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The Role of Alignment Capability in Strategic IS Outsourcing Success

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Abstract

Strategic Information Systems outsourcing refers to the long term outsourcing of systems with a major transformational impact on the client's business strategy. Such outsourcing arrangements mitigate risks through closely aligned client and vendor business/IT operational processes and shared strategic vision. Strategic outsourcing arrangements rely on both contractual and relational governance to build inter-firm alignment capability. This research paper defines a multi-item measure of client-vendor alignment capability, and uses that instrument to survey a number of North America based oil and gas exploration and energy producing firms, who have undertaken the outsourcing of strategic information systems to an Indian information systems vendor. The results indicate which elements of contractual and relational outsourcing governance support the building of client-vendor alignment and whether alignment capability improves outsourcing success factors.

Keywords: Information Systems Outsourcing, Business IT Alignment, Contractual and Relational Governance, RBV

1 Introduction

Information Systems Outsourcing (ISO) refers to transferring the provisioning of IS/IT products or services to a vendor for an agreed upon time, cost and functional scope (Dibbern et al., 2004). As of 2013, worldwide outsourcing spending for IT Services has grown to over \$406 billion a year¹, due to the rapid movement towards utilizing hosted information systems (IS) and cloud-based system providers. This spending is driven by the adoption of next-generation cloud delivery models and split roughly equally between application, infrastructure and consulting services. Traditionally, most ISO involves the sourcing of “commodity” systems like payroll or help-desk with a

¹ Gartner Dataquest. (2012). Gartner Says Worldwide IT Spending to Grow 5.3 Percent in 2013, Available at www.gartner.com.

focus on cost reduction and divesting the responsibilities of non-core, secondary value-chain activities of the client. While the global energy industry size is over \$10T in revenues, their outlays for IS applications is only 1% or \$100B a year. The primary focus of these systems are in managing capex outlays for energy exploration and operational expenditures for product extraction and distribution to global markets.

A growing trend in the North American energy exploration industry is strategic ISO, which refers to the outsourcing of IS that transforms the clients' business and has a significant long term impact on the client company's strategy (Grant, 2003). The newer IS engagements in the energy exploration industry include enhancing exploration data management and analytics in site evaluation and management, in research of potential reserves, maximizing efficiency in end to end operations, improving health, security and environmental issues and the optimal deployment of resources across multiple producing sites. Typical objectives of the outsourcing of such strategic systems transcend cost savings and include enhancing core competencies, creating value, increasing flexibility to meet changing business conditions, exploiting new markets and adopting systems that can transform their organization (Grant, 2003; Greaver, 1999). For example, the sourcing of an enterprise resource planning system to manage the mining field sites for increased 'end-to-end' visibility and control of mine operations and planning, including life of mine planning and management of equipment and other critical resource for an oil and gas company is highly strategic, since it can impact the client's business for many years into the future.

Although risks of outsourcing include loss of control, erosion of client knowledge, hidden costs, business uncertainty and potential for systems failure (Earl, 1996), clients benefit from saving IS function costs, getting access to trained and experienced IS staff from the vendor, and eliminating the overhead from frequently upgrading inhouse technology infrastructure and system components. Clients also benefit by utilizing and leveraging the knowledge of external vendors (Chang and Gurbaxini, 2012) in their IS projects, by adopting the latest IS project methodologies and by improving internal business processes. Strategic ISO, which typically is long term and broad in scope, can be difficult to precisely define and govern solely based on service level agreements and contracts (Willcocks & Kern, 1998). As outsourcing moves to this next level, clients seek greater value and diverse objectives (Mukherjee et al., 2013) and require sophisticated vendor management activities that rely on elements of both contractual and relational governance (Keating et al., 2013; Willcocks et al., 1999; Rottman & Lacity, 2004). The realization of value is contingent upon the client and vendor firms' ability to leverage their relationship to manage their resources and build inter firm capabilities in a dynamic environment. Prior studies have shown that outsourcing relationship quality dimensions such as commitment and trust lead to successful outcomes (Beimborn, 2012). The success of a strategic offshoring relationship depends on effective collaboration between client and vendor to build alignment by facilitating the sharing and transformation of knowledge. This alignment involves linking strategic intent through the joint process of identifying core and non-core business areas. At the tactical level, the client and vendor exchange knowledge about their management methods and values and jointly organize their business processes and organizational structures.

1.1 Research Goals

Business IT alignment has been recognized for several years as an important organizational capability (Luftman and Brier, 1999), but a multi dimensional measure of alignment, that includes strategic, structural and relational is yet to be tested for outsourcing. The importance of strategic alignment between the client and vendor (Keating et al., 2013) and the fit between outsourcing strategy and business strategy (Lee, 2006) have found to improve outsourcing success. Strategy is operationalized through the knowledge sharing and decision making and tactical activities of the client and vendor, which is at the root of structural/operational alignment (Martin et al., 2008).

Lee (2006) has also called for future research expand the notion of fit ('alignment') to include task-technology relationships in the field of outsourcing. A client-vendor alignment (CVA) capability over three dimensions: structural ("execution"), strategic ("planning") and relational can lead to improved outcomes in strategic ISO scenarios. Such a capability has not been studied in the context of strategic ISO.

This research will study strategic ISO between an Indian vendor and several medium to large sized North American firms in the oil and gas and energy exploration industry. The goals of this research study are to:

- (1) Build a measurement model for CVA capability.
- (2) Determine if CVA capability increases the success factors of strategic ISO.
- (3) Determine the contributions of both contractual and relational governance on client-vendor knowledge sharing and the creation of the CVA capability.

1.2 Theoretical Background

The Resource Based View (RBV) of the firm states that “resources are essential raw materials for capability-building and their availability determines the firm’s ability to build such capabilities, which are often critical drivers of firm performance” (Wade and Hulland, 2004; Barney, Wright and Ketchen, 2001). Capabilities are defined as repeatable patterns of actions in the use of those resources to create, produce and offer products/services to the market. Capabilities can include management ability and skills and processes and IS that allow for creation, storing and sharing of knowledge (Wade and Hulland, 2004). A variety of capabilities have been reportedly used to improve outsourcing outcomes with the emphasis being on relational alignment (Kern & Willcocks., 2000; Palvia et al., 2010; Plugge et al., 2013).

Business –IT alignment refers to the capability to apply IT in an appropriate and timely way and in harmony with business strategies. Prior research has identified three dimensions of business/IT alignment: (1) strategic alignment, (2) structural alignment and (3) relational alignment. Strategic alignment provides the fit between the priorities and activities of the vendor IS function and those of the client business units, so that IS and applications can be aligned with business needs. Strategically well aligned ITO investments can lead to improved performance and greater competitive advantage when the alignment is *enacted in choices managers make over time* (Keating, et.al., 2013). To support the long term maintenance of strategic alignment, structural and relational dimensions of CVA are needed, so that decision making and tasking support and operationalize the strategic alignment. Structural alignment defines the formal organizational structures that enable the alignment of the planning, decision-making, reporting and other project management aspects between client and vendor. Relational alignment refers to the informal organizational structures, norms and agreed processes,

divisions of work, formal and informal teamwork, and working relationships between the firms. Relational alignment lays the foundation for strategic and structural alignment. Because of its social nature, however, relational alignment is particularly challenging to achieve for offshore ISO (Ghosh and Scott, 2009). The close interaction between the three dimensions of alignment suggests that a multi-dimensional client vendor alignment (CVA) capability is necessary for managing outsourcing efforts, maintaining the strategic fit in operations (Lee, 2006) and improving success.

2 Research Model and Hypotheses

Outsourcing governance involves many operational and strategic decisions such as the definition and prioritization of IS projects, the funding and allocation of resources and measuring the value of such projects. Governance attempts to counteract the uncertainties posed by the increasingly complex and interconnected hosted technical environment. Since it is difficult to specify complete service level agreements (SLA) inside contracts, strict contractual governance or "mechanistic" governance is limited to outsourced systems that are “commodities” and are well understood and bounded in terms of their extensiveness and completeness and every detail and scenario and outcome is pre-specified in the contract (Goo et al., 2009). Under relational governance, the client and vendor can rely more on their ongoing relationship and mutual trust for deciding about emerging situations and managing the outsourcing arrangement, rather than just following a contract very closely.

Figure 1 shows the research model. The research constructs are defined in Table 1.

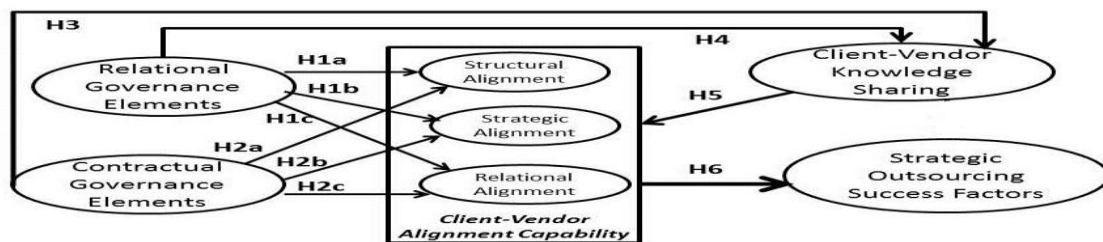


Figure 1: Research Model

2.1 Building Client-Vendor Alignment Capability

Outsourcing governance typically falls into two categories – contractual and relational governance (Goo, et.al., 2009; Srivastava & Teo, 2012). Most outsourced work is fully or partially governed by contractual governance using a formal contract between the client and vendor. Such client–vendor contracts describe the expected outcomes and behaviors of the work and can be tracked and measured per the vendor’s performance.

Contractual governance and relational governance mechanisms allow the client and vendor to develop a common vision and establish a working structure. Trust enables the workers to work more cooperatively, limiting the power and positional rivalries. A stronger common identity fosters common goal among the workers and common norms enable members to transcend the diversities that are inherent in a multi-cultural organization and make communications smoother. These facets of relational governance can play a large part in the effectiveness and success of the outsourced processes, how much synergy is achieved between client and vendor personnel and the extent of tacit knowledge sharing (Inkpen and Tsang, 2005). By specifying relational

governance elements – (1) staff feel safe to explore and share new ideas without fear of failure, leading to better process execution (structural alignment), and (2) shared business vision is developed between client and vendor staff that establishes better strategic alignment. Therefore, we have:

H1a-c: Relational Governance Elements have a positive relationship with Client-Vendor Alignment Capability Components. (H1a: Structural Alignment, H1b: Strategic Alignment, H1c: Relational Alignment).

An outsourcing contract provides a well defined framework in which client and vendor can understand each other's rights, duties, and responsibilities in the outsourcing arrangement (Goo et al., 2009). The contract also specifies policies and strategies underlying the arrangement. The contract enables firms to establish working relationships (relational alignment) and exchange knowledge about work processes (structural alignment) and share their long term vision (strategic alignment). Consequently we posit:

H2a-c: Contractual Governance Elements have a positive relationship with Client-Vendor Alignment Capability Components. (H2a: Structural Alignment, H2b: Strategic Alignment, H2c: Relational Alignment).

Construct	Definition	Sources
Relational Governance Elements	Relational norms for bonding, conflict resolution, linking and interdependence, trust and collaboration among the client and vendor personnel involved with IT and/or business definition and execution functions	Goo, et.al. (2009); Kishore et al. (2003); Ghosh& Scott (2009); Beimborn (2012)
Contractual Governance Elements	Service level content and objectives, process ownership, feedback and change, measurement, communication and enforcement for the development, deployment of IS that support business strategies	Goo, et.al. (2009), Poppo and Zenger (2002)
Client-Vendor Knowledge Sharing	System, development processes and business knowledge are freely exchanged through synchronous and asynchronous channels.	Alavi and Leidner (2001), Davenport et al. (1998); Ghosh and Scott (2009).
Client-Vendor Alignment Capability	Strategic Alignment is the fit between the priorities and activities of client and vendor, such as investment decisions and application prioritization. Structural alignment includes the operational processes. Relational alignment refers to the working relationships, norms and teamwork.	Weigelt (2013); Ghosh and Scott (2009); Chan (2002); Plugge (2013); Feeney and Willcocks (1998)
Strategic Outsourcing Success Factors	Define and manage IT needs, exploit a mix of resources from client and vendor, reduce complexity and uncertainty in IT tasks, prevent opportunistic behaviour, support power balance and collaboration, develop common norms of behaviour, implement strict division of labour, manage cost efficiency and support all stakeholders	Gottschalk and Solli-Saether (2005);

Table 1: Definition of Constructs

2.2 Governance Elements support Knowledge Sharing

Outsourcing governance elements facilitate more cooperative, long-term exchange relationships between the client and vendor (Poppo and Zenger, 2002). Contractual governance elements document mutually agreed upon policies and procedures for dealing with dynamic situations during the outsourcing and lays the framework for knowledge exchanges (Goo, 2009). Likewise, relational elements of governance such as social capital and norms of relationships help close knowledge gaps in offshore ISO

and serve as a lubricant for workers to get support and advice well beyond the organizational hierarchy or contracts, to enable them to share knowledge and get things done more effectively (Ghosh and Scott, 2009). The client and vendor continually produce new domain knowledge and technological knowledge, respectively (Martin et al., 2008). Therefore contractual governance and relational governance are needed elements in outsourcing to support successful knowledge sharing (Palvia 2010).

H3: Contractual Governance Elements have a positive relationship with Client Vendor knowledge sharing.

H4: Relational Governance Elements have a positive relationship with Client Vendor Knowledge Sharing.

2.3 Knowledge Sharing builds Alignment Capability

The process of managing strategic ISO is often a “learning experience” in which the client may have to adapt and adjust the linkages that tightly couple the offshored activities with their internal skills and processes (Larsen et al., 2012). The client and vendor build interfirm organizational capabilities and structures by exchanging knowledge which enables the client to effectively exploit the vendor's resources and quickly address the uncertainties that are likely to be faced during the outsourcing period (Plugge et al., 2013). The knowledge sharing among client and vendor helps build and sustain the alignment capability by addressing emergent issues (Grant, 2003). We posit:

H5: Client Vendor Knowledge Sharing has a positive relationship with Client Vendor alignment capability.

2.4 Alignment Capability supports Strategic Outsourcing Success

Both client and vendor develop and use internal resources to respond to the demands of ISO and shifts in the business environment. Dynamic capabilities such as client-vendor alignment are particularly important to adapt to changing environments and achieve success over the long term in strategic ISO (Lee and Kim, 1999). The vendor needs to continuously make important decisions in order to improve its operational performance while supporting its clients' strategic goals with a long-term orientation. Developing and managing interfirm capabilities jointly with the vendor have been found to be keys to achieving greater outsourcing success for the client (Weigelt, 2013). When alignment capability is strong, the client provides the vendor with a unifying vision to enable the client to lead in their business and marketplaces and support the client's strategy across all business segments and stakeholder groups (Palvia et al., 2010). Therefore we have:

H6: Client-Vendor Alignment Capability has a positive relationship with Strategic Outsourcing Success Factors.

3 Methodology and Data Collection

A questionnaire with multiple items (Likert scale) for each construct is being developed and pilot tested. The data will use a convenience sample of key business and IT personnel from the client and vendor side of over 20 strategic outsourcing deals. The client companies are all based in North America in the oil and gas exploration and energy production industries, which have experienced turbulent times recently with industry consolidation, labour shortage, government regulations, and economic

conditions creating major fluctuations in commodity prices and consumer energy demand. Such environmental uncertainties are motivating the firms to invest in systems to better manage drilling sites and optimize product extraction and distribution. The size and public availability of geological data has enabled the vendor (India based) to build systems that can help these firms achieve operational efficiency. However, to achieve market focus and responsiveness, the firms may need to restructure their functional orientation around processes through organizational reengineering, updated infrastructure and technology use. Concerns are that the highly rigid and inbred organizational culture, strategy and relatively stable IS practices of the client would need to be aligned with the vendor's system capabilities and implementation processes to achieve transformational results. A mix of contractual and relational governance elements was put in place to build client-vendor alignment and manage the outsourcing.

4 Research in Progress

The authors anticipate that pilot data collection will be complete by the time of the conference. Results from preliminary analysis of the data shall be presented at the conference. Most of the existing alignment research has focused on strategic alignment, while much of outsourcing management research has studied the relational dimension. The contribution of the study will be a validated measure of alignment over the three dimensions (CVA) and its application to a set of strategic outsourcing cases in the North American energy exploration industry.

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