Offshore Subsidiary Engagement Effectiveness: The Role of Subsidiary Capabilities and Parent-Subsidiary Interdependence

Mahesh Ramamani
Michigan State University

Follow this and additional works at: http://aisel.aisnet.org/mwais2006

Recommended Citation
http://aisel.aisnet.org/mwais2006/14

This material is brought to you by the Midwest (MWAIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in MWAIS 2006 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.
Offshore Subsidiary Engagement Effectiveness: 
The Role of Subsidiary Capabilities and Parent – Subsidiary Interdependence

Mahesh Ramamani  
Eli Broad School of Business  
Michigan State University  
ramamani@bus.msu.edu

ABSTRACT
As businesses have grown global, companies have become globally diversified in their operations. Companies have employed wholly owned subsidiaries as offshore centers for carrying out IT operations, business process operations and research and development activities. Offshore subsidiaries are a very popular strategy adopted by companies to source skills and capabilities. The extant IS outsourcing literature has considered various aspects of vendor client relationships but has not addressed the subsidiary based sourcing phenomenon. In this article, we try to bind the findings from existing literature to provide a predictive model for subsidiary based sourcing effectiveness based on a capability argument. We propose that subsidiary based sourcing effectiveness is dependent on the subsidiary capabilities under moderating influence of interdependence between the parent and the subsidiary.

Keywords
Offshore outsourcing, outsourcing effectiveness, subsidiary performance.

INTRODUCTION
Offshore outsourcing practice is gaining high popularity and is widely mooted as the primary strategy for companies to cut their operational cost and derive or sustain competitive advantage. Companies resort to offshore outsourcing in multiple ways. A popular way is to contract with an offshore partner who provides IT and business process services and executes development activities. Another popular way by which companies wrest the advantages of offshore outsourcing is by setting up wholly owned cost center subsidiaries. This is a strategy by which companies retain the operations “in-house” and simultaneously derive cost advantage of offshore practices. NASSCOM (National Association of Software Companies) is an Indian organization that represents all the companies in the Information Technology industry in India, a major IT offshore center. It currently has over 900 companies as its members and out of these, more than 300 are wholly owned subsidiaries that do not cater to the local Indian or Asian market but house IT operations, business process execution and research and development activities. This is indicative of the enormous subsidiary based sourcing phenomenon prevalent in practice. Despite such a wide prevalence of the offshore subsidiary strategy, researchers have not addressed it sufficiently in the outsourcing context as a sourcing mechanism.

Based on the resource-based view of the firm (Wernerfelt 1984), this article presents a capability - based argument for predicting subsidiary based sourcing effectiveness. Prior research on IT outsourcing has identified several crucial ways in which clients relate to their service providers that influence outsourcing success. They have studied the extent of IT sourcing employed by firms (e.g. Lacity and Wilcocks 1998) – selective or comprehensive outsourcing, duration of outsourcing (e.g. Gopal et al 2003) – short term contracts versus long term contracts and coordination and control processes in outsourcing (e.g. Kirsch 2004, Faraj and Sproull 2000).

In a wholly owned offshore subsidiary model, the transactional terms of the analyses in the above mentioned studies need to be adjusted to reflect an intra – firm phenomenon since all of them have studied vendor – client relationships. Transaction cost based analysis does not sufficiently address the offshore subsidiary model because it is a vertically integrated model.
where the operation is “in – house” and does not involve dependency on complex contracts with external agents. The basic rationale behind having an offshore subsidiary is that of vertical integration – where it is desirable to own the residual rights rather than indulge in cumbersome contracts which increases sourcing complexities. However, by integrating the operations firms do not automatically derive the benefits of success. The nature of the capabilities that the subsidiary develops over time and how the subsidiary capabilities fit into the value – chain of the parent company governs the sourcing effectiveness.

Strategic Management and International Management research have studied subsidiary – parent as a dyadic pair and the various facets of their relationship – centralization, decentralization etc. The literature has also studied antecedents of subsidiary strategy ranging from – local market / environment effect, unique capabilities and knowledge center. What is evident from the findings is the role of interdependence between the parent and the subsidiary in the overall performance. We also posit that the parent – subsidiary interdependence affects the utilization or the consumption of the subsidiary capabilities by the parent and thereby affecting the sourcing effectiveness.

In this study, we adapt the findings of prior research on outsourcing to a subsidiary model of operation and coalesce them to arrive at a model of sourcing effectiveness that is based on subsidiary capabilities as the predictor of effectiveness under moderating influences of the nature of interdependence between the parent and the subsidiary. The balance of the article is organized as follows: Related literature that helped us develop our model is presented in the next section. The conceptual model is then theorized. Later future work and the research design are presented.

LITERATURE REVIEW

We draw from three broad streams of research for our study. We draw on the resource – based view of the firm to develop a capability based argument. We draw on the IS research on outsourcing to reinforce the capability based argument and to understand the nature of control and coordination processes in sourcing relationships. We later draw on the strategic management and international management research on parent – subsidiary interdependence to arrive at our conceptualization of interdependence as a composite of control and coordination mechanisms in subsidiary based sourcing.

Subsidiary Capability

The resource – based view of the firm looks at a firm as a collection of resources or capabilities and recommends that its ability to sustain its competitive advantage is based on how rare and inimitable its resources are. In essence it directly links the capabilities of the firm to its existence and sustenance (Wernerfelt 1984). Milgrom and Roberts (1995) establish the complementarity view where “more of one thing increases the returns from another” justifying the notion of fit – just how strongly are the various elements of the system linked? Hence, we model that the subsidiary capabilities based on the way in which it fits that of the parent.

In the IS literature, Lacity and Wilcocks (1998) show the importance of the capability of the firm to leverage benefit from outsourcing. Levina and Ross (2003) in their study apply Milgrom and Roberts (1995) view of complementarity and show how outsourcing vendors derive economic benefit by developing complementary competencies to those of the client. In our context, the way the subsidiary capability is interlaced with the parent’s capability determines the effectiveness of the utilization of the former. Thus, a firm could envisage an offshore subsidiary strategy based on the capabilities that the subsidiary could provide.

Interdependence

Our study is also related to the literature that has studied the parent – subsidiary relationship. Studies by Jarillo and Martinez (1990), Gupta and Govindarajan (1991) and Roth and Morrison (1992) – all examined facets of structure that are related to subsidiary types. Hedlund (1986) conceptualized “heterarchy” as a form of structure between parent and the subsidiary referring to relationship with a balance of power as opposed to “hierarchy”. Birkinshaw et al (1995) derive various roles of the subsidiary based the prior literature on structure and strategy.

Besides the strategic management and international management research, IS research have also looked at interdependence from different perspectives. Faraj and Sproull (2000) propose expertise coordination as an important component of teamwork coordination of knowledge teams and refer to coordination as interactions aimed at managing resources and expertise dependencies. Levitt et al (1999) use interdependence strength in their model to predict organizational breakdowns. Koh, Ang and Straub (2004) describe outsourcing as a psychological contract and show outsourcing success as a fall out of meeting obligations. Thus, the notion of interdependence in sourcing practices is widely used. We have followed the above studies and recognized the role of interdependence in leveraging sourcing benefits and have incorporated it into the model.
THEORY DEVELOPMENT

Our predictive model of subsidiary based sourcing effectiveness or offshore subsidiary engagement effectiveness is outlined in figure 1. The conceptualization of the constructs is described below.

**Subsidiary Capability and its types**

IT outsourcing has often been portrayed as an opportunity to apply the core – periphery model to managing and organizing. On this argument, one school of thought espouses that an organization should focus on its key tasks and capabilities and outsource the rest to service providers. Firms have adopted various methods to manage resources that a firm does not own and this has been addressed in the early outsourcing research (e.g. Henderson and Venkatraman 1990). Integrative work on this topic by Wilcocks and Kern (2001) suggests that strategic intent as well as technical capability determine sourcing mechanics. For example, sourcing of capabilities like technology leadership to generate higher value for the firm may involve deeper relationships as compared to sourcing of capabilities like large availability of talent pool for routine management of IT systems for greater efficiency.

We infer that firms source capabilities and the types of capabilities that a vendor may be trying to source may differ. There are certain capabilities, which are supplementative in nature – which help firms to increase their efficiency and throughput and cater to pressures of increased demand. We conceive of such capabilities as supplementative capabilities. There are also capabilities that vendors tend to develop that form a complementary competency to that of the client as shown by Levina and Ross (2002). Thus, there are certain capabilities which firms source that are Complementative in nature – which helps firms to function with a certain degree of abstraction. We conceive of such capabilities as Complementative capabilities.

Frost et al (2002) in their study of centers of excellence within multinational corporations note that there are some subsidiaries that embody a set of capabilities that has been recognized by the firm as an important and a special source value creation, with the intention that these capabilities be disseminated to other parts of the firm. This motivates us to conceive of a third set of capabilities as Differentiating capabilities – special capabilities that give high value add to the firm.

---

**Figure 1. Conceptual Model of Offshore Subsidiary Engagement Effectiveness**
Interdependence and its types

Realizing firm level competitive advantage from various sources requires an efficient management of the flow of capabilities from one unit to the other (Watson et al 2000). This refers to a condition in which one subsidiary of the MNC relies on another subsidiary or the parent’s activities or inputs to perform its role effectively, which we refer to as Interdependence. Such interdependence is conceived of as a tool with which firms can exploit their multinationality to achieve and maintain a competitive advantage.

Andersson et al (2002) study the concept of embeddedness in a parent – subsidiary relationship. They define two distinct types of embeddedness – technical embeddedness and business embeddedness. Technical embeddedness refers to interdependence between firms in terms of their production processes. Business embeddedness refers to interdependence between firms where the business conduct of the firms and the actors within are mutually adapted and where both firms engage in exchanging strategic information and knowledge. We conceptualize Operational Interdependence and Strategic Interdependence as different types of interdependence between parent and firm based on the embeddedness concept. By operational interdependence, we refer to the interdependence between activities of the firm and the subsidiary in the production process. By strategic interdependence, we refer to a relationship between the firm and its subsidiary where they engage in strategic activities like market strategy, release planning etc.

Hypothesis and Moderational influence of Interdependence

Our conceptual model posits that the availability of capability of any type – supplementative, Complementative or Differentiative would be positively related to sourcing effectiveness of the firm. Hence, a firm with a subsidiary with high levels of each of the different capabilities would be more effective in sourcing those capabilities. Thus, our first set of hypotheses is:

H1a: High levels of supplementative capabilities in subsidiary will be associated with high levels of sourcing effectiveness by the parent from the subsidiary.

H1b: High levels of complementative capabilities in subsidiary will be associated with high levels of sourcing effectiveness by the parent from the subsidiary.

H1c: High levels of differentiative capabilities in subsidiary will be associated with high levels of sourcing effectiveness by the parent from the subsidiary.

As described above, it is impossible to think that the subsidiary capabilities alone would act as predictors of sourcing effectiveness under all circumstances and situations considering the importance of interdependence of the subsidiary and the parent. Subsidiaries, which possess high levels of supplementative and complementative capabilities would be more efficient with greater coordination of activities between the parent and the firm very similar to the findings of the Levitt et al (1999) study. Hence, under the influence of greater operational interdependence, we would expect the supplementative and complementative capabilities to be more effectively sourced. Thus, we have our second set of hypotheses as:

H2a: Under high levels of operational interdependence between the parent and the subsidiary, supplementative capabilities would be associated more positively with sourcing effectiveness by the parent from the subsidiary.

H2b: Under high levels of operational interdependence between the parent and the subsidiary, complementative capabilities would be associated more positively with sourcing effectiveness by the parent from the subsidiary.

However, Gerwin and Moffat (1997), in their study of new product development teams find that with a loss of autonomy there is a withdrawal phenomenon within teams leading to reduced performance and effectiveness. In the study by Frost et al (2002), they find that centers of excellence (subsidiaries with special capabilities) enjoy greater autonomy and participation in strategic activities. Hence, operational interdependence would be construed in this context as an inhibitor of autonomy and freedom and thus reduce the outputs of differentiating capabilities of subsidiaries. We thus have:

H2c: Under high levels of operational interdependence between the parent and the subsidiary, differentiative capabilities would be associated less positively with sourcing effectiveness by the parent from the subsidiary.

Strategic interdependence refers to over all “nearness” of the subsidiary and the parent. We posit that this would have positive impact on the effectiveness of parent’s sourcing of subsidiary capabilities. Thus, we present a third set of hypotheses as:

H3a: Under high levels of strategic interdependence between the parent and the subsidiary, supplementative capabilities would be associated more positively with sourcing effectiveness by the parent from the subsidiary.
H3b: Under high levels of strategic interdependence between the parent and the subsidiary, complementative capabilities would be associated more positively with sourcing effectiveness by the parent from the subsidiary.

H3c: Under high levels of strategic interdependence between the parent and the subsidiary, differentiative capabilities would be associated more positively with sourcing effectiveness by the parent from the subsidiary.

DISCUSSION AND FUTURE WORK

We have been motivated by the wide variation in the manner in which offshore subsidiary strategy is employed by different firms. Obviously, the performance characteristics of all of these variations cannot be expected to be the same. For example, SAP Labs India Pvt. Ltd. is a wholly owned subsidiary of SAP AG, a German business application software company. The main portfolio of SAP Labs India Pvt. Ltd. between 1999 and 2005 was to provide support to the headquarters operations in various projects. Managers in SAP AG headquarters were actively encouraged to have counterpart operations or teams in SAP Labs India so that the availability of talent pool (key resource of the subsidiary) could be leveraged to a maximum. This is an example of a subsidiary operation with high operational interdependence between the parent and the subsidiary and the primary charter was to develop and leverage the supplementative capabilities of the subsidiary.

Texas Instruments India Pvt. Ltd. (TI India) is a wholly owned subsidiary of Texas Instruments Inc., a US based Technology Company into high tech innovations. The main portfolio of TI India between 1998 and 2003 was to build intellectual property in the digital technology area. TI India obtained the patent for high definition television imaging in 2003. Subsequently, TI India was christened as the System – on – chip center of excellence based on the expertise it had developed on silicon design. This is an example of a subsidiary operation developing differentiative capability.

It is evident that the effectiveness of sourcing in different in both the above examples. Also different is the mechanism that leads to sourcing effectiveness. This paper has tried to develop a conceptual model that would provide a suitable explanation for subsidiary based sourcing effectiveness.

We intend to further this research to demonstrate empirically the applicability of our model. Our intended unit of analysis is the subsidiary. The primary research design is to administer a survey to various senior management officers in the 372 wholly – owned subsidiary firms that are a part of NASSCOM. As a second wave of survey administration, it is intended to pursue the respondents for an interview. Data for all the variables – capabilities, interdependence and effectiveness is obtained from the subsidiary managers. We expect self report bias in the effectiveness data from the managers and hence plan to obtain this information from the head of the subsidiary operation whenever possible.

CONCLUSION

This study helps address the phenomenon of sourcing effectiveness and addresses the mechanics of the subsidiary based sourcing mechanism thus contributing to the IS literature on outsourcing. The paper draws heavily from strategic management and international management literature and the findings stand to contribute to the strategies of organizational design to achieve greater efficiencies by tuning disparately resident capabilities within the firm. Knowing the popular prevalence of the phenomenon in practice, the implications for managers from the findings of the study are immense. Firms could think of establishing subsidiaries with specific roles and develop a charter based on the capabilities that the subsidiary needs to build on that would give the firm maximum effectiveness.

REFERENCES