

Business strategies for outsourcing information technology work

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INTRODUCTION

Firms pursue various strategies to exploit resources and capabilities and gain a competitive advantage (Porter, 1996). Interfirm relationships are collaborative agreements between organizations (Chakrabarty, 2006a; Whetten, 1981), and firms need to be careful in adopting suitable strategies to deal with interfirm relationships (Chakrabarty, 2007b). Interfirm relationships represent a sort of trade-off that organizations must make, whereby, in order to gain resources of other organizations, an organization must relinquish some its independence because the relationship also brings certain obligations with it (Whetten, 1981). Top management strategists might find their commitments to other firms as a sort of liability, and therefore, a serious evaluation of whether the benefits from the interfirm relationship outweigh the inevitable costs is needed before entering into interfirm relationships (Whetten, 1981).

Outsourcing is an Interfirm Relationship Between a Customer Firm and Supplier Firm

Work is outsourced to suppliers by a customer firm. A customer firm is therefore a firm that is in need of services, and a supplier firm is a firm that provides those services. The common synonyms for “customer” firm are either “client” firm or “buyer” firm. The common synonyms for “supplier” firm are either “vendor” firm, “consultant” firm, “third-party”, or external service provider. This chapter will provide a useful summary of some strategies that customer firms can use for outsourcing information technology work to a supplier firm (Chakrabarty, 2006b, 2006c). For further information, readers are encouraged to refer to Chakrabarty (2006c) for real life case studies, and refer to Chakrabarty (2006b, 2007a, 2007b) for a deeper understanding of the advantages and disadvantages of various outsourcing strategies.

BACKGROUND

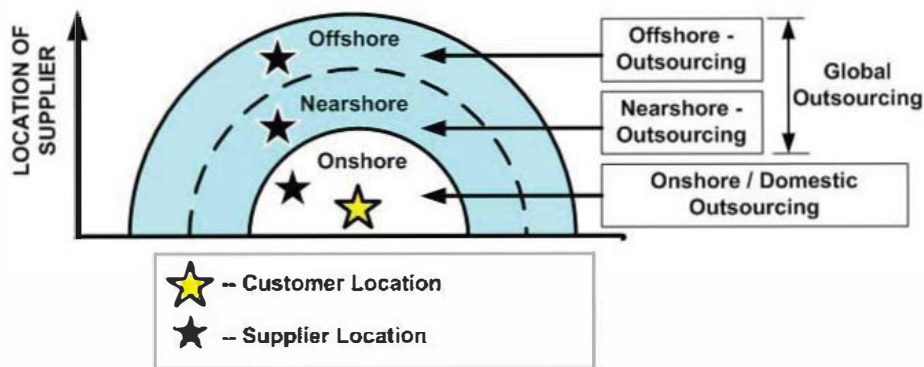
This section will provide some basic background information on outsourcing. Lacity and Hirschheim (1995) categorized

the primary strategies of sourcing work into a continuum that ranges from total outsourcing at one extreme to total insourcing at the other extreme, and had selective sourcing as an intermediate strategy. *Total outsourcing strategy* is the strategy of a customer firm to outsource at least 80% of its information technology (IT) budget to suppliers. *Total insourcing strategy* (the opposite of outsourcing) is the strategy where a customer firm formally evaluates outsourcing but selects its own internal IT departments’ bid over external supplier bids, and thereby allocates over 80% the IT budget to its internal IT department. *Selective outsourcing strategy* is the strategy whereby the customer firm opts to use suppliers for certain IT functions (representing around 20 to 60% of the overall IT budget, typically around 40%), and retains the remaining work for its internal IT department (Lacity & Hirschheim, 1995).

Further, Gallivan and Oh (1999), categorized the strategies for outsourcing on the basis of number of customers and suppliers into dyadic, multisupplier, cosourcing and complex outsourcing as follows. In a *dyadic outsourcing strategy*, there is just one customer and one supplier, that is, a customer firm uses only one supplier for a given activity, and the supplier in turn performs the given activity only for that customer firm. In a *multisupplier outsourcing strategy*, there is only one customer but many suppliers, that is, a customer firm uses many suppliers for a given activity. In a *cosourcing strategy*, there are many customers and only one supplier, that is, many customer firms jointly sign an outsourcing contract with a single supplier firm. In a *complex outsourcing strategy*, there are many customers and many suppliers; that is, it involves combining multiple customer firms and multiple supplier firms into a single contract (Gallivan & Oh, 1999).

Chakrabarty (2006b, 2006c) described how the location of the supplier to which work is outsourced can vary (see Figure 1). When a *domestic-outsourcing strategy* is adopted, both the customer and the supplier are located in the same country (this is also termed as *onshore-outsourcing*). In contrast, a customer and supplier can be located in different countries, and this known as a *global outsourcing strategy*. Though the term global outsourcing is widely referred to as offshore outsourcing, it can also be further classified into nearshore-outsourcing versus offshore-outsourcing. When a *nearshore-outsourcing strategy* is adopted, the chosen

Figure 1. Location of supplier in outsourcing



supplier located in a country that is geographically close to (but not the same as) the customer's country. When an *offshore-outsourcing strategy* is adopted, the chosen supplier is located in a country that is geographically far away from the customer's country. Time zones may also need to be factored during the formulation of strategy, because with improvements in communication technology and the need for 24x7 coordination of work, the time zones may be a bigger concern than geographical distance. We will now move on to more refined business strategies that can be used for outsourcing information technology work.

BUSINESS STRATEGIES FOR OUTSOURCING INFORMATION TECHNOLOGY WORK

Strategy of outsourcing selectively in a modular or flexible manner. A strategy often recommended to customer firms is that a selective set of information technology (IT) tasks need to be retained in-house based on the firm's own strengths and capabilities, and any remaining IT work that can be better performed by suppliers should be outsourced to the suppliers. *Selective outsourcing* is the strategy of outsourcing select IT tasks to suppliers, while retaining other IT tasks in-house (Lacity, Willcocks & Feeny, 1996). In selective sourcing, customer firms outsource between 20 to 60% of the IT budget to suppliers while still retaining a substantial amount of work for the internal IT department (Lacity & Hirschheim, 1995; see also Dibbern, Goles, Hirschheim & Jayatilaka, 2004, p. 10), and accordingly capitalizes on the strengths of both the internal IT department and the external suppliers. This is a flexible and modular form of outsourcing where work is broken down into multiple modules, of which, some are outsourced and some are retained in-house. This strategy of selective outsourcing has been given various

other names such as *smart-sourcing*, *right-sourcing*, *flexible outsourcing*, and *modular outsourcing*.

Strategy of hiring multiple suppliers for an activity. Klotz and Chatterjee (1995) suggested that when a customer sources from two suppliers, it prevents the customer firm from being held by hostage by a monopolistic supplier, and it helps the customer firm to derive cost advantages due to competition among the suppliers. Currie and Willcocks (1998) suggested the following three advantages of a *multiple-supplier outsourcing strategy*: (a) the customer firm is protected from being dependent on a single supplier, (b) the customer firm can use short-term contracts that may not be renewed with the same supplier (or combination of suppliers) and this encourages competition among the suppliers, and (c) the customer firm can focus on its core business while the suppliers manage and provide IT services. Such a strategy of multi-supplier outsourcing involves one-to-many relationships, indicating that one customer uses multiple suppliers with whom the division of labor is negotiated (Gallivan & Oh, 1999; see also Dibbern et al., 2004). Based upon the agreed division of labor, the various IT tasks are then jointly performed by the multiple suppliers, and this requires a cooperative environment among the suppliers, even though the suppliers are actually competing with each other for future business from the same customer (for case studies, see Chakrabarty, 2006c).

Strategy of contractually linking payments to realization of benefits - customer's performance determines supplier's revenue. A strategy where both the customer and supplier make upfront investments into a relationship and thereafter share both the risks and benefits is termed as a strategy of forming *benefit-based relationships* (Sparrow, 2003). Here, the customer firm makes its payments to the supplier depending on the specific benefits received. For example, if a customer can obtain potential business benefits by using the information technology services provided by a supplier, then the customer can establish a payment methodology

that links the payments to the supplier with the extent to which the customer benefits from the services. Hence, the supplier's earnings from the customer firm to which it is providing services is linked to the performance of the customer (Willcocks & Lacity, 1998).

This strategy is also termed as *business benefit contracting*, because it involves contracts that define the payments the customer will make whenever the customer earns excess revenues by using the supplier's services, and this arrangement essentially allows the sharing of both risks and rewards (Millar, 1994, as cited in Lacity & Hirschheim, 1995, pp. 4-5). The supplier provides services to the customer firm in manner that would ideally improve the customer firm's performance (Chakrabarty, Whitten & Green, 2007), and the customer evaluates the extent to which any improvement in its own performance is due to the supplier's contribution, and pays the supplier proportionately. Though such business benefit contracting has its advantages, it is often hard to adopt due to the challenges associated with negotiating and measuring the contractual criteria for sharing risks/costs and rewards/revenues (Lacity & Hirschheim, 1995).

Strategies of sharing risk and rewards using ownership and control structures. Novel ownership and control structures can be used to institutionalize the sharing of risk and rewards in two ways: (a) creating a new *joint venture* company where both the customer and supplier firms have ownership stakes, or (b) the customer firm can purchase share/equity for partial ownership of a supplier firm, and the supplier can similarly purchase share/equity for partial ownership of the customer firm (Currie & Willcocks, 1998; Sparrow, 2003; Willcocks & Lacity, 1998). These options are also known as *strategic alliances*.

The first strategy involves the customer and supplier firms creating and sharing ownership in a new *joint-venture* firm that has its own management team and IT employees, and the customer firm can outsource technology work to the joint venture company. Such joint venture companies enable the customer to gain access to new technical skills and resources, reorganize IT functions and processes and investigate new sources of revenue (Sparrow, 2003). Since the ownership of the new joint venture company is shared, the risks and rewards are also shared by the customer and supplier firms.

The second strategy involves *equity holding* deals, where the customer purchases enough shares of a supplier firm to partially own the supplier firm, and the supplier may also purchase enough shares of the customer firm to partially own the customer firm (Willcocks & Lacity, 1998). This automatically aligns the interests of both the customer and supplier firms, because each will benefit when the other performs well, and this arrangement motivates both the firms to share the risks and rewards.

Strategies for short-term requirements. A strategy for filling short-term labor demands is *body shop outsourcing*,

whereby the customer goes shopping for "bodies" or human resources from suppliers. In other words, contract staff (such as programmers) are provided by a supplier, and these contract staff work at the customer firm's office and report directly to the customer firm's management executives (Lacity & Hirschheim, 1993). The contracted staff are therefore the supplier's paid employees who work under the supervision of the customer at the customer site.

Another strategy for getting temporary access to human resources for a short period of time is called *tactical outsourcing* (also known as *contracting-out* or *out-tasking*) (Sparrow, 2003). This strategy involves signing short-term outsourcing contracts with competent supplier firms who have the necessary technical skills to provide rapid solutions whenever the customer firm finds itself short of in-house employees to complete tasks in quick time.

Strategy of hiring a supplier for maintenance of technology assets. Most firms own a large amount of technology assets and infrastructure within their own facility (for example, hardware that needs maintenance or software that needs regular upgrades). A suitable strategy might be to hire a supplier who can offer the expertise and personnel to maintain the customer's technology assets and also lower the costs of maintaining these technology assets. That is, the customer owns the technology assets in the given facility, but hires a supplier to take over the operational control of these assets. This strategy is often termed as *facilities-management outsourcing* (Dibbern et al., 2004; Sparrow, 2003).

Strategy of outsourcing the process of setting up new offices/facilities abroad. Firms often need to expand their presence to new locations abroad, and this is a challenge because the firm may not be knowledgeable about the processes of setting up an office/facility in the new location (Chakrabarty, 2007a). A suitable strategy to deal with this challenge is known as *managed offshore facilities' strategy*, whereby the customer firm outsources the process of creating its foreign subsidiary office to a supplier. Once the facility is up and running at the new location, the customer can take over the full ownership and control of the facility. At times, the customer firm retains the supplier for the long-term maintenance of the facility. A variant of the managed-offshore-facilities strategy is the *build-operate-transfer strategy*, whereby the supplier manages the process of creating the facility in the foreign location, and the customer firm has the option of taking full ownership by a specified date (i-Vantage, n.d.; Kobayashi-Hillary, M., 2004, p. 153). Hence, this outsourcing strategy has the potential to reduce many hassles for a firm that decides to set up its own subsidiary at a foreign location (for more details on the process of setting up a subsidiary abroad, see Chakrabarty, 2007a).

Strategies to strengthen the internal IT department. Though growth in the outsourcing of technology work is often assumed to be at the expense of the customer firm's internal IT department, a contrasting fact is that outsourcing

can also be used to strengthen the internal IT department (Green, Chakrabarty & Whitten, 2007). Firms sometimes undergo major transitions or technology overhauls in order to make use of newer technologies and bring in more efficiency. Suppliers can be used during this growth or maturation process of the customer's own IT department. For example, during a major changeover or transition, such as migration from a old technological platform to a modern technology platform, the customer firm can handover the management of the older systems to a supplier while the customer's IT department focuses on the transition to new technology. This is known as *transitional outsourcing* (Millar, 1994, as cited in Lacity & Hirschheim, 1995). A similar scenario whereby a certain work is outsourced to a supplier while the internal IT department transitions itself to a new set of skills is called a *transition-assistance* strategy (Wibbelsman & Maiero, 1994, as cited in Dibbern et al., 2004).

FUTURE TRENDS

Two distinct strategies that have gained prominence in recent times and are likely to be future trends are as follows. The use of a supplier that can provide teams at multiple locations, that is, a supplier team is at the customer site for coordination, while other skilled teams from the same supplier work at locations across the world at a lower cost. The renting of information technology services on a subscription basis.

Strategy of using suppliers with global capabilities. *Distributed consulting* implies that a supplier chosen by a customer has the ability to provide teams both at the customer's location and at the supplier's own location (Chakrabarty, 2006c). A *global delivery model* implies that the supplier can take advantage of the global talent pool and provide maximum value to the customer in terms of both quality and cost, by dividing the outsourced work into modules and distributing the modules to appropriate global locations (Infosys, n.d.).

Customer firms are increasingly adopting the strategy of offshore-outsourcing, that is, the chosen supplier is located in a country that is geographically far away from the customer's country (Chakrabarty, 2006c). This can be carried out more effectively by adopting a strategy of choosing a supplier that can provide supplier teams both at the customer's on-site location and at the supplier's offshore location. The supplier team at the customer site coordinates face-to-face with customer (Chakrabarty, 2006a), and the bulk of the outsourced work is carried out by the offshore supplier team (for case studies, see Chakrabarty, 2006c). Large IT service providers from India, such as TCS (<http://www.tcs.com>), Infosys (<http://www.infosys.com>), and Wipro (<http://www.wipro.com>), have incorporated such distributed consulting practices into their global delivery model (for case studies, see Chakrabarty, 2006c).

Strategy of accessing remotely hosted IT applications.

One strategy that a customer firm can adopt for outsourcing information technology work is to rent the required service on a subscription basis (Chakrabarty, 2006b). Similar to the manner in which employees of a customer firm can access software applications installed on a LAN or datacenter within the customer firm, the customer firm's employees can also access a software application that is installed on a remote server under the control of the supplier. That is, the remote server resides at the supplier's data center and is accessed by the customer firm through a dedicated line, Internet, or extranet (Dewire, 2000). Hence, the suppliers develop, customize, install, and manage the software applications at the remote locations and host them for their customers over a suitable network or the Internet. Such suppliers are called *application service providers (ASP)* (Bennett & Timbrell, 2000; Susarla, Barua & Whinston, 2003), and this type of outsourcing strategy has been named as *cloud computing*, *net-sourcing* (Kern, Lacity & Willcocks, 2002), *on-demand service*, *application utilities*, *real-time delivery*, and *software-as-a-service* (Pring & Ambrose, 2004), all of which allow access to externally managed software applications.

CONCLUSION

Outsourcing is an interfirm relationship between a customer firm and supplier firm, where the customer firm is in need of services and the supplier firm provides those services. Since such interfirm relationships are essential for most businesses, and this chapter suggested that firms need to be careful in adopting suitable strategies. An array of strategies that can be used for both domestic and global outsourcing of information technology work were described, so that business managers can choose an appropriate strategy in order to get the best deal for their information technology needs.

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Distributed Consulting: Supplier has teams both at onshore and offshore.

Global Delivery: Large supplier delivering services from various global locations to customers at various global locations.

Managed Offshore Facilities: Outsourcing the process of setting up a subsidiary abroad.

Multisupplier Outsourcing / Dual Sourcing: A customer firm uses many suppliers for a given activity.

Nearshore-Outsourcing: Chosen supplier is located in a country that is geographically close to (but not the same as) the customer's country.

Offshore-Outsourcing (A Form of Global Outsourcing): Chosen supplier is located in a country that is geographically far away from the customer's country.

Onshore-Outsourcing / Domestic Outsourcing: Both customer and the supplier are located in the same country.

Outsourcing: Interfirm relationship between a customer firm and supplier firm, where the customer firm is in need of services and the supplier firm provides those services.

Selective / Smart / Right / Flexible / Modular Sourcing: Outsourcing and insourcing optimally and selectively; A customer firm uses suppliers for certain IT functions which represents between 20 and 60% of the IT budget (typically around 40%) and therefore retains substantial work for its internal IT department.

Tactical Outsourcing / Contracting-Out / Out-Tasking: Outsourcing for short term access to skilled professionals.

Transitional Outsourcing: Outsourcing during a major changeover; Helping the customer's IT department mature.

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