

A Strategic Management Framework for IT Outsourcing
**A Strategic Management Framework for IT Outsourcing: A
Review of the Literature and the Development of a Success
Factors Model**

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ABSTRACT

Since the landmark decision in 1989 by Kodak to outsource its Information Technology (IT) services, large scale IT outsourcing has become an accepted and viable alternative for IT managers. The objective of early outsourcing efforts was lower cost; however today the motivation is often more strategic in nature with the goal of improving the business' competitive advantage. Researchers have suggested several best practices to help ensure IT outsourcing objectives are achieved and deliverables completed long after the contracts have been signed; however there is no documented IT outsourcing framework. The motivation for this paper is to develop a framework for managing IT outsourcing engagements. To fill this gap in the research this paper presents an integrated Information Technology (IT) outsourcing framework that considers the following factors: IT alignment, contracts, infrastructure and technology, culture, strategic partnership, management support, governance and economics. This framework is a tool for IT managers to better collaborate internally and externally in an effort to achieve IT competencies and competitive advantage through IT outsourcing. The contributions of this paper are a multi-factors framework for building a successful outsourcing plan, a discussion of business skills necessary to manage such an endeavor, and model for researchers to further investigate.

KEY WORDS: *IT management practices, IT strategic planning, IT outsourcing framework, outsourcing success factors, and outsourcing research.*

INTRODUCTION

Since the landmark decision in 1989 by Kodak to outsource its Information Technology (IT) services, large scale IT outsourcing has become an accepted and viable alternative for IT managers. Traditionally, IT and business managers made choices to outsource IT functions to reduce cost; especially with regard to offshore outsourcing for significantly lower wages. More current research (Kern and Willcocks 2000, Ross and Westerman 2004, Kaiser and Hawk, 2004, Smith and McKeen 2004), suggests that the motivation is now more strategic in nature with the goal of improving the business' competitive advantage. The strategic partnership, or collaboration, is just one of the critical success factors for IT outsourcing, as cited by numerous

A Strategic Management Framework for IT Outsourcing industry and academic articles. There is a large body of literature which suggests several best practices to ensure IT outsourcing objectives are achieved and deliverables completed long after the contracts have been signed (i.e. Smith and McKeen 2004, Delmonte and McCarthy 2003, Carmel and Agrawal, 2002). However, there is no single documented IT outsourcing framework. The motivation for this paper is to develop a framework for managing IT outsourcing engagements. These engagements can run from a small contract to develop a software application to total control over the IT operation. This framework is a sliding framework, by that we mean not every factor needs to be present for every outsourcing engagement; rather those that apply in a given context will be relevant and those that do not will slide out for a specific case. Organizations can improve the success of IT outsourcing by utilizing the framework, thereby achieving IT competencies and competitive advantage.

The methodology used to create the integrated framework consisted of a literature evaluation of IT outsourcing and strategic management articles in an effort to identify synergies and success factors. The articles surveyed were from both academic and industry publications. The collection of success factors were developed into an integrated strategic framework that is useful to IT managers in decision making and ongoing strategic planning for IT outsourcing. Managers can utilize this practical checklist based upon current literature.

For the purposes of this paper, IT outsourcing is defined as the decision by an organization to seek external resources for satisfying IS requirements, whether for application development (software) and/or infrastructure (hardware) needs and where by the outsourcing partner is responsible for managing these components. This would not include procurement of software or hardware to be used and managed internally by the firm.

The objective of this paper is to present a strategic management framework for Information Technology outsourcing (ITO) based upon an extensive literature review. First we present the rationale and value of an outsourcing framework. Then the proposed strategic management framework for IT outsourcing is presented with detailed explanations of each component. Finally, a conclusion and plans for future research are presented in last section.

THE VALUE OF A STRATEGIC FRAMEWORK FOR IT OUTSOURCING

The goal of outsourcing is to gain competitive advantage for the business. Through collaboration with external business partners, organizations can reach new levels of IT competencies, allowing them to focus on their primary business mission. For example, in Kimzey and Kurokawa's (2002) study of U.S. and Japanese firms, IT outsourcing played a significant role in gaining competitive advantage. They showed that through outsourcing organizations had access to larger technology pools, providing the ability to develop products which couldn't have been developed internally. This shortened cycle times and reduced development costs, so that companies could gain competitive advantage.

There are other information system (IS) management models which could be applied to the current issues of IT outsourcing. Gorry and Scott-Morton (1971) proposed an IT framework to assist IS managers with decision making, problem solving, and determining technology benefits. These visionaries in IS research recognized the need for a "common framework" for organizations to plan MIS activities and allocate resources. More recent models are those developed by Khan, Currie and Guah (2003) and Smith and McKeen (2004). Through the surveys of 17 Indian firms, Khan et. al (2003) presented a model for IT outsourcing which includes contracts, infrastructure, quality, confidentiality and culture. Smith and McKeen (2004) presented sourcing success factors

A Strategic Management Framework for IT Outsourcing based on their focus group studies with senior IT managers. They identify four key components of an outsourcing model as: sourcing strategy; risk management; governance and cost structures.

It is the intent of this research paper to complement and supplement earlier IS frameworks by identifying a comprehensive framework specifically for managing IT outsourcing. The proposed integrated framework strives to provide common guidelines for IT and business managers, specifically as they evaluate and make decisions regarding IT outsourcing.

A PROPOSED FRAMEWORK FOR IT OUTSOURCING

This section of the paper defines each component of the strategic management framework for IT outsourcing. In Figure 1 the integrated components are presented in a circular diagram. This shape demonstrates the “integration” of each component. The IT outsourcing literature and classic IS management literature yielded these key factors of the framework. The framework components and associated literature references are presented in Figure 1 and Table 1. The components of the strategic management framework for IT outsourcing:

- Alignment to business strategy
- Management Support
- Culture
- Infrastructure
- Contracts
- Strategic Partnership
- Governance
- Economics

Alignment to Business Strategy

Alignment to business strategy implies that information technology outsourcing decisions are in support of organizational business goals. Specific industry examples of business alignment as a key success factor in IT outsourcing are that of Texas Health Resources (Stewart, 2001) and Xcel Energy (Havenstein, 2005). Texas Health Resources outsourced their interface engine application development outsourcing to Healthcare.com. A key component to their success was a “sound business strategy”, with guidance from a steering committee in vendor selection and implementation (Stewart, 2001). Xcel Energy’s CIO Raymond Gogel moved from conventional outsourcing approaches of “squeezing suppliers for the cheapest services”, to a strategic advisory board which consists of vendors, partners and internal management (Havenstein, 2005). Xcel Energy fosters partnership through a continual transformation of business strategy which produces clear evidence of growth. Xcel Energy credits their 17% per year to date savings to this strategic partnership mindset.

There are numerous academic papers reporting the importance of business alignment. Kohli and Devaraj’s (2004) and Hefner (2003) are examples of current literature which demonstrates the importance of aligning IS to business strategies and creating IT value. Kohli and Devaraj (2004) utilize four key steps in measuring IT value contributions to business investments: alignment, involvement, analysis, and communication. Carmel and Agarwal’s (2002) assessment of the maturation of IT outsourcing also designates business alignment as the basic element in IT outsourcing.

Luftman, Papp and Brier (1999) provide support for the importance of business alignment through their extensive studies identifying the “enablers and inhibitors” of IT/business alignment.

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Luftman's (2000) empirical research highlights the maturity levels and maturity criteria organizations could utilize to determine their current state of alignment maturity and the desired state.

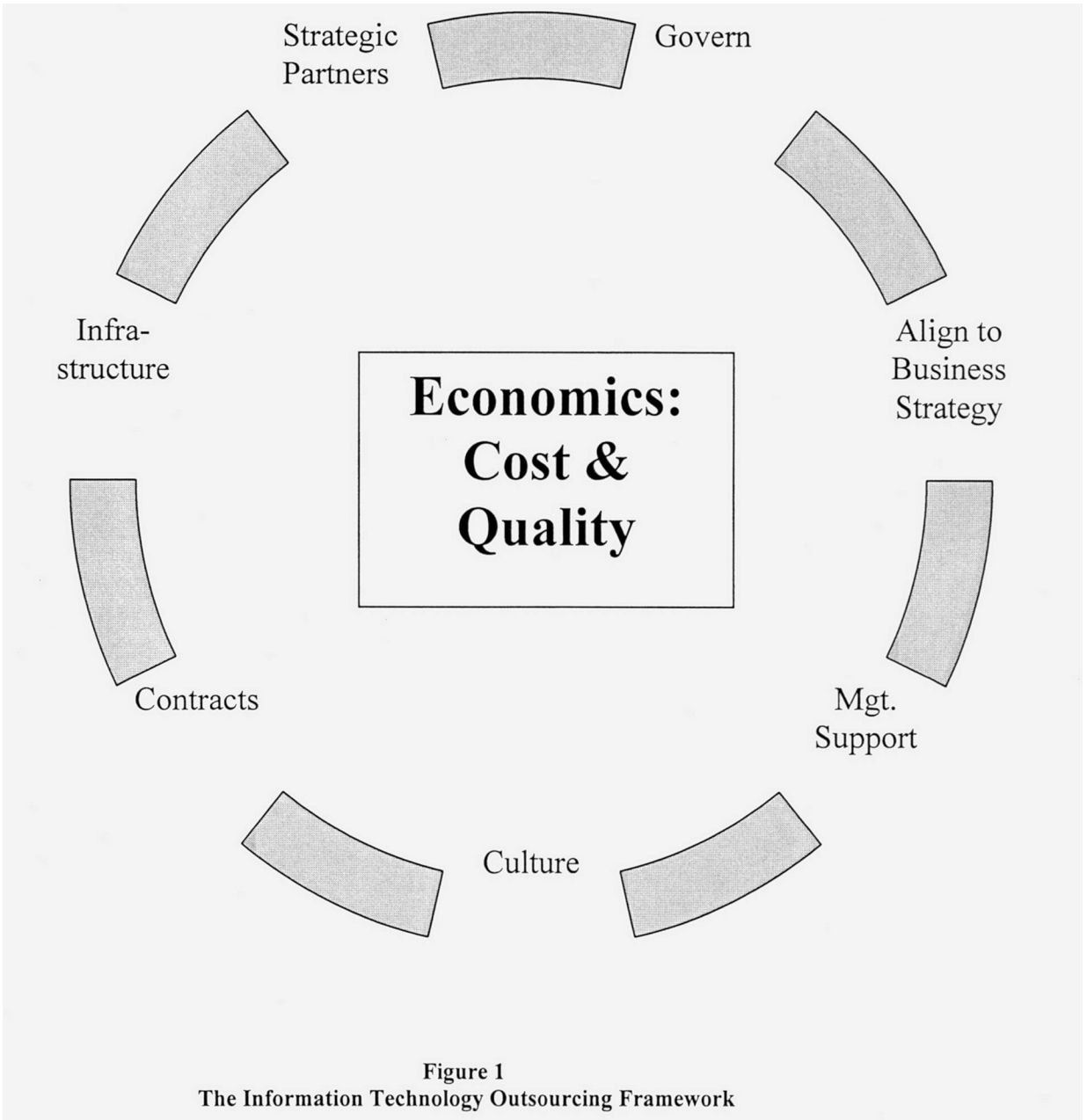


Figure 1

The Information Technology Outsourcing Framework

The framework is represented as a circular chart depicting the integration of the various components. The chart is meant to demonstrate that the components integrate with one another.

However, it is not meant to assume each component must exist as equally as the others. This chart does not imply that one component is dependent upon another. But rather, that the components integrate well to form a balanced whole, or in this case a complete circle.

Table 1
Components of a Framework for IT Outsourcing and Associated References

Component Definition	Sources/Current Frameworks
<p>Alignment to Business Strategy</p> <p>The mapping of outsourcing decisions to business strategy. Ensuring that IT aligns with strategies. Business strategies can be re-defined, re-thought, and perhaps re-engineered with an understanding of the opportunities of IT. Decoupling of processes and business abstraction</p>	<ul style="list-style-type: none"> ▪ Medjahed, et al., 2003 ▪ El Sawy, et al., 1999 ▪ Ba, et al., 2001 ▪ Zwass 2003 ▪ Carmel and Agarwal, 2002 ▪ Ross and Westerman, 2004 ▪ Kohli and Devaraj 2004 ▪ Luftman and McLean 2004
<p>Contracts</p> <p>A formal document of the goals, requirements and commitments for the relationship. The contract should include clear requirements and deliverables. Measurements and standards should be defined in the contract. Interactions between the parties should be defined. Understanding core competencies, goals, for all partners and a firm understanding that all parties share in the risk/benefit.</p>	<ul style="list-style-type: none"> ▪ Kahn, et al. 2003 ▪ Delmonte and McCarthy, 2003 ▪ Lee, 2003 ▪ Byson and Sullivan 2003 ▪ Beulen and Ribbers 2003
<p>Infrastructure and Technology</p> <p>The technical environment which must be in place for a successful IT engagement. This includes network, hardware and software. A solid infrastructure must address interoperability and integration of multiple components. Technology standards and scalability are key elements to an effective infrastructure. Also includes domain knowledge.</p>	<ul style="list-style-type: none"> ▪ Zwass, 2003 ▪ Kahn et al., 2003 ▪ Medjahed et. al., 2003 ▪ Weill and Vitale, 2002
<p>Culture</p> <p>Cultural readiness by both the organization and proposed vendors. Addresses issues of trade policies, tax, licenses, etc. Ensure proper communication among the partners. Evaluate political climates where appropriate.</p>	<ul style="list-style-type: none"> ▪ Zwass 2003 ▪ Carmel and Agarwal, 2002 ▪ Kahn 2003 ▪ Delmonte 2003 ▪ Sakaguchi 2003 ▪ El Sawy et al, 1999 ▪ Davison 2004
<p>Strategic Partnership</p> <p>The ability to form and maintain partnerships both internal and external to the organization. Includes fostering the critical key relationships between IS management and Business leaders, as well as between the CEO and CIO/CTO. Includes Customer Relationship Management as well as Vendor Management. Includes the ability to form collaborative teams. Requires flexibility, communications timeliness and mutually beneficial relationships.</p>	<ul style="list-style-type: none"> ▪ Zwass, 2003 ▪ Lee et al 2003 ▪ Phan, 2002 ▪ Kern and Willcocks, 2000 ▪ Ross and Westerman, 2004 ▪ Kaiser and Hawk 2004 ▪ Lee and Kim 2003



Table 1
Components of a Framework for IT Outsourcing and Associated References

Component Definition	Sources/Current Frameworks
<p>Management Support</p> <p>Includes not only management support of decisions on outsourcing, but also management communication to the organization with truthful and valuable information to the "masses". Addresses resistance. Includes the vision for technology possibilities as well as supporting continual innovation for positive organizational transformations.</p>	<ul style="list-style-type: none"> ▪ Carmel and Agrawal, , 2002 ▪ Ba, et al., 2001 ▪ Clemons and Row, 1991 ▪ Keen, 1981
<p>Governance Committees</p> <p>Both tactical and strategic to determine which IT functions should be outsourced and to whom, as well as ongoing monitoring of expectations. Includes risk analysis. Includes security, privacy, and costs analyses.</p>	<ul style="list-style-type: none"> ▪ Flannery and Heckathorn, 2003 ▪ Ba, et al., 2001 ▪ Delmonte and McCarthy, 2003 ▪ Weill 2004
<p>Economics</p> <p>The balance of cost savings and access to IT competencies, which organizations must to achieve when outsourcing IT/IS functions. This balance will ensure that IT outsourcing decisions support business strategy and enhance business competitive advantage.</p>	<ul style="list-style-type: none"> ▪ Lacity, et al, 1995 ▪ Willcocks, et al, 1995 ▪ Watjatrakul, 2005 ▪ Aubert, et al, 2004 ▪ Manila, 2004 ▪ Cox and Clift, 2003

A classic paper on the strategic alignment between business and IT is that of Henderson and Venkatraman (1993). They showed that strategic alignment was different from traditional views of business and IT alignment. This model demonstrated that traditional business process re-engineering, or automation of back office processes, were not adequate to support business growth and competitive advantage. Traditional alignment typically linked IS functions with the organization itself. Whereas *strategic* alignment linked IS functions with the organization *and* the external IT marketplace. This model included the external marketplace as an influencer to business and IT. Henderson and Venkatraman's (1993) framework explained how traditional IS roles changed with strategic alignments. For example, in their model the IS executive role became a dynamic agent of change, versus a simple line or functional support role which was evident in traditional alignment practices. IT possessed the ability to drive business strategy as much as business traditionally directed IT strategy. They concluded that the lack of IT value can be directly attributed to the lack of *strategic alignment*. Companies recognizing this model could leverage IT to transform the organization for competitive advantage. Henderson and Venkatraman's (1993) work was important to the development of the IT outsourcing framework because it supported the view that "strategic" must be a key characteristic.

Lastly, in a more recent study by Luftman and McLean (2004) 301 Society of Information Management members (CIO level managers) were surveyed. These managers identified alignment as the *number one* IT management concern. This research reported that the primary inhibitor to alignment was executive level support and the number one enabler was an understanding of the firm's business environment. This study demonstrated the relevance of business alignment to senior management leaders.

Management Support

Management support has historically been the key to reducing resistance to the introduction of information systems (Keen, 1981). The same is true with IT outsourcing. In many cases due to IT outsourcing, internal workers are displaced, which is cause for emotional concerns and frustration for staff. Management support requires addressing the side effects of IT outsourcing, albeit downsizings, employee dissatisfaction, and fostering a strategic relationship with new business partners. Management support is needed to reduce resistance to implementation of new partnerships and to avoid information distortion and other counter implementation tactics (Ba, Stallaert, and Whinston, 2001; Keen, 1981).

From the early case study by Clemons and Row (1991) documenting Rosenthal Travel's growth through management vision and technology, it was evident that management support is invaluable to new IT endeavors. It was clear how utilizing IT, in conjunction with business expertise, could move business goals forward. The same concepts can be applied to IT outsourcing. A supportive upper level management can foster the necessary cultural readiness, as well as strategic directions, which combines business expertise and technology resources. In an outsourcing project between Texas Health Resources and Healthcare.com (Stewart, 2001) a steering committee consisting of three members from each company was established. This steering committee then met with all key customers to determine their needs and how they would be met under the new arrangement. A critical component of these meetings was also to assure that internal customer's fears would be addressed and dealt with properly. Thus, this application development outsourcing agreement with Healthcare.com, illustrates strong management participation in governance and steering committees. These two mechanisms were keys to the company's successful IT outsourcing.

Management support includes many elements. It requires management setting clear objectives and developing the maturity of teams and organization processes (Delmonte and McCarthy, 2003). Carmel and Agarwal (2002) provide three key recommendations for IT executives with regard to offshore outsourcing. First, is to give offshore outsourcing the same strategic importance as other strategic initiatives, where by executive commitment and involvement are musts. The second recommendation is to overcome the fears employees have of being displaced, as well as managerial concerns about offshore management. These inhibitions could "derail" offshore outsourcing initiatives. To alleviate these fears, they suggest that management issue broad based communication programs to address the impact of outsourcing to employees. Lastly, Carmel and Agarwal (2002) recommend that IT executives foster internationalization. They also suggest ways to reduce the cultural differences between offshore workers and onshore workers, specifically by suggesting that organizations address internationalization through diversity of culture in the workplace, educational programs, and/or overseas sabbaticals for key staff.

Recent industry publications citing companies like Texas Health Resources (Stewart, 2001) and Amtrak (George, 2002) demonstrate how management involvement positively impacts outsourcing success. The Texas Health Resources CIO incorporated steering committees, formalized processes, and a concern for effects on employees as enablers to success. In the Amtrak case management support was the impetus behind successful renegotiation of contracts with IBM as well as placing accountability for innovation in the hands of their vendor.

Another aspect of management support deals with the human resources issues. Outsourcing for many organizations typically leads to employment losses. Thus there are three issues that

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In terms of managing human resources (HR) several firms have become concerned that they no longer have the expertise or resources to manage their human resource business processes (Marquez, 2005). In this respect the companies are outsourcing the complete HR function to third parties. These HR function includes payroll, performance management, hiring, and other back-office administrative services. Henneman (2005) suggests that companies need to look beyond the cost saving of HR functions to new ways of how to track employee satisfaction and organizational performance. One way that is done is to link performance rankings to training.

A few companies are thinking further ahead. One software vendor (BroadVision) outsourced development to China not just for the cost savings but for the long-hall (Gibson, 2005). The company wants to create a pool of talent from which they can later benefit.

Culture

Almost all of the IT outsourcing articles recognize cultural acceptance as key success factors (Zwass, 2003; Carmel and Agarwal, 2002; Kahn et al., 2003; Delmonte and McCarthy, 2003; El Sawy et al., 1999; and Davison, 2004). Cultural issues include communications (written and verbal), work schedules, as well as political and social issues.

Delmonte and McCarthy (2003) defined cultural readiness in terms of related risk factors of language, work schedules, time zones, communication and political state. They recognized the need for organizations in different regions to communicate and educate staff on the cultural differences between the companies. Carmel and Agarwal (2002) also described the challenges of offshore outsourcing centered on cultural differences. Such differences included. time zone, communication, work hours, domain knowledge, telecommunications infrastructure and data security. Carmel and Agarwal (2002) recommended training for both the vendor and outsourcer organizations to overcome cultural barriers. They also suggested the need for understanding the political state of offshore outsourcers.

More recently, CIO magazine published a report by the Meta Group (Davison, 2004) outlining the pitfalls of IT outsourcing and highlighted culture as requiring immediate attention. CIO magazine commented that many outsourcing vendors train their employees on language accents, religious differences and social activities to better assimilate with the outsourcing company. Cultural education is not a trivial task (Davidson, 2004). Davison's (2004) Meta report advised CIOs and management to ensure vendors are capable of understanding industry specific government requirements such as Sarbanes Oxley or the U.S. Patriot Act.

Organizational maturity and cultural readiness are key parts of the strategic management of IT outsourcing. Especially when considering offshore outsourcers cultural differences are a key variable to be addressed. A few industry examples are worthy of discussion. Lehman Brothers implemented an IT outsourcing plan consisting of 100 applications with several offshore Indian vendors (Wipro, TCS and Infosys) (Massaro, 2003). During implementation, they addressed the aspects of communications and cultural differences in working offshore. Charlie Cortese, Managing Director & Head of Outsourcing at Lehman Brothers, indicated that communications of target dates and timelines needed more specificity with their offshore vendors due to the non-confrontational cultural nature (Massaro, 2003). For example, Cortese indicated that it was difficult to distinguish whether their outsourcing partners were truly making commitments or

A Strategic Management Framework for IT Outsourcing saying “yes” to “be polite and agree”. Lehman Brothers also reported specific efforts on training accents and phraseology for their Indian outsourcing partners. The Lehman Brothers’ example illustrates the organizational focus and action items used to address cultural differences.

Infrastructure

A necessary element to outsourcing IT functions is the telecommunications infrastructure readiness. Literature on outsourcing, as well as B2B relationships, demonstrated the criticality of this component. According to Medjahed, Bentallah, Bouguettaya, Ngu and Eldmagarmid (2003) a sound technological infrastructure is critical to the success of two businesses engaging in technology endeavors. They further suggest that an organization must have good standards for communications, business process conversations to support the infrastructure, and security. It is essential for interorganization technologies (e.g. EDI, OBI, XML) to be addressed and managed. Weill and Vitale (2002) reported on key infrastructure capabilities necessary for e-business models, which also can be applied to IT outsourcing. Weill and Vitale (2002) discuss the importance of “increased cooperation” and “externality” which are essential to a successful infrastructure.

Several industry examples illustrate the importance of the infrastructure. Hasbro Far East (Chung, Yam, and Chan, 2003) created an entirely new network business model within their organization to support the collaboration and strategic partnership with their global suppliers. This infrastructure directly supported the supply chain management process and business-to-business (B2B) relationships that the toy company relied upon. In another example the government of Falls Church, VA (Anonymous, 2004) chose an outsourcer to create a better network and management of their own infrastructure. The main purpose was to allow Falls Church to focus on their mission of “government” and allow a technology partner to support the infrastructure.

Contracts

Contracts are necessary to define roles, responsibilities, requirements, and ongoing performance measurements. However, in a true strategic partnership contracts will never be “complete”. Ross and Westerman (2004) demonstrate that contracts cannot predict all the changes and future needs that lie ahead. Ross and Westerman (2004) reported about “on-demand” computing and the relationship management of external service providers. They showed that the “relationship” must be stronger and more strategic than the contract itself. Kern and Willcocks (2000) caution organizations about incomplete contracts and service level agreements (SLAs), which lead to the misperception that goals are being met. Kern and Willcocks (2000) further emphasize the need to build relationships between suppliers (or outsourcing vendors) by having each understand the business, communicate honestly with key contact people and become vertically integrated into the client organization. Kumar and Palvia (2002) demonstrated the importance for cost definition, penalties, and yet flexibility in contracts to build and maintain relationships.

Utilizing transaction cost theories, many authors show that the contract document is dependent upon three key areas: asset specificity, measurements, and the frequency of the transaction (Aubert et. al., 2003). In this article the authors surveyed 200 Canadian firms to test these dependencies and found that high uncertainty and inability to measure led to incomplete contracts. Byson and Sullivan (2003) and Beulen and Ribbers (2003) demonstrated the negative consequences of incomplete contracts. These authors suggested safeguards, incentives, or contingencies to be written into contracts to reduce risks.

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There are many industry examples that demonstrate the critical importance of contracts. NRG Victory (Tyler, 1997) cites the importance of flexible contracts and SLAs to the success of outsourcing. When NRG Victory transferred its mainframe workload to IBM, the contract focused on high quality, flexible SLAs, and protection for key staff and knowledge. Solutions Engineering (Ferranti, 2004a) choose to have their offshore contracts focus on intellectual property, as well as service level requirements. CGI, Inc. (Downey, 2002) advised businesses not to set prices in contracts before requirements were truly understood. CGI Inc.'s (Downey, 2002) contracts defined scope, and focus on results, not penalties. Group One Software's (Ferranti, 2004b) terminated some of its outsourcing arrangements due to poor deliverables and learned that "no one contract fits all". Group One Software (Ferranti, 2004b) suggested that businesses use contracts to outline payments at software delivery and implement regular code reviews.

What is interesting in all of the above cited literature is that despite the attention given to contracts, many of the IT outsourcing arrangements fall short of their expectations. The literature points to risk factors such as "mismatched resources", lack of clear definitions and in accurate measurements as potential reasons for failure.

Strategic Partnership

A strategic partnership is defined as the collaborative efforts of both a vendor and client in the attainment of a mutually beneficial goal. The notion of a "strategic partner" extends beyond the supplier/client operational relationship. With regard to IT outsourcing, the maintenance of a strategic partnership extends relationship (or vendor) management beyond a "fee for service". Today's agile organization seeks "partners" in their outsourcing initiatives and not just "order takers". A strategic partnership is now an important criterion in the motivation to outsource as well as the management of the outsourcing. The traditional motivator of IT outsourcing, that is cost reduction, is no longer a valid long term strategy. The new goals of IT outsourcing include: on demand and utility computing, agility to support business needs, time to market, creativity, and strategic solution building (Kimzey and Kurokawa, 2002; Ross and Westerman, 2004). It was clear that current literature focused on "strategic" versus "tactical" approaches to IT outsourcing and that such a mutually beneficial relationship should be a component in the strategic management framework.

According to Kern and Willcocks (2000), the client supplier relationship is enhanced by several characteristics. The first is a keen knowledge that a client has about the supplier's business. Second, is the commitment to high customer satisfaction. Third is the longevity of the common objectives. The attainment of a superior client/supplier relationship is described as "embeddedness", which allows suppliers (or vendors) to share business objectives, develop closer bonds, and foster better integration. Kern and Willcocks (2002) identify clear interaction traits which lead to success, namely: timeliness, value, regularity, content and flexibility.

To understand the importance of a strategic partnership, many authors evaluate the conventional drivers (costs in terms of people, processes and technology), for outsourcing decisions and compare them to the needs of current and future businesses. Chen and Soliman (2002) explore other value factors: asset specificity, internal expertise, maturity of technology, and the value chain. Chen and Soliman (2002) see the outsourcing relationship as progressing from "support and reliance" to "alignment and alliance", much like other authors have described the outsourcing maturity. The IT outsourcing relationship hence becomes a strategic alliance and not just a fee for service.

In Lee and Kim's (2003) field study of 36 organizations in Korea, mutual benefit was found to be the most important determinant of benefit maximization to both the vendor and client. They note that the relationship becomes a dynamic one with "continual change".

More recently, Kaiser and Hawk (2004) define perhaps the most mature phase of such a partnership in the term "co-sourcing". Co-sourcing is the close vendor and client collaboration such that the vendor can augment the client's IT competencies. Kaiser and Hawk (2004) radically look at co-sourcing beyond a "meshing of competencies" into a relationship where personnel mentoring (contract includes client career development and knowledge transfer by vendor) is the norm. Ross and Westerman (2004) support strong relationships by suggesting that the combination of internal and outsourcing capabilities will provide the organization with optimal agility, a "plug n play" organization.

It was evident in many reported industry examples, that a strategic partnership was an invaluable part of a long term successful relationship. U.S. based CTG (Epstein, 2004) maintains a strategic partnership with the offshore development firm Polaris Software Labs in India. It does so in an effort to manage outsourcing projects for mid sized US/EU banking and insurance companies. The US/EU companies benefit from handing the responsibility of managing cultural and other ITO issues through CTG. University Health Network (Anderson, 2004) places emphasis on building the "trusted" relationship between client and vendors. They found successful factors to include strategic priorities, communications, and teams with joint membership. Their long standing relationship with outsourcing partner Hewlett Packard attests to their success. University Health Network outsources electronic mail, and Help Desk, Desktop, and Network and Management support to Hewlett Packard since 1998. As mentioned previously, Xcel Energy (Havenstein, 2005) fosters partnerships continually through transforming their business through the use of strategic advisory board of vendors, partners and internal management.

In another example, Navarrete and Pick (2002) conducted a study on initial IS/IT selective outsourcing in five large Mexican organizations. Their research supported the belief that outsourcing has moved from "cost focused" during the 1990s to "strategic" in the new millennium. Outsourcing goals are now centered on improving IS functions, improving business performance, and using IT assets commercially. According to Navarrete and Pick (2002), selective outsourcing is one of the best forms of strategic outsourcing. They identified factors influencing the initial outsourcing decision: organizational variables, project variables, and provider variables. They concluded that choosing an IT outsourcer is based upon the vendor's social recognition and experience with IT projects, not cost. They demonstrated that decisions to choose ITO vendors were based upon provider characteristics and quality of service. Of equal importance was the "trust" of the IT outsourcing vendor. Ultimately, efficacy and strategic impact were more important than cost. This was evident in the degree of management support for ITO. The support was based upon the perceived value of the ITO project and whether the ITO supported core organizational functions.

Governance Committees

Governance committees are a mechanism to support business alignment and ensure IT decisions support organizational strategies and are approved by key decision makers in the organization. This component was added to the framework as based on its importance of evaluating outsourcing decisions and monitoring outsourcing relationships. Governance was one of the most frequent reported success factors in much of the industry literature (see Table 1). It deserves attention by management with regard to successful outsourcing practices.

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Weill (2004) studied over 250 enterprises in 23 countries. Weill (2004) positively linked governance to the re-enforcement of performance goals and other “enterprise assets and desired behaviors”. Although Weill’s (2004) study was not specific to IT outsourcing, the point is very clear, IT governance ensures IT value through correct decision making, accountability, and encouraging the “right” behaviors through IT.

There were other sources of literature which focused on governance as a critical success factor of ITO. Flannery and Heckathorn (2003) demonstrate the need for tactical and strategic committees to govern decisions on IT outsourcing. Lehman Brothers (Massaro, 2003) utilized steering committees and strategic advisory boards in managing their ITO. Texas Health Resources (Stewart, 2001) reported successful transitions also through the use of steering committees and formalized processes when it outsourced application development to Healthcare.com. Group One Software (Ferranti, 2004b) put in place executive approvals for outsourced projects greater than \$100K. As another governance mechanism, Group One Software specified code reviews and payment upon delivery in their contracts. Some companies utilize global insourcing as a method of employing governance as well. Otis Elevators (Rao, 2004) is one such example. Through global insourcing, Otis Elevators benefits from better controls over intellectual property and domain knowledge.

Kumar and Palvia (2002) developed a global information technology outsourcing management framework to enhance an organization governance capabilities. Their research framework included: influence factors, management strategies, and performance implications. Using this framework, Kumar and Palvia (2002) identified five essential elements of global IT outsourcing management. These elements were: control mechanisms, interorganizational coordination, contract specificity, collaborative communication, and conflict management. The first essential element was “control mechanisms”, both formal and informal. Formal methods were defined measures, such as vendor performance evaluations. Informal methods were cultural controls and more implicit in nature. Cultural controls were measured by interpersonal interactions, turnover, and organizational culture. The second element was interorganizational coordination, between the outsourcing client firm and the vendor. This element referred to the integration between the two organizations. The more sophisticated coordination mechanisms implied more efficient abilities to process and exchange information. The third essential element was contract specificity. Kumar and Palvia (2002) demonstrated the importance for cost definition, penalties, and yet flexibility in contracts. The fourth element was collaborative communication. This element referred to the intensity of communication between the organizations in four dimensions: frequency, informality, openness, and density (bi-direction) of communication. The higher the density, the greater the commitment to outsourcing. The fifth element was conflict management. Kumar and Palvia (2002) defined “non-relational” conflict management modes such as switching and litigation, as well as “relational” modes such as appeals to shared values, compromise, or escalations through internal hierarchies.

Results of Kumar and Palvia’s (2002) survey of 50 firms and case studies yielded six critical success factors to advocate careful planning and cultural awareness in managing the global ITO relationship:

- Define precisely what is being outsourced.
- Perform due diligence in choosing a vendor.
- Select an outsourcing vendor that can grow with your company and scale their services accordingly.

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- Have clear metrics and service level agreements and process boundaries that define a successful relationship with your provider.
- Study the provider's business model and have contracts that would contribute to mutual profitability.
- If possible have the outsourcing provider assign one empowered project manager, responsible for all activities in the outsourced area. This also establishes a feedback path between the company and outsourcing provider.

The strategic management framework proposed in this paper builds upon Kumar and Palvia's research model. Their model addresses offshore outsourcing and focuses on the global partnership. It highlights some of the important relationship management characteristics of communication, integration, and control mechanisms. The proposed strategic management framework extends the outsourcing model to other components. First, it applies to near and onshore sourcing. Second, it evaluates relationship management (e.g. strategic partnerships and business alignment) and other components of equal importance (e.g. governance, management support, and infrastructure). Thirdly, it identifies contracts and culture as two separate components which require individual attention.

Economics: Cost and Quality

The early research on the economic of IT outsourcing (Willcocks, Lacity, and Fitzgerald, 1995) suggested that organizations need to pursue in-house improvements first, identify full IT costs and establish performance benchmarks, pursue further in-house improvements, and only then make in-house vs. outsourcing comparisons. Furthermore, according to Lacity and Hirschheim (1993) IT outsourcing does not always lead to competitive advantage, quality of service and cost savings. Organizations report associated success or failure of IT outsourcing based upon cost savings or increase/decrease in quality of service. However, these two components can be opposing goals, as the question arises can organizations maintain the same quality of service for cheaper costs. This section explores the transaction cost theory, and provides insight to current literature on the cost versus quality dilemma.

Aubert, et al's (2003) analysis of IT outsourcing contracts summarized the transaction cost theory and the impetus to the make/buy decisions with respect to IT outsourcing contracts. Aubert et. al. (2003) refer to Coase (1937), Crocker and Masten (1991) when they discussed the variables influencing the cost of producing transactions outside the firm. There are three key variables affecting the transaction cost:

- Specificity of the assets required to produce the good.
- Uncertainty and measurement problems surrounding the transaction
- Frequency of the transaction

When transactions are impaired by the presence of the above conditions, Coase attests that performing the transaction outside the firm is more costly and beyond a threshold will cause an organization to maintain the transaction internal to the firm. Studies show that when transactions cannot be defined precisely or accurately, organizations are predisposed to maintaining internal control of the transaction (Aubert et al, 2003; Crocker and Masten, 1991; Watjatrakul, 2005). Single transactions are preferred to be given to external entities and high frequency transactions kept internal (Williamson, 1985).

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As demonstrated in much of the literature on IT outsourcing contracts, transaction cost theory is an antecedent to much of the discussion outsourcing decisions and management of. Quality of the delivered product and strategic planning affect the traditional elements of transaction cost theory. IT outsourcing does not always adhere to the prescriptions defined by transaction cost theories. That is, organizations base decisions to outsource not on “frequency” of transactions, but rather resolving the conflict of cost versus quality.

Ketler and Willems (1999) reported preliminary results on IT outsourcing from a survey of more than 900 U.S. firms. The survey of corporate and IS management identified IT outsourcing practices and the factors affecting the outsourcing decision. Their results provided insight into the outsourcing practices of the nation’s largest firms. According to Ketler and Willems (1999), the economic variables were relevant to organizations that outsourced on a permanent basis as well as the companies that rejected outsourcing. These results demonstrated the struggle of cost savings associated with outsourcing. They further reported that the negative aspects of outsourcing, such as loss of control, data security and loss of in house expertise were rated more important by the firms which rejected outsourcing than the firms which outsourced. Their analysis yielded three critical factors in the decision to outsource. These factors were important to corporate and IS management: (1) cost savings, (2) access to increased knowledge and expertise, and (3) availability and quality of vendors.

Ketler and Willems (1999) found that corporate and IS management only differed in opinion on one issue affecting the outsourcing decision. This issue was the importance of more clearly defined IS costs, which was rated more highly by IS management than corporate management. Loss of control, data security and loss of in-house expertise were cited as issues for those organizations which were not currently outsourcing. Hence these organizations also questioned the cost savings associated with outsourcing. Ketler and Willems (1999) identified two limitations of their survey results. First, additional analysis would be needed to compare the viewpoints of firms which did outsource to the firms which did not outsource. Second, the analysis of demographic variables, such as the importance of end-user computing, still needed to be considered.

Cox and Clift (2003) evaluated European IT outsourcing deals and demonstrated that initial cost reductions do not always lead to lower costs in the longer term. Cox and Clift (2003) demonstrated that the “true value of outsourcing lies in access to better services and capabilities.” The study found that companies are committing to long-term IT outsourcing deals based on short-term cost saving goals. They claimed that the initial cost reduction was really being accomplished by “financial engineering,” which means the organizations will pay for these reductions at a later stage in the deal. The study suggested that management should look beyond initial cost reduction to the “total cost of outsourcing”. Organizations should be cognizant that over the long term, total costs might not be lower. Cox and Clift (2003) warned that quality of services and capabilities that organizations would have access to would likely be higher. Therefore, the true value of outsourcing is the ability to use these capabilities for the benefit of their businesses.

Kimzey and Kurokawa’s (2002) study of U.S. and Japanese firms demonstrated to relevant factors aside from cost savings. They showed how IT outsourcing played a significant role in gaining competitive advantage. Kimzey and Kurokawa (2002) demonstrated that through outsourcing organizations had access to larger technology competencies. Organizations had the ability to develop products externally, which couldn’t have been developed internally. Lastly, companies benefited from shortened cycle times and reduced development costs, in an effort to gain competitive advantage.

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Demonstrating high quality to prospective clients has also become a primary concern for the outsourcing firm. For example, outsourcing vendors are using the Capability Maturity Model (CMM) as a certification for expertise to attract new business. The CMM, developed by the Carnegie Mellon Software Engineering Institute, is used to appraise an organization's software engineering maturity in an effort to improve disciplines related to software development and maintenance (Manila, 2004). CMM level 5 is the highest standard of maturity of an organization's software engineering processes. Organizations concerned with the quality of the outsourcing vendor can use CMM process-quality standards as requirements to do business (Hayes, 2003). Today, Indian offshore companies use CMM as a "true differentiator" (Hayes, 2003).

These studies of U.S. and European firms, and outsourcing vendors, point to the same conclusion. Although IT outsourcing has an appeal of lower costs, organizations have come to realize that quality of services and access to competencies are necessary for successful IT outsourcing. Therefore, our proposed strategic management framework for outsourcing places both cost and quality at the center of the model.

Summary

It is important to note that the components of the integrated framework might be used in varying degrees depending upon the current conditions and business environment. When and how the components are utilized can be addressed in future empirical studies and meta-analyses. The components of the framework are considerations for management and are not intended as barriers to progress.

Alignment to business strategy was evident in most of the literature. Following from this, IT outsourcing decisions should support organizational goals. Infrastructure readiness includes the evaluation of hardware, software and network capabilities to support communications between vendor and client. Interoperability and integration assessments can prevent unnecessary inconsistencies and foster smoother transitions. Cultural readiness addresses the issues between organizations in two different regions, such as time zones, work ethic, communications, and the vendor country's political environment. Strategic partnerships, extend beyond vendor management into the building of strategic coalitions of shared benefit and risk. Management support will always be critical to the success of implementation and a source of vision and innovation for the future of outsourcing decisions. The use of governance committees should be utilized for the decision making process and as an ongoing mechanism to monitor success, service, and to determine strategic directions. Lastly, the economics of the outsourcing arrangement must be looked at carefully.

CONCLUSION

In conclusion, an evaluation of literature on Information Technology outsourcing and IS management practices yielded a framework for IT outsourcing. The main contribution from this research is to provide IT managers with a comprehensive strategic framework for managing IT outsourcing. Based upon this framework, a checklist of success factors is available for IT managers. This framework proposes that "strategic" intent is the underlying goal of IT outsourcing.

Another contribution of the strategic management framework is the support for key IS skills that will be critical to the success of IT outsourcing. For example, Morello (2003) cautioned CIOs and business leaders who outsource development, support and services to redirect their staff to the

A Strategic Management Framework for IT Outsourcing critical roles of leadership, architecture, business analysis, business enhancement, technology exploitation, project management and vendor management. The proposed strategic management framework supports these skills by demonstrating the value of business alignment (business analysis/enhancement), infrastructure (architecture and technology), management support (leadership), and strategic partnership (vendor management). IT organizations should address the "contextual side of the business, such as business process analysis, market definition, portfolio management and interpersonal or intercultural behaviors" (Morello, 2005). Accordingly the leaders would be able to "unify" people across regions, "bond" people across organizations and "infuse" new IT organizations with the purpose to collaborate and deliver quality. Our strategic management framework will support this new leadership by focusing on the components which promote collaboration between two organizational entities.

In summary, the contributions to the IS Management field as a result of this research are three fold:

- A strategic framework for successful Information Technology outsourcing. It is predicated that each component can exist, perhaps in varying degrees, based upon the situation.
- Identification of key IS management and staff skills necessary to successfully manage IT partners, as more IT responsibilities are moved outside of organizations (knowledge of the business environment).
- Academic reference for IS researchers and managers to understand the dynamic and complex IT environments in which organizations will be conducting business.

It is important to note, that the components of the integrated framework, might be used in varying degrees depending upon the current conditions and business environment. Clearly this is a limitation of this current research, but can be addressed in future empirical studies. The research in this paper is limited in several ways:

- The framework does not address how the components might be affected by differences between offshore and near shore outsourcings.
- The framework does not address the type of IS/IT outsourcing (e.g. application versus infrastructure.)

The research on IT outsourcing and strategic management literature has provided a collection of success factors that has not existed in one document before: alignment, to business strategy, management support, culture, infrastructure, contracts, strategic partnership, governance, cost and quality. Cost and quality are at the center of the framework, whereby organizations seek to balance their cost savings (if any) with access to external IT/IS competencies. The remaining peripheral components of the framework can be utilized depending upon the nature of the IT outsourcing partnership and the maturity of the organization. Thus, this is a sliding scale and is dependent on the organization if all only a few of the components of the framework are used. Although the reader might be left with questions about what are the discretionary components, current practitioners can utilize the model as a checklist of considerations for maximizing outsourcing success.

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