.38
Knowledge Management	3.92	3.87
People Management	4.44	4.35
Relationship Management	4.67	4.46
Technology Management	3.92	3.87
Threat Management	4.25	4.27
Performance Management	4.17	4.23
Service Transfer	4.61	4.50
Service Delivery	4.25	4.13

It is important to calculate the overall capability score across all categories for Group B engagement types (type I, type II, type III and type IV). This can be calculated by averaging the capability mean scores of Group B engagement types and is shown in Table E.30.

Table E.30: Capability Score for Group B Engagement Types

Group B	Capability Score
Type I	4.32
Type II	4.23
Type III	4.21
Type IV	4.25

The overall capability score for each of the 10 categories for Group B engagement types can be calculated by averaging the capability mean scores of Group B engagement types and subdividing by each category. This is shown in Table E.31.

Table E.31: Capability Score for Goup B Engagement Types by Category

Category	Capability Score			
	Type I	Type II	Type III	Type IV
Value Management	4.00	4.12	4.17	4.08
Organisational Change Management	4.25	4.40	4.44	4.33
Knowledge Management	4.00	3.88	3.83	3.92
People Management	4.50	4.37	4.37	4.39
Relationship Management	5.00	4.52	4.33	4.67
Technology Management	4.00	3.88	3.83	3.92
Threat Management	4.50	4.22	4.22	4.33
Performance Management	4.17	4.21	4.19	4.22
Service Transfer	4.50	4.56	4.56	4.50
Service Delivery	4.28	4.18	4.12	4.19

Group A Clients versus Group A Suppliers

The desired test for checking the differences in capability mean scores of Group A clients and Group A suppliers is the independent sample t-test.

The hypothesis tested here is:

H0: There is no difference between the capability mean scores of Group A clients and Group A suppliers.

H1: There is a difference between the capability mean scores of Group A clients and Group A suppliers.

Table E.32: Group A Clients versus Group A Suppliers

	Mean of Capability Score	p-Value	Conclusion
Group A clients	4.2691	0.193	Not Significant
Group A suppliers	4.2186		

Since the p-value of 0.193 is greater than the significance level of 0.05, we have to not reject H_0. Therefore, we can say that there is no significant difference between the capability mean scores of Group A clients and Group A suppliers, under 95 per cent confidence. Further, the mean values demonstrate that the capability score for Group A suppliers is very much closer to Group A clients.

Group B Engagement Types I, II, III and IV

The desired test for checking the differences in capability mean scores of Group B engagement types is the one-way ANOVA test.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores of all Group B engagement types.

H_1: There is a difference between the capability mean scores of at least a pair of Group B engagement types.

Table E.33: Group B Engagement Types I, II, III and IV

ANOVA					
Overall Capability Score					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.037	3	.012	.766	.520
Within Groups	.648	40	.016		
Total	.685	43			

As shown in Table E.33, the p-value of 0.520 is greater than the significance level of 0.05 and we have to not reject H_0. Therefore, we can say that there is no difference between the capability score of all Group B engagement types, under 95 per cent confidence.

Questionnaire 4

Composition of the Sample

This section gives an inside view of the sample used in Questionnaire 4. It reports the frequency distribution of the 28 variables.

Table E.34: 28 Questionnaire Four Variables

	Value Management—Continuous Improvement			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	15	37.5	37.5	37.5
	Strongly agree	25	62.5	62.5	100.0
	Total	40	100.0	100.0	

	Value Management—Accelerators			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	21	52.5	52.5	52.5
	Strongly agree	19	47.5	47.5	100.0
	Total	40	100.0	100.0	

	Organisational Change Management—Onboarding			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Neither agree nor disagree	5	12.5	12.5	12.5
	Agree	21	52.5	52.5	65.0
	Strongly agree	14	35.0	35.0	100.0
	Total	40	100.0	100.0	

	Organisational Change Management—Communications			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	17	42.5	42.5	42.5
	Strongly agree	23	57.5	57.5	100.0
	Total	40	100.0	100.0	

	Knowledge Management—Transfer			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Neither agree nor disagree	4	10.0	10.0	10.0
	Agree	19	47.5	47.5	57.5
	Strongly agree	17	42.5	42.5	100.0
	Total	40	100.0	100.0	

	Knowledge Management—Retention			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	21	52.5	52.5	52.5
	Strongly agree	19	47.5	47.5	100.0
	Total	40	100.0	100.0	

	People Management—Skill Proficiency			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	34	85.0	85.0	85.0
	Strongly agree	6	15.0	15.0	100.0
	Total	40	100.0	100.0	

	People Management—Proactive Culture			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	20	50.0	50.0	50.0
	Strongly agree	20	50.0	50.0	100.0
	Total	40	100.0	100.0	

	People Management—Recognition			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	21	52.5	52.5	52.5
	Strongly agree	19	47.5	47.5	100.0
	Total	40	100.0	100.0	

	Relationship Management—Long Term			
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	5	12.5	12.5	12.5
	Strongly agree	35	87.5	87.5	100.0
	Total	40	100.0	100.0	

Technology Management—Collaboration Tools					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	29	72.5	72.5	72.5
	Strongly agree	11	27.5	27.5	100.0
	Total	40	100.0	100.0	

Technology Management—Infrastructure					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Neither agree nor disagree	4	10.0	10.0	10.0
	Agree	29	72.5	72.5	82.5
	Strongly agree	7	17.5	17.5	100.0
	Total	40	100.0	100.0	

Threat Management—Risks					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Neither agree nor disagree	6	15.0	15.0	15.0
	Agree	21	52.5	52.5	67.5
	Strongly agree	13	32.5	32.5	100.0
	Total	40	100.0	100.0	

Threat Management—Security Policies					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	18	45.0	45.0	45.0
	Strongly agree	22	55.0	55.0	100.0
	Total	40	100.0	100.0	

Performance Management—Measurement					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	26	65.0	65.0	65.0
	Strongly agree	14	35.0	35.0	100.0
	Total	40	100.0	100.0	

Performance Management—Reviews					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	17	42.5	42.5	42.5
	Strongly agree	23	57.5	57.5	100.0
	Total	40	100.0	100.0	

Performance Management—Detection					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	40	100.0	100.0	100.0

Service Transfer—Project Manager					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	12	30.0	30.0	30.0
	Strongly agree	28	70.0	70.0	100.0
	Total	40	100.0	100.0	

Service Transfer—Transitions					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Neither agree nor disagree	5	12.5	12.5	12.5
	Agree	14	35.0	35.0	47.5
	Strongly agree	21	52.5	52.5	100.0
	Total	40	100.0	100.0	

Service Delivery—Common Processes					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	35	87.5	87.5	87.5
	Strongly agree	5	12.5	12.5	100.0
	Total	40	100.0	100.0	

Service Delivery—Roles and Responsibilities					
		Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid	Agree	23	57.5	57.5	57.5
	Strongly agree	17	42.5	42.5	100.0
	Total	40	100.0	100.0	

Service Delivery—Review Meetings				
	Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid Agree	23	57.5	57.5	57.5
Strongly agree	17	42.5	42.5	100.0
Total	40	100.0	100.0	

Service Delivery – Post-implementation Reviews				
	Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid Agree	29	72.5	72.5	72.5
Strongly agree	11	27.5	27.5	100.0
Total	40	100.0	100.0	

Service Delivery—Escalation				
	Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid Agree	22	55.0	55.0	55.0
Strongly agree	18	45.0	45.0	100.0
Total	40	100.0	100.0	

Service Delivery—Agreed Timelines				
	Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid Neither agree nor disagree	1	2.5	2.5	2.5
Agree	20	50.0	50.0	52.5
Strongly agree	19	47.5	47.5	100.0
Total	40	100.0	100.0	

Service Delivery—Agreed Quality				
	Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid Agree	22	55.0	55.0	55.0
Strongly agree	18	45.0	45.0	100.0
Total	40	100.0	100.0	

Service Delivery—Demand Pipeline				
	Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid Agree	25	62.5	62.5	62.5
Strongly agree	15	37.5	37.5	100.0
Total	40	100.0	100.0	

Service Delivery—Global Delivery Handbook				
	Frequency	Per Cent	Valid Per Cent	Cumulative Per Cent
Valid Neither agree nor disagree	3	7.5	7.5	7.5
Agree	20	50.0	50.0	57.5
Strongly agree	17	42.5	42.5	100.0
Total	40	100.0	100.0	

Reliability Analysis

A reliability analysis is conducted to check whether the scale used in each question consistently reflects the construct of the sub-group it is measuring. For each sub-group, Cronbach's alpha is measured and shown in Table E.35. Where Cronbach alpha scores are 0.70 or higher, they should be treated as reliable.

Table E.35: Reliability Analysis Questionnaire Four

Category	Cronbach's Alpha	Decision
Value Management	0.598	
Organisational Change Management	−0.193	
Knowledge Management	−0.027	
People Management	0.520	
Relationship Management	N/A	N/A
Technology Management	−0.483	
Threat Management	0.681	
Performance Management	0.516	
Service Transfer	0.427	
Service Delivery	0.707	Reliable

Capability Scores

For each category, capability mean scores are created by averaging the responses. Ten categories are created as shown in Table E.36

Table E.36: Capability Scores Criteria

Category	Used Variables
Value Management	Average (Continuous Improvement, Accelerators)
Organisational Change Management	Average (Onboarding, Communications)
Knowledge Management	Average (Transfer, Retention)
People Management	Average (Skill Proficiency, Proactive Culture, Recognition)
Relationship Management	Average (Long Term)
Technology Management	Average (Collaboration Tools, Infrastructure)
Threat Management	Average (Risks, Security Policies)
Performance Management	Average (Measurement, Reviews, Detection)
Service Transfer	Average (Project Manager, Transitions)
Service Delivery	Average (Common Processes, Roles and Responsibilities, Review Meetings, Post-implementation Reviews, Escalation, Agreed Timelines, Agreed Quality, Demand Pipeline, Global Delivery Handbook)

Table E.37 shows the descriptive analysis of the new categories. The central tendency measurements used here are mean and median. Standard deviation is used as the measure of dispersion.

Table E.37: Descriptive Analysis of Categories

Category	Mean	Median	Standard Deviation
Value Management	4.5500	4.5000	0.42062
Organisational Change Management	4.4000	4.5000	0.39549
Knowledge Management	4.4000	4.5000	0.41138
People Management	4.3750	4.3333	0.33065
Relationship Management	4.8750	5.0000	0.33493
Technology Management	4.1750	4.0000	0.31112
Threat Management	4.3625	4.5000	0.51872
Performance Management	4.3083	4.3333	0.28632
Service Transfer	4.5500	4.7500	0.47771
Service Delivery	4.3694	4.3889	0.27377

According to Table E.37, all the categories have recorded means above the agreed level of four. This indicates that the processes are well matured from an organisational perspective. This pattern also can be observed by examining the medians: no single category recorded a median below the average level of four. The standard deviations of all categories are less than 1, which indicates little variation in the responses.

Research Questions

The data from Questionnaire Four has been calculated to have a mean of 4.3973 and a standard deviation of 0.5380 and has been determined as normally distributed with 99.7 per cent of the 1120 individual scores falling within three standard deviations of the mean. Therefore, the mean is selected as the measure of central tendency.

The overall capability score across all categories and all respondents is the grand mean which is 4.4365 and is based on the means of the capability scores for each of the 10 categories and all respondents and is shown in Table E.38.

Table E.38: Capability Score for Each Category

Category	Capability Score
Value Management	4.5500
Organisational Change Management	4.4000
Knowledge Management	4.4000
People Management	4.3750
Relationship Management	4.8750
Technology Management	4.1750
Threat Management	4.3625
Performance Management	4.3083
Service Transfer	4.5500
Service Delivery	4.3694

It is important to calculate the overall capability score across all categories for Group A clients versus Group A suppliers. This can be calculated by averaging the capability mean scores of Group A clients and Group A suppliers. This is shown in Table E.39.

Table E.39: Capability Score for Group A Clients and Suppliers

Group A	Capability Score
Clients	4.40
Suppliers	4.47

The overall capability score for each of the 10 categories for Group A clients versus Group A suppliers can be calculated by averaging the capability mean scores of Group A clients and Group A suppliers, and subdividing by each category. This is shown in Table E.40.

Table E.40: Capability Score for Group A Clients and Suppliers by Category

Category	Capability Score	
	Clients	Suppliers
Value Management	4.63	4.48
Organisational Change Management	4.38	4.43
Knowledge Management	4.35	4.45
People Management	4.33	4.42
Relationship Management	4.85	4.90
Technology Management	4.03	4.33
Threat Management	4.30	4.43
Performance Management	4.25	4.37
Service Transfer	4.55	4.55
Service Delivery	4.33	4.41

It is important to calculate the overall capability score across all categories for Group B engagement types (type I, type II, type III and type IV). This can be calculated by averaging the capability mean scores of Group B engagement types and is shown in Table E.41.

Table E.41: Capability Score for Group B Engagement Types

Group B	Capability Score
Type I	4.36
Type II	4.42
Type III	4.49
Type IV	4.47

The overall capability score for each of the 10 categories for Group B engagement types can be calculated by averaging the capability mean scores of Group B engagement types and subdividing by each category. This is shown in Table E.42.

Table E.42: Capability Score for Group B Engagement Types by Category

Category	Capability Score			
	Type I	Type II	Type III	Type IV
Value Management	4.35	4.60	4.55	4.70
Organisational Change Management	4.35	4.35	4.45	4.45
Knowledge Management	4.60	4.35	4.30	4.35
People Management	4.23	4.37	4.43	4.47
Relationship Management	4.80	4.90	4.90	4.90
Technology Management	3.95	4.35	4.30	4.10
Threat Management	4.30	4.25	4.45	4.45
Performance Management	4.30	4.27	4.40	4.27
Service Transfer	4.40	4.45	4.70	4.65
Service Delivery	4.31	4.34	4.41	4.41

Group A Clients versus Group A Suppliers

The desired test for checking the differences in capability mean scores of Group A clients and Group A suppliers is the independent sample t-test.

The hypothesis tested here is:

H0: There is no difference between the capability mean scores of Group A clients and Group A suppliers.

H1: There is a difference between the capability mean scores of Group A clients and Group A suppliers.

Table E.43: Group A Clients versus Group A Suppliers

	Mean of Capability Score	**p-Value**	**Conclusion**
Group A clients	4.3992	0.088	Not Significant
Group A suppliers	4.4739		

Since the p-value of 0.088 is greater than the significance level of 0.05, we have to not reject H_0. Therefore, we can say that there is no significant difference between the capability score of Group A clients and Group A suppliers, under 95% confidence. Further, the mean values demonstrate that the capability score for Group A suppliers is higher than for Group A clients.

Group B Engagement Types I, II, III and IV

The desired test for checking the differences in capability mean scores of Group B engagement types is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores of all Group B engagement types.

H_1: There is a difference between the capability mean scores of at least a pair of Group B engagement types.

Table E.44: Group B Engagement Types I, II, III and IV

| ANOVA					
Overall Capability Score					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.104	3	.035	1.930	.142
Within Groups	.645	36	.018		
Total	.748	39			

As shown in Table E.44, the p-value of 0.142 is greater than the significance level of 0.05, and we have to not reject H_0. Therefore, we can say that there is no difference between the capability score of all Group B engagement types, under 95% confidence.

Comparisons between Questionnaire 1 and Questionnaire 2

Preliminary Analysis

This part consists of simple comparisons between Questionnaire 1 and Questionnaire 2. The output is displayed graphically using column charts.

Figure E.1: Capability Score across All Categories and All Respondents
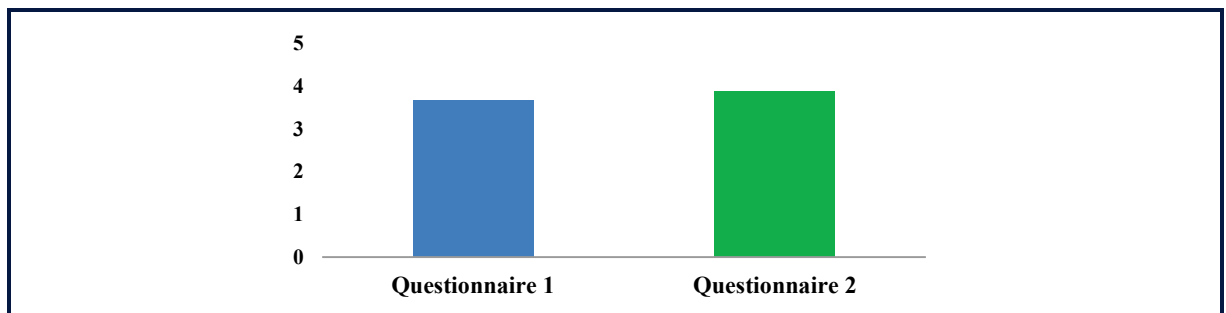
There the capability mean scores recorded in Questionnaire 2 compared to Questionnaire 1 across all categories and all respondents are higher.

Figure E.2: Capability Score across Each of the 10 Categories and All Respondents
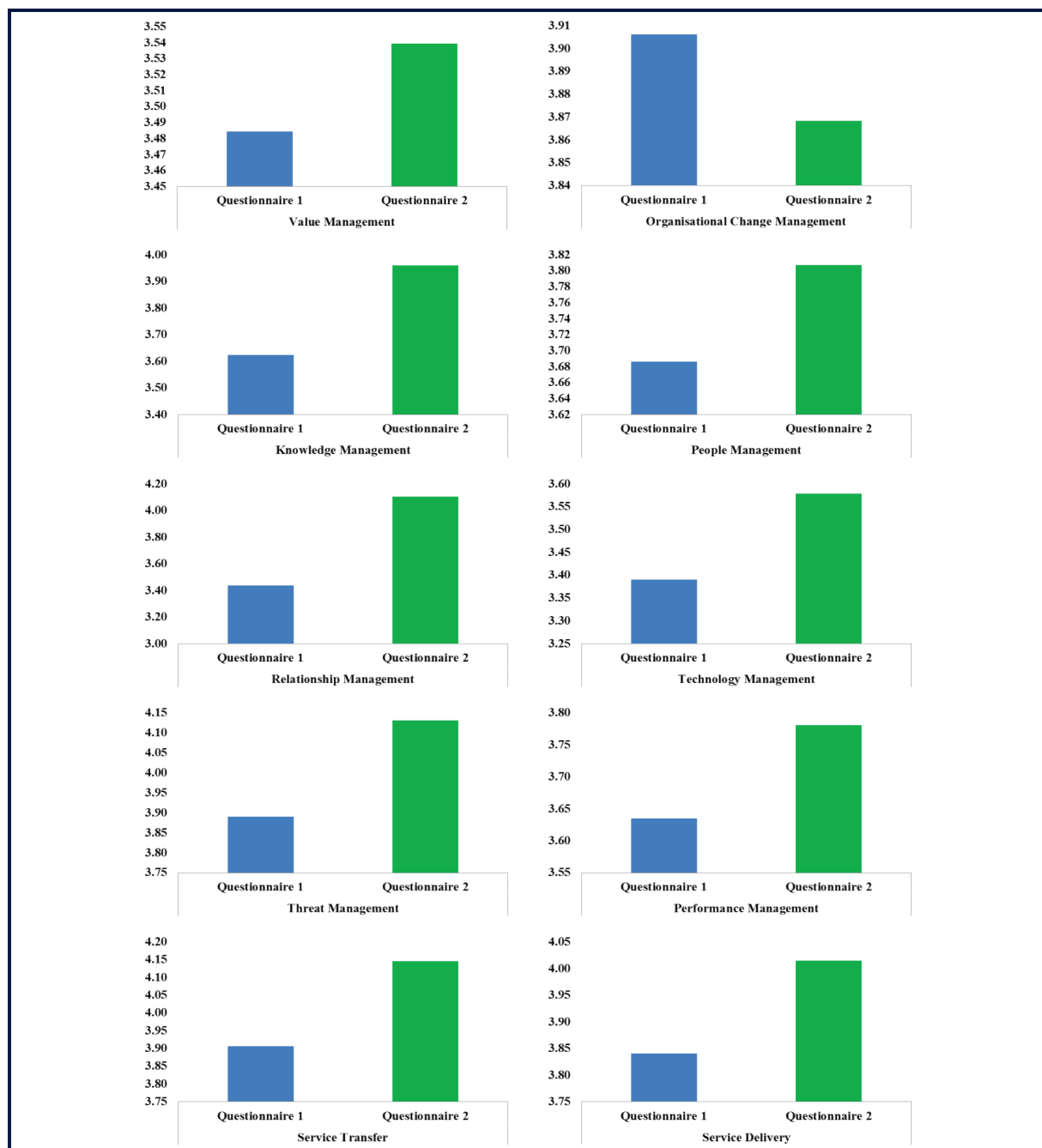
Figure E.3 shows that, except for organisational change management, the capability mean scores in all categories are higher in Questionnaire 2 compared to Questionnaire 1.

Figure E.3: Capability Score across All Categories for Group A Clients

Figure E.3 shows that the capability mean scores recorded in Questionnaire 2 compared to Questionnaire 1 for Group A clients are lower.

Figure E.4: Capability Score across All Categories for Group A Suppliers

Figure E.4 shows that there the capability mean scores recorded in Questionnaire 2 compared to Questionnaire 1 for Group A suppliers are higher.

Figure E.5: Capability Score across All Categories for Group B Engagement Type I

Figure E.5 shows that the capability mean scores recorded in Questionnaire 2 compared to Questionnaire 1 for Group B engagement type I are similar.

Figure E.6: Capability Score across All Categories For Group B Engagement Type II

Figure E.6 shows that the capability mean scores recorded in Questionnaire 2 compared to Questionnaire 1 for Group B engagement type II are higher.

Figure E.7: Capability Score across All Categories for Group B Engagement Type III

Figure E.7 shows that the capability mean scores recorded in Questionnaire 2 compared to Questionnaire 1 for Group B engagement type III are similar.

Figure E.8: Capability Score across All Categories for Group B Engagement Type IV
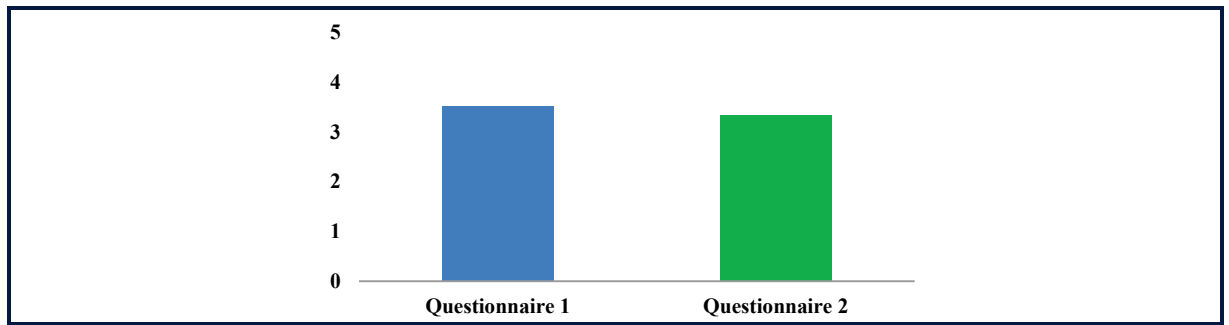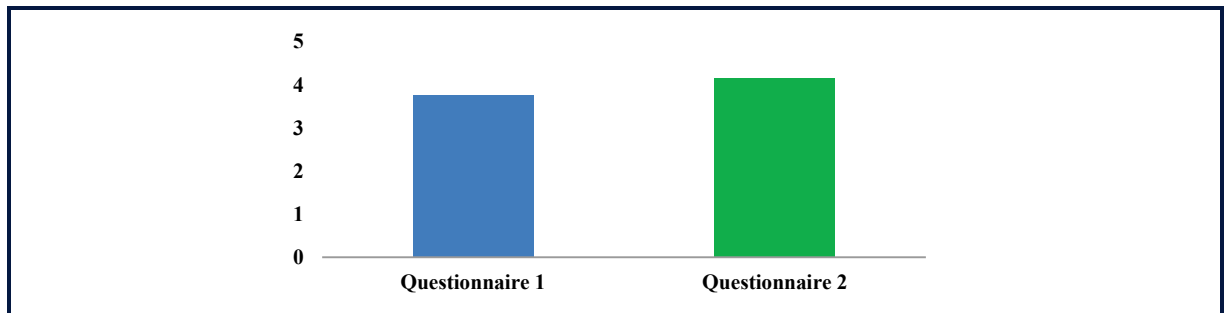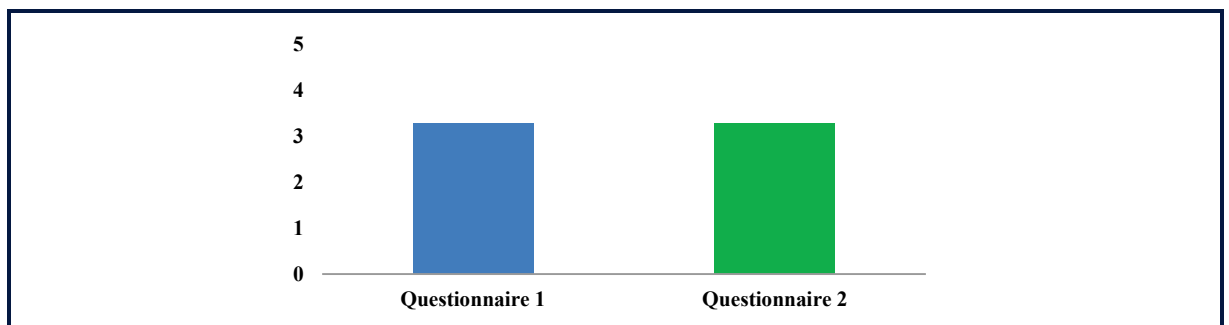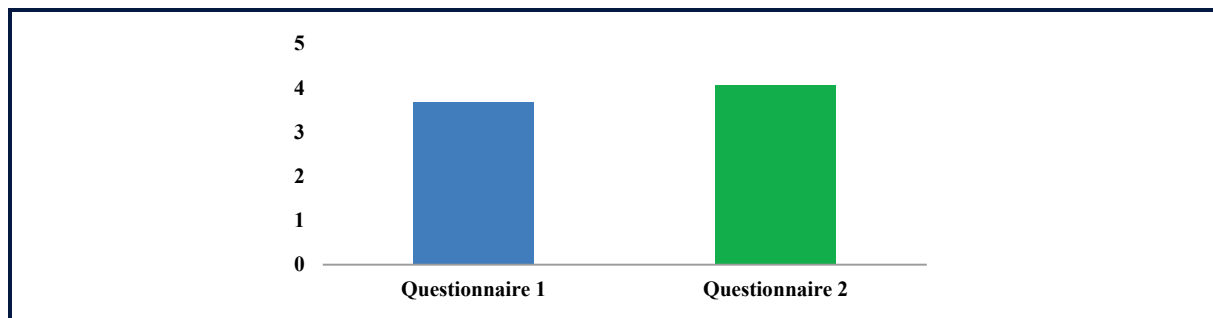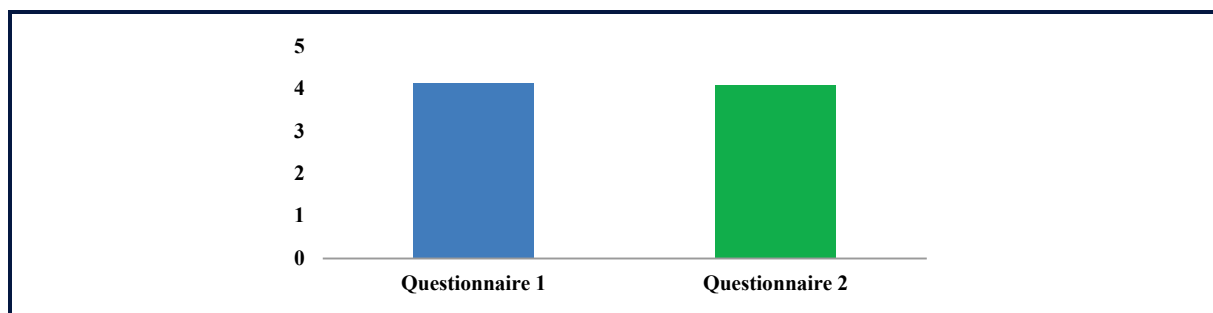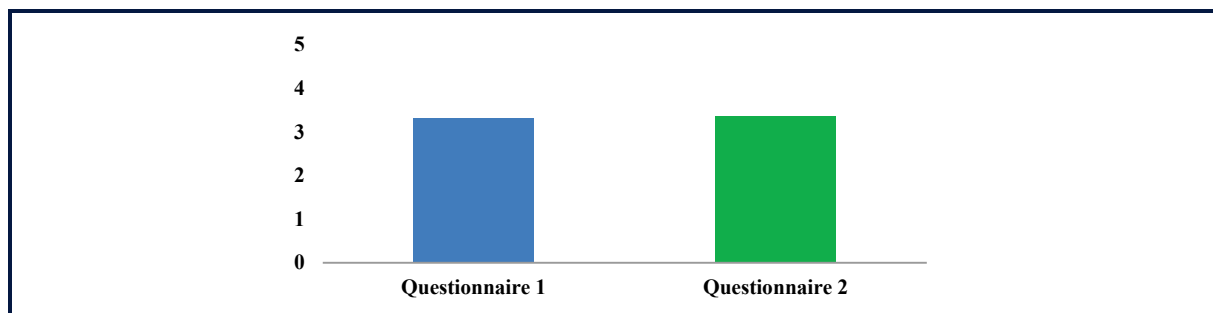

Figure E.8 shows that the capability mean scores recorded in Questionnaire 2 compared to Questionnaire 1 for Group B engagement type IV are higher.

Capability Score Across All Categories and All Respondents

The desired test for checking the differences in capability mean scores of Questionnaire 1 and Questionnaire 2 is the independent sample t-test.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores across all categories and all respondents of Questionnaire 1 and Questionnaire 2.

H_1: There is a difference between the capability mean scores across all categories and all respondents of Questionnaire 1 and Questionnaire 2.

Table E.45: Capability Score across All Categories and All Respondents

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.6800	0.139	Not significant
2	3.8942		

Since the p-value of 0.139 is greater than the significance level of 0.05, we have to not reject H_0. Therefore, we can say that there is no significant difference between the capability mean scores across all categories and all respondents of Questionnaire 1 and Questionnaire 2, under 95% confidence.

Capability Score Across Each of the Ten Categories and All Respondents

The desired test for checking the differences in capability mean scores of Questionnaire 1 and Questionnaire 2 is the independent sample t-test.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores of the 10 categories and all respondents of Questionnaire 1 and Questionnaire 2.

H_1: There is a difference between the capability mean scores of the 10 categories and all respondents of Questionnaire 1 and Questionnaire 2.

Table E.46: Capability Score across 10 Categories and All Respondents

Category	Questionnaire	Mean of Capability Score	p-Value	Conclusion
Value Management	1	3.4844	0.793	Not significant
	2	3.5395		
Organisational Change Management	1	3.9063	0.842	Not significant
	2	3.8684		
Knowledge Management	1	3.6250	0.051	Not significant
	2	3.9605		
People Management	1	3.6863	0.506	Not significant
	2	3.8071		
Relationship Management	1	3.4375	0.008	Significant
	2	4.1053		
Technology Management	1	3.3906	0.311	Not significant
	2	3.5789		
Threat Management	1	3.8906	0.130	Not significant
	2	4.1316		
Performance Management	1	3.6350	0.460	Not significant
	2	3.7813		
Service Transfer	1	3.9063	0.200	Not significant
	2	4.1447		
Service Delivery	1	3.8406	0.182	Not significant
	2	4.0145		

Relationship management is the only significant variable because its p-value of 0.008 is less than the significance level of 0.05. As a result, we have to reject H_0. Therefore, we can say that there is a significant difference between the capability mean scores of the 10 categories and all respondents of Questionnaire 1 and Questionnaire 2, under 95% confidence. It is also noted that the capability score of relationship management has significantly increased in Questionnaire 2 compared to Questionnaire 1.

Capability Score Across All Categories for Group A Clients

The desired test for checking the differences in capability mean scores of Questionnaire 1 and Questionnaire 2 is the independent sample t-test.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores across all categories for Group A clients of Questionnaire 1 and Questionnaire 2.

H_1: There is a difference between the capability mean scores across all categories for Group A clients of Questionnaire 1 and Questionnaire 2.

Table E.47: Capability Score across All Categories for Group A Clients

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.5240	0.625	Not significant
2	3.3483		

Since the p-value of 0.625 is greater than the significance level of 0.05, we have to not reject H_0. Therefore, we can say that there is no significant difference between the capability mean scores across all categories for Group A clients of Questionnaire 1 and Questionnaire 2, under 95% confidence.

Capability Score Across All Categories for Group A Suppliers

The desired test for checking the differences in capability mean scores of Questionnaire 1 and Questionnaire 2 is the independent sample t-test.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores across all categories for Group A suppliers of Questionnaire 1 and Questionnaire 2.

H_1: There is a difference between the capability mean scores across all categories for Group A suppliers of Questionnaire 1 and Questionnaire 2.

Table E.48: Capability Score across All Categories for Group A Suppliers

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.7509	0.007	Significant
2	4.1462		

Since the p-value of 0.007 is less than the significance level of 0.05, we have to reject H_0. Therefore, we can say that there is a significant difference between the capability mean scores across all categories for Group A suppliers of Questionnaire 1 and Questionnaire 2, under 95% confidence. It is also noted that the capability score of Group A suppliers has significantly increased in Questionnaire 2 compared to Questionnaire 1.

Capability Score Across All Categories for Group B Engagement Type I

The desired test for checking the differences in capability mean scores of Questionnaire 1 and Questionnaire 2 is the independent sample t-test.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores across all categories for Group B engagement type I of Questionnaire 1 and Questionnaire 2.

H_1: There is a difference between the capability mean scores across all categories for Group B engagement type I of Questionnaire 1 and Questionnaire 2.

Table E.49: Capability Score across All Categories for Group B Engagement Type I

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.2700	0.992	Not significant
2	3.2750		

Since the p-value of 0.992 is greater than the significance level of 0.05, we have to not reject H_0. Therefore, we can say that there is no significant difference between the capability mean scores across all categories for Group B engagement type I of Questionnaire 1 and Questionnaire 2, under 95% confidence.

Capability Score Across All Categories for Group B Engagement Type II

The desired test for checking the differences in capability mean scores of Questionnaire 1 and Questionnaire 2 is the independent sample t-test.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores across all categories for Group B engagement type II of Questionnaire 1 and Questionnaire 2.

H_1: There is a difference between the capability mean scores across all categories for Group B engagement type II of Questionnaire 1 and Questionnaire 2.

Table E.50: Capability Score across All Categories for Group B Engagement Type II

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.6800	0.017	Significant
2	4.0633		

Since the p-value of 0.017 is less than the significance level of 0.05, we have to reject H_0. Therefore, we can say that there is a significant difference between the capability score across all categories for Group B engagement type II of Questionnaire 1 and Questionnaire 2, under 95% confidence. It is also noted that the capability score of Group B engagement type II has significantly increased in Questionnaire 2 compared to Questionnaire 1.

Capability Score Across All Categories for Group B Engagement Type III

The desired test for checking the differences in capability mean scores of Questionnaire 1 and Questionnaire 2 is the independent sample t-test.

The hypothesis tested here is:

H_0: There is no difference between the capability score across all categories for Group B engagement type III of Questionnaire 1 and Questionnaire 2.

H_1: There is a difference between the capability score across all categories for Group B engagement type III of Questionnaire 1 and Questionnaire 2.

Table E.51: Capability Score across All Categories for Group B Engagement Type III

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	4.1411	0.901	Not significant
2	4.0962		

Since the p-value of 0.901 is greater than the significance level of 0.05, we have to not reject H_0. Therefore, we can say that there is no significant difference between the capability score across all categories for Group B engagement type III of Questionnaire 1 and Questionnaire 2, under 95% confidence.

Capability Score Across All Categories for Group B Engagement Type IV

The desired test for checking the differences in capability mean scores of Questionnaire 1 and Questionnaire 2 is the independent sample t-test.

<div style="background-color: yellow;">

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores across all categories for Group B engagement type IV of Questionnaire 1 and Questionnaire 2.

H_1: There is a difference between the capability mean scores across all categories for Group B engagement type IV of Questionnaire 1 and Questionnaire 2.

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Table E.52: Capability Score across All Categories for Group B Engagement Type IV

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.3214	0.795	Not significant
2	3.3560		

Since the p-value of 0.795 is greater than the significance level of 0.05, we have to not reject H_0. Therefore, we can say that there is no significant difference between the capability score across all categories for Group B engagement type IV of Questionnaire 1 and Questionnaire 2, under 95% confidence.

Comparisons between Questionnaire 1, Questionnaire 2 and Questionnaire 3

Preliminary Analysis

This part consists of simple comparisons between Questionnaire 1, Questionnaire 2 and Questionnaire 3. The output is displayed graphically using column charts.

Figure E.9: Capability Score across All Categories and All Respondents
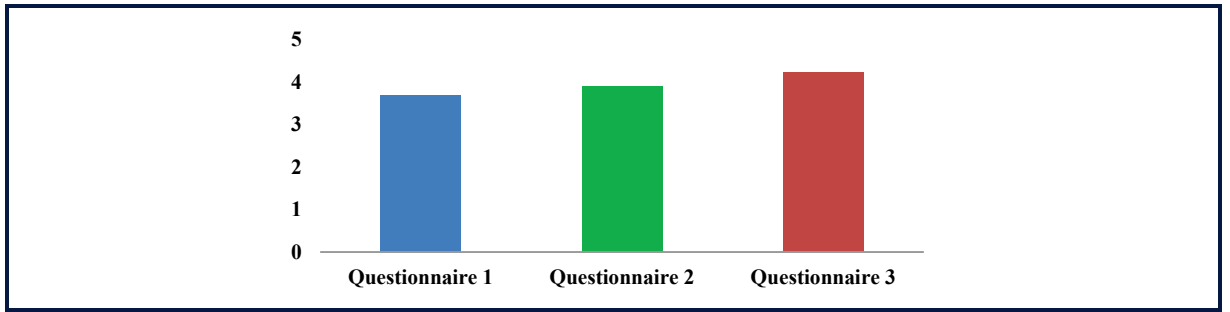
Figure E.10: Capability Score across Each of the 10 Categories and All Respondents
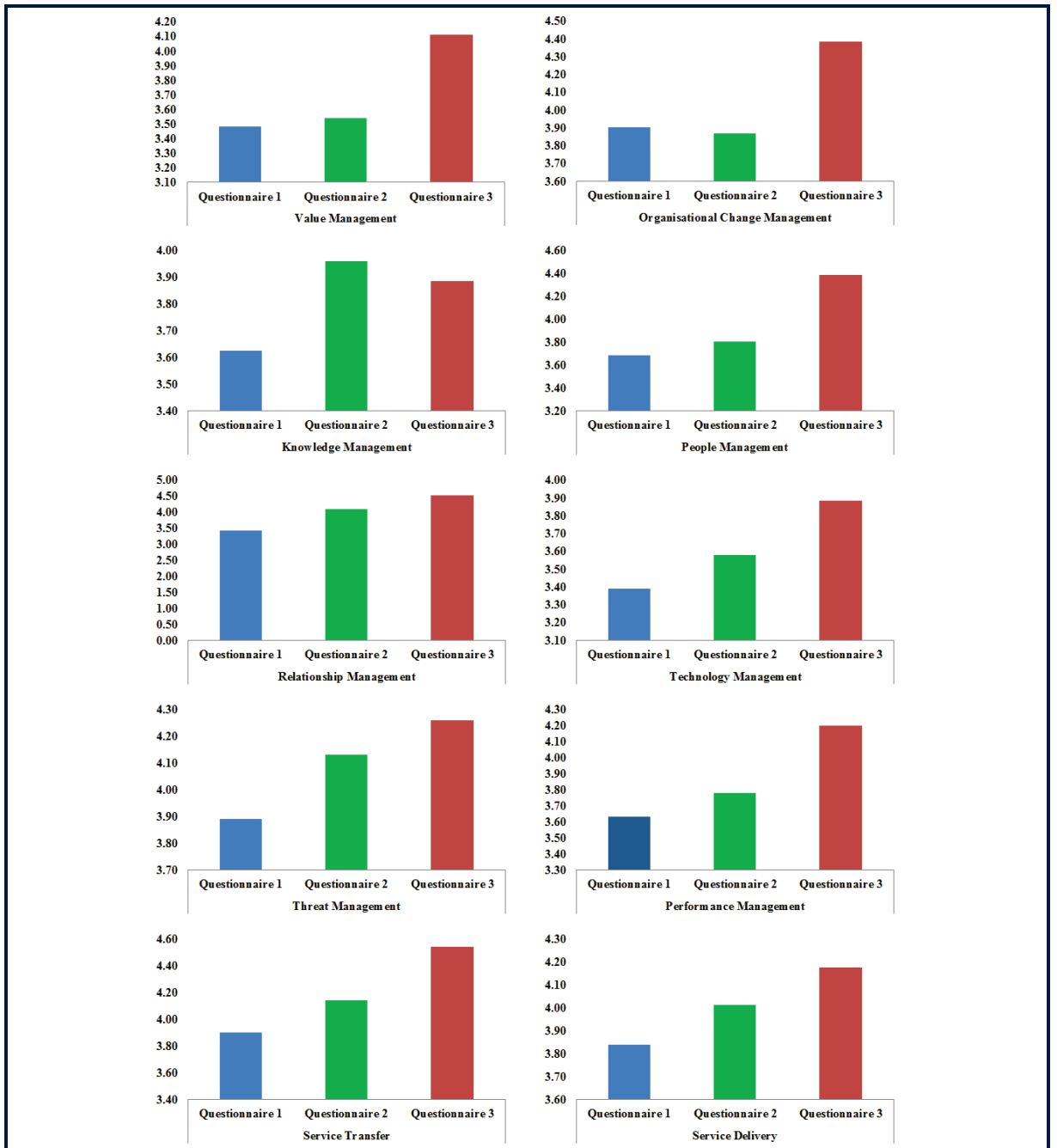
Over time, there is a stable increase of the capability mean scores recorded in the questionnaires across all categories and all respondents.

Figure E.10 shows that, except for knowledge management, the capability mean scores of all categories have increased in Questionnaire 3 compared to the other two questionnaires.

Figure E.11: Capability Score across All Categories for Group A Clients
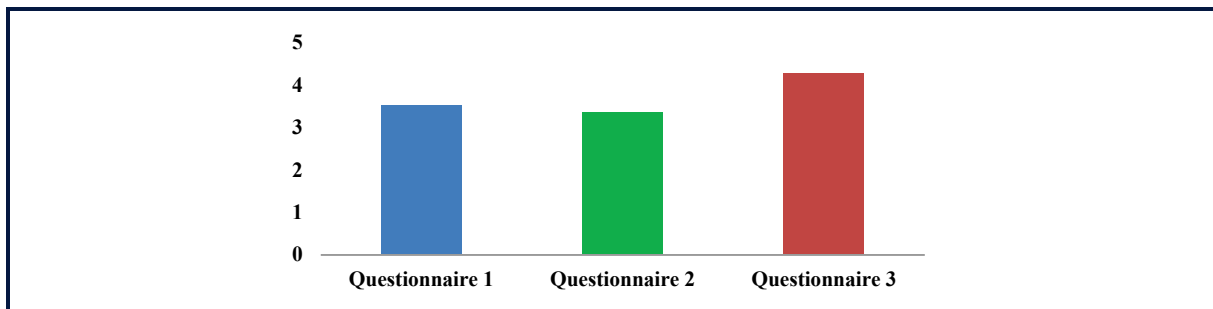
Figure E.11 graph shows that there is a decrease in the capability mean scores recorded in Questionnaire 2 compared to Questionnaire 1, and the highest value is recorded in Questionnaire 3 for Group A clients.

Figure E.12: Capability Score across All Categories for Group A Suppliers
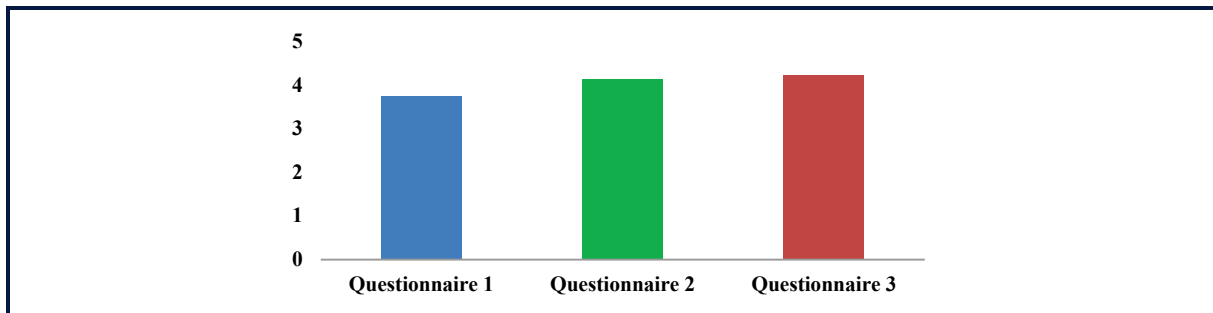
Figure E.12 shows that the capability mean scores recorded in Questionnaire 1 to Questionnaire 3 show a steady increase for Group A suppliers.

Figure E.13: Capability Score across All Categories for Group B Engagement Type I
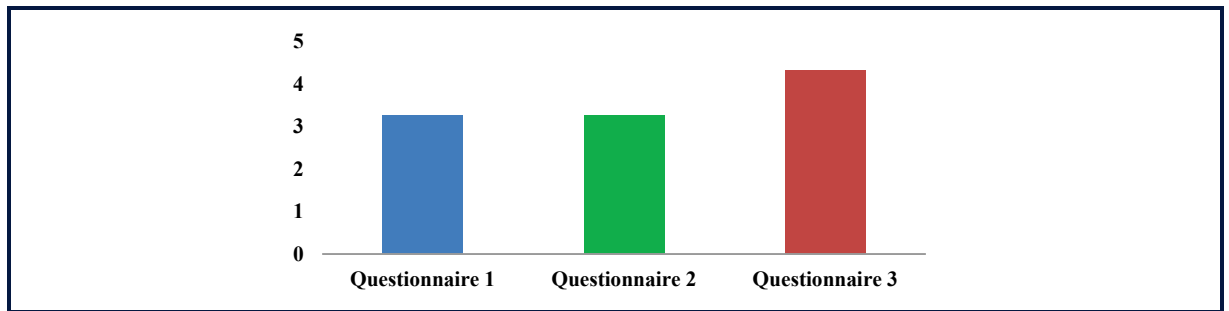
Figure E.13 shows that there is an increase in the capability mean scores recorded in Questionnaire 3 compared to Questionnaire 2 and Questionnaire 1 for Group B engagement type I.

Figure E.14: Capability Score across All Categories for Group B Engagement Type II
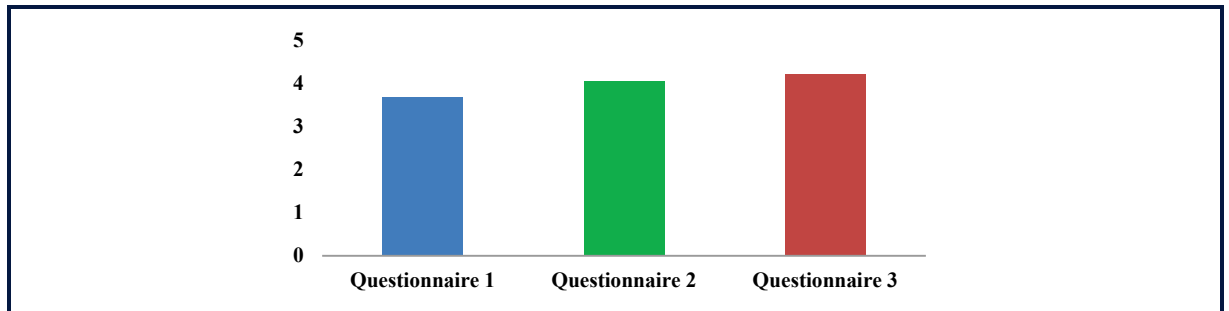
Figure E.14 shows that there is an increase in the capability mean scores recorded in Questionnaire 3 compared to Questionnaire 2 and Questionnaire 1 for Group B engagement type II.

Figure E.15: Capability Score across All Categories for Group B Engagement Type III
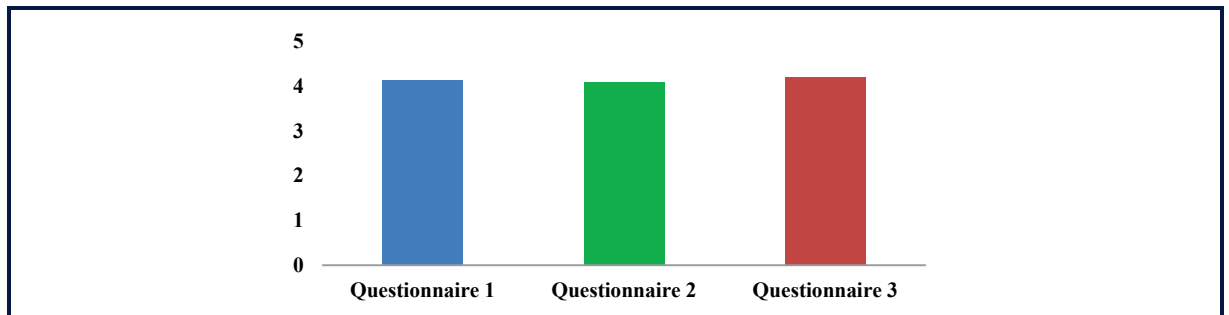
Figure E.15 shows that there is a decrease in the capability mean scores recorded in Questionnaire 2 compared to Questionnaire 1 for Group B engagement type III. However, the capability score has increased in Questionnaire 3.

Figure E.16: Capability Score across All Categories for Group B Engagement Type IV
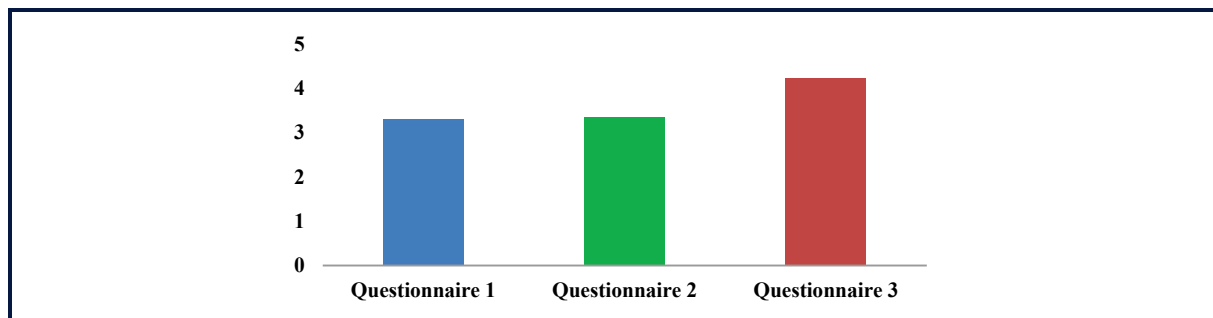
Figure E.16 shows that there is an increase in the capability mean scores recorded in Questionnaire 3 compared to Questionnaire 2 and Questionnaire 1 for Group B engagement type IV.

Capability Score Across All Categories and All Respondents

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2 and Questionnaire 3 is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores across all categories and all respondents of Questionnaire 1, Questionnaire 2 and Questionnaire 3.

H_1: There is a difference between the capability mean scores across all categories and all respondents of Questionnaire 1, Questionnaire 2 and Questionnaire 3.

Table E.53: Capability Score across All Categories and All Respondents

ANOVA—Overall Capability Score					
	Sum of Squares	**df**	**Mean Square**	**F**	**Significance**
Between Groups	6.100	2	3.050	13.629	.000
Within Groups	24.841	111	.224		
Total	30.941	113			

Multiple Comparisons—Dependent Variable: Overall Capability Score—Tukey HSD						
Questionnaire A	**Questionnaire B**	**Mean Difference (A–B)**	**Std Error**	**Sig.**	**95% Confidence Interval**	
					Lower Bound	**Upper Bound**
Questionnaire 1	Q2	−.21421	.11350	.147	−.4838	.0554
	Q3	−.55932*	.10991	.000	−.8204	−.2982
Questionnaire 2	Q1	.21421	.11350	.147	−.0554	.4838
	Q3	−.34511*	.10476	.004	−.5940	−.0962
Questionnaire 3	Q1	.55932*	.10991	.000	.2982	.8204
	Q2	.34511*	.10476	.004	.0962	.5940
*The mean difference is significant at the 0.05 level						

As shown in Table E.53, the p-value of 0.000 is less than the significance level of 0.05, and we have to reject H_0. Therefore, we can say that there is a difference between all categories and all respondents of Questionnaire 1, Questionnaire 2 and Questionnaire 3, under 95% confidence. The Tukey results show that the p-value between Questionnaire 1 and Questionnaire 3 is 0.000, and between Questionnaire 2 and Questionnaire 3 is 0.004, where both p-values are less than the significance level of 0.05. This illustrates that the capability mean scores between the Questionnaire 1/Questionnaire 3 pair and the Questionnaire 2/Questionnaire 3 pair are significantly different. Further, the mean differences demonstrate that the capability score for Questionnaire 3 is significantly higher than those for Questionnaire 2 and Questionnaire 1.

Capability Score Across Each of the 10 Categories and All Respondents

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2 and Questionnaire 3 is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores of the 10 categories and all respondents of Questionnaire 1, Questionnaire 2 and Questionnaire 3.

H_1: There is a difference between the capability mean scores of the 10 categories and all respondents of Questionnaire 1, Questionnaire 2 and Questionnaire 3.

Table E.54: Capability Score across 10 Categories and All Respondents

Category	Questionnaire	Mean of Capability Score	p-Value	Conclusion
Value Management	1	3.4844	0.000	Significant
	2	3.5395		
	3	4.1136		
Organisational Change Management	1	3.9063	0.001	Significant
	2	3.8684		
	3	4.3864		
Knowledge Management	1	3.6250	0.040	Significant
	2	3.9605		
	3	3.8864		
People Management	1	3.6863	0.000	Significant
	2	3.8071		
	3	4.3857		
Relationship Management	1	3.4375	0.000	Significant
	2	4.1053		
	3	4.5455		
Technology Management	1	3.3906	0.002	Significant
	2	3.5789		
	3	3.8864		
Threat Management	1	3.8906	0.042	Significant
	2	4.1316		
	3	4.2614		
Performance Management	1	3.6350	0.001	Significant
	2	3.7813		
	3	4.2041		
Service Transfer	1	3.9063	0.000	Significant
	2	4.1447		
	3	4.5455		
Service Delivery	1	3.8406	0.007	Significant
	2	4.0145		
	3	4.1782		

All the variables are recorded as significant variables because all p-values are less than the significance level of 0.05, and we have to reject H_0. Therefore, we can say that there is a significant difference between the capability mean scores of the 10 categories and all respondents of Questionnaire 1, Questionnaire 2 and Questionnaire 3, under 95% confidence.

Table E.55: Multiple Comparisons across 10 Categories and All Respondents

Dependent Variable	Questionnaire A	Questionnaire B	Mean Difference (A–B)	Std Error	Sig.	95% Confidence Interval	
Multiple Comparisons—Dependent Variable: Overall Capability Score—Tukey HSD							
						Lower Bound	Upper Bound
Value Management	Q1	Q2	−.05510	.16636	.941	−.4503	.3401
		Q3	−.62926*	.16109	.000	−1.019	−.2466
	Q2	Q1	.05510	.16636	.941	−.3401	.4503
		Q2	−.57416*	.15355	.001	−.9389	−.2094
	Q3	Q1	.62926*	.16109	.000	.2466	1.0119
		Q2	.57416*	.15355	.001	.2094	.9389
Organisational Change Management	Q1	Q2	.03783	.15940	.969	−.3408	.4165
		Q3	−.48011*	.15435	.007	−.8468	−.1134
	Q2	Q1	−.03783	.15940	.969	−.4165	.3408
		Q2	−.51794*	.14713	.002	−.8675	−.1684
	Q3	Q1	.48011*	.15435	.007	.1134	.8468
		Q2	.51794*	.14713	.002	.1684	.8675
Knowledge Management	Q1	Q2	−.33553*	.13592	.040	−.6584	−.0126
		Q3	−.26136	.13162	.120	−.5740	.0513
	Q2	Q1	.33553*	.13592	.040	.0126	.6584
		Q2	.07416	.12546	.825	−.2239	.3722
	Q3	Q1	.26136	.13162	.120	−.0513	.5740
		Q2	−.07416	.12546	.825	−.3722	.2239
People Management	Q1	Q2	−.12086	.14546	.685	−.4664	.2247
		Q3	−.69943*	.14085	.000	−1.0340	−.3648
	Q2	Q1	.12086	.14546	.685	−.2247	.4664
		Q2	−.57858*	.13426	.000	−.8975	−.2596
	Q3	Q1	.69943*	.14085	.000	.3648	1.0340
		Q2	.57858*	.13426	.000	.2596	.8975
Relationship Management	Q1	Q2	−.66776*	.22355	.010	−1.1988	−.1367
		Q3	−1.10795*	.21647	.000	−1.6222	−.5937
	Q2	Q1	.66776*	.22355	.010	.1367	1.1988
		Q2	−.44019	.20634	.088	−.9304	.0500
	Q3	Q1	1.10795*	.21647	.000	.5937	1.6222
		Q2	.44019	.20634	.088	−.0500	.9304
Technology Management	Q1	Q2	−.18832	.14770	.412	−.5392	.1625
		Q3	−.49574*	.14302	.002	−.8355	−.1560
	Q2	Q1	.18832	.14770	.412	−.1625	.5392
		Q2	−.30742	.13632	.067	−.6313	.0164
	Q3	Q1	.49574*	.14302	.002	.1560	.8355
		Q2	.30742	.13632	.067	−.0164	.6313
Threat Management	Q1	Q2	−.24095	.15012	.248	−.5976	.1157
		Q3	−.37074*	.14536	.032	−.7161	−.0254
	Q2	Q1	.24095	.15012	.248	−.1157	.5976
		Q2	−.12978	.13856	.618	−.4589	.1994
	Q3	Q1	.37074*	.14536	.032	.0254	.7161
		Q2	.12978	.13865	.618	−.1994	.4589
Performance Management	Q1	Q2	−.14632	.15856	.627	−.5230	.2304
		Q3	−.56909*	.15354	.001	−.9338	−.2043
	Q2	Q1	.14632	.15856	.627	−.2304	.5230
		Q2	−.42278*	.14636	.013	−.7705	−.0751
	Q3	Q1	.56909*	.15354	.001	.2043	.9338
		Q2	.42278*	.14636	.013	.0751	.7705
Service Transfer	Q1	Q2	−.23849	.16276	.312	−.6251	.1482
		Q3	−63920	.15761	.000	−1.0136	−.2648
	Q2	Q1	.23849	.16276	.312	−.1482	.6251
		Q2	−.40072*	.15023	.024	−.7576	−.0438
	Q3	Q1	.63920*	.15761	.000	.2648	1.0136
		Q2	.40072*	.15023	.024	.0438	.7576
Service Delivery	Q1	Q2	−.17385	.10834	.248	−.4312	.0835
		Q3	−.33756*	.10491	.005	−.5868	−.0883
	Q2	Q1	.17385	.10834	.248	−.0835	.4312
		Q2	−.16371	.10000	.234	−.4013	.0739
	Q3	Q1	.33756*	.10491	.005	.0883	.5868
		Q2	.16371	.10000	.234	−.0739	.4013
*The mean difference is significant at the 0.05 level							

Multiple comparisons lead to the findings shown in Table E.56.

Table E.56: Multiple Comparison Results

Category	Capability Score		
	Questionnaire 2> Questionnaire 1	Questionnaire 3> Questionnaire 2	Questionnaire 3> Questionnaire 1
Value Management		Significant	Significant
Organisational Change Management		Significant	Significant
Knowledge Management	Significant		
People Management		Significant	Significant
Relationship Management	Significant		Significant
Technology Management			Significant
Threat Management			Significant
Performance Management		Significant	Significant
Service Transfer		Significant	Significant
Service Delivery			Significant

Capability Score Across All Categories for Group A Clients

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2 and Questionnaire 3 is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores across all categories for Group A clients of Questionnaire 1, Questionnaire 2 and Questionnaire 3.

H_1: There is a difference between the capability mean scores across all categories for Group A clients of Questionnaire 1, Questionnaire 2 and Questionnaire 3.

Table E.57: Capability Score across All Categories for Group A Clients

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.5240		
2	3.3483	0.000	Significant
3	4.2689		

As shown in Table E.57, the p-value of 0.000 is less than the significance level of 0.05, and we have to reject H_0. Therefore, we can say that there is a difference in capability mean scores across all categories for Group A clients of Questionnaire 1, Questionnaire 2 and Questionnaire 3, under 95% confidence.

Table E.58: Multiple Comparisons across All Categories for Group A Clients

Questionnaire A	Questionnaire B	Mean Difference (A–B)	Std Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Questionnaire 1	Q2	.17567	.20971	.682	−.3363	.6877
	Q3	−.74489*	.19317	.001	−1.2165	−.2733
Questionnaire 2	Q1	−.17567	.20971	.682	−.6877	.3363
	Q3	−.92056*	.18253	.000	−1.3662	−.4749
Questionnaire 3	Q1	.74489*	.19317	.001	.2733	1.2165
	Q2	.92056*	.18253	.000	.4749	1.3662
*The mean difference is significant at the 0.05 level						

Multiple Comparisons—Dependent Variable: Overall Capability Score—Tukey HSD

The Tukey results show that the p-value between Questionnaire 1 and Questionnaire 3 is 0.001, and between Questionnaire 2 and Questionnaire 3 is 0.000, where both p-values are less than the significance level of 0.05. This illustrates that the capability mean scores between the Questionnaire 1/Questionnaire 3 pair and the Questionnaire 2/Questionnaire 3 pair are significantly different. Further, the mean differences demonstrate that the capability score for Questionnaire 3 is significantly higher than for Questionnaire 2 and Questionnaire 1.

Capability Score Across All Categories for Group A Suppliers

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2 and Questionnaire 3 is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores across all categories for Group A suppliers of Questionnaire 1, Questionnaire 2 and Questionnaire 3.

H_1: There is a difference between the capability mean scores across all categories for Group A suppliers of Questionnaire 1, Questionnaire 2 and Questionnaire 3,

Table E.59: Capability Score across All Categories for Group A Suppliers

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.7509		
2	4.1462	0.000	Significant
3	4.2188		

As shown in Table E.59, the p-value of 0.000 is less than the significance level of 0.05, and we have to reject H$_0$. Therefore, we can say there is a difference in capability mean scores across all categories for Group A suppliers of Questionnaire 1, Questionnaire 2 and Questionnaire 3, under 95% confidence.

Table E.60: Multiple Comparisons across All Categories for Group A Suppliers

Multiple Comparisons—Dependent Variable: Overall Capability Score—Tukey HSD						
Questionnaire A	Questionnaire B	Mean Difference (A–B)	Std Error	Sig	95% Confidence Interval	
					Lower Bound	Upper Bound
Questionnaire 1	Q2	−.39524*	.11065	.002	−.6601	−.1304
	Q3	−.46794*	.11065	.000	−.7328	−.2031
Questionnaire 2	Q1	.39524*	.11065	.002	.1304	.6601
	Q3	−.07269	.10594	.772	−.3263	.1809
Questionnaire 3	Q1	.46794*	.11065	.000	.2031	.7328
	Q2	.07269	.10594	.772	−.1809	.3263
*The mean difference is significant at the 0.05 level						

The Tukey results show that the p-value between Questionnaire 1 and Questionnaire 2 is 0.002, and between Questionnaire 1 and Questionnaire 3 is 0.000, where both p-values are less than the significance level of 0.05. This illustrates that the capability mean scores between the Questionnaire 1/Questionnaire 2 pair and the Questionnaire 1/Questionnaire 3 pair are significantly different. Further, the mean differences demonstrate that the capability score for Questionnaire 3 is significantly higher than those for Questionnaire 2 and Questionnaire 1.

Capability Score Across All Categories for Group B Engagement Type I

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2 and Questionnaire 3 is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

The hypothesis tested here is:

H$_0$: There is no difference between the capability mean scores across all categories for Group B engagement type I of Questionnaire 1, Questionnaire 2 and Questionnaire 3.

H$_1$: There is a difference between the capability mean scores across all categories for Group B engagement type I of Questionnaire 1, Questionnaire 2 and Questionnaire 3.

Table E.61: Capability Score across All Categories for Group B Engagement Type I

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.2700		
2	3.2750	0.040	Significant
3	4.3200		

Since the p-value of 0.040 is less than the significance level of 0.05, we have to reject H_0. Therefore, we can say that there is a significant difference between the capability mean scores across all categories for Group B engagement type I of Questionnaire 1, Questionnaire 2 and Questionnaire 3, under 95% confidence.

Table E.62: Multiple Comparisons for Group B Engagement Type I

Multiple Comparisons—Dependent Variable: Overall Capability Score—Tukey HSD						
Questionnaire A	Questionnaire B	Mean Difference (A–B)	Std Error	Sig	95% Confidence Interval	
					Lower Bound	Upper Bound
Questionnaire 1	Q2	−.00500	.39468	1.000	−1.1069	1.0969
	Q3	−1.05000	.39468	.061	−2.1519	.0519
Questionnaire 2	Q1	.00500	.39468	1.000	−1.0969	1.1069
	Q3	−1.04500	.39468	.063	−2.1469	.0569
Questionnaire 3	Q1	1.05000	.39468	.061	−.0519	2.1519
	Q2	1.04500	.39468	.063	−.0569	2.1469
*The mean difference is significant at the 0.05 level						

The Tukey results have not showed the exact significance of the pairs. However, the p-value between Questionnaire 1 and Questionnaire 3 of 0.061, and between Questionnaire 2 and Questionnaire 3 of 0.063, which are both closer to 0.05, suggests that the capability mean scores between the Questionnaire 1/Questionnaire 3 pair and the Questionnaire 2/Questionnaire 3 pair are approximately significantly different. Further, the mean differences demonstrate that the capability score for Questionnaire 3 is significantly higher than those for Questionnaire 2 and Questionnaire 1.

Capability Score Across All Categories for Group B Engagement Type II

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2 and Questionnaire 3 is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

Table E.63: Capability Score across All Categories for Group B Engagement Type II

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.6800		
2	4.0633	0.000	Significant
3	4.2344		

As shown in Table E.63, the p-value of 0.000 is less than the significance level of 0.05, and we have to reject H₀. Therefore, we can say that there is a difference in capability score across all categories for Group B engagement type II of Questionnaire 1, Questionnaire 2 and Questionnaire 3, under 95% confidence.

Table E.64: Multiple Comparisons for Group B Engagement Type II

Multiple Comparisons—Dependent Variable: Overall Capability Score—Tukey HSD						
Questionnaire A	Questionnaire B	Mean Difference (A–B)	Std Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Questionnaire 1	Q2	−.38333*	.11872	.006	−.6693	−.0974
	Q3	−.55440*	.11522	.000	−.8319	−.2769
Questionnaire 2	Q1	.38333*	.11872	.006	.0974	.6693
	Q3	−.17107	.09711	.192	−.4050	.0629
Questionnaire 3	Q1	.55440*	.11522	.000	.2769	.8319
	Q2	.17107	.09711	.192	−.0629	.4050
*The mean difference is significant at the 0.05 level						

The Tukey results show that the p-value between Questionnaire 1 and Questionnaire 2 is 0.006, and between Questionnaire 1 and Questionnaire 3 is 0.000, where both p-values are less than the significance level of 0.05. This illustrates that the capability mean scores between the Questionnaire 1/Questionnaire 2 pair and the Questionnaire 1/Questionnaire 3 pair are significantly different. Further, the mean differences demonstrate that the capability score for Questionnaire 3 is significantly higher than for those of Questionnaire 2 and Questionnaire 1.

Capability Score Across All Categories for Group B Engagement Type III

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2 and Questionnaire 3 is the one-way ANOVA test.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores across all categories for Group B engagement type III of Questionnaire 1, Questionnaire 2 and Questionnaire 3.

H_1: There is a difference between the capability mean scores across all categories for Group B engagement type III of Questionnaire 1, Questionnaire 2 and Questionnaire 3.

Table E.65: Capability Score across All Categories for Group B Engagement Type III

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	4.1411		
2	4.0962	0.928	Not significant
3	4.2067		

Since the p-value of 0.928 is greater than the significance level of 0.05, we have to not reject H_0. Therefore, we can say that there is no significant difference between the capability mean scores across all categories for Group B engagement type III of Questionnaire 1, Questionnaire 2 and Questionnaire 3, under 95% confidence.

Capability Score Across All Categories for Group B Engagement Type IV

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2 and Questionnaire 3 is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores across all categories for Group B engagement type IV of Questionnaire 1, Questionnaire 2 and Questionnaire 3.

H_1: There is a difference between the capability mean scores across all categories for Group B engagement type IV of Questionnaire 1, Questionnaire 2 and Questionnaire 3.

Table E.66: Capability Score across All Categories for Group B Engagement Type IV

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.3214		
2	3.3560	0.000	Significant
3	4.2550		

As shown in Table E.66, the p-value of 0.000 is less than the significance level of 0.05, and we have to reject H_0. Therefore, we can say there is a difference in capability score across all categories for Group B engagement type IV of Questionnaire 1, Questionnaire 2 and Questionnaire 3, under 95% confidence.

Table E.67: Multiple Comparisons for Group B Engagement Type IV

Multiple Comparisons—Dependent Variable: Overall Capability Score—Tukey HSD						
Questionnaire A	Questionnaire B	Mean Difference (A–B)	Std Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Questionnaire 1	Q2	−.03457	.11380	.951	−.3302	.2610
	Q3	−.93357*	.10812	.000	−1.2144	−.6527
Questionnaire 2	Q1	.03457	.11380	.951	−.2610	.3302
	Q3	−.89900*	.11768	.000	−1.2047	−.5933
Questionnaire 3	Q1	.93357*	.10812	.000	.6527	1.2144
	Q2	.89900*	.11768	.000	.5933	1.2047
*The mean difference is significant at the 0.05 level						

The Tukey results show that the p-value between Questionnaire 1 and Questionnaire 3 is 0.000 and between Questionnaire 2 and Questionnaire 3 is 0.000, where both p-values are less than the significance level of 0.05. This illustrates that the capability mean scores between the Questionnaire 1/Questionnaire 3 pair and the Questionnaire 2/Questionnaire 3 pair are significantly different. Further, the mean differences demonstrate that the capability score for Questionnaire 3 is significantly higher than for those of Questionnaire 2 and Questionnaire 1.

Comparisons between Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4

Preliminary Analysis

This part consists of simple comparisons between Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4. The output is displayed graphically using column charts.

Figure E.17: Capability Score across All Categories and All Respondents
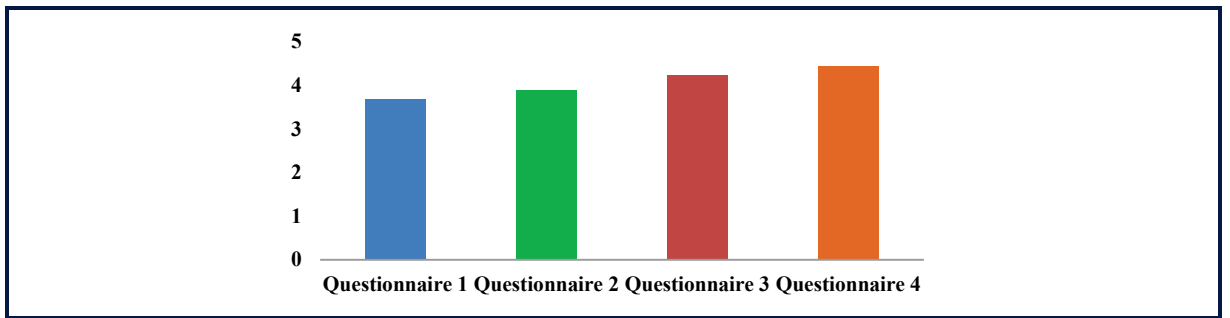
Figure E.18: Capability Score across Each of the 10 Categories and All Respondents
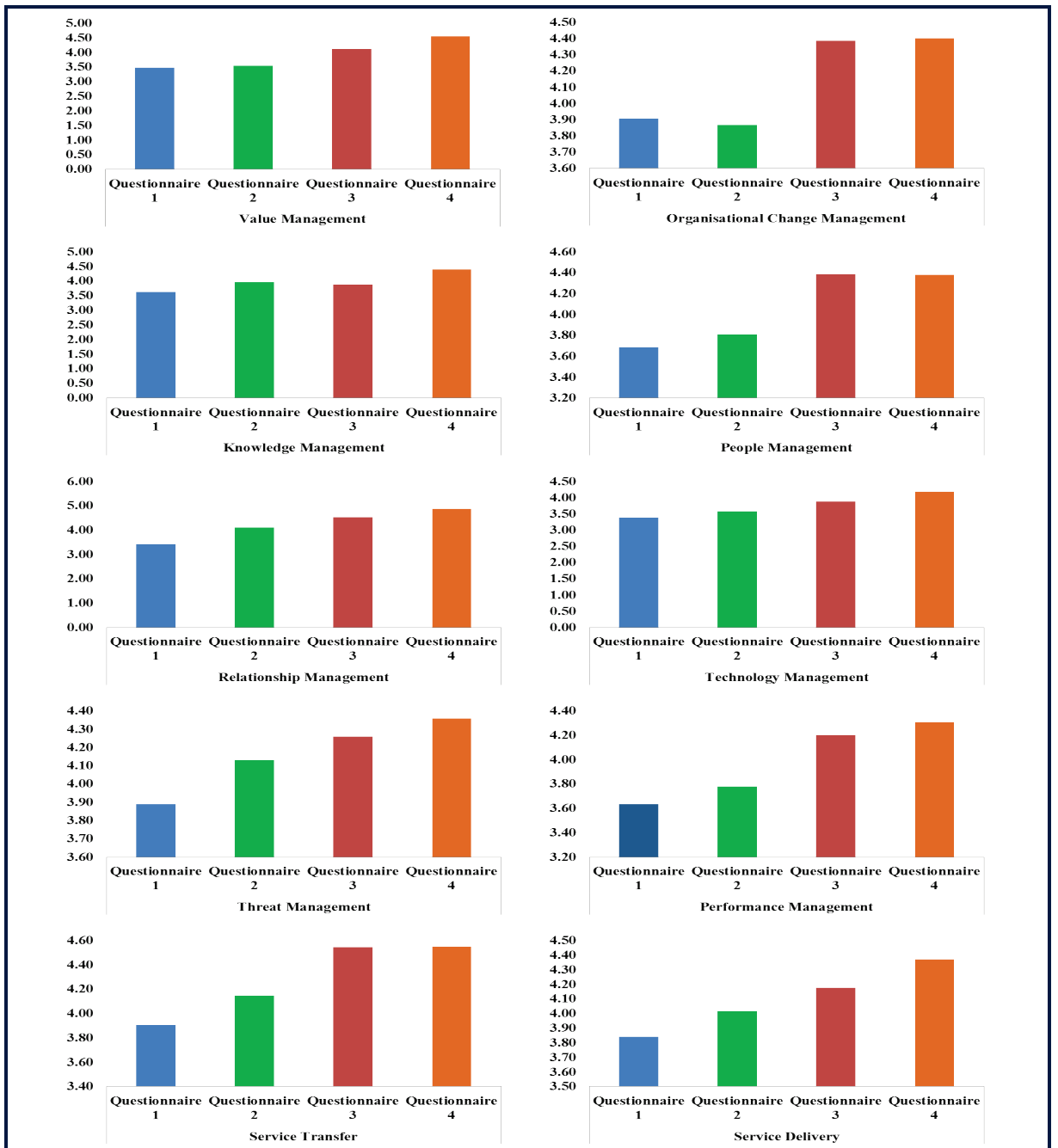
Over time, there is a stable increase of the capability mean scores recorded in Questionnaire 1 to Questionnaire 4 across all categories and all respondents.

Figure E.18 shows that, except for people management, the capability mean scores of all categories have increased in Questionnaire 4 compared to the other three questionnaires.

Figure E.19: Capability Score across All Categories for Group A Clients

Figure E.19 graph shows that there is a decrease in the capability mean scores recorded in Questionnaire 2 compared to Questionnaire 1, but that the scores increased in Questionnaire 3 and Questionnaire 4, with the highest value recorded in Questionnaire 4 for Group A clients.

Figure E.20: Capability Score across All Categories for Group A Suppliers

The capability mean scores recorded in Questionnaire 1 to Questionnaire 4 show a steady increase for Group A suppliers.

Figure E.21: Capability Score across All Categories for Group B Engagement Type I
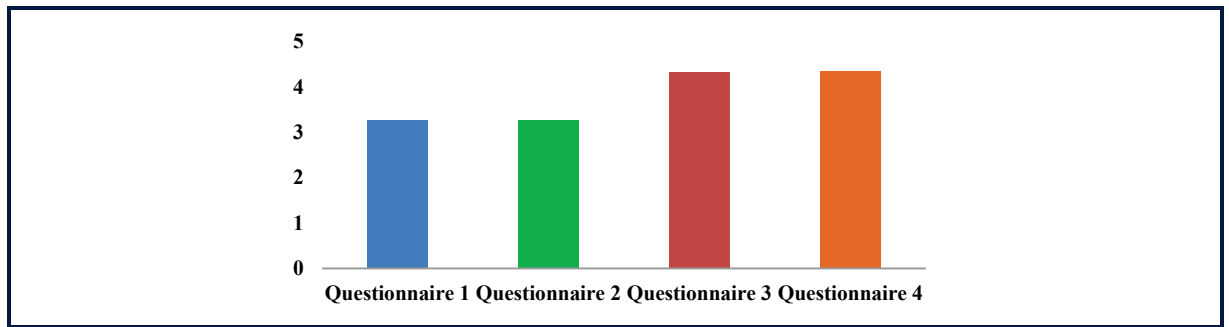
Figure E.21 shows that similar capability mean scores were recorded for the Questionnaire 1 and Questionnaire 2 group, as well as for the Questionnaire 3 and Questionnaire 4 group, for Group B engagement type I.

Figure E.22: Capability Score across All Categories for Group B Engagement Type II
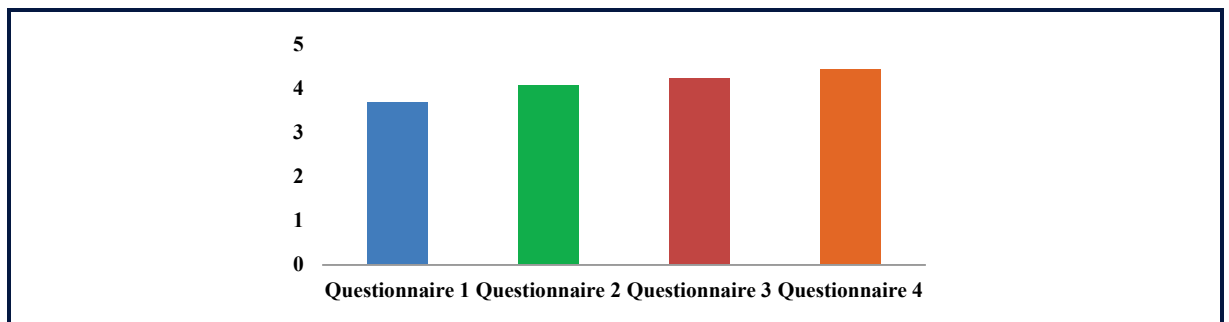
Figure E.22 shows that there is an increase in the capability mean scores recorded in Questionnaire 4 from Questionnaire 1 for Group B engagement type II.

Figure E.23: Capability Score across All Categories for Group B Engagement Type III
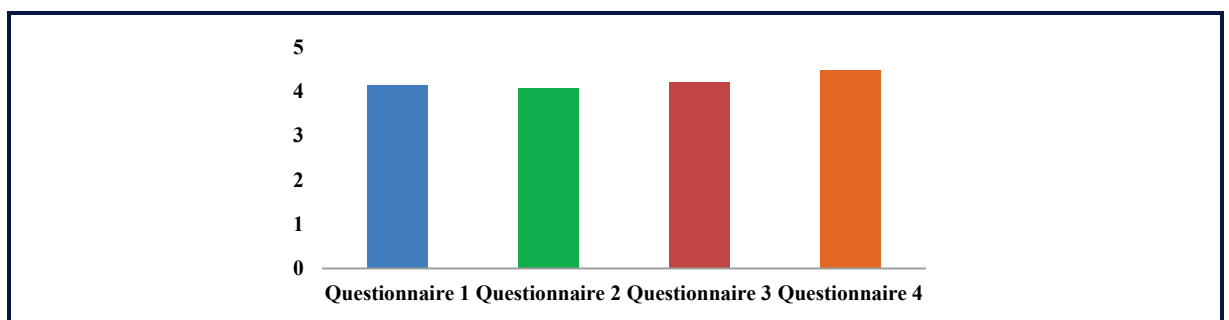
Figure E.23 shows that there is a significant increase in capability score in Questionnaire 4 for Group B engagement type III compared to the other three questionnaires.

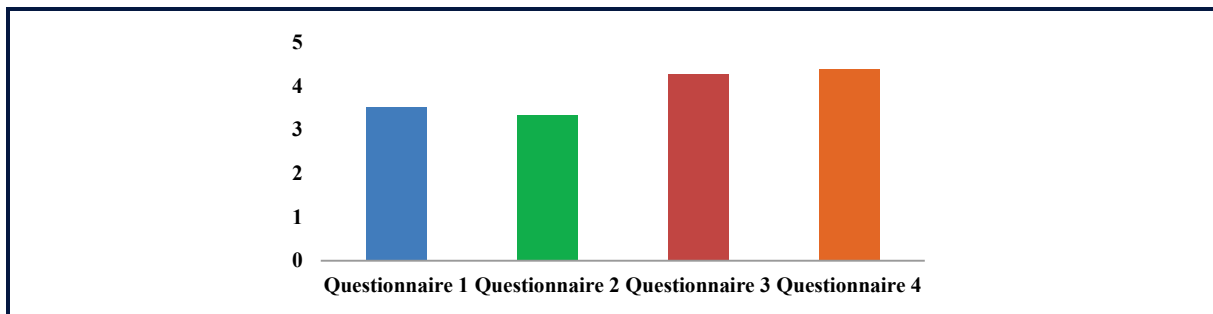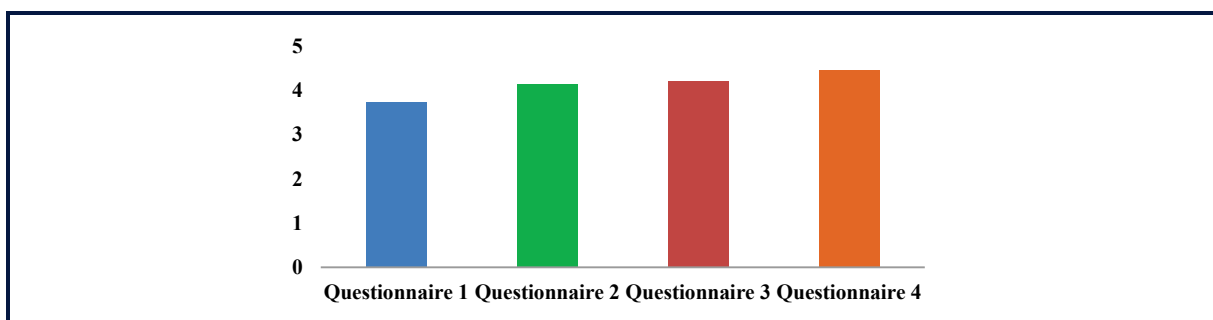**Figure E.24: Capability Score across All Categories for Group B Engagement Type IV**
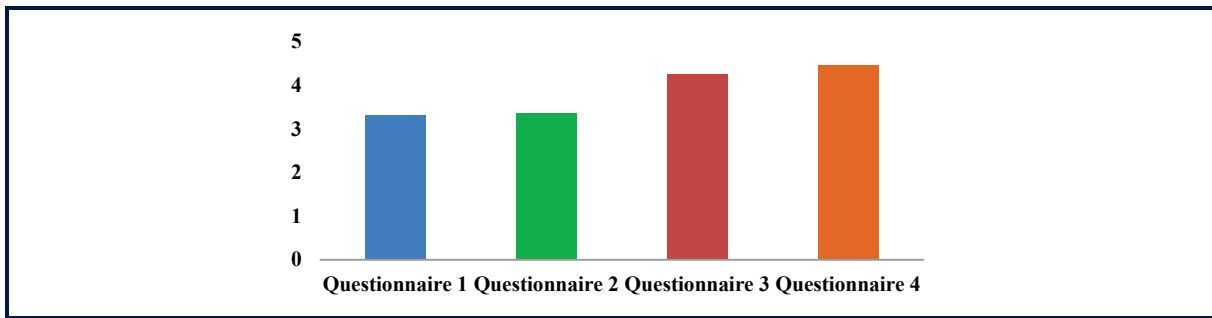
Figure E.24 shows that there is a marginal increase in the capability mean scores recorded in Questionnaire 4 compared to Questionnaire 3, but a considerable increase compared to Questionnaire 1 and Questionnaire 2 for Group B engagement type IV.

Capability Score Across All Categories and All Respondents

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4 is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores across all categories and all respondents of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4.

H_1: There is a difference between the capability mean scores across all categories and all respondents of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4.

Table E.68: Capability Score across All Categories and All Respondents

ANOVA—Overall Capability Score					
	Sum of Squares	df	Mean Square	F	Significance
Between Groups	12.620	3	4.207	24.659	.000
Within Groups	25.589	150	.171		
Total	38.209	153			

Multiple Comparisons—Dependent Variable: Overall Capability Score – Tukey HSD						
Questionnaire A	Questionnaire B	Mean Difference (A–B)	Std Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Questionnaire 1	Q2	−.21421	.09910	.139	−.4717	.0433
	Q3	−.55932*	.09596	.000	−.8086	−.3100
	Q4	−.75653*	.09796	.000	−1.0110	−.5020
Questionnaire 2	Q1	.21421	.09910	.139	−.0433	.4717
	Q3	−.34511*	.09147	.001	−.5827	−.1075
	Q4	−.54232*	.09356	.000	−.7854	−.2992
Questionnaire 3	Q1	.55932*	.09596	.000	.3100	.8086
	Q2	.34511*	.09147	.001	.1075	.5827
	Q4	−.19721	.09023	.132	−.4316	.0372
Questionnaire 4	Q1	.75653*	.09796	.000	.5020	1.0110
	Q2	.54232*	.09356	.000	.2992	.7854
	Q3	.19721	.09023	.132	−.0372	.4316
*The mean difference is significant at the 0.05 level						

As shown in Table E.68, the p-value of 0.000 is less than the significance level of 0.05, and we have to reject H_0. Therefore, we can say that there is a difference between all categories and all respondents of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4, under 95% confidence. The Tukey results show that the p-value between Questionnaire 1 and Questionnaire 3 is 0.000, between Questionnaire 1 and Questionnaire 4 is 0.000, between Questionnaire 2 and Questionnaire 3 is 0.001 and between Questionnaire 2 and Questionnaire 4 is 0.000, where the p-values are less than the significance level of 0.05. This illustrates that the capability mean scores between the Questionnaire 1/Questionnaire 3 pair, the Questionnaire 1/Questionnaire 4 pair, the Questionnaire 2/Questionnaire 3 pair and the Questionnaire 2/Questionnaire 4 pair are significantly different. Further, the mean differences demonstrate that the capability score for Questionnaire 4 is significantly higher than those for Questionnaire 3, Questionnaire 2 and Questionnaire 1.

Capability Score Across Each of the 10 Categories and All Respondents

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4 is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

Table E.69: Capability Score across 10 Categories and All Respondents

Category	Questionnaire	Mean of Capability Score	p-Value	Conclusion
Value Management	1	3.4844	0.000	Significant
	2	3.5395		
	3	4.1136		
	4	4.5500		
Organisational Change Management	1	3.9063	0.000	Significant
	2	3.8684		
	3	4.3864		
	4	4.4000		
Knowledge Management	1	3.6250	0.000	Significant
	2	3.9605		
	3	3.8864		
	4	4.4000		
People Management	1	3.6863	0.000	Significant
	2	3.8071		
	3	4.3857		
	4	4.3750		
Relationship Management	1	3.4375	0.000	Significant
	2	4.1053		
	3	4.5455		
	4	4.8750		
Technology Management	1	3.3906	0.002	Significant
	2	3.5789		
	3	3.8864		
	4	4.1750		
Threat Management	1	3.8906	0.008	Significant
	2	4.1316		
	3	4.2614		
	4	4.3625		
Performance Management	1	3.6350	0.000	Significant
	2	3.7813		
	3	4.2041		
	4	4.3083		
Service Transfer	1	3.9063	0.000	Significant
	2	4.1447		
	3	4.5455		
	4	4.5500		
Service Delivery	1	3.8406	0.000	Significant
	2	4.0145		
	3	4.1782		
	4	4.3694		

All the variables are recorded as significant as all p-values are less than the significance level of 0.05, and we have to reject H_0. Therefore, we can say that there is a significant difference between the scores of the 10 categories and all respondents of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4, under 95% confidence.

Table E.70: Multiple Comparisons across 10 Categories and All Respondents

Dependent Variable			Mean Difference (I–J)	Std Error	Sig.	95% Confidence Interval	
Multiple Comparisons							
Tukey HSD							
						Lower Bound	Upper Bound
Value Management	Questionnaire 1	Questionnaire 2	−.05510	.15208	.984	−.4502	.3400
		Questionnaire 3	−.62926*	.14726	.000	−1.0119	−.2467
		Questionnaire 4	−1.06562*	.15033	.000	−1.4562	−.6751
	Questionnaire 2	Questionnaire 1	.05510	.15208	.984	−.3400	.4502
		Questionnaire 3	−.57416*	.14037	.000	−.9389	−.2095
		Questionnaire 4	−1.01053*	.14359	.000	−1.3836	−.6375
	Questionnaire 3	Questionnaire 1	.62926*	.14726	.000	.2467	1.0119
		Questionnaire 2	.57416*	.14037	.000	.2095	.9389
		Questionnaire 4	−.43636*	.13847	.010	−.7961	−.0766
	Questionnaire 4	Questionnaire 1	1.06562*	.15033	.000	.6751	1.4562
		Questionnaire 2	1.01053*	.14359	.000	.6375	1.3836
		Questionnaire 3	.43636*	.13847	.010	.0766	.7961
Organisational Change Management	Questionnaire 1	Questionnaire 2	.03783	.14541	.994	−.3399	.4156
		Questionnaire 3	−.48011*	.14080	.005	−.8459	−.1143
		Questionnaire 4	−.49375*	.14374	.004	−.8672	−.1203
	Questionnaire 2	Questionnaire 1	−.03783	.14541	.994	−.4156	.3399
		Questionnaire 3	−.51794*	.13421	.001	−.8666	−.1693
		Questionnaire 4	−.53158*	.13729	.001	−.8883	−.1749
	Questionnaire 3	Questionnaire 1	.48011*	.14080	.005	.1143	.8459
		Questionnaire 2	.51794*	.13421	.001	.1693	.8666
		Questionnaire 4	−.01364	.13240	1.000	−.3576	.3303
	Questionnaire 4	Questionnaire 1	.49375*	.14374	.004	.1203	.8672
		Questionnaire 2	.53158*	.13729	.001	.1749	.8883
		Questionnaire 3	.01364	.13240	1.000	−.3303	.3576
Knowledge Management	Questionnaire 1	Questionnaire 2	−.33553*	.12729	.045	−.6662	−.0048
		Questionnaire 3	−.26136	.12326	.151	−.5816	.0589
		Questionnaire 4	−.77500*	.12583	.000	−1.1019	−.4481
	Questionnaire 2	Questionnaire 1	.33553*	.12729	.045	.0048	.6662
		Questionnaire 3	.07416	.11749	.922	−.2311	.3794
		Questionnaire 4	−.43947*	.12019	.002	−.7517	−.1272
	Questionnaire 3	Questionnaire 1	.26136	.12326	.151	−.0589	.5816
		Questionnaire 2	−.07416	.11749	.922	−.3794	.2311
		Questionnaire 4	−.51364*	.11591	.000	−.8148	−.2125
	Questionnaire 4	Questionnaire 1	.77500*	.12583	.000	.4481	1.1019
		Questionnaire 2	.43947*	.12019	.002	.1272	.7517
		Questionnaire 3	.51364*	.11591	.000	.2125	.8148
People Management	Questionnaire 1	Questionnaire 2	−.12086	.13150	.795	−.4625	.2208
		Questionnaire 3	−.69943*	.12734	.000	−1.0303	−.3686
		Questionnaire 4	−.68875*	.12999	.000	−1.0265	−.3510
	Questionnaire 2	Questionnaire 1	.12086	.13150	.795	−.2208	.4625
		Questionnaire 3	−.57858*	.12138	.000	−.8939	−.2632
		Questionnaire 4	−.56789*	.12416	.000	−.8905	−.2453
	Questionnaire 3	Questionnaire 1	.69943*	.12734	.000	.3686	1.0303
		Questionnaire 2	.57858*	.12138	.000	.2632	.8939
		Questionnaire 4	.01068	.11974	1.000	−.3004	.3218
	Questionnaire 4	Questionnaire 1	.68875*	.12999	.000	.3510	1.0265
		Questionnaire 2	.56789*	.12416	.000	.2453	.8905
		Questionnaire 3	−.01068	.11974	1.000	−.3218	.3004
Relationship Management	Questionnaire 1	Questionnaire 2	−.66776*	.19662	.005	−1.1786	−.1569
		Questionnaire 3	−1.10795*	.19040	.000	−1.6026	−.6133
		Questionnaire 4	−1.43750*	.19436	.000	−1.9425	−.9325
	Questionnaire 2	Questionnaire 1	.66776*	.19662	.005	.1569	1.1786
		Questionnaire 3	−.44019	.18148	.077	−.9117	.0313
		Questionnaire 4	−.76974*	.18564	.000	−1.2520	−.2874
	Questionnaire 3	Questionnaire 1	1.10795*	.19040	.000	.6133	1.6026
		Questionnaire 2	.44019	.18148	.077	−.0313	.9117
		Questionnaire 4	−.32955	.17903	.258	−.7947	.1356
	Questionnaire 4	Questionnaire 1	1.43750*	.19436	.000	.9325	1.9425
		Questionnaire 2	.76974*	.18564	.000	.2874	1.2520
		Questionnaire 3	.32955	.17903	.258	−.1356	.7947
Technology Management	Questionnaire 1	Questionnaire 2	−.18832	.13263	.489	−.5329	.1563
		Questionnaire 3	−.49574*	.12843	.001	−.8294	−.1621
		Questionnaire 4	−.78437*	.13111	.000	−1.1250	−.4438

Multiple Comparisons							
Tukey HSD							
Dependent Variable			**Mean Difference (I–J)**	**Std Error**	**Sig.**	**95% Confidence Interval**	
						Lower Bound	**Upper Bound**
Threat Management	Questionnaire 2	Questionnaire 1	.18832	.13263	.489	−.1563	.5329
		Questionnaire 3	−.30742	.12242	.062	−.6255	.0106
		Questionnaire 4	−.59605*	.12522	.000	−.9214	-.2707
	Questionnaire 3	Questionnaire 1	.49574*	.12843	.001	.1621	.8294
		Questionnaire 2	.30742	.12242	.062	−.0106	.6255
		Questionnaire 4	−.28864	.12077	.083	−.6024	.0251
	Questionnaire 4	Questionnaire 1	.78437*	.13111	.000	.4438	1.1250
		Questionnaire 2	.59605*	.12522	.000	.2707	.9214
		Questionnaire 3	.28864	.12077	.083	−.0251	.6024
Threat Management	Questionnaire 1	Questionnaire 2	−.24095	.14389	.341	−.6148	.1329
		Questionnaire 3	−.37074*	.13933	.042	−.7327	-.0088
		Questionnaire 4	−.47187*	.14223	.006	−.8414	-.1023
	Questionnaire 2	Questionnaire 1	.24095	.14389	.341	−.1329	.6148
		Questionnaire 3	−.12978	.13281	.763	−.4748	.2153
		Questionnaire 4	−.23092	.13585	.327	−.5839	.1220
	Questionnaire 3	Questionnaire 1	.37074*	.13933	.042	.0088	.7327
		Questionnaire 2	.12978	.13281	.763	−.2153	.4748
		Questionnaire 4	−.10114	.13102	.867	−.4415	.2393
	Questionnaire 4	Questionnaire 1	.47187*	.14223	.006	.1023	.8414
		Questionnaire 2	.23092	.13585	.327	−.1220	.5839
		Questionnaire 3	.10114	.13102	.867	−.2393	.4415
Performance Management	Questionnaire 1	Questionnaire 2	−.14632	.14083	.727	−.5122	.2196
		Questionnaire 3	−.56909*	.13637	.000	−.9234	-.2148
		Questionnaire 4	−.67333*	.13921	.000	−1.0350	-.3117
	Questionnaire 2	Questionnaire 1	.14632	.14083	.727	−.2196	.5122
		Questionnaire 3	−.42278*	.12999	.008	−.7605	-.0851
		Questionnaire 4	−.52702*	.13296	.001	−.8725	-.1816
	Questionnaire 3	Questionnaire 1	.56909*	.13637	.000	.2148	.9234
		Questionnaire 2	.42278*	.12999	.008	.0851	.7605
		Questionnaire 4	−.10424	.12823	.848	−.4374	.2289
	Questionnaire 4	Questionnaire 1	.67333*	.13921	.000	.3117	1.0350
		Questionnaire 2	.52702*	.13296	.001	.1816	.8725
		Questionnaire 3	.10424	.12823	.848	−.2289	.4374
Service Transfer	Questionnaire 1	Questionnaire 2	−.23849	.15172	.398	−.6327	.1557
		Questionnaire 3	−.63920*	.14692	.000	−1.0209	-.2575
		Questionnaire 4	−.64375*	.14998	.000	−1.0334	-.2541
	Questionnaire 2	Questionnaire 1	.23849	.15172	.398	−.1557	.6327
		Questionnaire 3	−.40072*	.14004	.025	−.7646	-.0369
		Questionnaire 4	−.40526*	.14325	.027	−.7774	-.0331
	Questionnaire 3	Questionnaire 1	.63920*	.14692	.000	.2575	1.0209
		Questionnaire 2	.40072*	.14004	.025	.0369	.7646
		Questionnaire 4	−.00455	.13815	1.000	−.3635	.3544
	Questionnaire 4	Questionnaire 1	.64375*	.14998	.000	.2541	1.0334
		Questionnaire 2	.40526*	.14325	.027	.0331	.7774
		Questionnaire 3	.00455	.13815	1.000	−.3544	.3635
Service Delivery	Questionnaire 1	Questionnaire 2	−.17385	.09904	.299	−.4312	.0835
		Questionnaire 3	−.33756*	.09590	.003	−.5867	-.0884
		Questionnaire 4	−.52882*	.09790	.000	−.7832	-.2745
	Questionnaire 2	Questionnaire 1	.17385	.09904	.299	−.0835	.4312
		Questionnaire 3	−.16371	.09141	.282	−.4012	.0738
		Questionnaire 4	−.35497*	.09351	.001	−.5979	-.1120
	Questionnaire 3	Questionnaire 1	.33756*	.09590	.003	.0884	.5867
		Questionnaire 2	.16371	.09141	.282	−.0738	.4012
		Questionnaire 4	−.19126	.09018	.151	−.4255	.0430
	Questionnaire 4	Questionnaire 1	.52882*	.09790	.000	.2745	.7832
		Questionnaire 2	.35497*	.09351	.001	.1120	.5979
		Questionnaire 3	.19126	.09018	.151	−.0430	.4255
*. The mean difference is significant at the 0.05 level.							

Multiple comparisons lead to the findings shown in the Table E.71.

Table E.71: Multiple Comparison Results

Category	Capability Score					
	Q1 Q2	Q1 Q3	Q1 Q4	Q2 Q3	Q2 Q4	Q3 Q4
Value Management		Significant	Significant	Significant	Significant	Significant
Organisational Change Management		Significant	Significant	Significant	Significant	
Knowledge Management	Significant		Significant		Significant	Significant
People Management		Significant	Significant	Significant	Significant	
Relationship Management	Significant	Significant	Significant		Significant	
Technology Management		Significant	Significant		Significant	
Threat Management		Significant	Significant			
Performance Management		Significant	Significant	Significant	Significant	
Service Transfer		Significant	Significant	Significant	Significant	
Service Delivery		Significant	Significant		Significant	

Capability Score Across All Categories for Group A Clients

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4 is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores across all categories for Group A clients of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4.

H_1: There is a difference between the capability mean scores across all categories for Group A clients of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4.

Table E.72: Capability Score across All Categories for Group A Clients

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.5240		
2	3.3483	0.000	Significant
3	4.2689		
4	4.3992		

As shown in Table E.72, the p-value of 0.000 is less than the significance level of 0.05, and we have to reject H_0. Therefore, we can say that there is a difference in capability score across all categories for Group A clients of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4, under 95% confidence.

Table E.73: Multiple Comparison across All Categories For Group A Clients

Multiple Comparisons—Dependent Variable: Overall Capability Score—Tukey HSD						
Questionnaire A	Questionnaire B	Mean Difference (A–B)	Std Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Questionnaire 1	Q2	.17567	.17233	.739	−.2806	.6320
	Q3	−.74489*	.15874	.000	−1.1652	−.3246
	Q4	−.87517*	.15588	.000	−1.2879	−.4624
Questionnaire 2	Q1	−.17567	.17233	.739	−.6320	.2806
	Q3	−.92056*	.14999	.000	−1.3177	−.5234
	Q4	−1.05083*	.14696	.000	−1.4400	−.6617
Questionnaire 3	Q1	.74489*	.15874	.000	.3246	1.1652
	Q2	.92056*	.14999	.000	.5234	1.3177
	Q4	−.13028	.13076	.752	−.4765	.2160
Questionnaire 4	Q1	.87517*	.15588	.000	.4624	1.2879
	Q2	1.05083*	.14696	.000	.6617	1.4400
	Q3	.13028	.13076	.752	−.2160	.4765
*The mean difference is significant at the 0.05 level						

The Tukey results show that the p-value between Questionnaire 1 and Questionnaire 3 is 0.000, between Questionnaire 1 and Questionnaire 4 is 0.000, between Questionnaire 2 and Questionnaire 3 is 0.000 and between Questionnaire 2 and Questionnaire 4 is 0.000, where all p-values are less than the significance level of 0.05. This illustrates that the capability mean scores between the Questionnaire 1/Questionnaire 3 pair, the Questionnaire 1/Questionnaire 4 pair, the Questionnaire 2/Questionnaire 3 pair and the Questionnaire 2/Questionnaire 4 pair are significantly different. Further, the mean differences demonstrate that the capability score for Questionnaire 4 is significantly higher than those for Questionnaire 3, Questionnaire 2 and Questionnaire 1.

Capability Score Across All Categories for Group A Suppliers

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4 is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

> The hypothesis tested here is:
>
> H₀: There is no difference between the capability mean scores across all categories for Group A suppliers of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4.
>
> H₁: There is a difference between the capability mean scores across all categories for Group A suppliers of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4.

Table E.74: Capability Score across All Categories for Group A Suppliers

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.7509		
2	4.1462	0.000	Significant
3	4.2188		
4	4.4739		

As shown in Table E.74, the p-value of 0.000 is less than the significance level of 0.05, and we have to reject H_0. Therefore, we can say that there is a difference in capability score across all categories for Group A suppliers of Questionnaire 1, Questionnaire 2 and Questionnaire 3 and Questionnaire 4 under 95% confidence.

Table E.75: Multiple Comparisons across All Categories for Group A Suppliers

Multiple Comparisons—Dependent Variable: Overall Capability Score—Tukey HSD						
Questionnaire A	Questionnaire B	Mean Difference (A–B)	Std Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Questionnaire 1	Q2	−.39524*	.10061	.001	−.6586	−.1319
	Q3	−.46794*	.10061	.000	−.7313	−.2046
	Q4	−.72298*	.10730	.000	−1.0039	−.4421
Questionnaire 2	Q1	.39524*	.10061	.001	.1319	.6586
	Q3	−.07269	.09632	.874	−.3248	.1795
	Q4	−.32774*	.10329	.011	−.5981	−.0573
Questionnaire 3	Q1	.46794*	.10061	.000	.2046	.7313
	Q2	.07269	.09632	.874	−.1795	.3248
	Q4	−.25504	.10329	.072	−.5254	.0154
Questionnaire 4	Q1	.72298*	.10730	.000	.4421	1.0039
	Q2	.32774*	.10329	.011	.0573	.5981
	Q3	.25504	.10329	.072	−.0154	.5254
*The mean difference is significant at the 0.05 level						

The Tukey results show that the p-value between Questionnaire 1 and Questionnaire 2 is 0.001, between Questionnaire 1 and Questionnaire 3 is 0.000, between Questionnaire 1 and Questionnaire 4 is 0.000 and between Questionnaire 2 and Questionnaire 4 is 0.011, where all p-values are less than the significance level of 0.05. This illustrates that the capability mean scores between the Questionnaire 1/Questionnaire 2 pair, between the Questionnaire 1/Questionnaire 3 pair, between the Questionnaire 1/Questionnaire 4 pair and between the Questionnaire 2/Questionnaire 4 pair are significantly different. Further, the mean differences demonstrate that the capability score for Questionnaire 4 is significantly higher than those for Questionnaire 3, Questionnaire 2 and Questionnaire 1.

Capability Score Across All Categories for Group B Engagement Type I

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4 is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

The hypothesis tested here is:

H0: There is no difference between the capability mean scores across all categories for Group B engagement type I of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4.

H1: There is a difference between the capability mean scores across all categories for Group B engagement type I of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4.

Table E.76: Capability Score across All Categories for Group B Engagement Type I

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.2700		
2	3.2750	0.000	Significant
3	4.3200		
4	4.3594		

Since the p-value of 0.000 is less than the significance level of 0.05, we have to reject H_0. Therefore, we can say that there is a significant difference between the capability score across all categories for Group B engagement type I of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4, under 95% confidence.

Table E.77: Multiple Comparisons for Group B Engagement Type I

					95% Confidence Interval	
Questionnaire A	Questionnaire B	Mean Difference (A–B)	Std Error	Sig.	Lower Bound	Upper Bound
Questionnaire 1	Q2	−.00500	.28411	1.000	−.8080	.7980
	Q3	−1.05000*	.28411	.008	−1.8530	−.2470
	Q4	−1.08944*	.23770	.001	−1.7613	−.4176
Questionnaire 2	Q1	.00500	.28411	1.000	−.7980	.8080
	Q3	−1.04500*	.28411	.008	−1.8480	−.2420
	Q4	−1.08444*	.23770	.001	−1.7563	−.4126
Questionnaire 3	Q1	1.05000*	.28411	.008	.2470	1.8530
	Q2	1.04500*	.28411	.008	.2420	1.8480
	Q4	−.03944	.23770	.998	−.7113	.6324
Questionnaire 4	Q1	1.08944*	.23770	.001	.4176	1.7613
	Q2	1.08444*	.23770	.001	.4126	1.7563
	Q3	.03944	.23770	.998	−.6324	.7113

Multiple Comparisons—Dependent Variable: Overall Capability Score—Tukey HSD

*The mean difference is significant at the 0.05 level

The Tukey results show that the p-value between Questionnaire 1 and Questionnaire 3 is 0.008, between Questionnaire 1 and Questionnaire 4 is 0.01, between Questionnaire 2 and Questionnaire 3 is 0.008 and between Questionnaire 2 and Questionnaire 4 is 0.001, where all p-values are less than the significance level of 0.05. This illustrates that the capability mean scores between the Questionnaire 1/Questionnaire 2 pair and the Questionnaire 1/ Questionnaire 3 pair are significantly different. Further, the mean differences demonstrate that the capability score for Questionnaire 4 is significantly higher than those for Questionnaire 3, Questionnaire 2 and Questionnaire 1.

Capability Score Across All Categories for Group B Engagement Type II

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4 is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

The hypothesis tested here is:

H_0: There is no difference between the capability mean scores across all categories for Group B engagement type II of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4.

H_1: There is a difference between the capability mean scores across all categories for Group B engagement type II of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4.

Table E.78: Capability Score across All Categories for Group B Engagement Type II

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.6800		
2	4.0633	0.000	Significant
3	4.2344		
4	4.4228		

As shown in Table E.78, the p-value of 0.000 is less than the significance level of 0.05, and we have to reject H_0. Therefore, we can say that there is a difference in capability score across all categories for Group B engagement type II of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4, under 95% confidence.

Table E.79: Multiple Comparisons for Group B Engagement Type II

Multiple Comparisons—Dependent Variable: Overall Capability Score—Tukey HSD						
Questionnaire A	Questionnaire B	Mean Difference (A–B)	Std Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Questionnaire 1	Q2	−.38333*	.11113	.005	−.6765	−.0902
	Q3	−.55440*	.10785	.000	−.8389	−.2699
	Q4	−.74278*	.13149	.000	−1.0896	−.3959
Questionnaire 2	Q1	.38333*	.11113	.005	.0902	.6765
	Q3	−.17107	.09090	.246	−.4109	.0687
	Q4	−.35944*	.11799	.017	−.6707	−.0482
Questionnaire 3	Q1	.55440*	.10785	.000	.2699	.8389
	Q2	.17107	.09090	.246	−.0687	.4109
	Q4	−.18838	.11490	.364	−.4915	.1147
Questionnaire 4	Q1	.74278*	.13149	.000	.3959	1.0896
	Q2	.35944*	.11799	.017	.0482	.6707
	Q3	.18838	.11490	.364	−.1147	.4915
*The mean difference is significant at the 0.05 level						

The Tukey results show that the p-value between Questionnaire 1 and Questionnaire 2 is 0.005, between Questionnaire 1 and Questionnaire 3 is 0.000, between Questionnaire 1 and Questionnaire 4 is 0.000 and between Questionnaire 2 and Questionnaire 4 is 0.017, where all p-values are less than the significance level of 0.05. This illustrates that the capability mean scores between the Questionnaire 1/Questionnaire 2 pair, between the Questionnaire 1/Questionnaire 3 pair, between the Questionnaire 1/Questionnaire 4 pair and between the Questionnaire 2/Questionnaire 4 pair are significantly different. Further, the mean differences demonstrate that the capability score for Questionnaire 4 is significantly higher than those for Questionnaire 3, Questionnaire 2 and Questionnaire 1.

Capability Score Across All Categories for Group B Engagement Type III

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4 is the one-way ANOVA test.

The hypothesis tested here is:

H0: There is no difference between the capability mean scores across all categories for Group B engagement type III of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4.

H1: There is a difference between the capability score across all categories for Group B engagement type III of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4.

Table E.80: Capability Score across All Categories for Group B Engagement Type III

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	4.1411		
2	4.0962	0.358	Not significant
3	4.2067		
4	4.4894		

Since the p-value of 0.901 is greater than the significance level of 0.05, we have to not reject H_0. Therefore, we can say that there is no significant difference between the capability mean scores across all categories for Group B engagement type III of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4, under 95% confidence.

Capability Score Across All Categories for Group B Engagement Type IV

The desired test for checking the differences in capability mean scores of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4 is the one-way ANOVA test. For multiple comparisons, the Tukey test is used.

Table E.81: Capability Score across All Categories for Group B Engagement Type IV

Questionnaire	Mean of Capability Score	p-Value	Conclusion
1	3.3214		
2	3.3560	0.000	Significant
3	4.2550		
4	4.4744		

As shown in Table E.81, the p-value of 0.000 is less than the significance level of 0.05, and we have to reject H0. Therefore, we can say that there is a difference in capability score across all categories for Group B engagement type IV of Questionnaire 1, Questionnaire 2, Questionnaire 3 and Questionnaire 4, under 95% confidence.

Table E.82: Multiple Comparisons for Group B Engagement Type IV

Multiple Comparisons—Dependent Variable: Overall Capability Score—Tukey HSD						
Questionnaire A	Questionnaire B	Mean Difference (A–B)	Std Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Questionnaire 1	Q2	−.03457	.09492	.983	−.2964	.2273
	Q3	−.93357*	.09019	.000	−1.1824	−.6848
	Q4	−1.15302*	.07989	.000	−1.3734	−.9326
Questionnaire 2	Q1	.03457	.09492	.983	−.2273	.2964
	Q3	−.89816*	.09816	.000	−1.1698	−.6282
	Q4	−1.11844*	.08879	.000	−1.3634	−.8735
Questionnaire 3	Q1	.93357*	.09019	.000	.6848	1.1824
	Q2	.89900*	.09816	.000	.6282	1.1698
	Q4	−.21944	.08371	.067	−.4504	.0115
Questionnaire 4	Q1	1.15302*	.07989	.000	.9326	1.3734
	Q2	1.11844*	.08879	.000	.8735	1.3634
	Q3	.21944	.08371	.067	−.0115	.4504
*The mean difference is significant at the 0.05 level						

The Tukey results show that the p-value between Questionnaire 1 and Questionnaire 3 is 0.000, between Questionnaire 1 and Questionnaire 4 is 0.000, between Questionnaire 2 and Questionnaire 3 is 0.000 and between Questionnaire 2 and Questionnaire 4 is 0.000, where all p-values are less than the significance level of 0.05. This illustrates that the capability mean scores between the Questionnaire 1/Questionnaire 3 pair, between the Questionnaire 1/Questionnaire 4 pair, between the Questionnaire 2/Questionnaire 3 pair and between the Questionnaire 2/Questionnaire 4 pair are significantly different. Further, the mean differences demonstrate that the capability score for Questionnaire 4 is significantly higher than those for Questionnaire 3, Questionnaire 2 and Questionnaire 1.

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