Making sense of the sourcing and shoring maze: Various outsourcing and offshoring alternatives

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Chapter II

Making Sense of the Sourcing and Shoring Maze:
Various Outsourcing and Offshoring Alternatives

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Abstract

Many terminologies have grown out of the outsourcing and offshoring bandwagon. While the corporate world continues to experience these phenomena, the academic world continues to research the same. An attempt has been made to give an overview of the various outsourcing and offshoring alternatives. We first discuss the basic sourcing strategies (insourcing and outsourcing) and the shoring strategies (onshoring and offshoring). We then move deep and wide into the maze and unravel the multiple alternatives that businesses exercise in order to get the best deal for their information system (IS) needs. Approximately 50 terminologies that are related to this growing maze have been discussed. The literature was scanned for various sourcing alternatives and terminologies. The purpose of this chapter is to compile and elucidate the various facets of domestic and global sourcing of IS needs. The reader will gain holistic perspective of a phenomenon that is continuously changing the way business is carried out globally.

Introduction

"*Outsourcing*" and "*offshoring*" are two of the media-friendly terms being bandied about in recent times. However, there are many other aspects to the phenomenon. These terminologies are often confused and misunderstood.

The notion that jobs move out of some economically rich countries due to "*outsourcing*" may not be terminologically correct. For example, in "*onshore-outsourcing*" (or "*domestic-outsourcing*") the jobs have simply been outsourced to a vendor in the same country. The terminologically correct notion is that jobs move out from one country to another country due to "*offshoring.*"

Similarly when programmers think that "*offshoring*" of software development implies that their code will be written by people of a different company, they may not be terminologically correct. In "*offshore-insourcing*" (or "*global-insourcing*"), the task is still performed by the same company, though in a different land.

In brief, work is "*outsourced to vendors*" and "*offshored to another country*." Outsourcing of work is *across organizational borders*, while *offshoring* of work is *across geographical borders*.

A large number of terminologies are already being used, and as the business world explores and experiences new information system (IS) sourcing alternatives, newer terminologies will be coined, and existing terminologies may be subjected to multiple interpretations. This chapter will attempt to elucidate many the existing terminologies.

We broadly define a *client* as anyone in need of services. For the purposes of maintaining clarity, the terms "*client*", "*customer*" and "*buyer*" have been treated synonymously to imply a firm (or even an individual) that is seeking services, from either internal service providers (like the client's own internal department, or a subsidiary) or from external service providers (a vendor/supplier). The client *owns* any "*client-entity*" such as the client's internal IS department or a subsidiary. In the same vein, the terms "*vendor,*" "*supplier,*" "*third party*", and external "*consultant*" have been treated synonymously to imply an "*external service provider*" or a *non-client entity* whose business is to provide services to the client.

In this chapter, the term "*information system*" (IS) has been assumed to broadly refer to not just *information technology* (IT), but also various types of information systems whose functioning has been influenced by use of IT (e.g., financial, accounting, health care, educational, human resource, customer service, logistics, management and other information systems). This has been done as the concepts in this chapter can be applied to a wide variety of industries and services that gather, process, store, transmit, display, disseminate, and act on information. For example, the term *IS* department when understood in the context of this chapter, can be considered as *any* department that engages in collecting, processing, editing, storing, transmitting and supplying data or information relating to a certain area of application.

The Basic "Sourcing" Strategies

Insourcing and *outsourcing* are the two basic sourcing strategies. Simplistically, it is the choice between either *"walking the path alone"* or *"building on acquaintances along the way"* such that a firm's business interests are best served.

Insourcing

- *The service provider is a client entity*

Often organizations have their own IS departments or IS subsidiaries from where they *insource* their IS needs. The responsibility and delegation of tasks involved the firm's IS needs are handled internally (*in-house*). Hence, when the service provider to the client is a *client-entity* such as a *subsidiary* or the *internal IS department*, it is known as *insourcing.*

Insourcing has also been interpreted as being part of *multi-sourcing continuum* having two possible insourcing strategies: (a) the *"OK as is"* strategy where the status quo of insourcing IS activities is considered the best sourcing strategy, and (b) the *"fix and keep in-house"* strategy where insourcing is again considered the best strategy but the internal IS department needs to adopt better practices to become more efficient and effective (Wibbelsman & Maiero, 1994, as cited in Dibbern, Goles, Hirschheim & Jayatilaka, 2004, p. 11).

Outsourcing

- *The service provider is a non-client entity*

Due to various factors, organizations (clients) often need to *outsource* work to external entities. Hence, when the service provider is a non-client entity, such as a vendor/ supplier it is known as *outsourcing. Outsourcing* has been defined in many interesting ways in the literature, which are quoted below, further aid our understanding:

Outsourcing means selectively turning over to a vendor some or all of the IS functions, ranging from simple data entry to software development and maintenance, data centre operations and full system integration. (Apte, Sobol, Hanaoka, Shimada, Saarinen, Salmela & Vepsalainen, 1997, p. 289)

Outsourcing is the contracting of various information systems' sub-functions by user firms to outside information systems vendors. (Chaudhury, Nam & Rao, 1995, p. 131)

...we define broadly outsourcing of IS functions as: the organizational decision to turn over part or all of an organization's IS functions to external service provider(s) in order for an organization to be able to achieve its goals (Cheon, Grover & Teng, 1995, p. 209)

Information systems (IS) outsourcing is an increasingly common business practice in which a company contracts all or part of its information systems operations to one or more outside information service suppliers. (Hu, Saunders & Gebelt, 1997, p. 288)

The term 'outsourcing', although not specific to IS in that it reflects the use of external agents to perform one or more organizational activities (e.g., purchasing of a good or service), is now in vogue in the IS domain and applies to everything from use of contract programmers to third party facilities management. (Lacity & Hirschheim, 1993b, p. 2)

IS outsourcing refers to the third party management of IS assets, people, and or activities required to meet pre-specified performance levels. (Lacity & Hirschheim, 1995, p. 4)

We define IT outsourcing as the significant contribution by external vendors in the physical and/or human resources associated with the entire or specific components of the IT infrastructure in the user organization. (Loh & Venkatraman, 1992, p. 9)

IT outsourcing ... a decision taken by an organization to contract-out or sell the organizations IT assets, people, and/or activities to a third party vendor, who in return provides the services for a certain time period and monetary fee. (Willcocks & Kern, 1998, p. 2)

Table 1. Categorization of sourcing alternatives based on "Percentages of IS Budget as a Differentiator Between Total and Selective Sourcing Decisions" (Lacity & Hirschheim, 1995, pp. 4, 223-224; see also Dibbern et al., 2004, p. 10)

#	Terminology	Definition as quoted in literature (Lacity and Hirschheim, 1995, p. 4, pp. 223-224; see also Dibbern et al., 2004, p. 10)
1.	Total Outsourcing	"… to refer to those organizations that decided to outsource at least 80% of their IS budgets to third party providers."
2.	Total Insourcing	"…refers to those organizations that formally evaluated outsourcing but selected their internal IS departments' bid over external vendor bids, thus keeping over 80% of the IS budget provided by the internal IS department."
3.	Selective Sourcing	"…refers to organizations that opted to use third party vendors for certain IS functions which represents between 20 and 60% of the IS budget (typically around 40%) while still retaining a substantial internal IS department."

Table 2. Categorization of sourcing alternatives based on "How Should We Source" Instead of "Should We Outsource" *(Wibbelsman & Maiero, 1994, as cited in Dibbern et al., 2004, p. 11)*

#	Terminology	Definition as quoted in literature (Wibbelsman & Maiero, 1994, as cited in Dibbern et al., 2004, p. 11)
1.	**multi-sourcing (continuum)**	"The multiple sourcing of IS services. More specifically, they see multi-sourcing as a continuum. The end points of their continuum span from 'OK as is' to 'divest completely'." *Various strategies of the multi-sourcing continuum described in the literature are:* <table><tr><td>**Main Strategy**</td><td>**Sub-Strategy**</td></tr><tr><td>insourcing</td><td>"OK as is"</td></tr><tr><td></td><td>"fix and keep in-house"</td></tr><tr><td>co-sourcing</td><td>"rehabilitation and return"</td></tr><tr><td></td><td>"transition assistance"</td></tr><tr><td></td><td>"capability development"</td></tr><tr><td>outsourcing</td><td>"option to reverse"</td></tr><tr><td></td><td>"divest completely"</td></tr></table>
2.	*(multi-sourcing continuum:)* **insourcing -> "OK as is"** strategy	"The 'OK as is' point on the continuum relates to the belief that the status quo is the best sourcing strategy; IS activities are insourced."
3.	*(multi-sourcing continuum:)* **insourcing -> "fix and keep in-house"** strategy	"This strategy believes that insourcing is the best strategy but the internal IS department needs to adopt better practices to become more efficient and effective."
4.	*(multi-sourcing continuum:)* **co-sourcing -> "rehabilitation and return"** strategy	"…the IS organization is reformed through the assistance of a third party and then kept in-house."
5.	*(multi-sourcing continuum:)* **co-sourcing -> "transition assistance"** strategy	"…a third party takes on certain IS activities while the internal IS group transitions itself to a new set of skills."
6.	*(multi-sourcing continuum:)* **co-sourcing -> "capability development"** arrangement	"…a third party takes on either permanently or temporarily IS activities while the IS organization develops new capabilities. This option allows the IS organization to focus on certain core capabilities."
7.	*(multi-sourcing continuum:)* **outsourcing -> "option to reverse"** strategy	"…hereby IS is outsourced to a third party but there is a specific plan which would allow the function to return in-house without undue hardship at a later time if the management of the company deems this desirable."
8.	*(multi-sourcing continuum:)* **outsourcing -> "divest completely"** strategy	"…the IS function is outsourced permanently. In such cases, IS is perceived to be a non-core business function best handled by an outsourcer."

Outsourcing has also been interpreted as being part of a *multi-sourcing continuum* having two possible outsourcing strategies: (a) the *"option to reverse"* strategy where IS functions are outsourced to a vendor but there is a planned roadmap which would allow the functions to return in-house without undue hardship at a later date if desired, and

Table 3. Categorization of sourcing alternatives based on How the Client Manages or Utilizes the Suppliers *(Currie & Willcocks, 1998, pp. 122-125)*

#	Terminology	Definition as quoted in literature (Currie & Willcocks, 1998, pp. 122-125)
1.	Total Outsourcing	"Total outsourcing is when an organization chooses to outsource as much as 70-80% of its IT facility, usually to a large single supplier. These contracts are usually for between 5 and 10 years."
2.	Multiple-supplier sourcing	"…entered into IT sourcing arrangements with a variety of suppliers"
3.	Joint Venture / Strategic alliance sourcing	"An organization enters into a joint venture with a supplier on a shared risk/reward basis. This may involve selecting an existing IT supplier or helping to create a new company to which work can be outsourced. Sometimes an organization may take share ownership in an existing IT supplier or vice-versa."
4.	Insourcing	"An organization opts to retain a large centralized IT department and insource management and technical capabilities according to the peaks and troughs of IT work. Contractors may be given employment contracts lasting between 3 months and a year, although there are many examples of them staying with an organization for several years."

(b) the *"divest completely"* strategy where IS functions that are perceived to be non-core business functions and that are thought to be best handled by a vendor are outsourced permanently (Wibbelsman & Maiero, 1994, as cited in Dibbern et al., 2004, p. 11).

Categorization of Various Sourcing Alternatives in Literature

Let us now understand how some sourcing alternatives are categorized in literature. At this stage, we directly quote the literature, and then proceed in later sections to explain these categorized sourcing alternatives along with many other sourcing alternatives.

As shown in the following table, Lacity and Hirschheim (1995, pp. 4, 223-224) categorized the sourcing alternatives into *total outsourcing, total insourcing* and *selective sourcing,* by using the percentages of IS budget as a differentiator between total and selective sourcing decisions (see Table 1).

Dibbern et al. (2004, p. 11) cited the categorization of sourcing alternatives by Wibbelsman and Maiero (1994) where the focus is on "how should we source" instead of "should be outsource", and the entire sourcing scenario has been treated as a continuum (see Table 2).

Currie and Willcocks (1998) have categorized the sourcing alternatives on how the client manages or utilizes the vendors into *total outsourcing, multiple-supplier sourcing, joint venture/strategic alliance sourcing,* and *insourcing* (see Table 3).

Table 4. Categorization of outsourcing capturing the range of Outsourcing Options *(Lacity & Hirschheim, 1993a, pp. 17-18)*

#	Terminology	Definition as quoted in literature (Lacity & Hirschheim, 1993a, pp. 17-18)
1.	Body Shop	"…management uses outsourcing as a way to meet short-term demand. The most common type of body shop outsourcing is the use of contract programmers/personnel that is managed by company employees."
2.	Project Management	"…management outsources for a specific project or portion of IS work." "…the vendor is responsible for managing and completing the work."
3.	Total outsourcing	"…the vendor is in total charge of a significant piece of IS work."

Table 5. Categorization of outsourcing based on How the Client Manages or Utilizes the Suppliers *(Millar, 1994, as cited in Lacity & Hirschheim, 1995, pp. 4-5)*

#	Terminology	Definition as quoted in literature (Millar, 1994, as cited in Lacity & Hirschheim, 1995, pp. 4-5)
1.	General outsourcing	"… encompasses three alternatives: (a) *selective outsourcing* …(b) *value-added outsourcing* … or (c) *cooperative outsourcing* …"
2.	*(General outsourcing:)* selective outsourcing	" …where one particular area of IS activity is chosen to be turned over to a third party, such as data center operations"
3.	*(General outsourcing:)* value-added outsourcing	"…where some area of IS activity is turned over to a third party who is thought to be able to provide a level of support or service which adds value to the activity that could not be cost effectively provided by the internal IS group"
4.	*(General outsourcing:)* cooperative outsourcing	"…where some targeted IS activity(ies) is (are) jointly performed by a third party provider and the internal IS department"
5.	Transitional outsourcing	"…involves the migration from one technological platform to another."
6.	Business process outsourcing	"…refers to an outsourcing relationship where a third party provider is responsible for performing an entire business function for the client organization."
7.	Business benefit contracting	"…contractual agreement that defines the vendor's contribution to the client in terms of specific benefits to the business and defines the payment the customer will make based upon the vendor's ability to deliver those benefits. The goal is to match actual costs with actual benefits and to share the risks."

Table 6. Categorization of outsourcing based on Number of Clients and Vendors *(Gallivan & Oh, 1999, pp. 1-6; see also Dibbern et al., 2004, pp.12-13)*

#	Terminology	Definition as quoted in literature (Gallivan & Oh, 1999, pp. 1-6; see also Dibbern et al., 2004, pp.12-13)
1.	Dyadic outsourcing arrangement	"one client, one vendor" "…presume that client firms seeking IT services act independently of each other, while IT vendors do the same. Thus the assumed relationship between client firm and IT vendor has been a simple 'dyadic' one."
2.	multi-vendor	"one client, multiple vendors" "A one-to-many relationship indicates that one client uses multiple outsourcing vendors to achieve its objectives, and that division-of-labor is jointly negotiated and understood by all parties to the agreement."

Table 6. cont.

3.	co-sourcing	"many clients, one vendor" "A many-to-one alliance where several clients contract with a single IT vendor for services."
4.	complex outsourcing	"many clients, many vendors" "...combining multiple clients and multiple vendor firms into a single contract or alliance"

Categorization of Outsourcing in Literature

Some of the categorizations of outsourcing terminologies in the literature are quoted. The terms defined in these categorizations, have been explained independently in later sections of this chapter.

Lacity and Hirschheim (1993a) categorized outsourcing into *Body Shop*, *Project Management* and *Total Outsourcing* (see Table 4).

Lacity and Hirschheim (1995, pp. 4-5) have cited the work of Millar (1994), which categorizes outsourcing on the basis of how the client manages or utilizes the suppliers, and have described general, selective, value-added, cooperative, transitional, business process outsourcing and business benefit contracting (see Table 5).

Gallivan and Oh (1999, pp. 1-6), categorized outsourcing on the basis of number of clients and vendors into *dyadic*, *multi-vendor*, *co-sourcing* and *complex outsourcing* (see Table 6).

The "Shoring" Strategies

As described earlier, the client's service provider can be either internal (its own IS department or a subsidiary) or external (a vendor). In our shrinking world, where exactly is this service provider located?

- **Onshoring:** The service provider is located in the same country as the client. This is also known as **domestic sourcing** or **onshore sourcing**.

- **Nearshoring:** The service provider is located in a country which is geographically close the client's country. Hence, countries which share borders, or are neighbors can be considered as "nearshore" countries. Ireland and Spain may be considered as nearshore for the United Kingdom, whereas Mexico and Canada may be considered as nearshore for U.S. This is also known as *nearshore sourcing*.

- **Offshoring:** The service provider is located in a country which is geographically far away from the client's country. India and China may be considered as "offshore" for both the United Kingdom and U.S This is also known as *offshore-sourcing*.

"Shore" in the words *onshore, nearshore* and *offshore* does not necessarily imply that the respective country has land along the edge of a body of water. It only indicates a different geographical location.

The *geographical distance* is a predominant classifier when comparing between onshore, nearshore and offshore locations. At the same time, the *time zones* of the locations may also be considered. In the IS industry, as communication technology improves, the exact geographical distance is a lesser barrier when compared to the time zones. It may not be wrong if we choose to classify between onshore, nearshore and offshore on the basis of both time zones and geographical distance.

One may do away with the specific term "*nearshoring*," and generally use "*offshoring*" instead. The term "*offshoring*" is often used to broadly imply "*nearshoring*" too. When someone says, that work has been "*offshored*," it may simply imply that work has been sent away from *onshore* (i.e., to *nearshore* or *offshore*). Hence, we can adopt a simpler binary logic of onshore versus offshore, where anything that is not "*onshore*" can be simply called "*offshore*". *Offshoring* may therefore be defined as a scenario where the service provider is located in a country that is different from the client's country; this is also known as "*global sourcing*".

Basic Combinations of the Shoring and Sourcing Strategies

The shoring strategy may be either an onshore, nearshore or offshore strategy. And the basic sourcing strategy may be either insourcing or outsourcing. As illustrated by Figure 1 (onshore-centric view of sourcing and shoring), the various combinations are onshore-insourcing, onshore-outsourcing, nearshore-insourcing, nearshore-outsourcing, offshore-insourcing and offshore-outsourcing:

Domestic Sourcing or Onshore Sourcing or Onshoring Alternatives

- **Onshore-Insourcing:** Both the client and its subsidiary or IS department that provides the services are located in the same country. This is also termed as **domestic insourcing**.

- **Onshore-Outsourcing:** Both the client and the vendor are located in the same country. This is also termed as "domestic outsourcing". This is also termed as domestic outsourcing.

Global Sourcing Alternatives

- **Nearshore-Insourcing:** The client's subsidiary or IS department that provides the service is located in a country which is geographically close the client's country.

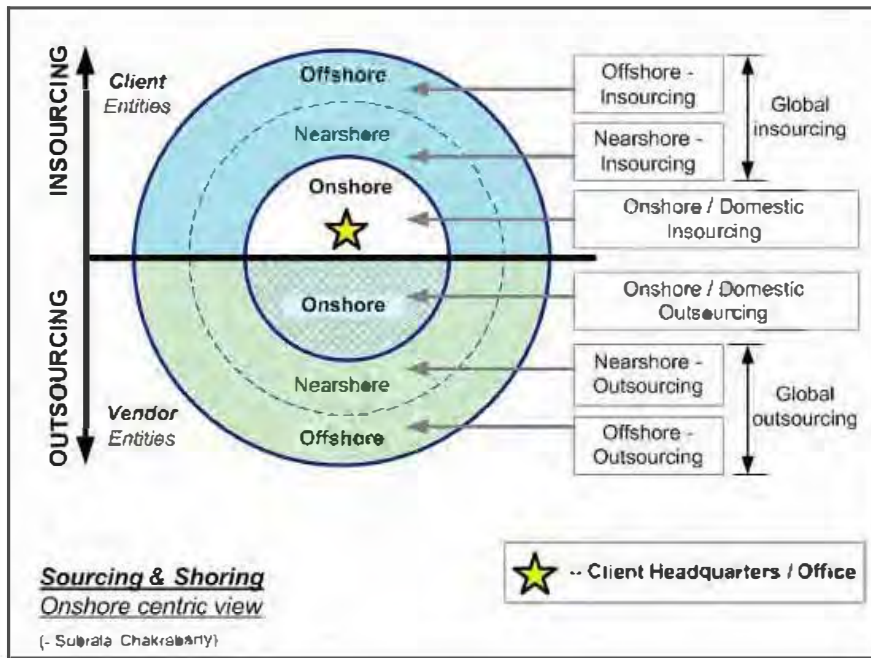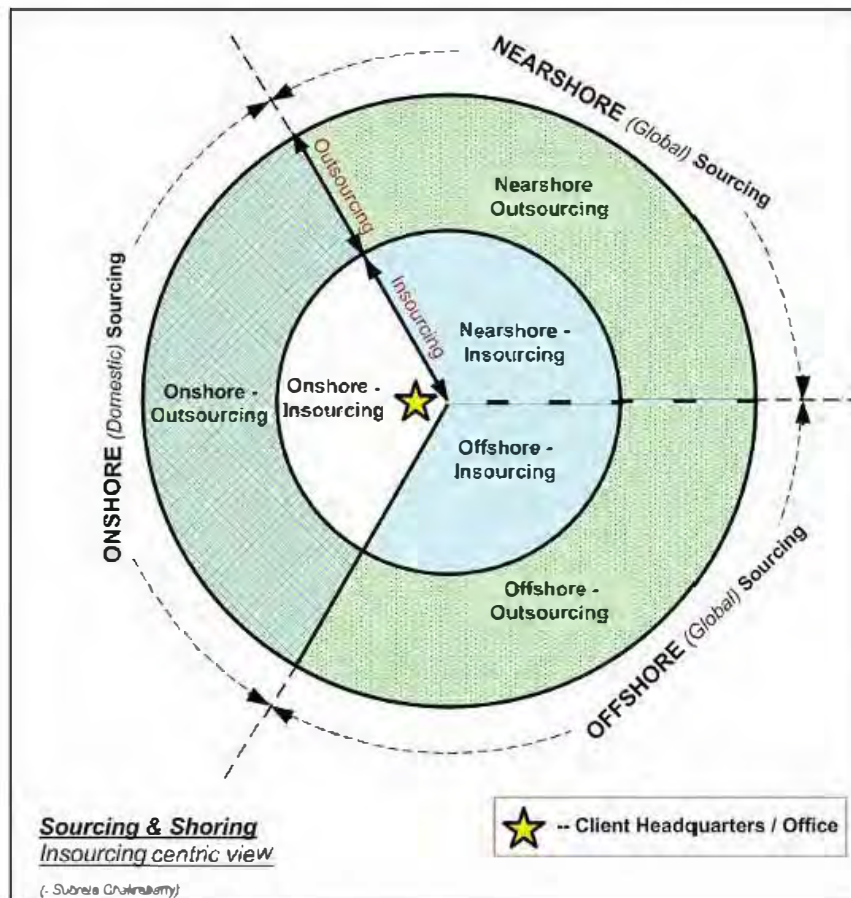*Figure 1. Sourcing and shoring: Onshore centric view*

Figure 2. Sourcing and shoring: Insourcing centric view

- **Nearshore-Outsourcing:** The vendor is located in a country that is geographically close the client's country.

- **Offshore-Insourcing:** The client's subsidiary or IS department that provides the service is located in a country that is geographically far away from the client's country.

- **Offshore-Outsourcing:** The vendor is located in a country that is geographically far away from the client's country.

Figure 2 illustrates an insourcing-centric view of sourcing and shoring; the various combinations shown are onshore-insourcing, nearshore-insourcing, offshore-insourcing, onshore-oursourcing, nearshore-outsourcing, and offshore-outsourcing.

As discussed earlier, the term "*offshore*" is often used to imply "*nearshore*", too, that is, anything that is not " *onshore*" may simply be called " *offshore*". While the term "*domestic*" relates to "*onshore*", the term "*global*" relates to "*offshore*", where "*off-shore*" encompasses "*nearshore*" too (Dibbern et al., 2004, p. 43). Hence, for the purposes of simplification, one can narrow down the above classification to the following four basic choices, where the earlier *nearshore sourcing* options are now encompassed within the *offshore sourcing* options.

Domestic sourcing or onshore sourcing or onshoring alternatives:

1. onshore-insourcing or domestic-insourcing
2. onshore-outsourcing or domestic-outsourcing

Global sourcing or offshore sourcing or offshoring alternatives:

3. offshore-insourcing or global-insourcing
4. offshore-outsourcing or global-insourcing

Therefore, in **offshore-insourcing**, the subsidiary or IS department (of the client) which provides the service is located in a country different from the client's country; while in **offshore-outsourcing**, the vendor is located in a country different from the client's country.

Overview of Various Sourcing Alternatives

Let us now gain an understanding of the various sourcing alternatives.

Table 7. List of sourcing alternatives

Terminology	Defi feature	Basic sourcing strategy: ○ Insourcing ○ Outsourcing ○ Both ○ Any	Shoring strategy focus: ○ Onshore ○ Offshore ○ Anywhere
Application Service Provision / Application Service Providing / Net-sourcing / On-Demand	Accessing remotely hosted IS applications ('Cloud Computing')	●utsourcing	Anywhere
Backsourcing	Insourcing what was outsourced	Insourcing	Anywhere
Benefit based relationships / Business benefit contracting	Linking payments to realization of benefits	●utsourcing	Anywhere
Body Shop Outsourcing	Using contract personnel	Outsourcing	Anywhere
Business Process ●utsourcing	Vendor performs client's entire business processes	●utsourcing	Anywhere
Complex sourcing	Multiple clients and multiple vendors in a single contract or alliance	●utsourcing	Anywhere
Cooperative Sourcing	Client's internal IS department and the vendor perform IS activity cooperatively	Both	Anywhere
Co-sourcing	Client's performance determines vendor's revenue	●utsourcing	Anywhere
	Helping the client's IS department mature		
	Multiple clients jointly seek services from vendor		
Creative Contracting	Innovative contracts for better deals	●utsourcing	Anywhere
Distributed Consulting	Vendor has teams both at onshore and offshore	●utsourcing	●ffshore
Dyadic outsourcing arrangement	Independent client dealing with independent vendor	●utsourcing	Anywhere
Facilities Management	Vendor maintains the client's assets	●utsourcing	Anywhere
Facilities Sharing	Sharing ownership of facilities needed by each	Both	Anywhere
General outsourcing	Selective, value-added and cooperative outsourcing	●utsourcing /Both	Anywhere
Global Delivery	Large vendor delivering services from various global locations to clients at various global locations	●utsourcing	●ffshore
Managed ●ffshore Facilities	●utsourcing the process of setting up facilities for offshore-insourcing	●utsourcing	●ffshore
Multi-sourcing	●ne contract with multiple vendors	Outsourcing	Anywhere
	multiple sourcing strategies in a continuum	Both	
Multi-vendor outsourcing / Multiple-supplier sourcing / Dual sourcing	Client dealing with multiple interdependent vendors	●utsourcing	Anywhere
Project Management ●utsourcing	Vendor manages a project	●utsourcing	Anywhere

Table 7. cont.

Terminology	Definitive feature	Basic sourcing strategy: • Insourcing • Outsourcing ○ Both ○ Any	Shoring strategy focus: • Onshore • Offshore • Anywhere
Selective / Smart / Right / Flexible / Modular Sourcing	Outsourcing and insourcing optimally	Both	Anywhere
Spin-offs	An IS department that now sells to the market	Any	Anywhere
Strategic alliances / Partnerships / Joint Ventures / Equity holdings / Strategic sourcing	Sharing risks and rewards	Outsourcing	Anywhere
Tactical Outsourcing / Contracting-out / Out-tasking	Outsourcing for rapid solution to problems	Outsourcing	Anywhere
Total Insourcing	Insourcing maximum % of IS budget	Insourcing	Anywhere
Total Outsourcing / Traditional Outsourcing	Outsourcing maximum % of IS budget	Outsourcing	Anywhere
	Vendor having complete charge of significant IS work		
Transformational Outsourcing	Streamlining of client's internal organization alongside outsourcing	Outsourcing	Anywhere
Transitional Outsourcing	Outsourcing during a major changeover	Outsourcing	Anywhere
Value-added outsourcing	Combined strengths for the market	Both	Anywhere
	Vendor adding value to IS activity	Outsourcing	Anywhere

Figure 3. Application service providing (Cloud Computing)
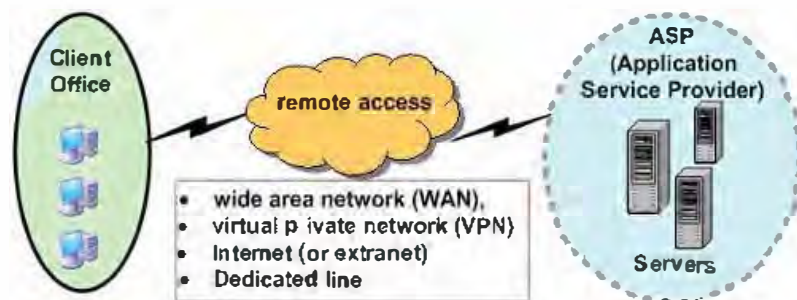
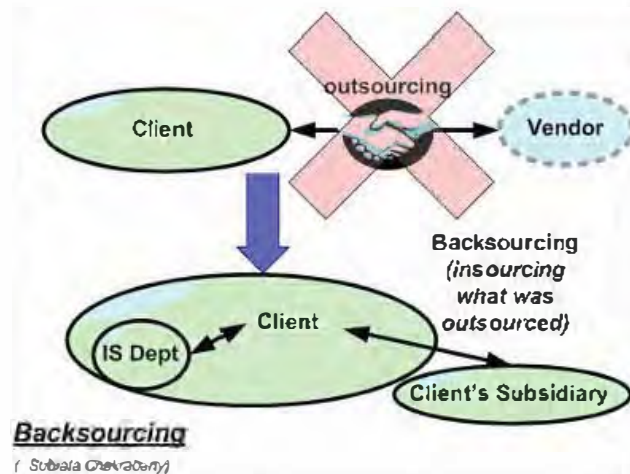**Application Service Providing**

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List of Sourcing Alternatives

The sourcing alternatives that will be eventually discussed are summarized and listed in Table 7. The definitive feature of each term is provided along with information on the possible basic sourcing strategy (insourcing, outsourcing, both or any) and the possible shoring strategy (onshoring, offshoring or simply anywhere).

We will now briefly explain each of the terms listed in the Table 7.

Figure 4. Backsourcing

Accessing remotely hosted IS applications

An *application service provider* (ASP) is a vendor that provides access to remotely hosted IS-applications over a wide area network (WAN), a virtual private network (VPN), or over the Internet (Susarla, Barua, & Whinston, 2003, p. 103). Bennett and Timbrell (2000, p. 196) define *application service provision* as a form of selective outsourcing where an organization rents generally available packaged software applications and related services. Dewire (2000, p. 14) states that an *application service provider (ASP) provides a contractual software-based service for hosting, managing, and providing access to an application from a centrally managed facility*." Furthermore, clients have remote web-access to the applications that are running on the ASP's servers. Figure 3 illustrates a client having remote access to applications on servers hosted and managed by the vendor (ASP), over a wide area network (WAN), virtual private network (VPN), internet/extranet or a dedicated line. Recently, it has been called *'cloud computing'*.

IDC (International Data Corp.) explains the following about ASP (as cited in Dewire, 2000, p. 14):

An end user accesses an application resident on a server, just as he or she would on a LAN or in the enterprise data center. However, the server resides at the ASP's third-party data center and is reached via a dedicated line or the internet (or extranet). The

Figure 5. Benefit-based relationships / business benefit contracting
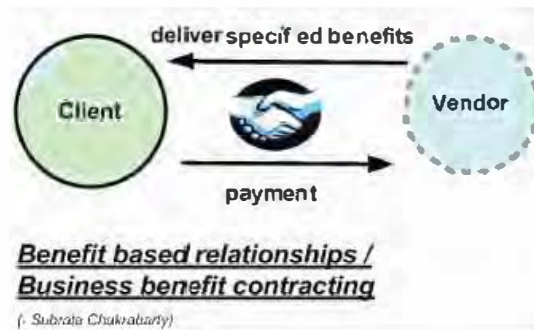
Figure 6. Body shop outsourcing
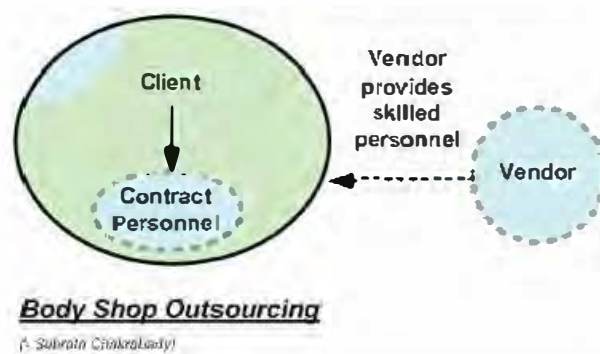
applications can range from low-end, productivity programs (e.g., word processing) to high-end ERP modules. The service is provided on a subscription basis and can bundle a full range of hosted application services .

The Application Service Provider Consortium defines an ASP as an organization that *"manages and delivers application capabilities to multiple entities from a data center across a wide area network (WAN)"* (as cited in Susarla et al., 2003, p. 92).
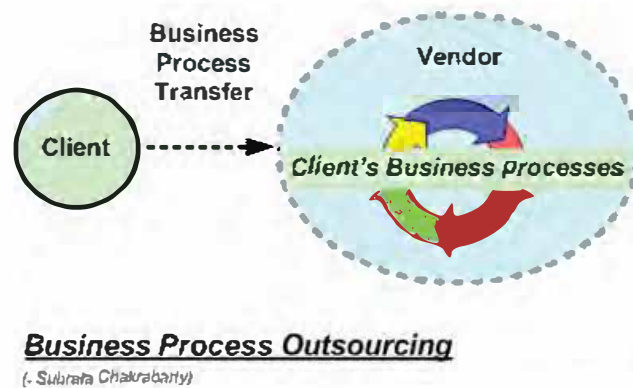
Hence, ASPs purchase/develop/customize, install, and manage software applications at remote locations and host them for clients over the Internet (or maybe over a VPN or Extranet). Various flavors of this kind sourcing have also been termed as "Net-sourcing" (Kern, Lacity & Willcocks, 2002), "on demand" service, "application utilities", "real-time delivery" and "software-as-a-service" (SAAS), all of which encourage the delivery of online and externally managed information systems (Pring & Ambrose, 2004).

Backsourcing

- *Insourcing what was outsourced*

When the IS functions that had previously been outsourced are brought back in-house, it is known as *backsourcing* (Dibbern et al., 2004, p. 12) *Backsourcing* is the insourcing

Figure 7. Business process outsourcing

of previously outsourced IS functions. As illustrated by figure 4, the client decides to insource its previously outsourced IS needs from either its own internal IS department or its subsidiary.

Benefit-Based Relationships / Business Benefit Contracting

- *Linking payments to realization of benefits*

In *benefit-based relationships*, both the parties (customer and external service provider) make an upfront investment in a relationship, and thereafter share both the benefits and the risks (Sparrow, 2003, p. 13). Sparrow (2003, pp. 13-14), has given the example of the UK government's employment service which formed a public-private, benefit-based relationship with EDS to deliver IS services, thus securing business benefits from use of IS, while establishing a payment methodology that links EDS's reward to realizing those benefits. As illustrated by this example, private sector companies invest up-front in developing public sector services with payments based on outcomes or benefits gained from these services.

In *business benefit contracting*, a contractual agreement defines the vendor's contribution to the client in terms of specific benefits to the business and defines the payment the client will make based upon the vendor's ability to deliver those benefits, thereby matching actual costs with actual benefits and sharing the risks (Millar, 1994, as cited in Lacity & Hirschheim, 1995, pp. 4-5). As illustrated in Figure 5, the client makes its payments to the vendor depending on the specific benefits received.

Lacity and Hirschheim (1995), note that though *business benefit contracting* is used often in the marketing of outsourcing services by vendors, it is typically not adopted due to the difficulty associated with measuring benefits. Furthermore, in *business benefit contracting* the vendor's revenue and margin potential is linked to the benchmarks, and therefore it is not surprising that getting an agreement by both parties on the benchmarks proves to be problematic.

Figure 8. Complex sourcing

Complex sourcing
(- Subrata Chakrabarty)
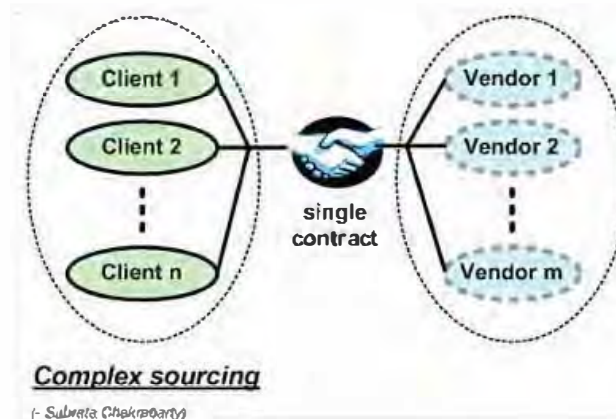
Figure 9. Cooperative sourcing

Cooperative sourcing
(- Subrata Chakrabarty)
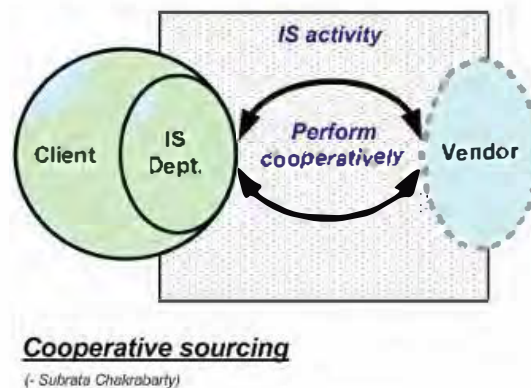
Body Shop Outsourcing

- *Using contract personnel*

Body shop outsourcing is a way for firms to meet short term demands, by the use of contract personnel (such as programmers), who are managed by the employees of the hiring firm (Lacity & Hirschheim, 1993a, pp. 17-18). As illustrated in Figure 6, the client contracts skilled personnel fiom a vendor; these contract personnel are the vendor's paid employees who work at the client site, under the supervision of the client. The client *shops* for skilled *bodies* fiom vendors.

Business Process Outsourcing

- *Vendor performs client's entire business processes*

Figure 10. Co-sourcing: Client's performance determines vendor's revenue
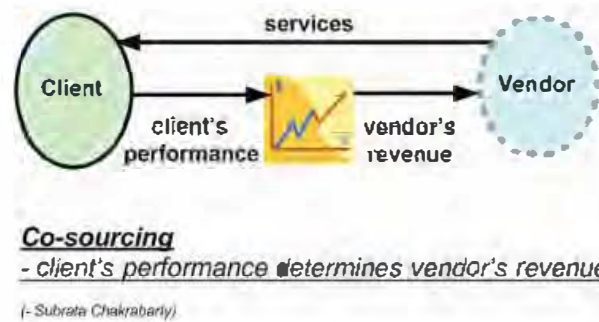
Business process outsourcing refers to an outsourcing relationship where a vendor is responsible for performing an entire business function for the client (Millar, 1994, as cited inLacity & Hirschheim, 1995, pp. 4-5). As shown in Figure 7, the client transfers certain business processes to the vendor, and the vendor site is now the   *back office* for the client's outsourced business processes.

In *business process outsourcing*, companies hire external service providers to manage entire business process functions such as hotlines, helpdesks, claims management, call centers, document processing and storage, data management, payroll, financial services (banks and insurance), accounting, auditing, transportation, travel management systems, logistics and various IS services (Millar, 1994, as cited in Lacity & Hirschheim, 1995, pp.4-5; Sparrow, 2003, p. 11). Vendors provide a range of services spanning all areas of business with the overall aim to improve and allow seamless and consistent levels of customer service.

Complex Sourcing

- *Multiple clients and multiple vendors in a single contract or alliance*

As illustrated in Figure 8*complex sourcing*is a many-to-many relationship that involves both multiple clients and vendors in the same outsourcing contract or in an alliance (Gallivan & Oh, 1999, pp. 1-6; see also Dibbern et al., 2004, pp. 12-13). Moreover, this can be interpreted as a combination of both the*multi-vendor* and *co-sourcing* relationships as defined by Gallivan and Oh (1999).

Cooperative Sourcing

- *Client's internal IS department and the vendor perform IS activity cooperatively*

When a targeted IS function is performed jointly by the client's internal IS department and the vendor, it is known as*cooperative sourcing* (Millar, 1994, as cited in Lacity &

Figure 11. Co-sourcing: Helping the client's IS department mature
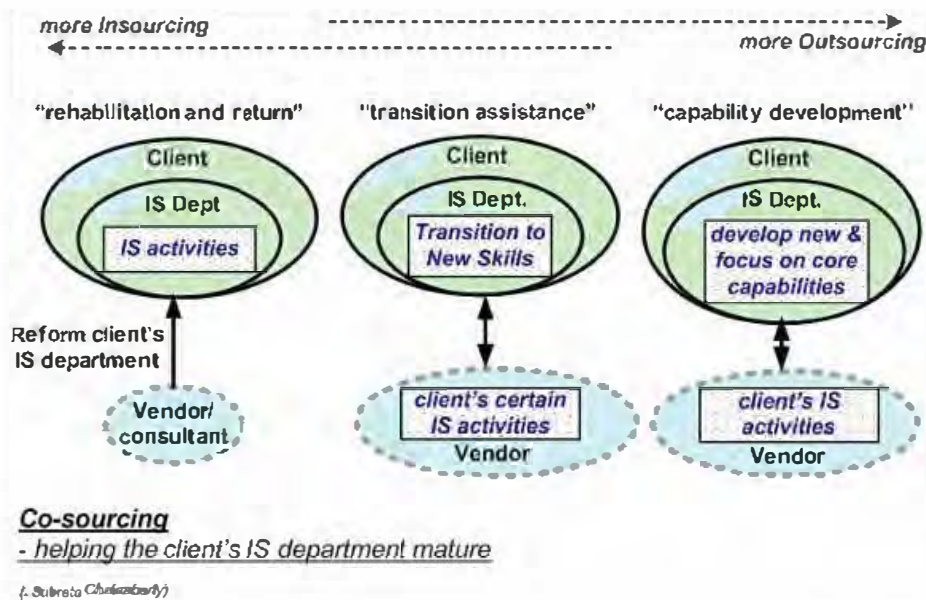
Hirschheim, 1995, pp. 4-5). As shown in the Figure 9, the client's IS department works closely with the vendor as a single team, towards the successful completion of the IS activity.

Co-Sourcing

- *Client's performance determines vendor's revenue*

- *Helping the client's IS department mature*

- *Multiple clients jointly seek services from vendor*

Three interpretations of the term *co-sourcing* exist. While the first interpretation is based on performance being linked to revenue, the second interpretation is based on the role of the vendor in the growth or maturation of the processes in the client's IS department, and the third interpretation is based on clients jointly seeking IS services.

When the vendor's revenue from the client to which it is providing services is linked to the performance of the client, it is known as *co-sourcing* (Willcocks & Lacity, 1998, pp. 26, 30-31). As shown in Figure 10, the vendor provides services to the client with the underlying contractual expectation that it would positively affect the client's performance; the client evaluates the improvement in its own performance due to the vendor's contribution and pays the vendor proportionately.

As shown in Figure 11, *co-sourcing* has also been interpreted as being part of a *multi-sourcing continuum* having three possible co-sourcing strategies: (a) the "*rehabilitation and return*" strategy where the internal IS department is reformed through the assistance of a vendor or consultant and the IS functions are kept in-house, (b) the

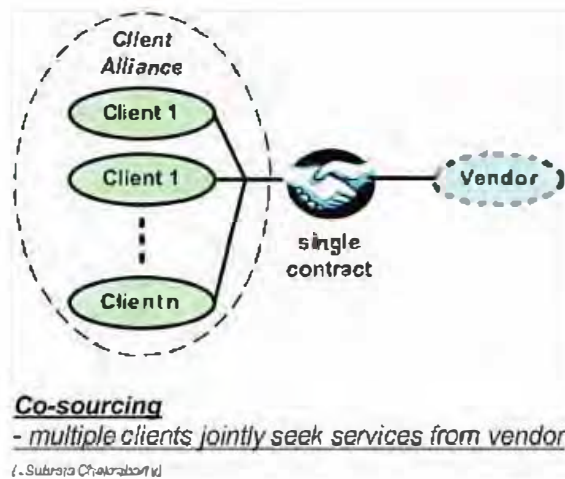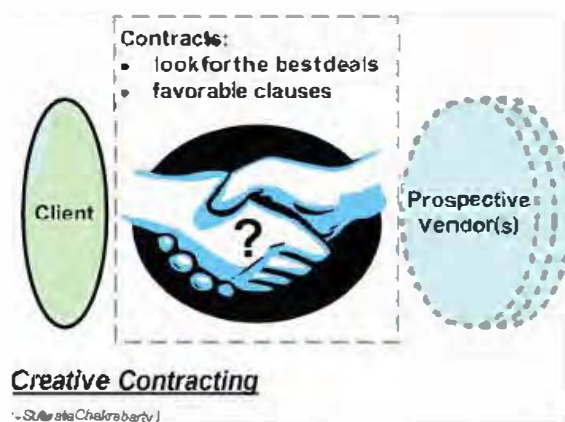*Figure 12. Co-sourcing: Multiple clients jointly seek services from vendor*

Figure 13. Creative contracting

"transition assistance" strategy where a vendor takes on certain IS activities while the internal IS department transitions itself to a new set of skills, and (c) the *"capability development"* strategy where the internal IS department develops new capabilities and focuses on certain core capabilities, while a vendor either permanently or temporarily takes on IS activities (Wibbelsman & Maiero, 1994, as cited in Dibbern et al., 2004, p. 11).

Going by this interpretation, *co-sourcing* can be defined as a process where the vendor assists in the growth or maturation of the processes in the client's IS department, as dictated by the needs of the client. The *"transition assistance"* part of *co-sourcing* has also been termed as " *transitional outsourcing*" (Millar, 1994, as cited in Lacity & Hirschheim, 1995, pp. 4-5).

Finally, in another interesting interpretation as shown in Figure 12, *co-sourcing* is defined as a many-to-one relationship where multiple clients form an alliance by pooling their needs and resources, and contract with a single vendor for joint delivery of IS services (Gallivan & Oh, 1999, pp. 1-6; see also Dibbern et al., 2004, pp. 12-13). Furthermore, Gallivan and Oh (1999) state that in addition to IS outsourcing such client
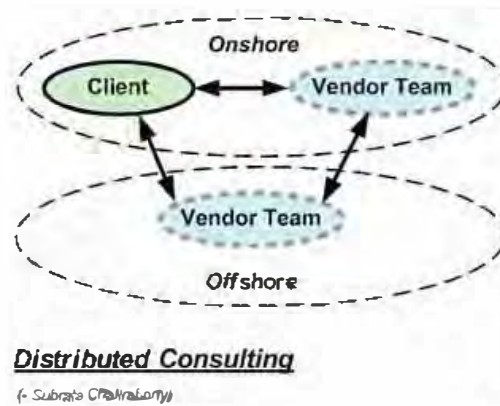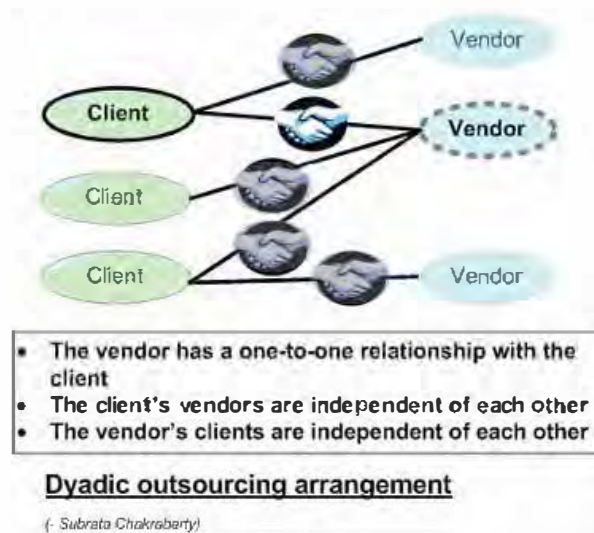
Figure 14. Distributed consulting

Distributed Consulting

(- Subrata Chakrabarty)

Figure 15. Dyadic outsourcing arrangement

- The vendor has a one-to-one relationship with the client
- The client's vendors are independent of each other
- The vendor's clients are independent of each other

Dyadic outsourcing arrangement

(- Subrata Chakrabarty)

alliances can also be found in business disciplines such as marketing (i.e., co-marketing) and management (i.e., R&D consortia), and have advantages of risk sharing and reduction, increased bargaining power, and buyer economies of scale.

Creative Contracting

- *Innovative contracts for better deals*

In *creative contracting*, the client is a *tougher shopper* and includes special clauses in the contract in order to satisfy its own needs and get better deals (Willcocks & Lacity, 1998, pp. 26, 32). The client examines various options and is looking for the best deal.

As illustrated in Figure 13, the clients include ingenious and favorable clauses in the contract so that it can get the best deal. Willcocks and Lacity (1998, pp. 32-33), list the following four *creative contracting* practices:

- Inclusion of a customer-written contract with the request for proposal.
- Provide for competitive bidding of services beyond the contract.
- Flexible pricing mechanisms.
- Beginning a long term relationship with a short term contract.

Distributed Consulting

- *Vendor has teams both at onshore and offshore*

In the case of offshore-outsourcing, there is often a need to have vendor team both at onshore and offshore, where the onshore vendor team coordinates face-to-face with client and the bulk of the outsourced work is carried out by the offshore vendor team, this is known as *distributed consulting* (see Figure 14).

This is a widely accepted practice to ensure effective coordination between onshore-based clients and offshore-based vendors. For example, TCS (http://www.tcs.com), Infosys (http://www.infosys.com), Wipro (http://www.wipro.com) and Satyam (http://www.satyam.com),all large software service providers (primarily based in India), have for long incorporated this concept into what they call the " *global delivery model.*" Kobyashi-Hillary(2004, p. 153) calls this particular concept of having offshore/onshore blends of vendor teams as *distributed consulting*.

Dyadic Outsourcing Arrangement

- *Independent client dealing with independent vendor*

A *dyadic* outsourcing arrangement assumes a one-to-one relationship between a client and a vendor, the presumption being that the client firms seeking IS services act independently of each other and that the vendor firms providing the IS services act independently of each other (Gallivan & Oh, 1999, pp. 1-6; see also Dibbern et al., 2004, pp.12-13).
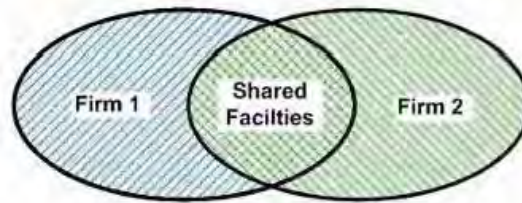
Figure 16. Facilities management
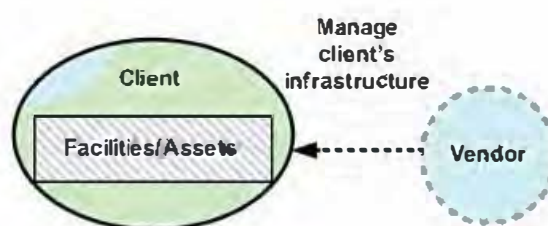
Facilities Management
(- Subrata Chakraborty)

Figure 17. Facilities sharing


Facilities Sharing

(- Subrata Chakrabarty)

As shown in Figure 15, in *dyadic* outsourcing arrangements a client can engage multiple vendors for various IS functions, however its vendors are independent of each other; similarly, a vendor can provide services to multiple clients, but its clients are independent of each other. There is a one-to-one relationship between each client and each vendor providing services to that client.

Facilities Management

•   *Vendor maintains the client's assets*

In *"facilities management"* outsourcing, the client owns the technology assets but hires a vendor to take over the operational control of these assets (Dibbern et al., 2004, p. 7; Sparrow, 2003, pp. 6-7). As illustrated in Figure 16, the ownership of the technology assets (which may reside at either the client's premises or elsewhere) is not transferred
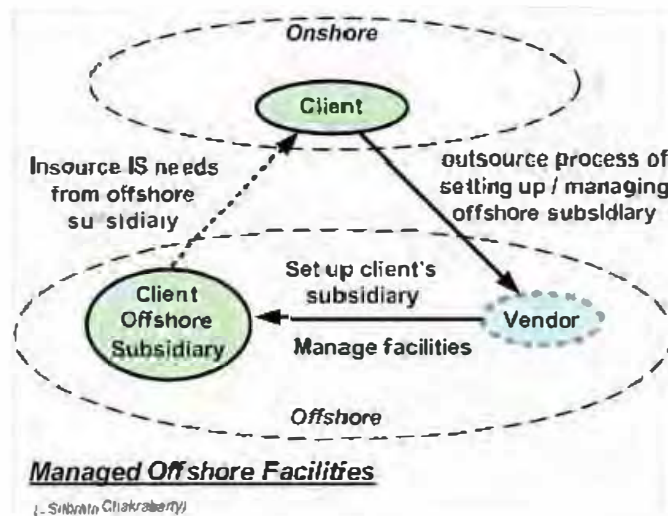
Figure 18. Global delivery
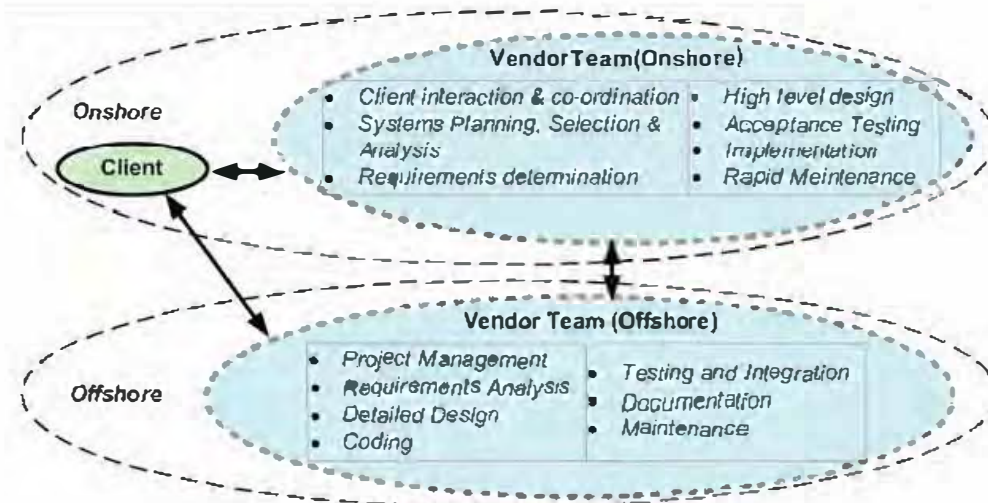
Global Delivery

(- Subrata Chakrabarty)

Figure 19. Managed offshore facilities

to the vendor. The vendor is expected to offer expertise and also lower the costs of maintaining these technology assets. For example, a vendor may be hired to manage the computer hardware and also regularly upgrade the software needs of the customer more efficiently. The vendor may involve in operational and systems programming tasks (for the technology assets being managed), but not in the development of applications (which are outside the scope of "facilities management").

Facilities Sharing

- *Sharing ownership of facilities needed by each*

As shown in the Figure 17, in the *"facilities sharing"* form of outsourcing, a firm chooses to share ownership of IS facilities with either a vendor or others in the same industry (Dibbern et. al., 2004, p. 7). This can be prove to be a cost effective approach, where more than one firm chooses to share the ownership of the IS facilities required by each of the firms. The details regarding maintaining operational control over these shared facilities will need to be worked out.

On one hand, a firm may choose to share both the *ownership* and *operational control* of facilities with another firm. On the other hand, a firm may choose to share *ownership* of the facilities with a vendor, and in addition the vendor is hired by the firm to assume *operational control* over the shared facilities.

General Outsourcing

- *Selective, value-added and cooperative outsourcing*

*Figure 20. Multi-sourcing continuum*
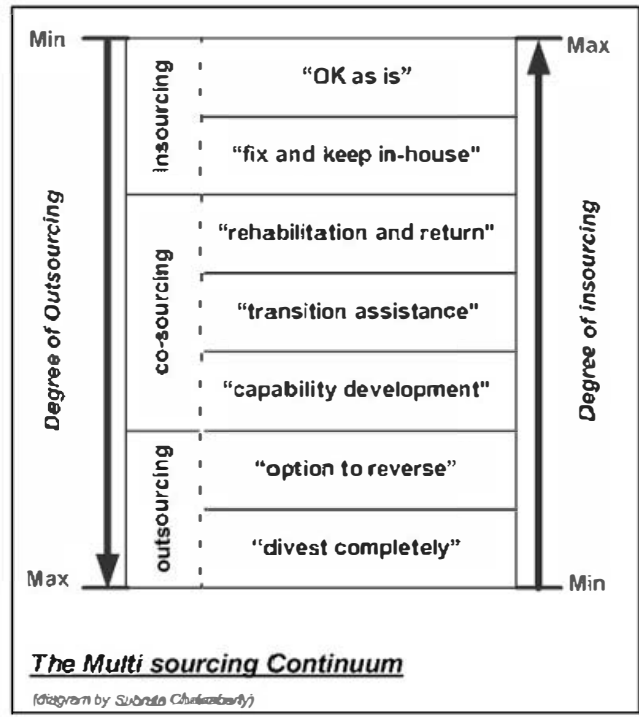
General outsourcing encompasses the three alternatives of selective outsourcing, value-added outsourcing, and cooperative outsourcing (Millar, 1994, as cited in Lacity &Hirschheim, 1995, pp. 4-5).

Global Delivery

- *Large vendor delivering services from various global locations to clients at various global locations*

Figure 21. Multi-vendor outsourcing
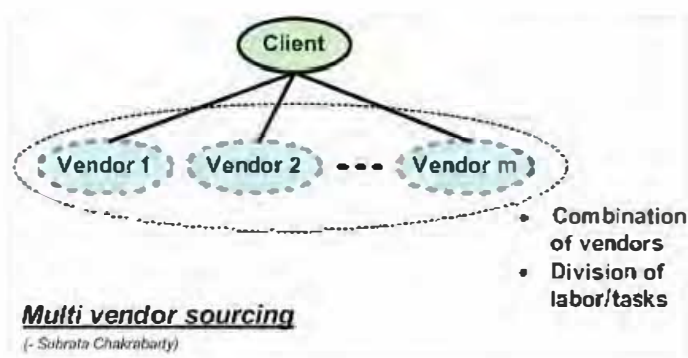
In *global delivery*, a large vendor's IS delivery centers are located worldwide and are comprehensively networked with collaborative systems that allow seamless integration of projects delivered from multiple locations and thereby providing economies of scale and scope (Tata Consultancy Services, n.d.).

The "*global delivery model*" is an offshore-outsourcing model that takes advantage of the global talent pool to give the best value to the client in terms of cost and quality. As illustrated in Figure 18, the work is broken down into logical components, which are then distributed to suitable global locations such that the client gets access to the vendor's global talent and also creates maximum value for the client in terms of cost and quality (Infosys, n.d.). For example, in the case of software production, the onshore vendor team can be involved in client interaction and co-ordination, systems planning and selection, systems analysis, requirements determination, high level design, acceptance testing, implementation, and rapid maintenance support; while the offshore vendor team can be involved in project management, requirements analysis, detailed design, coding, testing and integration, documentation, and maintenance.

Managed Offshore Facilities

- *Outsourcing the process of setting up facilities for offshore-insourcing*

As illustrated in the Figure 19, in "*managed offshore facilities*", the client *outsources* the process of creating its offshore subsidiary to a vendor; once the offshore facility is up and running, the client can take full ownership and hence carry out its *offshore-insourcing* operations. Also, vendors may be given the task of "*facilities management*" of the client's offshore subsidiary.

Managed offshore facilities is a variant of the *Build-Operate-Transfer* model, where the vendor manages the process of creating the offshore facility, and the client has the option of taking full ownership by a specified date (i-Vantage, n.d.; Kobyashi-Hillary, 2004, p. 153). This *outsourcing* alternative has the potential to reduce many hassles for a firm that decides to set up a subsidiary for *offshore-insourcing*.

Multi-Sourcing

- *One contract with multiple vendors*
- *Multiple sourcing strategies in a continuum*

The term *multi-sourcing* has been interpreted in two ways.

In one interpretation of *multi-sourcing*, the client has one outsourcing contract with multiple suppliers (Willcocks & Lacity, 1998, pp. 26, 29-30). Willcocks and Lacity (1998) note that in multi-sourcing, while the risks of being dependent on a single vendor are reduced, additional time and resources are required to manage multiple vendors. This interpretation of Multi-sourcing has also been termed as "*multi-vendor outsourcing*" by

Gallivan and Oh (1999) and as *multi-supplier sourcing*" by Currie and Willcocks (1998).

In another interpretation as shown in Figure 20, *multi-sourcing* has been defined as the multiple sourcing of IS services, specifically seen as a continuum, where the end points of the continuum span from "*OK as is*" to "*divest completely*" (Wibbelsman & Maiero, 1994, as cited in Dibbern et al., 2004, p. 11). Furthermore, the various strategies of the *multi-sourcing* continuum have been given as:

(1a) *Insourcing* -> "OK as is"

(1b) *Insourcing* -> "fix and keep in-house"

(2a) *Co-sourcing* -> "rehabilitation and return"

(2b) *Co-sourcing* -> "transition assistance"

(2c) *Co-sourcing* -> "capability development"

(3a) *Outsourcing* -> "option to reverse"

(3b) *Outsourcing* -> "divest completely"

Multi-Vendor Outsourcing / Multiple-Supplier Sourcing / Dual Sourcing

• *Client dealing with multiple interdependent vendors*

In *multi-vendor* outsourcing a one-to-many relationship exists, indicating that one client uses multiple vendors and that division of labor is jointly negotiated and understood by all parties to the agreement (Gallivan & Oh, 1999, pp. 1-6; see also Dibbern et al., 2004, pp. 12-13).

As shown in figure 21, *multi-vendor* or *multi-supplier* outsourcing arrangements allow a client to engage multiple vendors for various IS functions which are then jointly performed by the multiple vendors through an agreed upon division of labor. This implies that a cooperative and also competitive environment exists between the vendors working together.

In *multiple-supplier* sourcing the client enters into IS sourcing arrangements with a variety of suppliers/vendors (Currie & Willcocks, 1998, pp. 122-123). Currie and Willocks (1998), state the following three advantages of *multiple-supplier* sourcing: (a) the client can safeguard against being dependent upon a single vendor, and prevent a scenario where a single vendor controls all its IS assets, (b) the client with short-term contracts that are and liable for renewal not necessarily with the same vendor (or combination of vendors) encourages competition and innovation, and (c) the client can concentrate on its core business while the suppliers manage and provide IS services.

The identical concepts of *multi-vendor* outsourcing (Gallivan & Oh, 1999, pp. 1-6) and *multiple-supplier sourcing* (Currie & Willcocks, 1998) have also been termed as simply "*multi-sourcing*" by Willcocks and Lacity (1998).

Figure 22. Selective / smart / right / flexible / modular sourcing

Selective / Smart / Right / Flexible / Modular Sourcing
(- Subrata Chakrabarty)
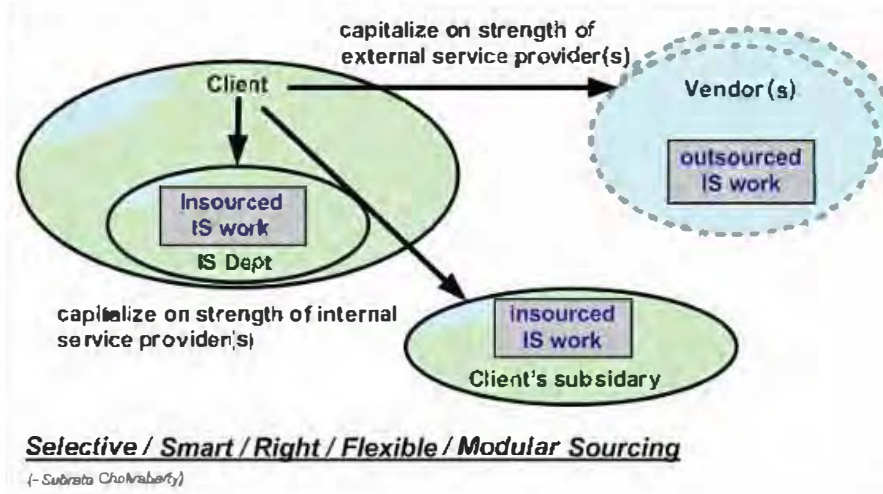
Klotz and Chatterjee (1995, p. 1317) have used the term *"dual sourcing"* to indicate a scenario where a client sources from two vendors, which prevents the client from being held by hostage by a monopolistic vendor over time, and helps the client to derive cost advantages due to the competition between the vendors.

Project Management Outsourcing

- *Vendor manages a project*

In *project management outsourcing*, the client *outsources* a specific project or portion of the IS work, and the vendor is responsible for managing and completing the work (Lacity & Hirschheim, 1993a, pp. 17-18). Further, project management outsourcing may involve the use of vendors for development of new systems, maintenance of existing systems, providing training, managing networks, and handle disaster recovery.

Selective / Smart / Right / Flexible / Modular Sourcing

- *Outsourcing and insourcing optimally*

Selective sourcing or *smart sourcing* is the practice of outsourcing select IS applications to vendors, while retaining other IS applications in-house (Lacity, Willcocks & Feeny, 1996, pp. 13-14). *Rightsourcing, flexible sourcing,* and *modular sourcing* are synonyms of the same.

When one particular area of the client's IS activity is chosen to be turned over to a vendor, it is known as *selective outsourcing* (Millar, 1994, as cited in Lacity & Hirschheim, 1995, pp. 4-5).

Figure 23. Strategic alliances / partnerships / joint ventures / equity holdings

As illustrated in Figure 22, firms often prefer to keep select IS functions in-house based on their own strengths and capabilities, and *outsource* the IS functions which they feel can be better performed by a vendor. This is a flexible and modular form of outsourcing where all the IS functions are broken down into multiple modules, some of which are outsourced and some are retained in-house based on cost analysis, technology and resource needs.

Selective sourcing, which eschews the all-or-nothing approach in favor of more flexible, modular outsourcing, is characterized by short-term contracts of less that five years for specific activities, and hence meets the customer's needs while minimizing risks associated with total outsourcing approaches (Lacity et al., 1996, pp. 13-14).

In *selective sourcing*, clients outsource between 20 to 60% of the IS budget to vendors (typically around 40%) while still retaining a substantial internal IS department (Lacity &Hirschheim, 1995, pp. 4, 223-224; see also Dibbern et al., 2004, p. 10). Furthermore, this recommended approach is capitalizes on the respective strengths of both internal and external service providers.

Spin-Offs

- *An IS department that now sells to the market*

A *spin-off* is an entity, which was originally an internal IS department of a firm, and is now selling its services to the market (Willcocks & Lacity, 1998, pp. 26, 31-32). The parent firm either totally or selectively sources IS functions from the spin-off (Dibbern et al., 2004, p. 12). A spin-off is a *client entity* as long as its ownership control remains with the client, however if the client gives up the ownership control (for example by divesting its majority equity stake) it becomes a *non-client entity*. So a client *insources* from a spin-off that it owns, but *outsources* to a spin-off that it does not own anymore.

Strategic Alliances / Partnerships / Joint Ventures / Equity Holdings / Strategic Sourcing

- *Sharing risks and rewards*

As shown in the Figure 23, a client enters into a *strategic alliance* or *partnership* with a vendor on a shared risk/reward basis which may involve (a) contracting with a vendor to share risk/rewards, (b) helping to create a new *joint venture* company to which work can be outsourced, or (c) take share/equity holding in each other (Currie & Willcocks, 1998, p. 124; Sparrow, 2003, p. 12; Willcocks & Lacity, 1998, pp. 26, 27-28). Furthermore, by entering into a joint venture a client has greater control of the vendor's activities. Currie and Willcocks (1998) have treated the terms " *joint venture*" and "*strategic alliance*" synonymously.

Benefit-based relationships (Sparrow, 2003, p. 13) and *business benefit contracting* (Millar, 1994, as cited in Lacity & Hirschheim, 1995, pp. 4-5) may be considered as methodologies to share risk/reward on the basis of the contractual agreement.

The client and vendor can set up a separate "*joint venture*" organization which has its own management team, and its IS staff can be provided by both the parties, thus enabling the client to gain access to new technical skills and resources, reorganize IS functions and processes and investigate new sources of revenue (Sparrow, 2003, p. 12).

In *equity holding* deals, the client takes an equity position in the vendor, and vendor may also take an equity position in the client (Willcocks & Lacity, 1998, pp. 26, 27-28).

In *strategic sourcing*, a customer decides in a wider business context on what, when, and how to outsource, and hence aiming to achieve a significant improvement in business performance rather than a short-term cost saving alone; the customer and supplier work towards mutual interests and are willing to share risk and rewards (Sparrow, 2003, p. 8). Ideally, a *partnership*, *joint venture* or *strategic alliance* is best classified as an arrangement for sharing risks and rewards between a client and a vendor. Dibbern et al. (2004, p. 52) interestingly state the following:

It should be noted that the terms partnership, alliance, and relationship are loosely defined in the outsourcing literature. For example, Grover et al. (1996) suggest a connection between the presence of certain elements of 'partnership' and outsourcing success. However, they go on to note that other researchers (Lacity & Hirschheim, 1993; Fitzgerald & Willcocks, 1994) believe the relationship between an outsourcing vendor and its customer should not be characterized as a partnership unless there is a true sharing of risks and rewards. In another example, Lacity and Willcocks (1998) state that the term "partnership" was commonly used by firms when referring to fee-for-service contracts. The vague and inconsistent use of these terms contributes to the difficulties in comparing results among studies.

Tactical Outsourcing / Contracting-Out / Out-Tasking

- *Outsourcing for rapid solution to problems*

Tactical outsourcing is adopted to solve a particular need or problem rapidly over a short period of time; it is also known as *contracting-out* or *out-tasking* (Sparrow, 2003, p. 8). When a firm finds itself short of in-house resources to complete a particular task in quick time, the task can be contracted out to competent firms or individuals thereby giving the firm rapid access to new technical skills.

Total Insourcing

- *Insourcing maximum percentage of IS budget*

In *total insourcing*, though a firm formally evaluates outsourcing options, it finally selects its internal IS departments' bid over vendor bids, thus keeping over 80% of the IS budget in-house (Lacity & Hirschheim, 1995, pp. 4, 223-224; see also Dibbern et al., 2004, p. 10). Furthermore, *total insourcing* can sometimes be a poor IS strategy because it may fail to capitalize on the inherent cost advantages provided by vendors, and may create a political environment of complacency.

Total Outsourcing / Traditional Outsourcing

- *Outsourcing maximum percentage of IS budget*

- *Vendor having complete charge of significant IS work*

There are two interpretations of *total outsourcing*. One is based on the percentage of IS budget outsourced, and the other is based on the totality of the work or project outsourced.
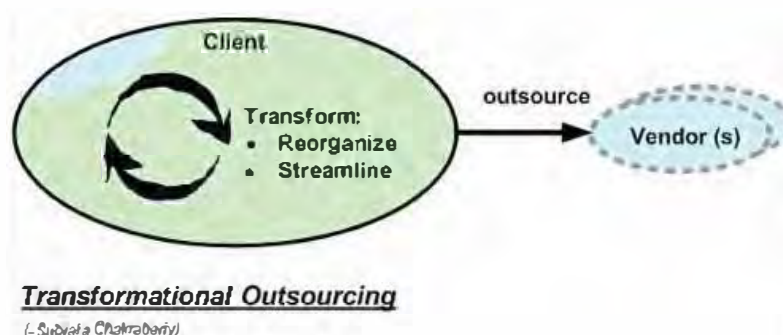
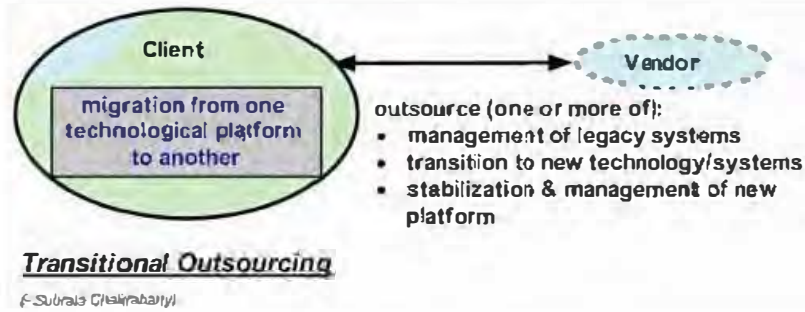*Figure 24. Transformational outsourcing*

Transformational Outsourcing

(- Subrata Chakrabarty)

Figure 25. Transitional outsourcing

Transitional Outsourcing

In the first interpretation of *total outsourcing*, clients outsource at least 80% of there IS budgets to vendors (Lacity & Hirschheim, 1995, pp. 4, 223-224; see also Dibbern et al., 2004, p. 10). Furthermore *total outsourcing* can sometimes be a poor IS strategy because it fails to capitalize on the potential inherent cost advantages of internal IS departments. *Total outsourcing* has also been referred to as *traditional outsourcing* (Dibbern et al., 2004, p. 12).

In the second interpretation of *total outsourcing*, the vendor is in complete charge of a significant piece of IS work, such as entire hardware operations (e.g., data center and/ or telecommunications) and software support (sometimes including applications development) (Lacity & Hirschheim, 1993a, pp. 17-18).

Transformational Outsourcing

- *Streamlining of client's internal organization alongside outsourcing*

In *transformational outsourcing*, companies transform by comprehensive reorganization and streamlining of its business processes and technology infrastructure and the outsourcing of IS needs, in order to reduce costs and improve services (Sparrow, 2003, p. 10). As shown in Figure 24, a company (client) decides to *transform* by reorganizing and streamlining the way it operates; and a component of such reorganization and streamlining would be outsourcing.

Figure 26. Value-added outsourcing

Value-added outsourcing
- *combined strengths for the market*

Transitional Outsourcing

- *Outsourcing during a major changeover*

When companies need to introduce a major transition, such as migration from one technological platform to another involving the outsourcing of one or more of the following three phases: (a) management of the legacy systems, (b) transition to the new technology/systems, and (c) stabilization and management of the new platform, it is known as *"transitional outsourcing"* (Millar, 1994, as cited in Lacity & Hirschheim, 1995, pp. 4-5), which is illustrated in figure 25.

Firms sometimes undertake transitions like infrastructure overhauls and IS consolidation in order to bring in more efficiency, and make use of newer technologies. Conceptually, *transitional outsourcing* has also been addressed as *"transition assistance"* in the *co-sourcing* continuum (Wibbelsman & Maiero, 1994, as cited in Dibbern et al., 2004, p. 11).

Value-Added Outsourcing

- *Combined strengths for the market*
- *Vendor adding value to IS activity*

There are two interpretations of the term *value-added outsourcing"*. One interprets on the basis of selling jointly developed products and services in the marketplace, and other interprets on the basis of additional value added to a service by the vendor.

In the first interpretation of *value-added outsourcing* that is shown in Figure 26, both the client and the vendor combine their strengths to jointly develop and market new products and services (Willcocks & Lacity, 1998, pp. 26-27). Willcocks and Lacity (1998) argue that because each partner shares revenue from the external sales, the partnership resulting from *value-added outsourcing* is an alliance with shared risks and rewards.

As per the second interpretation, when some area of the client's IS activity which could not be cost effectively provided by the internal IS department, is turned over to a vendor that can provide a level of support or service that adds value to the activity, it is known as *value-added outsourcing* (Millar, 1994, as cited in Lacity & Hirschheim, 1995, pp. 4-5).

Future Trends

As the reader would gauge after reading this chapter, a large number of terminologies are already being used in the world of IS sourcing. There are two highly noticeable aspects that come to fore. The first is that most of the terminologies in literature deal with the client's perspective (for example, what is best for the client and how the client should

handle vendors), and the vendor's perspective is almost absent. The second is that most of the terminologies in literature relate to the insourcing versus outsourcing line of thought and relatively fewer terminologies relate to the lateral phenomenon of offshoring.

A large majority of available literature has analyzed issues from the perspective of the client. The lack of literature giving the vendor perspective implies that this gap may be filled in the future, leading to a greater understanding of the vendor's methodologies. This would imply more terminologies being added with the vendor's perspective in mind (like global delivery).

Though offshoring in the manufacturing and textile industries had taken place a long time back, the offshoring of IS work is a relatively new phenomenon. Most the sourcing alternatives that were discussed in this chapter are conceptually applicable to both onshoring and offshoring. However, due to various advantages (like cost savings, skilled labor pool, etc.) and disadvantages (like communication and coordination problems, etc. …), the offshore versions of insourcing and outsourcing are quite distinctive from the conventional onshore versions. Hence, there is the possibility of a more onshore versus offshore line of research (for both insourcing and outsourcing).

Conclusions

This chapter compiled the maze of sourcing alternatives and terminologies that have come into being in recent times. The sheer number of these alternatives justifies the need for this chapter. This pursuit for terminologies and concepts resulted in the understanding of various sorts of insourcing, outsourcing, onshoring and offshoring of business needs and therefore elucidated this behemoth of a phenomenon that is continuously changing the way business is carried out globally.

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