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### Strategic sourcing in turbulent times

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# 1

# STRATEGIC SOURCING IN TURBULENT TIMES

## The impact of trust and partnership<sup>2</sup>

*Robert J. Benson and Pieter M. Ribbers*

### 1.1 Introduction

Outsourcing relations are becoming increasingly complex and uncertain. Complex IT-business relationships can typically be defined as multi-site, multi-vendor, internal and external IT – service provisioning relationships. Complexity of a system is basically about the number of elements that form the system and the type of their relations. A sourcing arrangement can be a very complex system dependent on the number of parties that are involved and the type of relationships with them. Change and uncertainty make a system even more complex. Change requires to adapt the sourcing arrangements, uncertainty makes them difficult to predict, which complicates timely adaptation.

An important question addressed in this chapter is how to shape complex (out)sourcing relationships between services supplier and services recipient. These relationships are shaped to last for a longer term; consequently, it becomes an increasingly pressing question how to deal with uncertainty in the relationship. Related to this, how trust impacts these relationships is a central topic of this chapter. The structure of the chapter is as follows:

- Section 1.2 sets the context for strategic sourcing. Given the definition of strategic sourcing, we consider sourcing as a service relationship, how digital strategy results in best of breed sourcing, and the necessity of integration. We finalize this section with a discussion of the economic and behavioral contributions to the (out)sourcing discussion and suggest the nature of changes facing managers responsible for sourcing.
- Section 1.3 analyzes the concept of trust. How to define trust, what are its characteristics, and how does it improve business performance? Can trust be built, especially in outsourcing relationships?
- Section 1.4 discusses turbulence, and its organizational impact. The section ends with a discussion on strategic sourcing in the context of turbulence and trust.
- Section 1.5 focuses on how to shape the relationship between service provider and service recipient and discusses the dilemma between contracts and relational management.
- Section 1.6 concludes the discussion by focusing on the significant differences between organizations involved in ICT sourcing, and the implications for executives and managers responsible for the sourcing relationships.

## **1.2 Strategic sourcing**

### **1.2.1 Strategic sourcing defined**

“Sourcing” as a concept originated with the supply-chain and procurement part of the enterprise. The idea is to regularize and manage how an organization acquires the materials it uses in its business. Most often this is in the acquisition of raw or manufactured materials used in the enterprise’s products and services.

“Strategic” sourcing in this context refers to the methods with which the enterprise selects and manages its internal or external suppliers. The emphasis here is on establishing long-term relationships between buyer and seller; the term “strategic” suggests the choices made in crafting those relationships would reflect the buyer’s business strategies. For example, an enterprise dependent on high-speed response to its own customers’ requirements would likely seek out suppliers – its sourcers – capable of meeting those high-speed needs. As a current example, the aircraft manufacturing enterprise, particularly the duopoly of Boeing and Airbus, continues to spend substantial time and resources on crafting the permanent supplier relationships consistent with their needs in supplying their aircraft manufacturing activities.<sup>3</sup>

“Strategic” in this example means two complementary things. First, the aircraft manufactures require a stable and permanent relationship with their suppliers. For example, Spirit Aerosystems has manufactured the major components of the Boeing 737 for nearly 30 years. Second, the manufacturers require their suppliers to support their basic business strategies. For example, Spirit actively works with and supports Boeing strategies for manufacturing and marketing its airplanes, particularly associated with quality, timing, cost, and the management of the overall supply chain.<sup>4</sup>

There are, of course, plenty of books and articles on business strategic sourcing. One interesting whitepaper, *The Strategic Sourcing Lifecycle*, describes at length the process of successfully creating the strategic relationship between buyer and seller in sourcing engagements [1].

“Strategic” also has two different though complementary contexts based on the business situation. In one case where sourcing supplies essential business infrastructure, permanence and reliability and stability over a very long period of time, having a strategic partnerships is essential. However, as described in the following sections, business and technical turbulence adds requirements for flexibility and change in business infrastructure, termed “dynamic capability.” In the second case where sourcing contributes directly toward the enterprise’s products and services, a more dynamic and time-focused orientation applies, as these products and services will change rapidly in response to industry, market, and customer demands. Both contexts are “strategic” in their own terms.

In effect, the concept of strategic sourcing moves the relationship between buyer and seller from a simple transactional view to a long-term relationship view. This introduces important relationship issues such as trust and partnership between buyer and seller. While this definition of strategic sourcing is based on business supply chain examples, the same characteristics apply when the sourcing involves ICT.

### **1.2.2 Sourcing information services**

As originally developed, ICT sourcing focused on providing fundamental ICT infrastructure such as networks and the operational functions of data centers, and typically was a relationship between one buyer (the ICT organization) and one seller (a large provider such

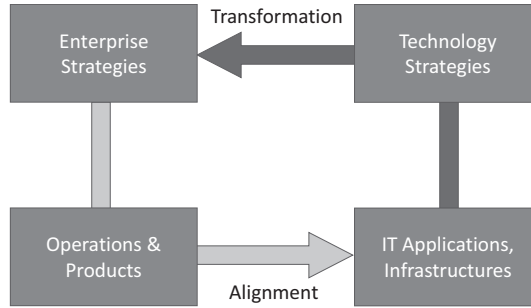


Figure 1.1 Enterprise and technology strategies

as IBM or DXC). But for many enterprises, this relationship also became integral to their products and services, for example in internet-based businesses and in businesses where ICT is the primary service delivery, and customer interface, for example in industries such as financial services.

It is helpful to examine the relationship of the business part of the enterprise and of ICT. Figure 1.1<sup>5</sup> shows how the enterprise strategies flow into ICT infrastructure and applications support, which then flow back as part of technology strategies into change in strategies and operations. Strategic ICT sourcing can be a great contributor, both from the infrastructure and stability perspective – that is, alignment – and from the transformation perspective, providing new transformative operational methods and enterprise strategies. ICT technology strategies also generate innovations to business processes and products/services. Figure 1.1 applies to any enterprise whether or not sourcing is involved. Strategic ICT sourcing creates the strategic relationship, the strategic sourcing of ICT, both for infrastructure and for product/services and competitive strategy support.

Issues about strategic sourcing as mentioned in the whitepaper cited above, and considered in great detail in books and publications, for example from the Supply Chain Institute (one of many important sources about strategic sourcing apply fully in ICT sourcing) [2]. However, differences between business sourcing and ICT sourcing can be blurred. For example, in enterprises that rely on sourced product delivery to their customers such as using Amazon to distribute products, the line between operational sourcing (the delivery) and ICT sourcing (the systems that support customers ordering and scheduling) is blurred, but both can certainly be strategic. For this reason, it can be instructive to consider how business supply-chain sourcing has evolved and is managed.

### 1.2.3 Demand and supply in strategic ICT sourcing

The business and ICT relationship is described in “supply” and “demand” terms. The supply side reflects back on the basic notion of sourcing ICT – in other words, arranging for and agreeing on the supply relationship with ICT providers. Here though is a critical characteristic. From the perspective of the enterprise and its business units, all ICT sources are sourcers. In other words, if a business unit depends on the corporate ICT department, it is in effect agreeing to obtaining those services from another organizational unit in the enterprise. Whether this unit is inside the corporation or outside does not change the basic dynamic.

By the same token, a business unit’s “demand” for ICT services is just that – a decision on what is required for their successful ICT supply. This is in the context of general supply issues – stability, cost, and so forth – but is most certainly also a strategic reflection. The ICT

supplier whether inside or out simply has to be consistent with the overall business strategy requirements for the enterprise. Just like the aircraft example cited earlier, the strategic ICT sourcing demand calls for elements of the infrastructure stability, reliability, and cost characteristics, and also the requirements for dynamic capabilities and product and service strategies required for the business. This is true for all parts of ICT supply – internal or sourced. From the ICT governance perspective, these sourcing factors are central to managing the relationship among the various ICT sourcers and the various enterprise business units.

### 1.2.4 Strategic ICT sourcing and ICT capability

ICT<sup>6</sup> outsourcing can be a critical part of the overall structure the enterprise uses to provide its ICT services throughout the organization and to its customers and suppliers. In very broad terms, strategic IT sourcing is a fundamental business infrastructure strategic characteristic – an infrastructure basic to the organization itself. We describe this infrastructure as the organization’s “ICT Capability,” defined as the organization-wide capability that depends on the competencies of both enterprise and ICT functions.”<sup>7</sup> This is represented in Figure 1.2<sup>8</sup> as a set of relationships within the organization between business units and ICT providers. Strategic ICT sourcing consequently includes one or more of the seven basic capabilities: planning, development, Information Management, service optimization, operational excellence, sourcing itself, and cost/performance management. In this context, strategic ICT sourcing is much more than simply buying/selling ICT services, it is creating long-term relationships and trust capable of providing the rich set of ICT capabilities described here.

Figure 1.2 describes the business side as potentially multiple units. Often these include a corporate set of “back office” business units (e.g., human resources, finance, marketing) and individual business units (with their specific products and services which also include the associated relationships with industries and customers). Figure 1.2 also shows an example of four sets of ICT providers, providing ICT services to the business units. For a particular enterprise, these can include (1) a corporate ICT organization, (2) individual (separate) business unit organizations, (3) externally sourced ICT providers (best example is network and communications, which almost all enterprises would acquire from external enterprises), and (4) what we call “DIY” or do-it-yourself sources where individuals provide ICT support through their individual effects.

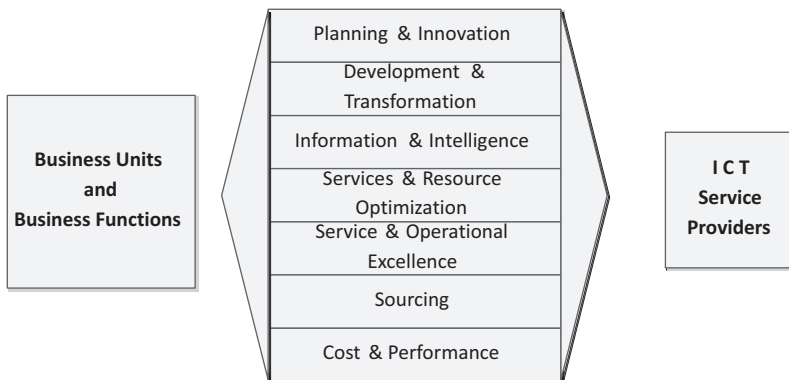


Figure 1.2 Business and ICT relationships

To summarize, strategic ICT sourcing involves the full set of ICT relationships from the business perspective, the demand side, which defines the requirements for and the performance required for the ICT services to be provided by one or more of the service providers. Strategic ICT sourcing consequently also involves the capabilities of ICT service providers to respond to the demand requirements, across the many ICT capabilities required, for the long term and within the context of a trusting and partnership relationship. While the original development of ICT sourcing most often involved just one buyer, typically the corporate ICT organization, and one provider, typically a large ICT enterprise such as IBM or EDS. In today's situation, as Figure 1.2 implies, strategic ICT sourcing can involve multiple providers, working with multiple business units. It has moved from a one-to-one relationship to an  $N$  to  $M$  set of relationships.

### 1.2.5 IT's contribution to business performance

To understand the value of the IT function to the organization and the consequential interactions between business functions and the IT function, we distinguish six service levels of IT to the business [3].

The first is *Service Delivery*. The focus is on operations and infrastructure; the service is reliable and dependable. The IT organization must ensure that basic IT services are delivered against agreed-upon service levels and at agreed costs. At this level, the business views the contribution of the IT function as one that provides agreed upon support for the technology infrastructure that has been deployed.

The second is *Software Configuration and Development*. The IT organization must demonstrate the ability to develop, acquire, and implement technology solutions that satisfy the business process and informational needs. The organization has technical and organizational measures in place to ensure a secure operation. It is at this level that management typically recognizes the critical nature of IT in providing and contributing to successful business operations. The third level of service concerns *Project Development and Benefit Realization*. This area addresses the quality, predictability, and timeliness associated with the deployment of projects. The IT function here expands its impact and contributes to the optimization of business benefits from investments that have a high information technology content.

As Figure 1.3<sup>9</sup> shows, these first levels of service are foundational and represent basic performance levels that the IT organization must master to create and grow trust. If these are not realized the business cannot develop, or at least will be hampered in its development.

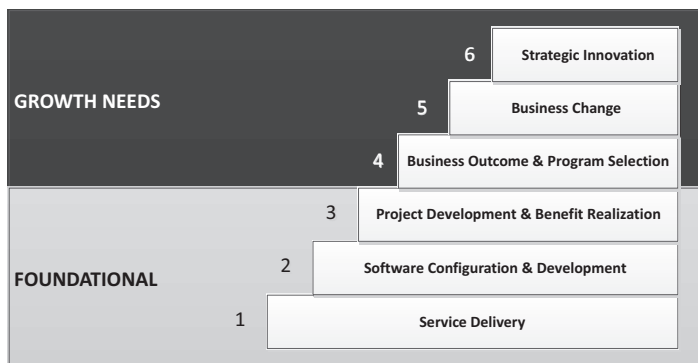


Figure 1.3 Six levels of service

Thus, being able to perform successfully within each of these areas is crucial for any organization, even when the IT function is in a supporting (not strategic) role.

The fourth level of service concerns *Business Outcome and Program Realization*. IT management are active participants and decision makers in the planning and selection of business projects or programs. The IT organization must demonstrate its ability to work closely with the business partners. IT technology trends are not only actively monitored by the IT organization but form an input for business strategic planning, including decisions concerning the strategic sourcing of IT.

The fifth level is *Business Change*. This level refers to the ability to implement business strategy by investing in programs with high levels of IT content. These investments require significant change plans because of their effects on markets, products, structures, processes, procedures, and IT. Plans are thoroughly integrated business and IT change plans.

The sixth level is *Strategic Innovation*, where an organization develops unique uses of IT that form the basis for a radical and sustainable change in its business model. IT has become a driver of innovation. Business strategy development is the result of co-creation. The business vision affects IT solutions, and new IT solutions affect the business vision. On this level, the Digital Business Strategy is created.

The latter three levels of service, concerning the so-called growth needs, need not be addressed to the same extent by every organization. The role of the IT service provider depends on the role that information technology plays in the industry and within the particular firm. If that role is already a strategic one, then indeed these growth needs are present and need to be fulfilled. If that role is limited to back-office, factory-type function, it is unlikely that growth needs will be actively pursued. Consequently, it is not necessary for every organization to develop the responsibility areas in the same way.

The relationship between the IT service provider and the IT service recipient differs with delivering so-called foundational services or growth services. For growth-type services, the IT function moves from a support function to a business partner, critical to the organization's future. It has to mirror business change competences for IT-induced business change.

Of course, successful delivery and implementation of IT services does not depend on the service supplier (internal or external) alone. The business organization should have specific IT competences in this respect. The support role interactions between business and IT are operational/tactical concerned with service delivery to users. Business functions are expected to define their *service requirements*. These have to be met by the IT function's service delivery apparatus. At the next level, business functions need to define their *Information and Process Requirements*, which are the input for *Software Configuration and Development*. For the level of *Project Development and Benefit Realization* closer collaboration between business and IT is critical, where the focus for the business is on *benefit realization*. On this level, it is a primary business responsibility to ensure adequate conditions (like sufficient user/organizational acceptance and training) for optimal implementation and utilization of installed systems.

Being successful with IT on the higher growth levels of IT use (*Business Outcomes and Program Selection, Business Change*, and eventually *Strategic Innovation*) depends as much from the business as from the IT service provider. The capabilities to identify, select, deploy, and implement new IT-based solutions, which are in line with the business strategy, need to exist in the business functions themselves.

These levels are characterized by intense business – IT collaboration. Our prior discussion on the effects of trust is very relevant at this level (in particular *openness-based trust, caring-based trust, and reliability-based trust*). Especially relevant is the remark made that for trust to exist at

growth levels, it first has to be earned at foundational levels. If the company is not happy with IT's performance and contribution, there will be no room for IT to participate in strategic discussions; the relation with the external services supplier will probably be discontinued.

Uncertainty and change impact IT at each of the levels of service. As for the three foundational levels, uncertainty affects directly the volumes, the required quality, and types of services. Changes in business volume impact the volume of required services and thus the available capacity in terms of machine capacity, bandwidth, staff, and response times. Sudden changes in service requirements (i.e., by changing laws or regulations) require timely software adaptations. Timely communication between the IT service provider (outsourced or in-house) enabling the service provider to make the necessary adjustments is mandatory for a smooth continuity of service delivery. In this respect, the technology of Cloud solutions (e.g., Infrastructure as a Service, Platform as a Service, Software as a Service) offers opportunities of increased agility. It is supposed to allow organizations to get their application up and running faster, and it enables IT organizations to more rapidly adjust resources to meet fluctuating and unpredictable demands [4]. Agile software development approaches, like scrum and devops, are used to speed up software delivery.

As for the so-called growth areas, the question is how a company should timely include developments that trigger a more fundamental change into its strategic business and IT management. It needs strategies and plans to run its current operations and reach its objectives, in combination with reacting to new, unexpected events. Concurrent exploitation of existing resources and capabilities and exploring and taking advantage of or reacting to initially not foreseen opportunities require combining two fundamentally different management styles. Exploitation goes together with routinization, control, mechanistic structures; exploration is associated with flexibility, autonomy, organic structures. The combination of these two fundamentally different sets, of skills, processes, management styles, etc., is known as ambidexterity [5,6,7]. IT ambidexterity is the joint consideration of IT exploration (related to new IT resources and practices) and IT exploitation (related to current resources and practices) [8]. In this respect, Gartner introduced the term bimodal IT: "the practice of managing two separate but coherent styles of work: one focused on predictability, the other on exploration" [9].

### ***1.2.6 Sourcing as a service relationship***

Strategic ICT sourcing is an integral part of the development of the organization's ICT supply strategy. The actual decision-making about sourcing may vary – in the business units, perhaps some corporate units (for example, marketing), or the corporate ICT organization itself, could find sourcing an attractive way of providing the ICT services required. A current example of the latter is the Cloud phenomenon, both as a platform for SaaS and as a prime component of data storage, management, and security strategies. In some respects, the existence of an outside source for ICT, from the perspective of the organization and of the organization's ICT leadership, is simply an alternative to the in-house provisioning of the same capabilities. Except of course it means that the company does not require the expertise involved.

Figure 1.4<sup>10</sup> shows the five types of ICT services that represent what ICT provides the business:

- Application and Information Services – providing and supporting the applications and information processing capabilities, including internet capabilities.



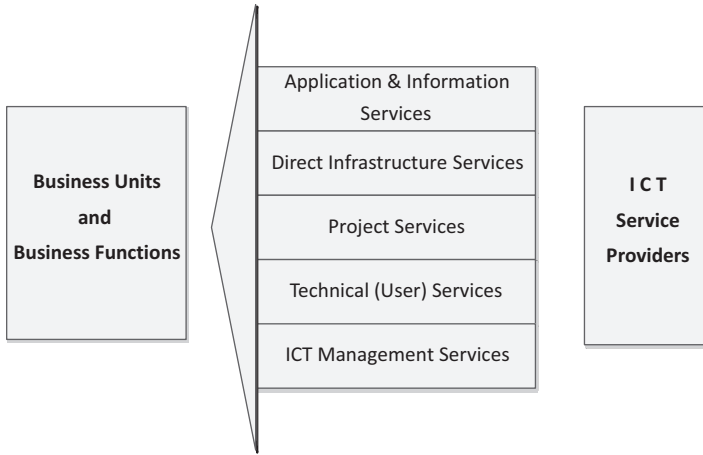


Figure 1.4 Services from IT to the business

- Direct Infrastructure Services – for example, e-mail, network support, hardware and software support, server administration, technical internet support.
- Project Services – the development of applications and ICT capabilities.
- User Services – for example, the help desk.
- IT Management Services – for example, training, ICT budgeting, enterprise architecture.

In effect, strategic ICT sourcing – represented by the various service-level agreements that identify what is to be provided – address some or all of these elements [3]. The recent Ward and Pepper book on ICT management highlights the main drivers for entering into strategic sourcing, namely (1) improving how ICT is done, (2) providing better business impact (value), and (3) exploiting commercial ICT (selling ICT to customers) [10]. These, however, are the exact drivers any ICT leadership pursues, whether or not sourcing is the desired method for producing and provisioning them in the organization. In effect, the question becomes: “can we do it better” with outside providers? This begs the question of what “better” is, which we will discuss later. But simply, it’s cheaper, faster, and more reliable and flexible.

However, within the set of ICT sources, a mixture of local services and externally provided services exists. For example, the same example of network and communications providers often works for the corporate ICT unit, which then provides organization-specific ICT services to the business areas.

This entire fabric represented by Figure 1.3 is the context within which “strategic ICT sourcing” occurs for the organization as a whole and for the individual business units within the enterprise. The point to this is to see this fabric in strategic terms – that the enterprise depends on the providers of ICT services to be successful, to be strategic, in the providing of ICT services. This requires at least these seven capabilities.

But this illustrates the underlying requirement, the development of trust – in effect a full partnership in providing the required services to the enterprise. This trust/partnership covers all the aspects, but in particular the idea of longevity and permanence and stability. If the enterprise is strategically dependent on the relationship, it must be one that persists and responds to all issues, for example, turbulence and change in the environment.

### 1.2.7 Digital Strategy and best of breed sourcing

Digital Strategy reflects the enterprises strategic direction for acquiring and deploying ICT. Certainly, over the past 20 years this has become a pressing concern for many companies, particularly those engaged in an industry where ICT is pervasive. As one set of researchers put it: “To succeed today, companies need a unique value proposition that incorporates digital technologies in a way that is difficult for competitors to replicate” [11]. The key question here is how strategic ICT sourcing plays a role in achieving this. As noted in the above, certainly trust and partnership is a key element in achieving this, and therefore becomes a core aspect of the ICT sourcing relationships. As another set of researchers put it: “How can we use technology as a strategic asset to enable new competencies or maintain a competitive advantage?” [12].

This is more than just a better mousetrap strategy.

Accordingly, we argue that the time is right to rethink the role of IT strategy, from that of a functional-level strategy – aligned but essentially always subordinate to business strategy – to one that reflects a fusion between IT strategy and business strategy. This fusion is herein termed digital business strategy.

[13]

At times the issue of ICT strategy confuses the supply-side issues (the ways in which ICT is delivered to the enterprise) with the demand-side issues (the ways in which ICT is used and applied in the enterprise) [10]. Both are considered in the ICT strategy – but, most importantly, thus affect the strategic ICT sourcing relationship. The sourcing provider has to be capable of support both – excellence in ICT supply and effectiveness in meeting ICT demands. From the strategy perspective, going back to Figure 1.1, this also means effectiveness in building the relationships of “alignment” and “transformation” between ICT and business.

This changes the nature of “best of breed” sourcing. This concept grew out of the last part of the 1990s as a way to describe a sourcing provider capable of both efficiency (cost) and excellent performance (in traditional ICT supply terms.) Now, as Digital ICT Strategy becomes more critical, the sourcing relationship needs to be capable of alignment (which is, in effect, the “best of breed” ideas) with the capabilities for business transformation through ICT’s application.

A good summary is: “In a digital world, the focus of ICT is shifting from backend operations to driving business growth.” This chapter suggests aspects of the resulting ICT strategy as adopting (what they call) a more liquid workforce, capable of content change, migrating to as-a-service commercial model, with levels of variability to ICT sourcing, and finding the right balance of local and global sourcing [14].

### 1.2.8 Integration

This carries forward on the ideas presented about, that is, the emergence of Digital Strategy as a Fusion of demand (use of ICT to transform the business) and supply (the expansion of opportunities such as Cloud, SaaS, Infrastructure as a service), and so forth. The issue is that the lines are increasingly blurring between supply and demand. ICT is no longer something to be “aligned” with the business – rather ICT is a major force transforming the business in fundamental ways.

A recent MIT study on Digital Strategy opened with this statement: “maturing digital businesses are focused on integrating digital technologies, such as social, mobile, analytics

and Cloud, in the service of transforming how their businesses work. Less-mature digital businesses are focused on solving discrete business problems with individual digital technologies” [15].

Both cases described here illustrate the profound role strategic ICT sourcing can play, by providing the business and technology resources to achieve this integration and achievement of Digital Strategy. But the first case – integrating technologies in transforming how businesses work – is the primary effect of integrating ICT sourcing. In effect, this is managing the complete set of technology and sources for the transforming benefit to the enterprise.

Also just like the traditional strategic sourcing in an organization’s supply chain, the relationship between buyer and seller, between enterprise and ICT, has to be managed, and managed consistent with the notions of strategic sourcing. That is, with the elements of permanence, stability, cost, and partnership that one must find in any sourcing partnership. To accomplish this, of course, raises the issue of trust, which is the single most important characteristic of the overall strategic ICT sourcing relationships.

Management includes accountability. Figure 1.5 shows an idealized version of where accountabilities rest. The center reflects the basic ICT management activities: development, operations, and business/user services. The business units (including corporate) rely on the ICT management activity to deliver according to their requirements (that is, ICT demand). ICT management then provides those ICT services by relying on one or more service providers – some internal to the corporation, some external. For example, the system development providers may be in the internal ICT organization, while the technical network management and provision can be external.

### 1.2.8.1 Why outsource: economic and social perspectives

Establishing the boundaries of a firm encompasses strategic decisions. Whether resources, competences, and capabilities should be kept and developed in-house or procured in the market has a major impact on how an organization will thrive. Explanations of how and on

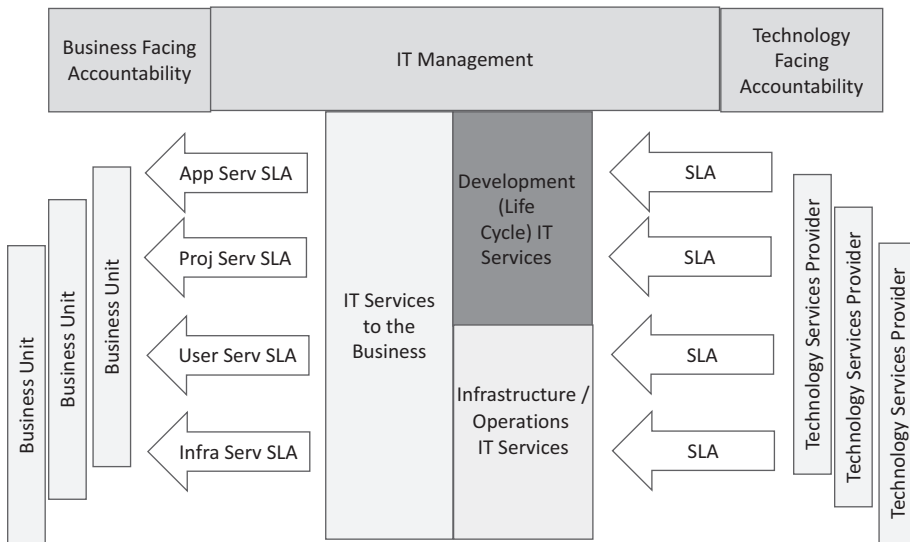


Figure 1.5 Sourcing accountability and responsibility

what grounds these decisions are made have been developed in economics, management, and behavioral theory.

The classical analysis comes from economics with transaction costs economics. Transactions are the exchanges of goods and services between economic actors inside or outside the organization [16]. When sourcing the inputs for its final products and services, a firm has the fundamental choice between developing and producing these in-house – thus within the boundaries of the firm – or procuring them from outside the firm – in the market. This dichotomy between hierarchy and market is typical for the traditional economic analysis. A firm is supposed to choose the most rational (efficient) alternative by minimizing the sum of production cost and transaction cost. The latter encompasses the cost of ensuring that the necessary services and products can either be produced or made available by procuring them. Transaction cost of in-house production encompasses, e.g., internal planning and coordination cost; transaction cost of procuring in the market comprises, e.g., search cost (i.e. for a reliable supplier) and contracting cost.

The type and context of transactions determines the transaction cost and thus influences whether a transaction will be carried out in the market or in a hierarchy. In general, in-house transaction costs are supposed to be lower than external transaction costs. However, exchange hazards may necessitate complex and thus costly contracts, which may stimulate managers to choose for vertical integration. The following characteristics of transactions are particularly relevant [17]:

**Asset specificity:** the asset specificity of a transaction refers to the degree to which it is supported by assets that are specific to this transaction alone, and which cannot be used otherwise or elsewhere without incurring a significant reduction of value [18]. Transactions, involving highly asset-specific resources, involve long processes of development and adjustment for the supplier to meet the needs of the buyer. Such processes are favored by the continuity of relationships found in a hierarchy. Also, since there are few alternative buyers or suppliers of such highly specific products and services, both parties are vulnerable [17].

**Product complexity:** it [19] plays a role in choosing between hierarchy and market. In the case of simple and standardized products, buyers need to know little but their price. They likely prefer markets to compare the offers of many potential suppliers. Buyers selecting complex products or services need much more information. The extra information exchange involved increases the transaction costs.

**Uncertainty:** it, for example in technology and in markets, requires parties to adapt to unforeseeable changes. When fast complex technological and/or organizational adaptations are required, governance through markets lacks coordinating capabilities. Contracts may contain clauses and procedures to facilitate negotiations that are deemed necessary to respond to changes [20].

**Difficulty to measure performance:** when performance is hard to measure, parties may develop opportunistic behavior, e.g., by spending fewer or more resources or delivering lower quality than initially agreed.

**Frequency:** setting up specialized governance structures, such as those that organizations employ for their transactions, involves high expenditures. These costs are only recovered if the transaction volume or frequency of transactions is high enough. Consequently, low frequencies point to market procurement [18].

As said, the above factors increase the cost of transactions, and in particular the contracting cost. Asset specificity, product complexity, uncertainty, and difficulty to measure

performance result in more complex contracts, which demand more resources to develop. The combination of these factors makes contracting even more problematic [20] and consequently favors in-house production.

However, as information technology drives down search and coordination costs, IT is hypothesized to stimulate outsourcing. With information technologies like the internet, interoperable ERP systems, electronic market places, etc., products and services can be procured from low-cost areas, with extremely efficient logistical coordination. IT thus enables efficient external procurement.

A rival theory in economics is offered by the Resource-Based View (RBV) [21]. According to this theory, an organization has a collection of resources that generate rents. Some of these resources are critical for its competitive position and some are necessary but not critical. Critical resources are those that are VRIN – valuable, rare, imperfectly imitable, and not substitutable. Of course, resources alone will not help the firm much further. Competencies and capabilities to deploy the resources toward the strategic and operational objectives of the firm have to be developed and maintained. According to this view, resources and their adjacent competencies and capabilities that are VRIN will be kept in-house, while others may be sourced externally. Related theory to the RBV is the Resource Dependency Theory (RDT), a social theory, which theorizes about resources, which are outsourced, as they are not VRIN, but nevertheless are critical for the company's operations [22]. These resources create critical dependencies for which organizations need to develop strategies to mitigate the risks.

### ***1.2.9 A relational perspective***

As a reaction to this narrow perspective of the original markets and hierarchies framework, increased emphasis is placed on intermediate organizational forms, where independent organizations engage in longer-term relationships [17]. On one hand, these relationships bear the characteristics of markets: the participants are independent, transactions are governed by contracts in which prices have been agreed, and the participants have the possibility to put an end to the relationship. On the other hand, however, these relationships also bear the characteristics of hierarchies. The participants are tied together by legal contracts for a longer period. Multiple coordination mechanisms are applied to improve the efficiency and effectiveness of their transactions. In addition, critical and confidential information is shared, participants engage in collaborative processes, and coordination occurs through mutual adjustment. The emerging organizational form is called the network organization, made up of more or less equal members who have formal and informal relationships with one another. *Inter-company networks* (or simply *networks*) are complex arrays of relationships between companies, which establish these relationships by interacting with each other [23]. The basis of these relationships is trust. The companies' interactions imply making investments in order to build their mutual relationships, thus consolidating the network; caring for the company's relationships becomes a management priority. Competing is a matter of positioning one's company in the network rather than of attacking the environment.

Inter-organizational relationships may be of three types: operational, tactical, and strategic. Typical for tactical and strategic types of relationships is an increased commitment to each other. The relation on an operational level exists for the duration of a single order; on a tactical level, it may have the scope of a year or longer (e.g., needing sharing of planning information and assuring the position as service provider for that same period). Managers or entrepreneurs can also use networks to move their companies into stronger competitive

positions. That is why these are called *strategic* networks: long-term, purposeful arrangements among distinct but related profit-oriented organizations that allow their participants to gain or sustain competitive advantages over their competitors outside the network [23]. The participating companies remain independent in that they do not depend on each other completely, but their relationships are essential to their competitive position. Networks are a mode of organization that is based strictly neither on the price mechanism nor on hierarchical decision-making, but on coordination through adaptation. However, realizing the benefits from such a partnership is contingent upon mutual trust and organizational complementarity in such things as decision-making processes, control systems, organizational culture, etc. [24]. Partnerships require relational governance: practice-based measures to promote a desired collaborative behavior [3].

### **1.2.10 Wrapping up Section 1.2: consequences for management**

Increased competition forces companies to fundamentally rethink their position in their markets. Traditionally, they carried out all the necessary activities for the production and delivery of their products themselves, unless some were procured from external suppliers for specific reasons. But companies think differently nowadays. They feel there is no reason to do something themselves unless they are really good at it. And they therefore ask themselves which of their competences are unique and of core importance, which of their resources and functional capabilities really add value – and, consequently, which might more efficiently be procured externally. Because of this change in their point of view, outsourcing and insourcing movements are expected to cause fundamental changes in the way companies are configured. Uniqueness and value-adding competences are the business drivers of future-oriented companies [25].

Concentrating on core business has become a trend in many industries. This means that those activities that are not core to the business are outsourced to specialized suppliers. For future-oriented companies, decisions on how to acquire the basic products and services to meet their customer's needs have come to be of strategic importance. They define the company's position in its competitive environment. The long-term relationships with suppliers are therefore included in the company's strategic planning processes. Traditional sourcing was a matter of make-or-buy decisions, typically based on cost analysis and focused on limited numbers of specific goods and services delivered for a limited number of times or over a limited period. Companies engaging in such transactions experienced little interdependence and their main motive was cost efficiency. Many such sourcing decisions are still taken, of course, on a day-to-day basis all over the world. Strategic sourcing, however, is completely different. The dependence between participants, their motives, the contract periods, and many other characteristics are unlike those of traditional sourcing [26]. Strategic sourcing concentrates on long-term motives such as making one's organization more agile or gaining access to important resources that are better supplied by external parties than developed internally. It therefore focuses on long-term relationships: the participants collaboratively plan their moves in what becomes a common competitive environment. They are therefore much more dependent on one another. The decisions to be made concern the company's strategic planning horizons.

As a result of these developments, traditional value chains are becoming unbundled. On the one hand, many support activities and some primary activities (logistics, operations) are being outsourced – even some parts of the company's infrastructure (accounting, financial services, and human resources). On the other hand, the outsourced activities have to be

procured from one or more external suppliers, a process that rebundles them in another way. Clearly, this process causes the relationships between businesses to become increasingly complex. The popular term used in business literature for these new ways of doing business is the “business model.” Business models may be defined as descriptive representations of an enterprise’s planned activities (also called “business processes”) [17].

Managers are confronted with complex, multifaceted decisions in this respect. Various organizational theories provide explanations and support. In Part 1, we provide a brief overview. Several approaches are discussed in the economics and organization literature. The most important of these for our purpose are the theory of transaction costs economics, the resource-based view, and the resource dependency theory. As supplier-buyer relationships in IT sourcing involve long-term relationships, the relational view offers a complementary perspective: economics and behavioral theories go hand in hand for explaining and creating effective long-term relationships between IT services suppliers and IT service recipients.

Managers are also confronted with the problems inherent in acquiring and managing complex relationships and activities. In the past, these problems have focused on the contractual aspects in a relatively stable circumstance. Today, with the technology dynamics and the much broader scope of the activities, not limited to simply ICT technologies, managers must command a broad range of aspects of the relationship between the acquirer and the supplier. Much of this is suggested above, and Part 1 offers several mental models/frameworks to assist the manager in successfully dealing with these new aspects.

*ICT Services* focuses on the actual activities expected to be provided, covering the full range of ICT activities including planning, project development, operations, security, user services, and ICT management services. *ICT Capability* expands each services area by specifying the components of an ICT service, including innovation, business transformation, information/intelligence/analytics, operational excellence, and resource management and costs. This broadening of ICT outsourcing, considering services and its myriad components, materially changes the *Bes of Breed* concept, moving into the domain of business performance and competitiveness.

As Section 1.2 demonstrates, it is not enough to simply think of ICT sourcing as providing technology, in this larger view ICT sourcing brings with its relationships and partnerships to move the business forward in its competitive environment. Accordingly, this requires managing the partnership which requires a view of integration that is new. The partnership itself moves the business closer to the digital Fusion, the integration of the ICT demand and ICT supply activities.

In effect, while previous views of sourcing management may have considered the problems as a form of procurement, current requirements bring the full set of management issues inherent in partnerships between companies and their ICT activities. Managers involved in Sourcing (and this chapter) thus must consider issues such as Trust (Section 1.3), Turbulence and Uncertainty (Section 1.4), and Governance (Section 1.5).

## 1.3 The impact of trust

### 1.3.1 Trust defined

Trust plays a pivotal role in business and sustainable interpersonal relationships. Trust is essential in nearly all circumstances where human beings and/or organizations are dependent on each other. High interdependence requires increased trust. Mutual trust is a precondition for inter-organizational cooperation. Especially collaboration in the primary activities of

the value chain requires sharing confidential planning information. Trust is a pre-requisite for sharing. Also, collaboration between firms in product development constitutes a key strategic activity and will not happen without mutual trust. In the absence of trust, any collaboration is hindered. The collaboration includes shielding important information and setting up controls and procedures to protect the interests of the parties. In essence, trust is an important coordination mechanism [27].

In the business, trust can be defined as the expectation that the other (person or organization) will behave in a mutually acceptable and predictable manner. This includes the expectation that neither party will take advantage of the other's vulnerabilities [28]. In a business environment<sup>11</sup> characterized by turbulence and complexity, sustainable joint competitive success is widely perceived as being dependent on the existence of trust between the parties commonly engaged in business. Handling turbulence requires swift and pro-active actions, which can only be developed if there is close to blind faith in the other. Equally, when facing complex managerial problems (e.g., in business and IT), no one has, nor can have, a full view on the situation at hand and potential future developments/scenarios. As a result, the views and opinions of those implicated in the problem situation should be trusted. Simon and March labeled the situation that occurs under these circumstances as "uncertainty absorption" [29].

Trust is a concept with many dimensions. Trust is based on the expectation that the parties concerned are competent, open, caring, and reliable [30]. In the case of inter-organizational trust, e.g., between a supplier and a client, trust encompasses also contractual trust [28]. *Competence-based* trust refers to the skills and capabilities of the other person or organization in a specific domain, service, or product: is the other capable of doing what he/she says he/she will do? It is based on the perception that one can rely on activities, deliverables, and processes performed by the other.

*Openness-based* trust is founded on perceived honest, morally sound behavior by parties. Openness impacts the willingness to share information, insights, and knowledge. *Caring-based* trust refers to the belief that the other party will support the other's interests. This goes beyond the basic expectation that the other will refrain from opportunistic behavior by taking unfair advantage; the other party is also expected to be concerned that the other party's interests will not be damaged [30].

*Reliability-based* trust refers to the expected consistency in behavior based on experience with and commitments and promises made by the business partner. Personal, not just organizational, integrity and reliability are foundations for reliability trust within and between organizations [31]. However, the company culture of parties also contributes to this foundation. Finally, *contractual trust* refers to the question of whether the other party will carry out the contractual agreements [28]. The applicable jurisdiction is also important as this impacts the enforceability of the contractual commitments.

These trust dimensions also suggest a hierarchy [28]. Advanced levels of trust depend first and foremost on the existence of competence-based trust and, in inter-organizational settings, also on contractual trust. If one of the parties proves not to be able to do and deliver what was promised or does not live up to one's contractual obligations, there is no basis for advanced levels of trust. However, next to competence, openness/ transparency (demonstrating moral responsibility and positive intentions) is necessary for the other party to accept a potentially vulnerable position [31].

For true business-IT partnerships, business trust in IT requires a foundation of proven competency and openness. When occurring on an operational management level, the system availability competency and responsiveness to incidents as agreed is the dominant trust



dimension. Similar for the tactical and strategic managerial levels, where the freedom for IT to act as a credible partner depends upon the ability to deliver the services. On higher strata, the additional dimensions of trust, including caring and reliability, become more important. Next to organizational trust, person-based trust is a foundation for a true business-IT partnership. These conditions also apply to the business, seen from the perspective of IT, as trust is a relational concept. For the business-IT relationship to function well, it is pivotal that trust is reciprocal.

### ***1.3.2 Trust improves business performance***

There is a general belief that trust improves business performance. Let us understand the how. First, trust reduces the coordination costs, as it is a coordination mechanism in and of itself. Trust reduces the need for extensive procedures and protocols, for negotiations to reach a mutually supported solution for specific problems as well as a reduced need to strictly monitor behavior and its outcomes during the collaboration. Also, under conditions of change, all possible future contingencies need not be anticipated, because one can rely on fair and balanced adjustments and judgment when necessary. Second, trust is expected to contribute to joint innovation and learning. Under conditions of trust, unconstrained information and knowledge sharing are possible, as the other(s) are not expected to use it for their own benefit at the expense of the one from whom the party received this information. No opportunistic behavior!

### ***1.3.3 Can trust be built?***

According to a well-known saying, unfortunately trust comes by foot and leaves by horse. Establishing trust takes time and is based on past experience of trustworthy behavior. Apparently, losing trust goes faster. Although there is considerable disagreement among theorists whether trust can be built actively, it is, however, believed that an organization can adopt and manage practices to promote and establish trust between parties.

The different dimensions of trust can be improved by a set of interdependent and mutually enforcing governance and policies. First, proven competency through past performance is a key condition for business and IT functions to gradually develop and establish reciprocal trust. The credibility of the other, in this respect, improves with competent behavior through the course of time; it will be built by demonstrated capability in the past to solve problems, by interpersonal skills, and by consistent professionalism [31]. Also, processes are important in enabling to build trust as they contribute to the performance and competencies of parties.

Performance relates not only to competent execution of responsibilities, but also to the ability to collaborate in open, caring, and reliable ways. This implies that, on one hand, both IT and business functions should be able to apply the right tools, dashboards, and techniques to ensure the business gets the services that it needs. However, this is not enough. A good functioning of the informal organization, through socializing and team development, has proven to be a prerequisite for a seamless collaboration.

Related to the latter is a second policy: open communication about goals, commitments, and intentions. Communication has to take place regularly and planned for each level and must be embedded in organizational processes and procedures.

Third, various organizational measures can help overcome the barriers of differentiation and different mental models. They include promoting working in (joint) teams, encouraging

collective training and learning experiences, job rotation, co-location, etc. [32]. IT staff should develop a competent understanding of the (client) business side of IT, while business managers should understand how IT brings value to the business. The effects of (absence of) physical proximity should be well understood. For instance, having IT expertise concentrated in a shared service center or distant service supplier is an impediment for effective communication and does not contribute to the establishment of trust. However, technology such as video conferencing and collaboration tools contribute to bridging the gap.

Finally, measuring is important. Organizations promoting trust should actively measure and monitor objectively the level of existing trust. Several consulting companies, such as Gartner, offer tools with which such measurements can be facilitated. These tools generally resemble balanced scorecards. An alternative formal tool is the Organizational Trust Index (OTI) developed by researchers at the University of Colorado [33]. It is based on the trust dimensions discussed above and assists managers in determining the level of existing trust in their organizations. Organization can use the outcomes to implement additional measures such as boot camp sessions and/or replacing staff members.

### ***1.3.4 Trust in outsourcing relations***

In general, from a trust perspective, outsourcing forms a bigger challenge than in-house production and delivery. Companies have their own P&L statements and are driven by them. Opportunistic behavior lurks behind every potential outsourcing agreement. Not everyone is equally honest. Some people try to exploit situations to their own advantage. Not everybody does, of course, and not all of the time. But the problem is that some people do some of the time, and when you do business, it is difficult to distinguish between the honest and the dishonest. As a result, most transactions involve numerous inspections, controls, certifications, and the like, even if the partner involved is considered perfectly trustworthy. Once the contract has been signed, the recipient must ensure that the tasks he/she is paying for are carried out in his best interests. The service supplier, however, has a major information advantage, so his actions are difficult to assess from the recipient side. Service suppliers may boost their own profits, for example, by spending less time or utilizing fewer resources than agreed. Monitoring is one way of countering this risk, but it is costly since one must set performance standards and measure the actual work performed or have it audited by an independent authority. Another method to combat this problem is to align the supplier's interests with those of the outsourcing company by introducing positive enforcement measures such as incentive schemes, for example [34].

The occurrence of opportunism will therefore increase costs. This is especially important when there are few potential trading partners. These partners will care less about their reputations, as there are few alternatives to which their clients may turn to if they are not satisfied. The fact is that outsourcing companies can never fully and accurately judge the quality of their potential suppliers, nor their true intentions. Therefore, it is important that they mitigate the risks involved in the selection stage by gathering as much independent information about their potential suppliers as possible. Sources for such information include market research and current and former clients, who are familiar with the supplier's track record, and sometimes independent authorities or institutes, which may carry out benchmarking activities. Opportunism may also explain the rise of certification procedures in the past decade or two, such as the ISO certification process.

A targeted policy aimed at promoting confidence in an outsourcing relationship comprises several components. Of primary importance is a mutually agreed method of transparent conflict resolution, whereby both parties view the decision process to be fair and

just. This type of atmosphere supports feelings of fair treatment. Communication is a key in building trust, as two-way communication has been widely identified as a major contributing factor in trusting relationships. For example, service providers must provide clear and understandable reports on the services they have delivered; service recipients should give clear feedback on their supplier's performance. Essentially, this is a matter of communication hygiene, and it applies to the parties' formal communication protocols. With respect to informal communication, trust may be generated through consultation prior to more formal discussion formats. In addition to trust between organizations and groups, trust must be established between individuals. Both provider and recipient must get a feel for which personal profiles best fit the management of their relationship, and staff in both organizations need to take the time to get to know each other. Trust also plays a role in reporting. Reports should concern not only the services delivered but the degree of trust between partners as well. It goes without saying that these measures also apply when IT services delivery is the responsibility of an internal department; however, as said before, outsourcing makes it more difficult.

### ***1.3.5 Wrapping up Section 1.3: consequences for management***

Managing IT outsourcing partnerships is not a matter of the "hard side" only. Much attention must be paid to the soft side, especially trust, which is of essential importance. It is our opinion that trust is a factor that must be governed, managed, and monitored. A lack of trust, for example by opportunistic behavior, results in an accelerated failure time [35]. We defined several dimensions of trust. Trust is based on the expectation that the party concerned is competent, open, caring, and reliable. All these dimensions require attention if the partnership is to be a success. The major difficulties with trust are that it takes time to generate and that it is hard to measure. To give it time to grow, providers and recipients must begin by clearly expressing to one another that they will put effort into it. Then trust-building is on the program explicitly [25]. To work actively at building trust, several policies in combination can be applied.

A first step toward building trust is to make sure that agreements are closely observed by both sides. The service supplier delivers as promised: services are on time, of the right quality and quantity, and at the agreed price. The service recipient makes sure that the necessary, agreed upon resources are available and that invoices are paid. This is the foundation, without which a trustful relationship cannot be built.

The next important factor is being open in one's communication. Service suppliers must provide clear and understandable reports, in business terms, on the services they have delivered; service recipients should give clear feedback on their supplier's performance [36]. There should be no hidden agendas. Essentially this is a matter of communication hygiene and applies especially to the parties' formal communication. With respect to their informal communication, much trust may be generated by consultation: before any formal communication takes place, the parties discuss matters informally [25].

Third, it is important to realize that trust between organizations and groups is important but not enough. For collaboration efforts to work, personal trust is needed too [37]. Both provider and recipient must get a feel for which personal profiles best fit the management of their partnership. Key people on both sides must take time to get to know each other. This applies in particular also to offshore outsourcing. Sports and cultural outings are excellent opportunities to do so.

Finally, IT outsourcing partnerships involve much reporting. These reports should concern not only the services delivered but also the degree of trust between the partners. We mentioned earlier Organizational Trust Index (OTI) but also several consulting companies,

such as Equa Terra and Gartner, offer tools with which such measurement can be facilitated. Once the degree of trust between the partners has been measured, the results must be used to increase it further. To this end, boot camp sessions can be effective, but it may also be necessary to replace some of the team members.

## 1.4 Change and uncertainty: turbulence

### 1.4.1 Turbulence defined

Under conditions of relative certainty in major parts of its environment, an organization can, for the most part, initiate its own agenda of change [32]. Under stable conditions, when launching new products or entering new markets, an organization would make incremental, planned modifications to its organization, strategy, and technology support. Strategies and operational planning methodologies would focus on change management, based upon those assumptions that the organization could anticipate, plan for, and methodically integrate any change into its existing structure. Businesses used to have annual strategic planning sessions to plan for incremental changes for the next year, and every two to five years, they developed (or updated) a long-range plan. This was an effective approach in relatively stable market conditions.

How different is a dynamic environment? It changes frequently, if not continuously, in an unpredictable way. The turn of this century coincides with an increasingly turbulent and competitive business landscape, in which the intensity, unpredictability, and diversity of change accelerates to create a condition of constant flux [38]. D'Aveni describes the current business environment as “hypercompetitive,” characterized by D'Aveni and Gunther [39].

Figure 1.4<sup>2</sup> shows the five types of ICT services that represent what ICT provides the business:

- Time and cost compression in product-life and design cycles.
- Accelerating technological advancements.
- Fickle customer loyalty.
- Unexpected entry by new competitors and repositioning of incumbents.
- Redefinition of industry and organizational boundaries.
- Lingering economic growth.

The new contextual environment requires reassessment of potential markets, customers, and competitors. What is the optimal focus for making these reassessments and for developing new plans? Under highly unpredictable and ambiguous conditions, there is little time to reassess and replan. Unexpected changes occur continuously. In this context, elongated strategic planning processes and cycles have all the benefit of a séance. The organization must be able to adapt per direct to changing conditions.

Change per se does not cause many problems, provided that organizations have the capability to change and prepare for it in time. In line with Ansoff [38], we shall refer to the degree of changeability of environmental challenges as the “level of environmental turbulence.” The level of turbulence is determined by a combination of the above listed factors. High levels of turbulence are characterized by highly uncertain and unexpected events.

Figure 1.6<sup>13</sup> depicts the effect of uncertainty on planning. The figure applies to any (functional) area for which planning takes place. So, it may represent a situation, e.g., in production, supply chain management as in IT. It also applies to all three planning levels: the

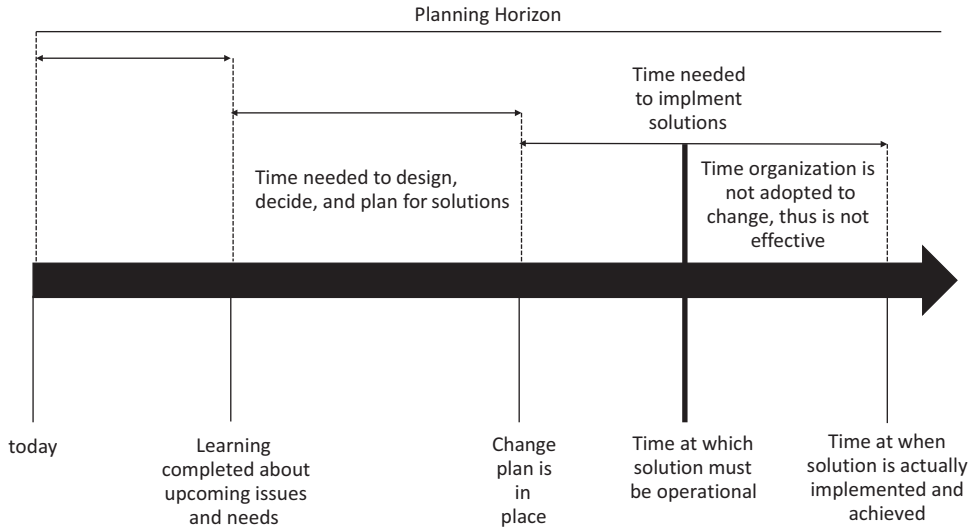


Figure 1.6 Uncertainty and planning

strategic, tactical planning, and operational level. The figure shows a decision maker, who finds out “today” that in the foreseeable future the current activities will be affected by a change in environmental conditions. The decision maker can be the corporate management team, a CxO, or a departmental manager. Examples of changes in conditions are an important client who will discontinue a contract, a supplier of a critical raw material will be out of business, a sudden turndown of the economy; an important legal change, the IT services supplier who stops supporting one of the key systems, etc. As a consequence, existing plans and operations need to be adapted or reconsidered in response to the new situation at hand. The dotted line shows when the solution will be needed. In this example, the solution is achieved much later than when it is actually needed.

The actual time available for developing a solution comprises of the time that elapses between when management learns about the “issue” and the moment that a solution is available and implemented: the available “reaction time.”

### 1.4.2 Organizational impact of turbulence

How to deal with change has always been an important issue for organizations. Change requires an organization to be adaptable and responsive. Conditions of stability do not impose an acute level of responsiveness on an organization – even a blind squirrel can find an acorn if given enough time and an absence of predators. Enterprises that principally operate in stable conditions (e.g., markets, products, customers) are typically designed to promote efficiency, control, and predictability of behavior/outcomes. However, different levels of change require different levels of responsiveness. When change is reasonably predictable, the organization must have the capabilities to timely adjust its structures, processes, and systems. However, when confronted with change that is unfamiliar (e.g., scale, range, depth, speed, etc.), this type of flexibility may not be sufficient. Under these conditions, organizations need the capability to “sense and respond” [40], to timely detect potentially important developments and respond to them by adjusting its ways of working beyond its normal level

of flexibility. As Steve Haeckel denotes, organizations must have the capability to “know earlier” and “react faster.” In other words, they need to be agile.

Business-related turbulence is not the only type of turbulence affecting IT. Irrespective of business-related turbulence, the IT function can experience turbulence because of (sudden) changes in the available technology and in the supply market of IT services. These may affect the mere service provisioning by the IT department, but they may also directly or indirectly affect the business. New technologies and practices are being introduced with an increasing frequency it seems, such as mobile infrastructures and applications, social media, Cloud computing, and Bring Your Own Device (BYOD). New, easy-to-use applications, mashups, are downloadable from the internet and challenging the position of the traditional IT department.

### ***1.4.3 The impact of uncertainty and change on (out)sourcing***

Traditional analyses of outsourcing, which focus on choices of either markets or hierarchies, give little guidance for sourcing decisions under different environmental contexts. According to Transaction Cost Economics, uncertainty in business and/or technological conditions causes complex contracts and consequently leads to higher contracting costs. As such, uncertainty favors internal integration of activities. It is however clear that frequent changes, e.g., in markets, regulations, or technology, make it impossible for any organization to have all potential resources, competencies, and capabilities to sustain its market position [41]. Thus, outsourcing comes to the table as a viable alternative. However, the same argument applies to external suppliers: they are equally not able to react instantly to these changes. That is why solutions to handle problems and opportunities caused by environmental turbulence are sought in so-called intermediate organizational forms like alliances and partnerships. Trusted, long-term alliances create a safe environment to share (strategic and otherwise critical) planning information and commit resources that enable the future service delivery.

Intermediate organizational forms should create conditions of stability of internal integration, combined with the flexibility of the market. This is supported by management and economic literature. For example, Jay Galbraith, in his information processing view on organizations, discusses how an organization can change the environment, and manage its dependence to others by developing a variety of cooperative strategies [42]. The observation that change and uncertainty leads to intermediate organizational forms is also supported by Folta [43]. In later publications, additional advantages of intermediate organizational forms have been recognized.<sup>14</sup> Examples are accessing resources faster than internal development [44], creating a way to access complementary resources from other organizations [45], exposing a firm to new ideas, and learning about the level of technology held by competitors [46]. In line with the foregoing, a recent study by Irge Sener based on 16 interviews with top managers concluded that managers perceiving environmental dynamism and complexity tend to form strategic alliances [47].

To conclude, this analysis adds an argument to the traditional (IT-) outsourcing discussion. Transaction Cost Economics explains outsourcing from an efficiency perspective: the rational manager should seek to minimize the sum of production and coordination (transaction) costs [48] of his organization. Production costs comprise of the costs of all primary processes that are necessary to produce and distribute the goods and services eventually delivered to a client or customer. Coordination costs include the transaction costs necessary to coordinate the activities of staff and equipment that perform the primary processes [49]. The

resource-based view explains the outsourcing phenomenon from a (business) strategic angle. Resources, competences, and capabilities that are VRIN should be kept internally in order to fence them off from competition. Resources, that are non-VRIN are potential candidates for outsourcing but from a resource dependency perspective the manager should watch out not to become too dependent from a critical and thus powerful supplier. The “uncertainty” perspective, adding to the strategic perspective, looks at outsourcing from the point of view of creating a flexible, responsive organization. By creating a network organization with a selected number of alliances and partnerships, the managers establish a structure that allows them to be responsive to changing information systems requirements caused by business and/or information technology changes.

#### **1.4.4 Wrapping up Section 1.4: consequences for management**

Today’s business is very dynamic. Nowadays, flexibility is needed to keep up with market dynamics. These, in turn, influence IT services delivery and IT strategies. Uncertainty makes it difficult to define information needs and information systems requirements far in advance; in other words, this leads to “incomplete contracts,” which favors keeping activities in-house. Integrating these activities in the “demanding” organizations is however not an option either. As a result, organizations are “moving to the middle” [50], finding solutions where IT services are neither developed and managed internally, nor are the result of open market transactions. Outsourcing IT services are developed and delivered in the context of long-term relationships with several IT services suppliers.

Business and IT developments together trigger business dynamics and uncertainty. Organizations are on the move and many companies join networks [51]. When companies merge or when they are bought, their information systems must be coupled and realigned with those of their new colleagues. Divestments, however, require that they be disentangled. Such changes usually come unexpectedly, with very little time between the announcement and their becoming effective. Therefore, it is wise for service recipients to organize their IT services such that their constituent parts can be disconnected easily from one another or integrated with those of other companies.

In addition to mergers and takeovers, the convergence of IT and telecommunication, and the increasing availability of bandwidth, the growing insights from data continue to reduce the transaction and coordination costs associated with old-economy business operations. This enables companies to transform their value chains and focus on core competences. Thus, new technologies gradually converge with newly developed business models [53]: digital transformations [52].

Companies that can handle these dynamics well are more successful than those that cannot. Doing so, however, creates major demands on their IT services. Reacting to changes in the services requested is pivotal, with respect to both the quantity of these services and their nature. On the basis of their IT strategies, companies may decide to change from one information services platform to another [25]. This is not a one-off task, these developments are expected to continue, strategic sourcing instead of isolated make-or-buy decisions. Therefore, not only would the output side of many companies change, but also their input (purchasing) side will change. The focus is on standardization while enabling flexibility, with the aim to realize connectivity and advantages of scale. Due to the growing need for flexibility, with respect to both the volume and the nature of the services involved, outsourcing is expected to grow in the next decade. As a result, the outsourcing landscape is changing. We mention three developments that we feel play an important role in the sense that they

significantly influence outsourcing relationships and their management: (1) commoditization, (2) business process outsourcing, and (3) Cloud computing [25].

Commoditization takes place in two main areas: applications and infrastructure services. Standardizing applications makes it easier for companies to communicate and collaborate with each other, especially important in the context of a network organization. Commercial Off-The-Shelf (COTS) solutions are the preferred option and their customization is kept to a minimum. This facilitates the exchange of information between parties. Such collaborative relationships require that the connected organizations communicate adequately across their supply chains. Infrastructure services themselves are also being commoditized. Unit prices are common practice for both desktop and ERP seat [25].

Business Process Outsourcing (BPO) began slowly in the 1980s and matured in the 1990s. It regards the delegation of an entire business process to a third-party provider, including its underpinning supporting services [53]. Essentially, it may be considered an extension of IT outsourcing: the provider not only delivers IT services but uses those business/support services to carry out one or more of the recipient's entire business processes, such as HR, customer care, payroll, or claim handling for insurance companies. Generally, the business processes concerned are so-called IT-centered services. Nowadays, many industries outsource part of their (customer-facing) processes. A lot of consumers in B2C (and employees) often do not even realize that the company they are dealing with is not the same that handles their claims, mortgages, phone connections, or pay-roll sheet [54]. BPO also includes core processes. In these relationships, processes are provided to multiple services recipients on a therefore by default less customized basis and more closely interwoven with the primary processes of the service recipient. These collaborative patterns may be characterized as partnerships and result in increasingly tight collaborative connections. Business processes are becoming increasingly "digitized," and as such are a core part of a firm's digital transformation strategies. As a consequence, BPO is increasingly about technology, and much less to remove back-office staff from the payroll.

Cloud computing has managerial and economic consequences that make it highly attractive for business users. The main drivers for the adoption of Cloud computing today are the business need for growth and flexibility (in terms of new products and services, globalization, and opening new markets) and technological innovation (introducing new technologies and standardization) [55]. The concept is founded on sharing the capacity of available resources, or even going a step further and opening their infrastructure to other companies [56]. Clouds are large pools of easily usable and accessible virtualized resources, such as hardware, development platforms, or services/software. These resources can be dynamically reconfigured to adjust to a viable load (scale), allowing optimum resource utilization [57]. Next to virtualization, the primary mechanisms for Cloud computing are standardization and automation. While companies face problems with their traditional IT caused by increasing demand for IT and unpredictable load peaks, the advantages of Cloud computing are attractive. They include no, or strongly reduced upfront costs, scalability, no need to worry about maintenance and upgrades, pay per use and the same services available all over the world. It goes without saying that trust is very important in Cloud computing, as it involves letting go of the dedicated environment used for one client only (public Cloud). This worries auditors who must assess the way in which companies have organized their IT services [58]. Alternatively, Cloud service providers can offer dedicated environments (private Clouds). Also, the Cloud market is maturing, security and compliance concerns continue to require attention but to a far less extent than five years ago.



## 1.5 Governing complex client/vendor relationships under turbulence

### 1.5.1 Success factors for complex information technology outsourcing relations

Outsourcing IT creates relationships between the service recipient and service providers. Making these relationships work is a critical condition for effective outsourcing. Already in 1995, McFarlan and Nolan recognized the problems created by a rapid-changing environment and suggested clients and their suppliers to form strategic partnership alliances [59]. Outsourcing relations differ with respect to their complexity and therefore the management attention they need. Complex IT outsourcing relations obviously must be much more closely monitored than small IT projects. Also, there is a relationship between the services needed and the sourcing types chosen, on the one hand, and the level of experience required for the relationship's management, on the other [60]. Generally, the higher the degree of client-supplier interdependence and the more complex the IT services involved, the higher the level of experience needed [61].

For successful outsourcing partnership relationships, it is critical that strategies, tactics, and operations of service recipients and service suppliers are well aligned. Alignment requires governance, to be defined as conditions that must ensure that the right decisions are being made and executed [62].

As part of a research program at Tilburg University, 14 case studies of European multinational companies with global or pan-European operations<sup>15</sup> were analyzed in order to understand what contributes to the success of, in particular, complex IT outsourcing relationships. Complex IT business-IT relationships can typically be defined as multi-site, multi-vendor, and combined internal and external IT service provisioning relationships. The underlying (internal) contracts and Service Level Agreements include service delivery commitments. They often concern significant contract value of over 20 million USD. The services in the investigated IT outsourcing relationships include a very broad scope of IT services. The service recipients in these cases operate in different sectors. The total contract values vary from 0.4 million USD to an annual contract value of 550 million USD. The IT supplier in all cases is Atos and its predecessors. Atos presents itself as a leader in digital transformation with circa 100,000 employees in 73 countries and pro forma annual revenue of circa €13 billion. Serving a global client base, the Group provides infrastructure and data management services, including Cloud services and digital workplace services, business and platform solutions, big data, and cybersecurity products and services, as well as transactional services through its subsidiary Worldline. Atos is positioned as a European or global leader in most of those activities [63].

To determine whether an IT outsourcing case was successful, we applied ten measures of success. The measures included both hard and soft criteria. Hard criteria included (1) realization of goals, (2) realization of service levels, (3) expansion of the scope of the contract, (4) absence of escalation of conflicts, and (5) contract renewal. Soft criteria included (1) customer satisfaction, (2) active communication, (3) involvement, (4) culture fit, and (5) trust. At least eight of the ten criteria for success were met by the investigated cases. Also, at the end of the (initial) contract period, all investigated contracts were renewed except for two of the investigated cases, which were not renewed for reasons related to external market conditions. In addition to the case studies, senior experts with more than five years of experience in IT outsourcing from leading consulting organizations were interviewed. From these cases and expert interviews, three factors appear to be critical for a successful IT outsourcing relationship: (1) a clear strategic positioning, (2) formal organizational arrangements that allow for adequate collaboration, and (3) the presence of trust.

### 1.5.1.1 *Clear strategic positioning*

The business needs a clear vision on what it wants to accomplish with IT. Business strategies and IT strategies are closely related, and need to be integrated to enable digital transformation. Shaping the business and IT strategies is a matter of co-creation between business and IT and is an integral responsibility of the senior management team.

In the case of outsourcing of IT, the need for clear strategic positioning of both the service recipient and the IT services suppliers is unanimously supported by all case study companies and experts. The client organizations should have a clear view with respect to their use of IT, IT services, and role these play in their company. Clear IT strategies show service suppliers the direction in which their clients intend to move. Formulating this strategy remains the responsibility of the client organization, and, as such, is never a candidate for outsourcing. The contribution of the business, and in particular that of the CEO, is indispensable. Also, senior managers should be highly involved in developing the IT strategy. The pressure to do so grows as IT services and business processes are becoming increasingly interdependent and intertwined. In the case of outsourcing parts of the IT operations, if the company cannot provide unambiguous requirements and/or has no clear IT strategy, many service suppliers will react to a request for proposal with a no-bid response. On the other side, service suppliers, both internal and external, must be able to show their clients and potential clients what IT services they can deliver and how. This is detailed in service catalogues and account plans. This includes their plans for the future, which form the basis of any business-IT partnership.

### 1.5.1.2 *Formal organizational arrangements*

Formal organizational arrangements and governance for managing and monitoring the IT (out)sourcing relationship are essential. These include structural provisions to support communication and collaboration between the service recipient and service suppliers, such as the organization and location of the IS/IT functions, outlining clearly defined roles and responsibilities, and the diversity of IT/business committees needed to support the IT (out)sourcing relationship [62].

Structural provisions are necessary on both sides of the relationship. Client organizations must adequately structure their Information Management function, which represents their demand management, service delivery, and contract management and constitutes the interface between the business processes and the IT suppliers. The role of the Chief Information Officer (CIO) and the Information Managers is key in this regard. They are ultimately responsible for the company's IT strategy and the optimal use of the IT services delivered.

Information Managers typically report to the CIO; their main responsibility is to ensure that the information needs of the business are met by the IT services provided. They form the link between the divisions/business units/departments and their service suppliers. Keeping internal and external IT service providers on track is a challenging task and requires significant coordination, alignment, and consultation, especially with regard to the delivery of diverse IT services by multiple service suppliers. Under conditions of change and turbulence, Information Managers have to contribute to the flexibility of services provided. The organizational embedding of Information Managers has to be adapted, so that hierarchically they report to business managers, while reporting functionally to the CIO [25]. By being embedded in and maintaining close relationships with the business, they can react quickly and ensure adequate and up-to-date service delivery. However, success depends on communication skills and collaboration of the staff directly involved.

These formal arrangements are present in all of the cases investigated in the study. Each outsourcing company had a well-developed Information Management function in place to represent company interests in the relationship with the service suppliers. In all cases, these Information Management functions are independent of the internal IT department to avoid conflicts of interests. When economically feasible, the Information Management function is set up per division/business unit.

The IT services suppliers, be it an internal department or external suppliers, have to carefully structure Contract and Account Management (CAM), which operates as the counterpart of the Information Management function of the client organization. It is important that service recipients and service suppliers can contact each other easily. Account management is about maintaining and building one's relationship with the client. The service providers must build a network of relationships within the recipient's organization as well as staying ahead of the developments in their industry [64]. The service suppliers' contract managers represent an additional major contact for the recipient next to their dedicated account managers.

Contract management involves optimizing the contractual agreements between supplier and client. It also requires managing the IT professionals who execute the work and the resources/assets such as infrastructure and networks, as well as taking care of the administrative aspects of the relationship, including (service level) reporting. As a result, service suppliers have to make allowances for substantial costs involved in contract management [65]. These findings are supported by all our interviews. With respect to structuring CAM, all the experts interviewed agreed: "The structure of the CAM must mirror the structure of the outsourcing company." In all of the cases studied except for one, there is a mirrored structure with a consensus that this contributes to successfully managing IT outsourcing partnerships. In the exception case study the CAM part of a larger CAM organization, which was responsible for a large number of complex IT outsourcing partnership contracts. This resulted in a relative limited attention from the CAM for this IT outsourcing partnership. This negatively impacted the relationship. As the responsible manager from the client said,

The responsibilities for the CAM and the service delivery are embedded in one role. This results in possible conflicts of interest. The contract manager is responsible for customer satisfaction, and the service delivery manager [for] utilizing the service delivery capabilities.

Another important point of attention for CAM is the continuity of personnel in CAM positions. Changeover results in discontinuity in the management of the partnership, endangers the continuity of service delivery, and jeopardizes trusts.

Organizational and governance arrangements also include a diversity of business/IT committees and coordinating roles to support communication and collaboration between service recipient and suppliers at different levels. It is essential that senior managers of both suppliers and the recipient can easily contact one another. This does not only relate to the CIO, also the recipient's business managers must have an easy access to the suppliers' senior managers. As such, these organizational arrangements facilitate active participation, alignment, and cooperation between stakeholders, a strategic dialogue, and shared learnings [62].

Planned and regular communication between the client organization and the IT suppliers is essential in establishing flexible partnership relationships [66]. The communication structure of most of the investigated case studies is quite similar and organized on three management levels. There is a steering committee at the strategic level, which includes senior

management and IT management for the service recipient, and senior management and account management for the IT service provider. Meetings typically take place once or twice a year. At a tactical level, there is a need for a monthly service review meeting to monitor overall ongoing performance and to anticipate the service recipient's future requirements/demand. Here, service supplier's performance is discussed on the basis of regular reporting and relate to service-level management processes. At the operational level, daily discussions with the Information Managers concerning operational issues are taking place.

The case study companies with an adequate communication structure show a similarly clear and layered arrangement between the service recipient and service suppliers. At each level, the authorizations and topics to be discussed are detailed and described in the outsourcing contracts. Typically, the contracts include a separate governance schedule.

A key element in communication between service suppliers and recipient is reporting. In order to track service delivery, the IT suppliers must report on a regular basis regarding the IT services delivered to the service recipient and the service level at which they were delivered [65,67]. For most of the outsourcing contracts studied, this required monthly reporting [68]. In five of the investigated case studies, inadequate reporting hindered the IT outsourcing relationship. Most of the problems were related to a too technically oriented reporting as opposed to reporting on more business-related items by metrics such as balanced scorecards and dashboards.

### 1.5.1.3 Trust

As said before, and as a key theme of this chapter, managing the business-IT relationship is not a matter of the "hard side" only. Much attention must be paid to the "soft side," especially trust between the service recipient and their suppliers is of utmost importance. Such trust has to be created and maintained at all organizational levels as between the involved individuals. Open formal and informal communication through the structures discussed above are instrumental to this.

A purposeful organizational policy, which contributes to the creation of mutual trust, is establishing relational mechanisms at all levels [62]. The objective of relational mechanisms is to facilitate open two-way communication, active collaboration, alignment, and knowledge sharing. This may be achieved by measures like physically locating business and IT staff close to each other, cross-training about the value adding role of IT in the business and informal meetings between business and IT management. Of course, this will challenge the "comfort zone" of all concerned. All these measures can only be effective if and only if they are actively endorsed by the senior management teams of both the client and the suppliers. They need to set the example. Again, the case of outsourcing is no different, only more difficult. Both service recipient and external service providers have to actively assess how and what relational mechanisms can improve the collaboration on both organizational levels and the personal level.

While these measures are worth pursuing under all circumstances, they are especially required under dynamic environmental conditions, which impose flexible adaptation by both recipient and suppliers. Trust provides the glue for a flexible relationship between the organizations concerned, allowing them to sustain the relationship over the strategic planning horizon [69].

## 1.5.2 Contracts and relational management

Managing this relationship is inherently problematic and characterized by a tension between control and trust. Service recipients and service providers are not only contractually but also

socially related to each other. These two types of relationships also represent two streams in research.

The outsourcing contracts play an important role during the period that the outsourcing relationship is in effect [70]. They constitute the foundation for transferring responsibility. Contracts include the agreements that form the basis for executing the IT service. Typical components are the general conditions, agreements concerning the scope, the service levels, and costs associated with the specific services to be provided [71]. In addition, contracts will include agreements concerning Intellectual Property Rights (IPR), which are important when licenses are transferred from the outsourcing organization, and software is developed by the IT supplier on behalf of the outsourcing organization during the course of the contract. Especially in the case of a Digital Business Strategy, which encompasses business process outsourcing, this is an important issue [70]. The IPR in principle belongs to the outsourcing organization. However, BPO makes it essential for IT suppliers to acquire the IPR, while in the case of transfer to another IT supplier, the outsourcing organization must be able to continue to use the software licenses whose IPR remains with the “old” supplier [71].

As Lacity and Hirschheim formulated: “If a company decides to outsource, the contract is the only mechanism to ensure that expectations are realized” [72]. However, as the saying goes “it needs two to tango.” The outsourcing reality must be seen as a success by both the outsourcing organization and the IT services supplier. Consequently, the basic premise must be that the service supplier and the outsourcing are always ready to help one another and are willing to cooperate at all levels to make the relationship a success. Facing uncertainty and change, parties that wish to enter into an agreement together are not able to predict all the future situations that may occur as a result of the transaction they want to conclude. As a consequence, they are not able to describe all possible future scenarios as part of the contracts they negotiate. This does not concern questions of uncertainty in relation to the contracting parties involved, but uncertainties concerning the transaction itself.

In this context, the outsourcing literature has studied the Incomplete Contract Theory developed by Nam et al. [73]. Attempts to include all possible future scenarios into an outsourcing contract require intense efforts from both the outsourcing organization and the IT services suppliers, and may well be an impossible task. When preparing IT outsourcing contracts, the question is to what extent both parties are prepared to attempt to be complete. The degree to which this is possible for IT outsourcing contracts depends on characteristics of the transaction involved: asset specificity, uncertainty and measurement, and frequency of the transaction [74]. Moreover, in many outsourcing situations, the opportunity to include details into the contract is very limited. This is related to the time pressures that often exist to come to an agreement and the costs associated with the preparation of the outsourcing contract. Management may deem it essential for certain services to be quickly available [70].

Contracts form a safety net upon which the parties eventually may rely. Especially under uncertain and changing conditions, the future IT services needs of the outsourcing organizations are elements that cannot be defined when a contract is signed. Consequently, parties need to agree on procedures for dealing with changes that are not covered by the contract. These procedures need to enable a rapid resolution of the problem at hand, which saves costs and ensures that any damage to the image of both the services supplier and recipient is avoided or minimized [70]. In short, the right governance must ensure that parties are willing and able to collaborate in a positive way. This type of governance is called “relational governance.”

Social intervention plays a role in compensating the efficiency and technical limits of formal contracts. Relational governance comprises a social component by emphasizing trust

and commitment. Relational governance refers to unwritten enforcement of obligations, promises, and expectations through social processes [75]. These processes promote a flexible behavior to adapt to unforeseen events, solidarity, and open information exchange. Key characteristics of relational governance are expected and accepted behavior, harmonious conflict resolution, and mutual dependence. Empirical research shows that relational governance is associated with trust, which improves performance in inter-organizational exchanges.

Do these two types of governance form substitutes or are they complements [20]? The opinion of being substitutes is found in expressions like “trust is good, but control is better” and “trust in the relationship avoids complex contracts.” Recent research has clearly shown that whether to craft formal contracts or to apply a more socially oriented relational governance in outsourcing is not a matter of either/or. Both are recognized to be complements to each other, as was empirically shown [20,75,76]. Greater levels of relational norms were employed as contracts became increasingly customized; also, more complex contracts were developed with greater levels of relational governance. Clearly stated contractual terms and processes, and the presence of accepted and expected relational norms together provide confidence and trust to organizations to cooperate. This conclusion is in line with earlier related research on governance of information systems in general. For example, in their study on IT governance under environmental dynamism, Peterson et al. studied nine case studies of large organizations in different industries, located in Europe and the USA [77]. The results of this study show that, regardless of the level of environmental dynamism, effective IT governance processes are characterized by both application of formal methods and approaches for control and rational decision-making together with relational governance in which coalition building, trust, conflict resolution, and strategic experimentation are regarded as pivotal.

### ***1.5.3 Wrapping up Section 1.5: consequences for management***

Managing complex IT outsourcing partnerships is not an easy task. Both the outsourcing company and the IT suppliers must do their utmost to turn their collaboration into a sustained success [78]. The case studies we investigated and the interviews we<sup>16</sup> conducted with experts in the field showed that having the best people available is not sufficient to manage complex IT outsourcing partnerships successfully.

IT outsourcing governance requires substantial senior management attention. Three areas appear to be critical for a successful partnership.

- 1 Clear strategic positioning. The business needs a clear vision as to what it wants, this vision should be clearly communicated to the supplier(s). The same applies to the suppliers: without their clear positioning the (potential) recipients do not know who to approach.
- 2 Formal organizational arrangements. They include structural provisions that enable communication and collaboration at all levels. The case study companies with an adequate communication structure show unanimously a clear layered arrangement between provider and recipient.
- 3 Trust. Managing and enhancing trustful relations, on a personal and organizational level, is of highest importance. A purposeful organizational policy, which contributes to creating and maintaining trust, is establishing relational mechanisms at all levels. These are actively stimulated by senior management: again, “the tone at the top” shows the way.

Senior management (eventually the CEO) are responsible for designing and monitoring their organization. The above three areas delineate three clear areas of management responsibility for ensuring effective IT sourcing relationships.

Relationships with their reciprocal responsibilities are laid down in contracts. However, as we have discussed, specifying all requirements and obligations in advance is impossible, especially under conditions of change and uncertainty. That is where “relational governance” comes in: unwritten enforcement of obligations through social processes, which promotes a flexible behavior to adapt to unforeseen events, solidarity and open information exchange. There is a complementary relationship between formal contracts and relational governance: both are needed to shape an effective outsourcing relationship and are a prerequisite for trust.

## 1.6 Conclusion

### 1.6.1 Introduction

What does all this mean to the executive running the business and the manager responsible for developing and managing sourcing relationships? By reviewing this chapter, the reader can conclude that we suggest executives/managers stand back from the specifics of the sourcing agreement and think through three fundamental issues.

*First: Expectation – what does the business acquiring the services and the organization providing them actually expect from the agreement, from their particular perspectives?* Expectations certainly include the business outcomes expected (separately for each) but perhaps more importantly for a successful sourcing agreement, their expectations about the business, and technical roles to be played by *each* organization. These expectations form the foundation for the relationship – whether they are achieved is critical, and whether they are actually well defined and agreed to is even more important.

*Second: Governance – how are these expectations, especially about roles and responsibilities, communicated with clarity and specificity among all participants in the agreement?* Contracts are important but person-to-person communications and relationships are important as well. Given the role of turbulence, change, and uncertainty in all aspects of the sourcing relationship which work to change the context and requirements, this ongoing problem requires continual attention throughout the life of the agreement. Governance on both sides of the agreement needs to be continuously focused on this issue.

*Third: Performance: – what exactly are the specific success variables in the agreement?* This goes to outcome expectations of course, but what exactly has to go well to make the agreements successful for all participants. This also goes to the requirements for on-going day-to-day management responsibilities and the clarity of communications on their performance among the participants in the agreement.

To be sure, this chapter provides many mental models and frameworks to assist the executive and manager to think through these three issues.

### 1.6.2 Fitting the agreement to the specific circumstances

While the above statements are perhaps obvious, what may not be so clear is that “one size does not fit all.” Every business circumstance is unique, and every technology supplier has unique characteristics and capabilities. This is obvious. But what isn’t so obvious is that the set of expectations and roles/relationships are, because of the uniqueness of both parties, especially unique to the agreement.

Considering all of the aspects discussed in previous parts of this chapter, two characteristics of an outsourcing agreement stand out in terms of differentiating each situation uniquely.

### 1.6.2.1 Degree of ICT and business integration (Fusion)

As mentioned at the beginning of the chapter, outsourcing originated with simple technology-focused services, for example, communications networks, application development, and data centers. Recently, the idea of “Fusion” has evolved [79], where ICT and business are combined to create a single joint operation, often in back-office business areas. For example, a supplier may provide complete payroll or accounting or even marketing services where the ICT component is imbedded in the service itself. The acquiring company purchases payroll services without its bundled ICT component.

This has rapidly evolved into more strategic relationships, where the parties jointly provide a product or service to end customers. In some senses, traditional supply chain relationships bundle the actual components involved with the ICT needed to plan, produce, and deliver them. As a recent research note put it:

During the last decade, the business infrastructure has become digital with increased interconnections among products, processes, and services. Across many firms spanning different industries and sectors, digital technologies (viewed as combinations of information, computing, communication, and connectivity technologies) are fundamentally transforming business strategies, business processes, firm capabilities, products and services, and key interfirm relationships in extended business networks.

[80]

Figure 1.7 shows this Fusion dimension as the “Degree of ICT and Business Integration” (Fusion). For any given sourcing relationship, this can vary from none (for example, a simple acquisition of network services) to complete (for example, acquiring payroll services). While these are relatively operational examples, Fusion works even more powerfully in products, services, and competitive strategies.

The question presented here, to differentiate sourcing agreements, to what extent ICT and Business Integration – Fusion – is expected and to be managed. The answer addresses the three issues mentioned above: the expectations of *each* of the participants, roles, and responsibilities, and the significant success variables.

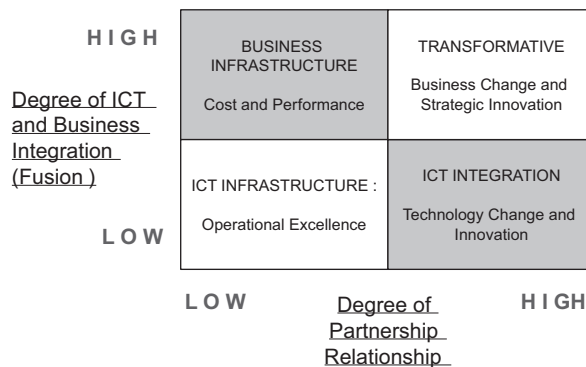


Figure 1.7 Partnership and Fusion in sourcing



### 1.6.2.2 Degree of partnership relationship

We devoted many pages in our previous book to the idea of partnership between its business and ICT areas [3]. For example, we cited Eisner: “Partnerships encourage a set of characteristics – trust, teamwork, a regard for someone else, and continuing checks and balances – that run counter to the factors that (contribute) to ... messes” [81]. His key expressions here are trust and teamwork to which we added “common goals and mutual commitment” [3].

This is *partnership*, two or more enterprises coming together to (seamlessly and jointly) produce products, services, competitive initiatives, and goals common to all the participants. This idea suffuses much of current outsourcing – often more than just outsourcing, but the creation of group effort combining ICT with business. Often, this partnership is limited to technology areas, creating joint ways of providing ICT infrastructure to businesses.

### 1.6.3 Implications for ICT management

Specifying, understanding, and managing the implications of the various kinds of outsourcing arrangements puts a great challenge on what had been a typical technology service-oriented CIO management role. Gartner recently observed:

84% of CIOs from top digital performers have reimagined their role and have responsibility for areas of the business outside of traditional IT, the most common being innovation and transformation. These CIOs are also expanding their success criteria from IT delivery objectives to more broadly business-based measures.

[82]

In admittedly simplistic terms, the first part of this observation likely describes circumstances for a company in the *Business Infrastructure* quadrant; the second the Transformative quadrant. The other two much more are ICT intensive: the ICT Integration quadrant requiring more outside management capabilities as well. In the ICT Infrastructure quadrant, more traditional ICT and sourcing management skills are required (and necessary in the other quadrants as well). Of course, the degree to which this observation applies to a given situation largely depends on the nature of the sourcing arrangement, with variables such as those considered in Figure X above. The issues for business management also change from merely a consumer of ICT services to, in many cases, active participants in the planning and management of outsourcing arrangements.

Again, things are different in every circumstance. As we observed above, “one size does not fit all.”

### 1.6.4 Implications of multi-party arrangements: an integration responsibility

Throughout this chapter, the discussion can be read as though all sourcing is a two-party process: the purchaser (typically the business or its ICT management) and the supplier. In reality, many, perhaps most sourcing arrangements, involve multiple parties. In the past, this put an integration management responsibility largely on the CIO or the business purchasing group. An analogy perhaps is the general supply chain function in manufacturing firms, something that is intensely multi-party with considerable integration issues.<sup>17</sup>

Who is responsible for the integration and governance of the overall arrangement? As suggested above, it may be the CIO with advanced responsibilities, or perhaps this itself is something that is outsourced. The nature of this does differ in the different kinds of agreement: managing the ICT INFRASTRUCTURE agreement with multiple parties is clearly different from managing multiple parties in the TRANSFORMATIVE area. Nevertheless, this is an important issue and has to be addressed.

**1.6.5 The outsourcing relationship: combining Fusion and partnership**

To give a simple example of possible implications of the issues described in the chapter and summarized here, we offer this example table. It is not intended to be prescriptive, but rather to encourage discussion of the issues.

Every sourcing arrangement has elements of both Fusion and Partnership, though to a very different degree. Figure X shows the potential characteristics in each domain. Figure Y is shown here as simplistic example to demonstrate how various sourcing arrangements can differ from company to company (Table 1.1).

Table 1.1 Quadrants in transformation and Fusion

Quadrant	Quadrant characteristics	Example expectations from the business and ICT provider	Example governance: roles and responsibilities	Example performance: example success variables
ICT infrastructure	Low Fusion Low partnership (e.g., supplier)	Well-defined services and costs meeting ICT requirements	Monitoring ICT cost and performance Monitoring to performance Typically, ICT-targeted SLA	Operational excellence Cost and performance Flexibility in ICT terms
Business infrastructure	High business/ ICT Fusion Low partnership	Supply business capability: well-defined business services and costs meeting functional business needs	Business function planning and execution Typically, business-targeted SLA	Business functionality Flexibility in business terms
ICT integration	Low business/ ICT Fusion High partnership	ICT services meeting current and future ICT requirements, with access to innovation and advanced capabilities Pro-active change management	Seamless governance and decision-making Access to technology developments and innovations	Flexibility Timely change management
Transformative	High business/ ICT Fusion High partnership	Bundled business activities, seamlessly combining ICT and business capability from all parties	Establishing roles and responsibilities among the parties; overall providing direction and guidance, for each part, specific roles	Flexibility Clear, common goals Innovation

### 1.6.6 Summing up: conclusion

There is some irony here. While discussing each quadrant as though they are relatively the same size and timing – such minor issues as timing (speed to establish, execute, revise as circumstances change), length of term, intellectual property, and so forth – many complex variables are vastly different from agreement to agreement. (In some ways, there is a hint of agile here; as one moves more strategic, or more Fusion, the more traditional decision processes may not be so appropriate.) The irony is that so much is relatively old (for example, ICT Infrastructure), but overall the sourcing landscape is now so dynamic and multifaceted, it's all new.

But overall, the key point in our summary is this: executives and managers engaged in sourcing agreements should understand what the issues are – not a generic set of issues applicable to all, but rather the specific issues applicable to their own situation. Define them, and then execute.

#### Notes

- 1 E. Carmel: *Global Software Teams, Collaboration across Borders and Time Zones*, Prentice Hall, 1999.
- 2 This research was done as part of a research program at Tilburg University. For a complete report on the analysis and validation of conclusions, we refer to R.J. Benson, Pieter M. Ribbers and Ronald Blitstein: *Trust and Partnership – Strategic IT Management for Turbulent Times*, Wiley, 2014; for a complete report on the validation of conclusions on governance of complex IT outsourcing partnership, we refer to E. Beulen, P. Ribbers: “Governance of Complex IT Outsourcing Partnerships” in L.S. Rivard and B. Aubert (eds.), *Information Technology Outsourcing*, M.E. Sharpe, 2008. More extensive analyses are provided in E. Beulen, P. Ribbers, and J. Roos, *Managing IT Outsourcing*, 2nd ed. Routledge, 2011.
- 3 See, for example, Aircraft news, 2018, about the supply chain issues in aircraft manufacturing dealing with the specific Boeing and Airbus strategies in reducing cost, increasing quality reflected in reliability in the manufacturing process, and increasing throughput.
- 4 See, as example of the interconnection/dependence of supply chain participants: <https://www.cmtc.com/blog/4-must-know-aerospace-supply-chain-management-issues>.
- 5 This figure originated in Benson and Parker, “Introduction to Enterprise-wide Information Management,” IBM, 1985, now adapted from Benson, Ribbers, and Weinstein, *Trust and Partnership*, Wiley 2014, page 5.
- 6 ICT: Information Communications and Technology. We'll use this acronym throughout this chapter.
- 7 ICT Capability is a central theme of Benson, Ribbers, and Blitstein, op. cit.
- 8 Adapted from Benson et al., op. cit., page 10.
- 9 Figure 1.3 is adapted from Benson et al., op. cit., page 40.
- 10 Figure 1.4 is adapted from Benson et al., op. cit., page 175.
- 11 See discussion on Incomplete Contract Theory in: Goo, J., Rajiv, K., Rao, H.R., Nam, K.: The Role of Service Level Agreements in Relational Management of Information Technology Outsourcing. *MIS Quarterly* 33 (1), pp. 119–145, March 2009; and in Beulen, E., Ribbers, P.: *IT Outsourcing Contracts: Practical Implications of Incomplete Contract Theory*. HICSS, 2003.
- 12 Figure 1.4 is adapted from Benson et al., op. cit., page 175.
- 13 Adapted from Benson et al., op. cit., page 68.
- 14 See for a discussion on this David R. King: Implications of uncertainty on firm outsourcing decisions. *Human 1*.
- 15 This research was done as a part of a research program at Tilburg University. This summary is based on Benson et al. For a complete report on the validation of the conclusions, we refer to Beulen, E., Ribbers P.: Governance of Complex Outsourcing Partnerships. In: L. S. Rivard, B. Aubert (eds.), *Information Technology Outsourcing*. M. E. Sharpe, 2008. More extensive analyses are provided in Beulen, E., Ribbers, P., Roos, J.: *Managing IT Outsourcing*, 2nd ed., Routledge, 2011.
- 16 “We” refers here to E. Beulen and P. Ribbers.
- 17 One has only to look at the aircraft industry as an example, with Boeing and Airbus both struggling to effectively deal with an enormous supply chain. ICT-related situations are not so enormous, but can show similar dynamics.

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