

# **IT Governance in a Networked World:**

*Multi-Sourcing Strategies and Social Capital for  
Corporate Computing*

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## PREFACE

The Internet may be the most visible face of the change toward a networked economy, however the growth in the interdependence between firms and organisations across the globe has been evident for several decades now. Several scholars have predicted the changing nature of the global economy from one reliant on manufacturing and physical assets, to one reliant on knowledge, services and intangible assets (Drucker, 1992; Quinn, 1992; Stewart, 1997; Sveiby, 1997). The experience of these changes in the IT industry is best exemplified through the changes experienced by industry stalwart, IBM. After over a century in manufacturing, IBM was forced to turn its focus to services in the early 1990s to survive. IBM is now the dominant force in outsourced IT services. In terms of IT governance, the scope has expanded beyond the walls of the single enterprise to encompass multisourced providers and also potentially business alliance partners. Whereas governance has been traditionally associated with ‘compliance’ to a pre-determined company standard, there is now a growing appreciation for a ‘co-operative’ approach to governance, where no single authority exists and leaders are forced to operate through the influence of their peer to peer relationships. The growth in outsourced IT services is the trigger for reassessing how IT governance and sourcing should now be conducted.

The outsourcing of Information Technology (IT) services has been with us now for well over a decade. The outsourcing phenomena was launched through a number of outsourcing “mega-deals” with significant organisations like the UK Inland Revenue, the South Australian Government, Campbell Soup, Dupont, British Steel and Lucent Technologies. Many of these deals were for periods of up to 10 years for contract amounts in the billions of dollars. The advent of multi-sourcing has been with us from virtually the start, with organisations like Dupont and British Petroleum purposefully undertaking multi-sourcing strategies from the beginning. The growth in the adoption of multi-sourcing strategies and shorter contract terms however is a direct result of the disenchantment in sole sourced outsourcing deals (Gedda, 2007). The fast pace of technology change in the IT sector and the perceived inflexibility of arrangements and lack of innovation with single vendors have combined to work against the continuance of the practice of long term single vendor outsourcing contracts. A recent global study by IBM of 765 CEOs revealed that 75% were looking to partner outside of their organisations to create innovation, yet only 50% of organisations are currently achieving this (IBM, 2006). Consequently the drive for increased innovation will also fuel the drive for increased levels of multisourcing.

It can therefore be argued that movement toward “best of breed” multi-sourcing strategies has been more as a result of the failure of sole source arrangements, than a purposeful business enhancement strategy. Outsourcing researchers and commentators have been united in identifying the client / vendor relationship as being a most critical element in a successful outsourcing arrangement (Deloitte, 2005; Thomas Kern & Willcocks, 2001; Willcocks & Cullen, 2006). Willcocks & Cullen (2006) have stated that:

*“In our study of organisations seeking IT cost savings via outsourcing, we found that good relationship management made a 40 per cent difference in cost savings. Another study of 235 client organisations identified good relationships as one of the most*

*important factors contributing to effective delivery and successful contract management.”*

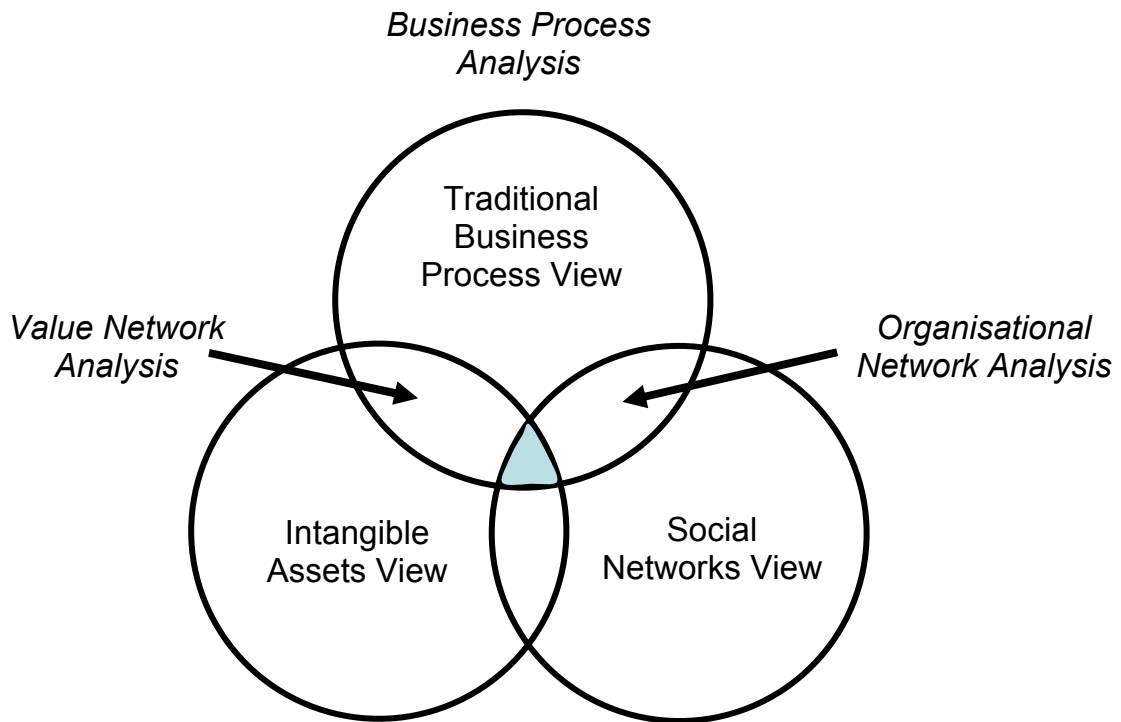
The increased complexity in the required governance arrangements, together with the organisational change management aspects of the outsourcing arrangements have been identified as the two most reported problem areas for outsourcing clients (Deloitte, 2005). Moving from a single supplier situation to a multiple supplier would therefore appear to only exacerbate the relationship and governance problem. This leaves us with an interesting contradiction. Organisations are now embarking on multisourcing strategies, which in turn can only increase the risk of failure, by increasing the complexity in the identified largest problem area from outsourcing experiences to date, being governing the outsourcing relationship.

Coincident with the trend to outsourcing and now multisourcing are changes in the business landscape in general. Firstly, the increasing importance of intangibles and intangible assets are occupying an increasing proportion of firm share market valuations, much of this attributed to the growing services sectors (Hall, 1992; Lev, 2001; Lev & Zarowin, 1999; Low & Kalafut, 2002). Secondly, the growth in alliances as a business growth vehicle continues to grow inexorably at a rate of 25% a year despite a failure rate of between 60% and 70% (Hughes & Weiss, 2007). We therefore now have a situation where market place interconnectedness is accelerating at unprecedented rates, as organisations race to build new alliance partnerships, develop outsourcing relationships with multiple suppliers and aim to leverage intangible assets to build shareholder value. It is no longer possible to view suppliers as independent entities. They too will be participating in their own alliance arrangements with other suppliers which can and will change the nature of their service offerings. Client businesses will also be changing dynamically where mergers, acquisitions and alliances will also change the nature of the business requirements for IT services provision. The above business trends along with failure rate experiences in excess of 50% for IT outsourcing and alliances is the platform on which this book has been written.

This book is focused on governance of the business relationship. However, unlike many of the excellent texts and reports that have been produced to address the client/supplier outsourcing or selective sourcing arrangements (Cullen & Willcocks, 2003; T. Kern & Willcocks, 2000; Lacity & Willcocks, 2001) or those extending such frameworks to multiple suppliers (Cohen & Young, 2006). Much of the literature on IT governance reflects a compliance approach to governance, whether it relates to sourcing decisions or information security and/or protection (Calder & Watkins, 2008), contracts and contract management, business processes, tendering and tender evaluation or life cycle management frameworks (Cullen *et al.*, 2005). The current guidance literature on IT governance has focused on allocating decision rights to appropriate roles within an organisation, with the intent of encouraging desirable behaviours (Broadbent, 2002; Weill, 2004). However, allocating accountabilities is only part of the answer. The relationships held between the identified roles will go a long way to determining a successful governance arrangement or not. Many an executive charged with implementing a compliance regime for IT governance will note that the practice is more about socialisation than policing. These texts do an excellent job of synthesising management frameworks from both management theory and analysis of case study experiences. The treatment of relationship management

however is largely limited to identifying the structural elements for governance bodies and the creation of charters for developing behavioural norms or codes of conducts for the relationship. As valuable as these are for addressing a single relationship there is reasonable doubt as to whether these techniques will be sufficient to succeed in a highly networked and interdependent market place. Cohen & Young, (2006) acknowledge among their four key themes for multisourcing that “*Multisourcing is built on a network of relationships – not transactions*” and proceed to extend the code of conduct approach by defining a useful “Confidence Index” for monitoring confidence in relationships. However, it falls short of appreciating the network effects identified in their key theme which can undermine a “one size fits all” use of index measures.

In order to provide a greater insight into operating successfully in a networked market place this book draws heavily from the fields of sociology, social networks, intellectual capital and intangible asset management. Unlike the majority of texts written on IT governance, this book does not attempt to synthesise a ‘best practice’ from numerous case study examples. Instead it looks to identify emergent practices through analysing overall changes in the business landscape that are occurring and the theoretical literature underpinning these changes. Building from a theoretical basis underpinning a social capital theory of the firm, the book will initially take the reader through a treatise of interdisciplinary research which incorporates foundations for governing in a networked business environment, theories of the firm, multisourced supply networks and a view of IT governance from the sociological viewpoint. This will be followed by the reporting on empirical research conducted on linking a firm’s Corporate Social Capital (CSC) to its overall performance. From empirical research the book then moves on to identifying emerging practices associated with operating in a networked business environment. These include Value Network Analysis (Allee, 2003), networked based approaches to market intelligence (Gloor & Cooper, 2007) and the whole Web 2.0 and social software phenomena. The final section looks to synthesise across the identified emergent practices to provide some early guidelines on IT governance and multisourcing in the networked business environment. The following schematic places this book in the context of current treatments of outsourcing and multisourcing and IT governance:



Existing treatments of IT governance, outsourcing and multisourcing have been classified above as a “business process view”. Essentially these treatments have been concerned with the business process flow from developing outsourcing strategies, architecting a desired IT environment, tendering and selection of suppliers, transitioning the business and then finally installing the governance arrangements through allocating decision rights. The treatment of the critical relationship aspects has been largely from a business process management viewpoint i.e. what instruments can be designed and installed to “manage or govern” the relationship. Treatment of IT governance from an information protection perspective (Calder & Watkins, 2008) could be seen as an ‘Intangible Asset’ view, with company information being the intangible asset.

This book targets IT governance and the sourcing relationship and amplifies its treatment through the introduction of a perspective from the discipline areas of Intangible Asset Management (also called Intellectual Capital Management) (Hand & Lev, 2003; Holland, 2001; Low & Kalafut, 2002; Zambon *et al.*, 2003), Social Capital (Lin, 2002; Lin *et al.*, 2001), and Social Networks (Borgatti *et al.*, 1998; Burt, 2000; Rob Cross & Parker, 2004; Inkpen & Tsang, 2005; Knoke, 1999; Tsai & Ghoshal, 1998). These discipline areas bring an additional richness to the understanding of how to work with and improve business relationships for the overall benefit of organisations. The intersections between the business process view and the intangible asset and social network views are explored through the analytical techniques of Value Network Analysis (VNA) and Organisational Network Analysis (ONA). In the three way intersection between views sits the ever present technology platform as a key enabler for extending the reach for governance and sourcing activities.

Emergent techniques arising from these disciplines are introduced for assisting with the governance of multisourcing relationships. Firstly, the ONA technique is derived from a mature technique called social network analysis (SNA), originally used by sociologists to study personal relationship patterns (R. Cross *et al.*, 2002; Scott, 2000; Wasserman & Faust, 1994). SNA applied to organisations at the personal, organisational and inter-organisational levels is often referred to as ONA. ONA can provide insight into how the network of individual actors in multisourcing arrangements relate to each other and how designed interventions can impact on the behaviour of the network. VNA (Allee, 2000, 2003, 2008) derives from the Intangible Asset Management field as a complementary technique for business process mapping by including intangible value flows into the business analysis. VNA is an important tool for designing or evaluating organisational structures around a relationship network, identifying the key roles and how both tangible and intangible value flows between them. VNA has been recently endorsed by the ITIL best practice organisation as a leading IT strategy development practice (ITIL, 2007). Web 2.0 technology has enabled emergent practices around social networking, collaborative market research and open source development which promises to have profound impacts on IT governance and sourcing activities.

The audience for this book will range from the scholar or student looking to better understand the governance mechanisms in a networked business environment, through to the IT manager who is struggling with complex business relationships issues for which there is currently minimal guidance. While the issues of governance are addressed in an IT context, much of the underlying theories identified and practices developed may be equally applicable to other non-IT service industries. It will draw equally from the client and supplier sides of the IT marketplace. Traditionally the literature on outsourcing is either polarised around advice for clients undertaking outsourcing activities or the shorter term market research supporting the supplier market place. By focusing on the relationship between client and supplier, between supplier and supplier and also potentially client and client, this book will be equally valuable to both client and supplier firms.

Much of the terminology in this book may be new or foreign to the casual reader. Many of the terms are simply extending a traditional definition to encompass new developments in the field. To assist the reader the following table is provided to identify and link a selection of new terminology with the more traditional terms.

<b>Traditional Term</b>	<b>Extended Terminology/Explanations</b>
Procurement, Sourcing	<p><i>Single sourcing</i> – procurement from single or prime vendor</p> <p><i>Multisourcing</i> – procurement from multiple vendors with no identifiable prime or managing vendor.</p> <p><i>Outsourcing</i> – services sourced from entities outside the formal boundaries of the firm or organisation</p>
Supply Chain	<p><i>Supply Network</i> – extends the notion of a linear chain of supply to an interdependent network of suppliers and clients i.e. allows for the possibility of reciprocal arrangements where two firm may</p>

Supplier	both buy and sell to each other, or alliance to sell to a third party.
Intangibles	<i>Vendor</i> – used interchangeably with supplier <i>Intangible assets, Intellectual Capital</i> – these terms extend the accounting term ‘intangibles’ beyond ‘goodwill’ to encompass all intangible assets including competence, information, reputation, brand, client relationships etc.
Service firm	<i>Intelligent Enterprise</i> – used to emphasise knowledge over physical assets as the critical competitive resource of the firm. The intelligent enterprise therefore leverages intangible assets and intellectual capital.
Capital	<i>Social Capital, Intellectual Capital</i> – these terms extend the traditional notion of capital as it relates to finance, to other less tangible elements as being of equal or greater importance to financial capital.
Social Capital	<i>Corporate Social Capital</i> – Social Capital in a corporate context.
Social Network Analysis (SNA)	<i>Organisational Network Analysis (ONA)</i> - SNA applied in a business setting.
WWW	<i>Web 2.0, Enterprise 2.0</i> – These terms extend the notion of the web / WWW as a place to publish (identified and Web 1.0) to a place to collaborate (Web 2.0). Enterprise 2.0 describes the corporate use of Web 2.0 tools.

The book is structured as follows:

## **Part I – Foundations of IT Governance in a Networked World**

The introduction positions the book around IT governance and multisourcing strategies and a firm’s social capital embodied in its relationship networks in the IT market place. Data is provided to show the growth in multi-sourcing arrangements and the increased inter-connectedness of the IT services marketplace.

A review of the IT governance literature and current state of the art leads into governance decision making and the increasingly complex business environments that these decisions are now being taken. The Cynefin decision making framework, which caters for complexity, is introduced to assist with untangling the different levels and types of IT governance decisions that need to be made and providing some sense as to the conditions under which a particular decision making process might be adopted. The notion of a co-operative approach to IT governance is introduced to balance the traditional compliance approach.

Multisourcing is addressed by taking a networking view of multisourcing arrangements. Business evolution is traced from the industrial era, through to

supply chain management and now value networks. The traditional view of the “firm” is challenged by the growth in the multiplicity of alliance and joint venture relationships.

The final foundational element is the emergence of the ‘intelligent enterprise’. In essence the intelligent enterprise is a services centric firm who relies more on intangible assets and intellectual capital than the traditional manufacturing enterprise and a reliance on physical assets. The growth in the IT services market exemplifies the rise of the intelligent enterprise.

## **Part II – A Sociological View of Governance**

This section begins with an examination of the foundation literature on corporate social capital and the intelligent enterprise separately at first. The two fields are then synthesised through the author’s own research into corporate social capital and its application to the IT industry. The linkage between multisourcing strategies and corporate social capital is reinforced.

The maturation of the IT industry and the growing importance of relationship skills for IT professionals are then addressed. Relationships between IT providers and their business clients, or peer relationships with alliance partners, are requiring IT professionals to move beyond the comfort of a technical discipline and into the soft skills areas of networking cultures and reciprocity.

Inside organisations the IT function is often viewed as a “support” or “staff” function, providing services to the core lines of business. Business alignment or business integration of the IT function has been in the top three IT success criteria for decades. With organisational structures evolving towards greater use of matrix and network management, how IT positions itself within the network of the other lines of business will become critical. This section closes by exploring some different models of IT/Business alignment based on the network paradigm.

## **Part III – Research, Applications and Future Directions**

The sociological view of governance is now reinforced through the reporting of some empirical research and emerging practices. Empirical research linking a firm’s Corporate Social Capital (CSC) and its overall performance are presented. A network representation of the global IT outsourcing market is provided, of which the research methods are detailed in the appendices. Hypotheses test results are presented showing how the sub-elements of CSC influence firm performance measures.

The emerging practice of Value Network Analysis and its adoption by ITIL (the Information Technology Infrastructure Library) is introduced. ITIL is fast becoming the IT industry’s de facto best practice guide for the provision of IT services. The latest version of ITIL has acknowledged the evolution of value chains into value networks. This chapter provides a detailed description of how value networks can be applied to IT services provision. This section will draw from the value network practitioner’s own “best practice” guides.

The evolution of the global IT outsourcing market is analysed from a networks perspective. This is accompanied by commentary identifying the growth in multisourcing networks and who the main global players are in this evolution. In this chapter the innovation question is addressed from a multisourcing and network perspective, hoping to shed some light on the innovation dilemma.

The impact of emerging technologies on IT governance is addressed to close this section. In particular, the emergence of the suite of Web 2.0 technologies will provide fuel to the networking fire by putting advanced communications tools in the hands of individuals within the business. The current suite of social software tools like blogs, wikis and discussion lists are finding their way from the public domain to inside organizations. This section looks at the issues and opportunities afforded by Web 2.0 and the current net mining research, which promises to be the next generation of business intelligence.

## **Part IV – Leveraging Emerging Practice**

The previous sections were rich in terms of research, case studies, technologies and methods for working with business networks in the IT discipline. In this section the threads will be synthesised into a suite of guidelines as to what individuals, IT executive and business executives can do to improve their collective IT governance performance in a networked economy, where multi-sourcing has become the norm.

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