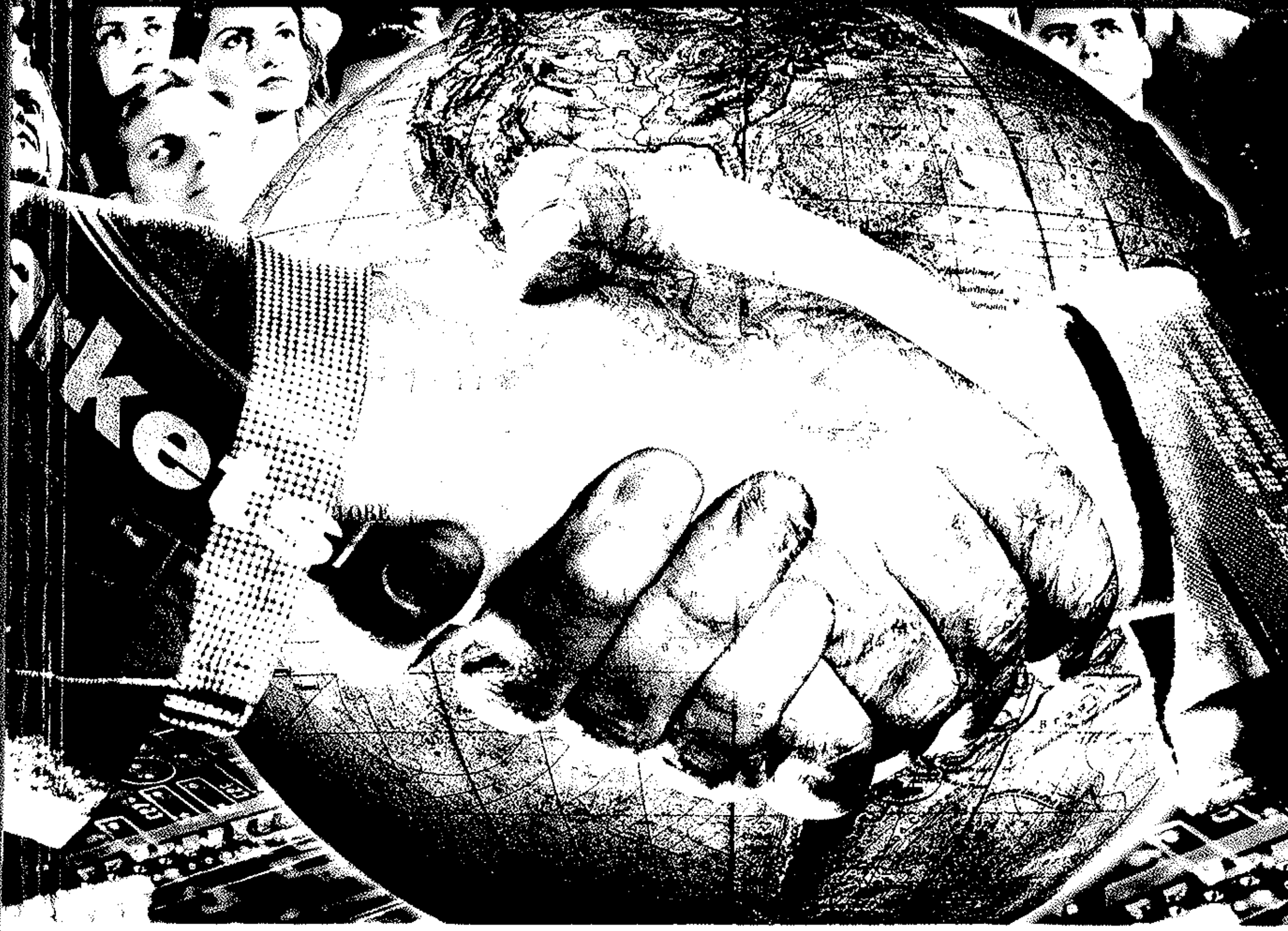
Outsourcing and Offshoring in the 21st Century

A Socio-Economic Perspective



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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 a *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:* **Main Strategy** / **Sub-Strategy**: insourcing: "OK as is"; "fix and keep in-house" co-sourcing: "rehabilitation and return"; "transition assistance"; "capability development" outsourcing: "option to reverse"; "divest completely"
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.

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Figure 1. Sourcing and shoring: Onshore centric view

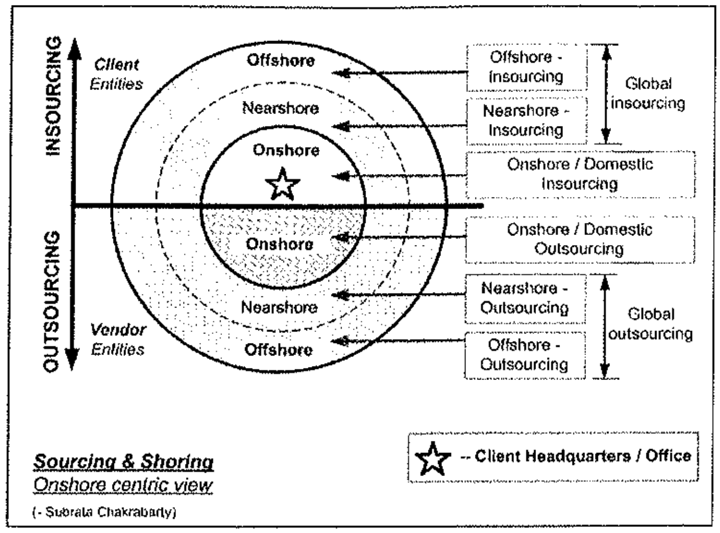
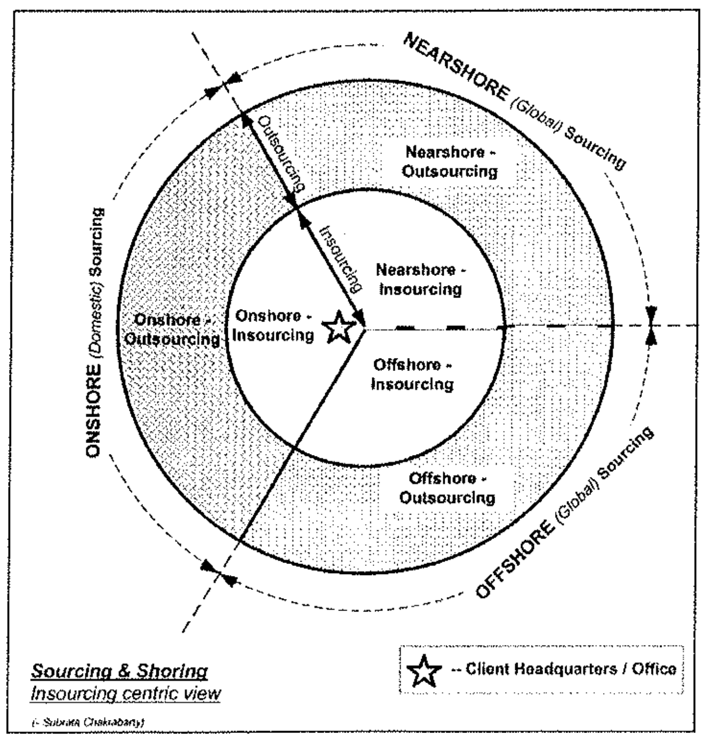


Figure 2. Sourcing and shoring: Insourcing centric view



- **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 "*offshore*" 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.

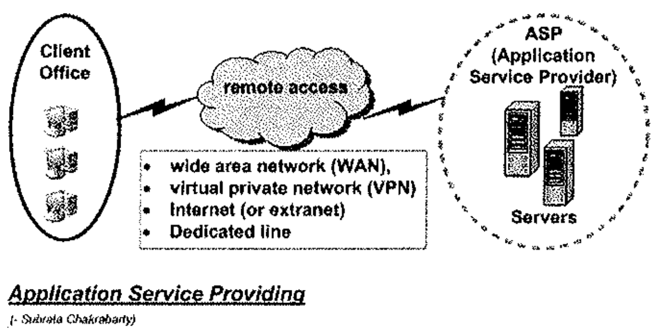
Table 7. List of sourcing alternatives

Terminology	**Definitive 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	Outsourcing	Anywhere
Backsourcing	Insourcing what was outsourced	Insourcing	Anywhere
Benefit based relationships / Business benefit contracting	Linking payments to realization of benefits	Outsourcing	Anywhere
Body Shop Outsourcing	Using contract personnel	Outsourcing	Anywhere
Business Process Outsourcing	Vendor performs client's entire business processes	Outsourcing	Anywhere
Complex sourcing	Multiple clients and multiple vendors in a single contract or alliance	Outsourcing	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	Outsourcing	Anywhere
	Helping the client's IS department mature		
	Multiple clients jointly seek services from vendor		
Creative Contracting	Innovative contracts for better deals	Outsourcing	Anywhere
Distributed Consulting	Vendor has teams both at onshore and offshore	Outsourcing	Offshore
Dyadic outsourcing arrangement	Independent client dealing with independent vendor	Outsourcing	Anywhere
Facilities Management	Vendor maintains the client's assets	Outsourcing	Anywhere
Facilities Sharing	Sharing ownership of facilities needed by each	Both	Anywhere
General outsourcing	Selective, value-added and cooperative outsourcing	Outsourcing /Both	Anywhere
Global Delivery	Large vendor delivering services from various global locations to clients at various global locations	Outsourcing	Offshore
Managed Offshore Facilities	Outsourcing the process of setting up facilities for offshore-insourcing	Outsourcing	Offshore
Multi-sourcing	One 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	Outsourcing	Anywhere
Project Management Outsourcing	Vendor manages a project	Outsourcing	Anywhere

Table 7. cont.

Terminology	Definitive feature	Basic sourcing strategy: o Insourcing o Outsourcing o Both o Any	Shoring strategy focus: o Onshore o Offshore o 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



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.