

International outsourcing of information technology services

Review and future directions

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Abstract

Purpose - This aim of this paper is to review the development of the empirical literature on international outsourcing of information technology services over the 1992-2007 periods and to identify future research areas.

Design/methodology/approach – A sample of 78 empirical academic publications on international outsourcing of IT services conducted between 1992 and 2007 across 46 scholarly journals constitutes the main data for analytical purposes. The sample was compiled following extensive electronic searches of the main academic data bases. After clustering the studies in the sample according to their main research areas, a narrative approach was used to review developments in each cluster and to identify emerging research areas.

Findings – Four main areas of research are identified, namely outsourcing decision, outsourcing management, outsourcing outcome and the role of offshore service providers. The review suggests that research efforts to date have been predominantly on outsourcing decision and outsourcing management mostly from the perspective of the client. Future research opportunities exist in the area of outsourcing strategy and performance, the behaviour and performance of offshore service providers particularly within the context of firms from less developed countries competing globally, and the nature of competition among offshore service providers both within and among countries.

Originality/value – This is the first review which focuses on empirical studies of outsourcing for IT services. This study identifies several gaps in the literature and points to the need for more research on outsourcing from the perspective of offshore service providers.

Keywords international outsourcing, IT services, offshore service provider

Paper type Literature review

Introduction

The continuous decline in cross border trade barriers over the last two decades and the development of more affordable advanced information and communication technologies have made international outsourcing, in general, increasingly feasible and financially viable to a greater number of firms. The international outsourcing of information technology services (ITS)ⁱ has grown rapidly in recent years to become one of the fastest growing international businesses in the world. The ITS market has been predicted to grow to approximately US\$800 billion by 2009 (Gartner, 2005), with global ITS outsourcing growing from US\$40 billion in 2004 to over US\$90 billion in 2008 (Nasscom, 2005). The main players on the demand side in the global ITS outsourcing market include the triad economies which account for 87% of the world market: USA 37%, Western Europe 35.4%, and Japan 14.2% (EITO, 2006). On the supply side or the service provider's side, India and China have emerged as preferred international ITS outsourcing locations among multinationals (Kearney, 2006). Other smaller locations for offshoring ITS include Ireland, Israel, Philippines, Malaysia and Russia.

Rapid growth in international outsourcing has also resulted in the emergence and use of numerous terms and concepts, particularly by practitioners, and this is often a source of confusion to academic researchers. Examples include terms such as outsourcing, insourcing, back sourcing, offshoring, strategic outsourcing, offshore service providers (OSPs), offshore, and onshore. What exactly do these terms mean?

Outsourcing is generally defined as 'the procurement of supplies from legally independent activities' (Mol *et al.*, 2005), or 'the purchase of goods or services that were previously provided internally (Lacity and Hirschheim, 1993). Strategic outsourcing is the use of multiple vendors on short term contracts. Other terms such as business process outsourcing (BPO) or knowledge process outsourcing (KPO) relate to the functions to be outsourced such as business processes, knowledge/research and development services. Backsourcing refers to bringing the outsourced activities back into the company's home country. 'Offshoring' occurs when an organisation in one country outsources work to another country either by setting up its own operation in the foreign country or by contracting with an outsourcing provider who transfers work overseas (Niederman, 2005).

The terms outsourcing and offshoring are often used interchangeably and can often be a source of confusion. Figure 1 distinguishes between outsourcing and offshoring for a typical firm which can procure services from within the country (domestic outsourcing) or from overseas (international outsourcing) with services supplied internally (insourcing) or by an external supplier (outsourcing). International sourcing, also commonly referred to as offshoring, involves the supply of services from another country either through internal suppliers (international insourcing) or external suppliers (international outsourcing). Outsourcing involves the supply of services from external suppliers either domestically (domestic outsourcing) or internationally (international outsourcing). Thus, as can be seen from Figure 1, outsourcing can be domestic (area 1) or international (area 2), and offshoring can be from affiliates (area 3) or non affiliate firms (area 2).

Take in Figure 1

Another distinction between outsourcing and offshoring can be made from an ownership and location perspectiveⁱⁱ. Because outsourcing generally involves a firm's activities being performed 'outside' of the firm, the decision to outsource involves ownership/control considerations. The decision to offshore, however, relates more to location considerations, although ownership considerations need to be addressed first. For example, whether to outsource or not to outsource involves consideration of loss of ownership and control issues for the firm. Once the decision is made to outsource, the next decision is where to outsource from, which involves location considerations. Hence, the decision to outsource from a domestic or an offshore location, and from affiliates or non affiliates, involves both location and ownership/control considerations.

Another term commonly used in the literature is selective outsourcing. This refers to outsourcing of part of a firm's activities, rather than the whole block (total outsourcing) of services such as the services of an entire IT or accounting department. Back sourcing refers to the repatriation of outsourced activities back to the company at home.

Firms providing services to offshore clients are commonly referred to as offshore service providers (OSP). The terms onshore and offshore are used to refer to whether a service is being delivered remotely. For instance, an Indian IT service provider located in the US and

providing services to a US firm located in the US is considered to be work done onsite or onshore (see Figure 2). By comparison, if the US firm is being serviced remotely from India that is considered as an offshore activity. Similarly, an Indian service provider based in India servicing a US company based in India is considered to be an onshore activity.

Figure 2: Onshore-Offshore Illustrative Examples

Location of US Client firm	Location of Indian Service Provider		
	<i>India</i>	<i>Country close to USA</i>	<i>USA</i>
<i>India</i>	Onshore	Nearshore	Offshore
<i>USA</i>	Offshore	Nearshore	Onshore

The main purpose of this paper is to survey recent developments in the empirical literature on international outsourcing of ITS and to identify future research avenues. Despite rapid growth in research on the topic, the research landscape on international outsourcing of ITS remains confusing and disparate. The next section presents the method and data used in the study. We categorise the stock of research on the subject into four main streams for analytical purposes. The main developments in the literature are then discussed, followed by an identification of gaps in the literature and avenues for future research. The summary and conclusions are contained in the last section.

Method and data

A sample of 78 empirical academic publications on the international outsourcing of IT services across 46 scholarly journals conducted during 1992-2007 constitutes the main data for analytical purposes for the paper. The sample was compiled from an extensive electronic search using academic search engines such as Proquest and EBSCOhost, and using information from the reference lists of recently published empirical studies. Different key words such as outsourcing, offshoring, information technology services and offshore service providers were used as locators for the studies in the sample. The first round of searches identified more than 20,000 publications. After further refining the search by narrowing down the search criteria to include empirical refereed academic journal publications only from 1992 onwards, a sample of 78 studies was compiled. Further checks confirmed that this list was exhaustive and up-to-date. The information in Table 1 summarises some salient features of the studies in the sample.

Table 1: Salient features of studies in the sample

	1992-1995	1996-1999	2000-2003	2004-2007	Total (%)
A. Rank of Journal*					
High	3	9	7	7	26 (33)
Medium	2	6	11	10	29 (37)
Low	3	1	2	4	10 (13)
Not Rated	0	1	0	12	13 (17)
Total (%)	08 (10)	17 (22)	20 (26)	33 (42)	78 (100)
B. Research Areas					
1. Outsourcing Decision <i>(why, what, where, how much, with whom)</i>	6	12	7	13	38 (34)
2. Outsourcing Management <i>(how: hard and soft side)</i>	6	6	7	12	31 (28)
3. Outsourcing Outcome <i>(determinants and consequences)</i>	2	5	5	5	17 (16)
4. IT service provider <i>(location attractiveness, vendor competitiveness)</i>	0	2	7	9	18 (16)
Cross Country Comparisons	0	1	2	4	07 (06)
Total (%)	14 (13)	26 (24)	28 (26)	43 (37)	111** (100)

* Journal categorisation based on UQ07 journal ratings accessed on 15-10-2007 from www.harzings.com

** The total for research areas exceeds 78 because some studies focus on more than one area.

The information in Table 1 shows that during the 1992–2007 period, the intensity of research papers published in academic journals increased steadily and considerably (from 8 in 1992-1995 to 33 in 2004-2007) as researchers became increasingly aware of the emerging importance of outsourcing on a global scale. Although research on IT services outsourcing has appeared in all classes of journals considered, 70 percent is from medium to highly ranked academic journals based on Harzing’s (2007) academic journal categorisation. This is as expected, given that the focus of this paper is on empirical studies from refereed academic journals.

This paper builds on two existing literature reviews: Costa (2001) and Mahnke *et al.* (2005). The literature review by Costa (2001) covers the why, how and what of ITS outsourcing in Australia. The literature review by Mahnke *et al.* (2005), by comparison, provides a more comprehensive survey of the outsourcing literature for ITS, which includes a consideration of theoretical issues and provides a clear agenda for future research. This paper builds on these two literature reviews in three ways: First, the paper explicitly focuses on the international outsourcing of a broader range of IT services; second, the perspective of the vendor, which so

far remains a neglected area of research, is explicitly taken into consideration and, third, the review of literature covers a longer timeframe and draws from a larger sample of empirical studies. As an analytical framework, the studies are clustered according to their main areas of focus and each cluster of studies is reviewed in order to provide more focused insights into the developments that have occurred in each research area and to identify future research avenues. The process involved careful consideration of the main focus of all the papers in the sample. Four main research areas emerged from the sample (Table 1). These include: outsourcing decision (34%) as a dominant area, followed by outsourcing management (28%), outsourcing outcome (16%) and offshore service provider (16%). There is also an increasing trend for embedding cross cultural comparisons in the studies above in recent years with 6% of papers identified taking this approach. Given the vast and diverse nature of the literature, the paper follows the narrative approach used by Madsen (1987) and Aaby and Slater (1989) to review developments in each of the four main research areas. The objective is to summarise and synthesise the diverse empirical and theoretical literature in international outsourcing of IT services, identify gaps in the literature and propose future research avenues.

Review of main research areas

Outsourcing decision (OSD)

Outsourcing decision is neither a business strategy decision (Quelin and Duhamel, 2003) nor simply a purchase or contract out decision. Rather, it is a strategic decision to reject internalisation of the activity (Gilley and Rasheed, 2000) and depends upon each firm's unique requirements and circumstances (Grover and Teng, 1992). Thus, research on outsourcing decisions has tended to address the following four main questions.

Why and why not to outsource?

Gaps in capabilities, and differences in production costs compared to transaction and agency costs are among the main factors which motivate firms to consider outsourcing some of their activities (Cheon *et al.*, 1995). Firms engage in outsourcing for strategic, financial, environmental and technological reasons. Strategic motivators include a firm's decisions to concentrate on core activities while leaving 'commoditized operations' to specialised service providers. The result is that through outsourcing, a firm's resources can be freed thereby allowing it to deploy limited resources on other strategic aspects (McFarlan and Nolan, 1995). Additionally, outsourcing allows vendors and clients to share business risks (Quelin and Duhamel, 2003) and protect their core assets and capabilities by raising market barriers

for them and commoditising the outsourced activities (Levy, 2005). Outsourcing also leads to greater flexibility and allows clients to have access to more innovative solutions from specialised vendors (Quinn, 2000).

Competitive pressures from the external markets (Pinnington and Woolcock, 1995) and strong supplier marketing efforts (McFarlan and Nolan, 1995) accompanied by management attitudes and beliefs (Pinnington and Woolcock, 1995) also drive some firms to outsource. However, while attempting to gain strategic benefits, firms may also be exposed to strategic risks such as the loss of core competencies and critical skills, mismatch of client vendor priorities (Quinn and Hilmer, 1994), the loss of know-how and innovative capability (Earl, 1996; Hoecht and Trott, 2006), the loss of flexibility with outsourcers, and the feeling of being 'locked in' or 'hostage' or 'dependency' (Antonucci and Tucker, 1998; Quelin and Duhamel, 2003).

Cost savings have been identified as one of the main motivators for the outsourcing of information technology services (Ang and Straub, 1998; Barthelemy and Geyer, 2001; Kakabadse and Kakabadse, 2002), particularly when the quality of the services are not affected. However, research results are mixed on the extent to which costs savings are the main reasons for outsourcing. In a US based survey, 67% of companies were willing to outsource globally if they could realise cost savings (Apte *et al.*, 1997). Similarly, in a survey carried out in the US and UK in 1996, 85% of managers interviewed identified cost savings as a major motivator for international outsourcing of ITS (Lacity and Willcocks, 1996). Serapio (2005) found that 44% of US firms in his study realised cost savings of up to 40% and 50% of firms rated the productivity and quality of vendors as being almost the same as in the US. Vendors are able to provide quality professional services at lower costs by having leaner overhead structures, using low-cost knowledge workers, and realising economies of specialization and scale (McFarlan and Nolan, 1995). More recently, Lewin and Peeters (2006) found that for 97% of companies in their study, cost reduction was the main reason to outsource, followed by growth strategy (73%), competitive pressure (71%) and access to qualified staff (70%). By contrast, research by Espino-Rodríguez and Gil-Padilla (2005) and Loebbecke and Huyskens (2006) found no significant relationship between offshoring decisions and financial factors.

Firms also have to routinely face and manage change to their external environment and, in some cases, resort to international sourcing as a response to external pressures. The imitative behaviour of firms (Loh and Venkatraman, 1992) where firms follow their competitors is a good example of how pressure from external sources may change the behaviour of firms. However, Hu *et al.* (1997) found that it is the dual internal and external influences that lead firms to consider international sourcing. Changes in the external environment which may motivate firms to consider international outsourcing include changes in the macro economy, including changes to a country's laws (Apte *et al.*, 1997) and its economic and political landscape (Bahli and Rivard, 2003). Such changes may also act as inhibitors to outsourcing if there are uncertainties about the economic, legal and political landscape in the offshoring location.

Technological motivators include internal IT failures such as the firm's failure to meet customer service standards and the firm's inability to access the specialised IT skills of vendors (McFarlan and Nolan, 1995). Aubert *et al.* (2004) found a significant positive relationship between the levels of technical skills required in selected activities and the levels of outsourcing by firms. Difficulties in retaining skilled IT staff and relatively easy access to high quality IT staff through outsourcing have been found to be important motivators for outsourcing in an Australian survey (Beaumont and Costa, 2002). Although vendors can be good sources of technological competencies, they can also be a source of potential risks (Antonucci and Tucker, 1998; Jennings, 2002; Quelin and Duhamel, 2003), and uncertainty has also been found to be a major deterrent to outsourcing (Aubert *et al.*, 2004).

What and how much to outsource?

When considering outsourcing as an integral part of a firm's strategy, a critical issue relates to which of the firm's activities and how much of these to outsource. The scope and level of outsourcing depends on several factors. According to Quinn and Hilmer (1994), a firm would outsource all of its activities, except their core competencies, if suppliers' markets were totally reliable and efficient. However, suppliers' markets are not always efficient and elements of risk and uncertainties are always present. Thus, firms contemplating outsourcing of IT services face the daunting question of what functions to outsource and how much to outsource. Activities which are deemed to be core business and are subject to strategic vulnerability may be better produced internally, or insourced rather than outsourced. Traditional strategy models suggest that non core activities can be successfully outsourced

(Grote and Taube, 2007) and the outsourcing of core activities could be risky as a firm may lose its core competencies (Prahalad and Hamel, 1990). Grote and Taube (2007) argue that outsourcing is feasible when organisational proximity is not essential, whereas offshoring (international outsourcing) may be feasible when there are cultural and professional proximities with offshore service providers (OSPs). In their study of offshoring of research activities by investment banks, they found that only non-core activities such as junior tasks or support type tasks were strong candidates for offshoring (Grote and Taube, 2007). None of the participating banks in their study offshored their main research activities which constitute their core competency.

In certain cases, the outsourcing of core activities could benefit an organisation, provided the right approach is taken (Baden-Fuller *et al.*, 2000; Saunders *et al.*, 1997). Firms can experience an erosion of core competencies as a result of rapid changes in their competitive landscape, changes in value chain or the emergence of new technologies. In instances where the core competencies of firms are eroding, outsourcing of such competencies can be successfully undertaken with tight and detailed contracts (Saunders *et al.*, 1997) and outsourcing can lead to improved performance of the firms (Baden-Fuller *et al.*, 2000).

The extent of outsourcing in the IT services sector (i.e. how much to outsource) depends on transaction attributes such as the degree of asset specificity, uncertainty and the availability of business and IT skills required to perform IT activities adequately. Aubert *et al.* (2004) found asset specificity, uncertainty and technical skills to be significant in explaining the level of outsourcing in Canadian IT companies. If more investment in specific assets is required, firms may find it more attractive to outsource such activities to locations where such assets are in abundance and relatively cheaper. For example, a recent Australian study found that firms which are constrained by the availability of skilled IT professionals benefited from outsourcing activities requiring such skills (Baumont and Costa, 2002). Also, because outsourcing allows firms to leverage specialised knowledge and skills embedded into the service providers and which are readily available to their clients, firms may find it beneficial to outsource more of their activities as a way of enhancing their overall competitiveness. Uncertainty has also been found to impact on the level of outsourcing (Aubert *et al.*, 2004) and as the level of uncertainty increases firms may prefer to insource rather than to outsource.

How to outsource?

Once a firm decides to engage in international outsourcing, the question of whether to outsource externally to third parties or to insource by setting up its own offshore subsidiaries becomes a major consideration. International insourcing involves the setting up of foreign subsidiaries to which the parent company contracts its activities deemed viable for such purposes. Subsidiary companies which are set up to service their parent companies solely are commonly known as captive firms, although it is not uncommon for such subsidiaries to also service other companies on a commercial basis. Thus, the decision to insource or to outsource involves careful assessment of the costs and benefits involved in the establishment of subsidiaries offshore relative to contracting to third parties. Insourcing by IT firms is preferable when there is high asset specificity and where the firm's IT division is a profit centre (Barthelemy and Geyer, 2005). The choice between insourcing and outsourcing also varies across countries because the costs of doing business across national boundaries vary greatly. The setting up of foreign subsidiaries may include significant costs of doing business abroad and firms have to undertake cost benefit analyses of offshoring to different locations. For example, it has been found that German firms prefer quasi outsourcing, whereas French firms prefer outsourcing (Barthelemy and Geyer, 2001) and the difference in strategy has been attributed to the influence of labour unions in Germany. However, although cost saving is often cited as a major driver for services offshoring, firms tend to locate their offshore service facilities in locations where they have greater cultural similarities and high education levels (Bunyaratavej *et al.*, 2007) and also where risks and uncertainty are at acceptable levels. Thus, firms may not necessarily outsource to the cheapest offshore locations.

Where and with whom to offshore?

The fourth question which firms have to address when considering outsourcing relates to the location and choice of offshore service providers. Dunning's OLI framework for explaining FDI (Dunning, 1980; 1988; 1995; 2000; 2001), addresses the "where" of FDI of MNE activities and can be applied even to non-FDI based MNE activities such as for offshoring. The location advantages (L) are external to the firm and relate to the geography and location attractiveness (external environment) of a particular country and/or region. The importance of the choice of location for offshoring can be further exemplified by the amount of commercially oriented research on the subject by professional consulting firms such as Gartner (2005), AT Kearney (2004; 2006) and McKinsey (2005).

The choice of a particular location and the selection of an appropriate service provider from the chosen location for offshoring purposes is a critical decision as ‘one size may not fill all’. The decision depends on a multiplicity of factors (Kearney, 2004), including the regulatory and political environment, factor endowments such as human capital and infrastructure (Graf and Mudambi, 2005; Kshetri, 2007; Palvia, 2004), cultural compatibility (Kshetri, 2007; Mol *et al.*, 2004; Palvia, 2004), vendor capabilities (Beulen *et al.*, 2005; Feeny *et al.*, 2005) and the nature of the services to be outsourced. For example, Ireland is a preferred offshoring destination for high value software services, the Philippines is better suited for call centre activities, while India caters for middle to lower end software and services.

Firms tend to offshore as opposed to outsource (domestically) when asset specificity is high, volume uncertainty is low and clients have better coordination capability (Mol *et al.*, 2004). In the case of high asset specificity, firms are more likely to outsource from offshore locations with high levels of stability and consistency in the supply of services and also where offshore service providers have well-established and reliable coordination and management capabilities. The selection of an appropriate offshore service provider is critical in order to realise the benefits of offshoring and the relationship between the client and the vendor often goes beyond pure contractual arrangements.

Outsourcing management (OSM)

Once the strategic decision to outsource has been taken, the next issue which a firm needs to address is how to manage the outsourcing venture successfully. Numerous OSM issues need to be considered, but the initial ones are related to the nature and form of the vendor/client contract. The outsourcing venture can be managed through legal contracts and strategic partnerships (Barthelemy, 2003) and psychological contracts (Koh *et al.*, 2004) or some combination of these mechanisms. Barthelemy (2003) used the terms ‘hard’ and ‘soft’ sides for the ‘development and enforcement of a good contract’ and the ‘development of relationships based on trust’ for managing offshoring relationships. Both of these are considered in the following discussion.

The hard side

A contract to offshore information technology services between a vendor (offshore service provider) and a client may take several forms. Fixed price contracts are characterised by fixed fees for the delivery of set services by the vendor. Time and material contracts involve the

vendor charging fee at a certain rate for services rendered and material supplied. A third type of contract is incentive based contract, which can be either a fixed price contract or a time and material contract with a performance incentive component attached.

The choice of the type of contract depends on the risk associated with the nature of the activities under consideration, the client's knowledge set, the bargaining power of the parties involved and overall market conditions. Generally from a risk perspective, clients prefer fixed price contracts due to higher levels of certainty attached to them, while vendors prefer time and material contracts which allow them to minimise unforeseen and hidden risks involved in the successful delivery of IT services. In the case of software development, which is often considered to be risky, for example, time and material contracts have been found to be more profitable for OSPs (Gopal *et al.*, 2003).

The type of contract can also impact on the level of control that the client maintains on the overall functions which are outsourced. It does not necessarily imply that by outsourcing certain activities, client firms lose the knowledge base of those activities. The peripheral knowledge of clients have been found to play a significant role in outcome based formal controls, but not in process based controls (Tiwana and Keil, 2007). Thus, client firms may still retain and develop peripheral knowledge in functions that are outsourced as this knowledge helps to better manage the international sourcing alliance while leaving the processing activities for service providers to perform independently.

The process of allocating contracts for IT services has also received some attention from researchers. Contrary to widespread belief, competitive tendering does not necessarily lead to cheaper contracts than negotiated pricing contracts, for example, and has been found not to impact on the outsourcing outcome which is influenced more by contract specifications (Domberger *et al.*, 2000). Repeat contracts are generally cheaper than initial contracts because as vendors and clients become established they develop interactions, communication and trust between them. Hence, it may be argued that it is not the pricing variation of contract but the contract specifications that lead to better international sourcing outcome. A detailed contract has been found to be an essential tool for effective OSM (Barthelemy, 2001; Lacity and Hirschheim, 1993; Saunders *et al.*, 1997; Shepherd, 1999; Willcocks and Choi, 1995; Willcocks and Kern, 1998) with short term and detailed contracts leading to higher outsourcing success (Lacity and Willcocks, 1998).

The soft side

Formal legal contracts are ‘necessary but not sufficient’ for successfully managing an outsourcing venture. This is because contracts can never be complete and there are bound to be unforeseen uncertainties which legitimise the role of the so-called ‘soft side’ contracts based on trust, cooperation and commitment. Unforeseen contractual complexities, when they arise, can have counterproductive effects on the overall outcome of the sourcing venture (Shepherd, 1999). And, relationships that go beyond contractual arrangements have been found to be particularly helpful in resolving disputes between client and OSPs (Elmuti *et al.*, 1998; Grover *et al.*, 1996; Lee, 2001; Lee and Kim, 1999). Hence, it is not surprising that research has established strong links between partnership quality and offshoring outcome (Grover *et al.*, 1996; Lee, 2001; Lee and Kim, 1999), with partnership philosophy identified as an effective tool for managing outsourcing venture relationship (Shepherd, 1999).

Better personal relationships in a partnership can benefit both parties in the partnership. In the case of an outsourcing venture for IT services, clients can benefit from better innovative solutions as better relationships help service providers (the vendor) better understand the needs of their client. Similarly, better relationships may help vendors retain their clients, get referrals to attract new clients and build on their capabilities and competencies. However, the extent of client-vendor relationships depends upon the client’s needs and purposes of offshoring and the skills and experience of the service providers (Kedia and Lahiri, 2007). The intensity of client-vendor relationship increases as the outsourcing venture moves from one based on cost reduction as the major objective to one that focuses on core competence and enhanced flexibility and risk sharing. The degree of skills and experience of vendors also influence the degree of relationships. Generally, clients are less likely to develop high intensity relationships with less specialised vendors because higher degree relationships usually involve the sharing of more of the clients’ critical knowledge with vendors.

Since the ‘soft side’ of contracts have been recognised as being important, then an obvious question is how to improve elements of ‘soft side’? Client-vendor relationships can be improved by active participation, better communication, information sharing, and senior management support (Lee and Kim, 1999). As mutual dependency rises and the age of the relationship grows, the dangers of opportunism also increases, but this may be avoided with a clear contract in place (Williamson, 1973; 1989). Successful relationships between partners depend on carefully managing knowledge flows, mutual dependencies and organisational

linkages (Willcocks and Choi, 1995). In the case of offshoring of IT services, the range of clients can be very broad and it is not unusual for a single IT offshore service provider to service clients from a range of sectors and industries. For this reason, client–vendor relationships in IT services offshoring experience additional complexities, including cultural incompatibilities at corporate, professional, organisational and national levels (Willcocks and Choi, 1995)—an area which has not received much attention in the literature.

Balancing hard and soft side

The fulfilling of mutual obligations by client and vendor, termed as psychological contract, also contribute to the success of an outsourcing venture (Koh *et al.*, 2004). The mutual obligations of clients and vendors may be incorporated into a legal contract, or may be oral promises—or both. Successfully balancing the contractual (hard) and relationship (soft) side arrangements in an outsourcing venture is more likely to lead to a better outsourcing outcome. Outsourcing ventures with a balance of soft and hard side are generally more successful because a good contract provides the basis for the development of trust. Tight contracts may be helpful in the case of commodity type services, while relational aspects become important in cases of innovative type of services outsourcing (Beaumont and Costa, 2002). Contractual and relational governance complement each other and have a positive relationship with exchange performance (Poppo and Zenger, 2002). Effective management of outsourcing venture depends an understanding of the partner’s culture (Beaumont and Costa, 2002) and the influence of culture is bidirectional (Nicholson and Sahay, 2001). Mutual understanding of each other’s cultural and political issues also helps in better management of the offshoring relationship. High mutual dependency created by investments by both parties result in increased opportunity costs of contract termination for both parties and, thus, reduces the opportunistic behaviour and increases the outsourcing success (Wang, 2002). Barthelemy (2003) also argues that outsourcing arrangements that are managed by soft sides do well on the performance dimension, while those focused on hard side management perform well on cost dimension.

Outsourcing outcome (OSO)

Despite the rapid growth in international outsourcing of IT services and the resulting hype in the popular press about its dangers, there is little empirical evidence to support either the benefits or dangers of international outsourcing at the firm level for IT services. Through specialisation, outsourcing has the potential of adding value to the client’s activities, thereby

enhancing its international competitiveness (Bryce and Useem, 1998). However, there is hardly any empirical evidence that outsourcing does add value to clients in the long run. Investigations of the outcome of outsourcing in general have been addressed in a few studies (Gilley and Rasheed, 2000; Gorg and Hanley, 2004; Grover *et al.*, 1996; Kotabe *et al.*, 1998; Murray and Kotabe, 1999) with inconsistent findings. Grover *et al.* (1996) found that an effective sourcing strategy may lead to improved market performance and argue that core services should be internalised because they can lead to further innovation and that non core activities be sourced from independent suppliers. Murray and Kotabe (1999) advocate sourcing of non-core services from domestic external suppliers as they reduce client's investments, enhance operational flexibility and improve market performance. These findings may not be applicable to the IT services sector because, unlike the manufacturing sector, IT services are separable and can be stored, shipped and transferred across national boundaries in real time. Gorg and Hanley (2004) found no relationship between outsourcing and profitability for services, although they established a positive relationship for manufacturing firms. Similarly, Gilley and Rasheed (2000) found no direct effect of outsourcing on the overall performance of firms and argue that this may be as a result of the overstated benefits of outsourcing. They also refute the commonly held argument that outsourcing may lead to loss of research and development competitiveness. The influence of outsourcing varies for firms operating in different environments following different strategies. Cost leadership firms and innovative differentiators have a positive relationship between outsourcing and performance, particularly in stable environments (Gilley and Rasheed, 2000). Nonetheless, it is clear that there is a lack of empirical evidence on the benefits of outsourcing in general and for international outsourcing of IT services in particular. Hence, it would be informative to comprehensively investigate how international outsourcing of IT services impacts on the overall performance of client firms from both a financial and non financial perspective in the short and long term.

Offshore service providers (OSP)

The majority of international outsourcing research to date has addressed offshoring decision, offshoring management and, to a lesser extent, offshoring outcomes. Much less research has been undertaken on offshore service providers (vendors), in particular those from developing countries. This is despite the fact that the performance of the client is intricately linked to the success of the vendor and the behaviour and performance of the vendor is critical for the overall outsourcing venture. The success of an outsourcing venture depends not only on the

client's needs and objectives, but also on the vendor capabilities (Feeny *et al.*, 2005) because vendors are integral parts of the value chain of their clients. Thus, it is in the best interest of clients to ensure that their vendors behave and perform well (Quinn, 2000). In this respect, greater understanding of the behaviour and performance of vendors is a critical element of the success of any offshoring venture.

Although parallels can be drawn from the export performance literature (Aaby and Slater, 1989; Chetty and Hamilton, 1993; Katsikeas *et al.*, 2000; La *et al.*, 2005; Zou and Stan, 1998) and the competitiveness literature (Dunning, 1988; Porter, 1990), the international sourcing of IT services is a recent phenomenon and the nature of offshoring activities is different from standard export activities. The export performance and competitiveness literature has contributed to our understanding of why some firms are successful in international market while others are not, and that the implicit assumption that the competitiveness of service firms is similar to that of manufacturing firms is misleading (Bunyaratavej *et al.*, 2007; Lindsay *et al.*, 2003; Chadee and Mattsson, 1998). Graf and Mudambi (2005) argue that OSPs are high-touch, high-tech firms where knowledge professionals play a key role in their competitiveness. Coviello *et al.* (1997) identify the nature and skill of personnel, contacts and relationships in key markets, the nature of organisational structures, and relationships in networks as key determinants of international competitiveness of SME service export firms. Amin and Hagen (1998) found the internal organisation of industries such as strategic alliances, good collaborative relationships with suppliers, technology, quality, and customer satisfaction as highly significant contributors to competitiveness. They also identified employee skills, education system, corporate culture and foreign competition as significant determinants of competitiveness.

A few attempts to understand IT service providers have been undertaken at the industry or national level for India (Arora *et al.*, 2001; Athreye, 2005); China (Kumar *et al.*, 2005; Qu and Brocklehurst, 2003; Yang *et al.*, 2005); Russia (Bardhan and Kroll, 2006; Hawk and McHenry, 2005); Ukraine (Zatolyuk and Allgood, 2004); Germany (Loebbecke and Jelassi, 1999); UK (Currie, 2000); North America (Levina and Ross, 2003); Finland (Leiponen, 2005) and multi country comparisons (Chadee and Pang, 2007; McManus and Floyd, 2004). However, there are very few empirical studies that have investigated supply side (vendor) issues at the firm level for IT service providers. Currie (2000), for example, suggests that service providers may strengthen their strategic positioning by providing a range of services

and consolidating their strengths through mergers, acquisitions and joint ventures. Another study of vendors by Hussey and Jenster (2003) identifies domain knowledge, expectations management, open communication and culture, setting up structures for each contract, and relationship management as key issues for service providers. They argue that because service providers deal with different firms from various organisational and national cultures it becomes a challenge to manage all this in a comprehensive way. Shee and Pathak (2005) found that service providers can enhance their competitiveness through effective management of people and technology, while Levina and Ross (2003) focus on the development of IT professionals and management of client relationship for enhancing the performance of IT vendors. Although innovations are critical for success in knowledge intensive firms, these come mainly through human capital (Leiponen, 2005). In this respect Chadee and Pang (2007) found significant positive relationship between technology strategy and the performance of IT service providers and they argue that technology competence of employees is a critical element of IT firms' technology strategy which can influence their financial performance because OSPs with quality people are more flexible and responsive and adaptable to the changing competitive environment.

Relationship management has also been found to be crucial for outsourcing success (Oza and Hall, 2005), particularly in cases involving cultural and linguistic differences. Cultural issues identified by Oza and Hall (2005) in their study of Indian OSPs include religious issues, food habits, the way different people perceive work, interpersonal communication and interpretation skills. Expectation mismatch between client and vendor is another difficulty often faced by service providers despite the presence of effective contracts. Other difficulties which hamper the performance of OSPs include language, managing transition and lack of client experience (Oza and Hall (2005). Wang (2002) has also identified reputation as a critical element of the success of offshoring ventures and suggests that OSPs would benefit from investing in reputation building.

Theoretical underpinnings

A review of the theoretical dimensions of research in outsourcing is also valuable for identifying future research agendas on the subject. To date, research on various aspects of IT services outsourcing has drawn from four main streams of theoretical literature; namely (1) strategic management, (2) economics, (3) economic sociology, and (4) international business. The contribution of each theoretical perspective to the four main outsourcing

research areas considered in this paper is summarised in Table 2. It is clear from this information that the strategic management literature has had a dominant influence in the development of the empirical literature on international outsourcing for IT services. Surprisingly, however, researchers have been slow in applying international business theories in explaining IT services outsourcing and the contribution of economics to this area of research has been limited to explaining outsourcing decision.

Strategic management theories

Strategic management theories comprising the resource based view (RBV) of the firm (Barney, 1991; Barney, 1986; Coyne, 1985; Lippman and Rumelt, 1982) and the relational and resource dependence approach (Dyer and Singh, 1998) constitute two main paradigms used to explain outsourcing. According to RBV a firm's competitiveness depends on its specific resources and skills which are valuable, rare, imperfectly imitable and non substitutable. Resources and capabilities are said to be valuable when they help a firm to improve its overall efficiency and performance. They are rare when they are not held by large number of competitors and non imitable when the firms not possessing the rare and valuable resources are not able to obtain them. A firm's competitiveness is sustained when there are no other strategically equivalent rare, valuable and non imitable resources available to competitors, that is, they are non substitutable (Barney, 1991). Thus, the firm's bundle of unique resources and dynamic capabilities constitute its main source of competitiveness and help the firm to earn above normal profits.

A firm may use outsourcing strategically to acquire rare resources in order to fill the gaps between its desired capabilities and its actual capabilities (Cheon *et al.*, 1995). Service providers help their clients avoid competitive disadvantage by freeing them to focus on their core competencies. Evidence of this is apparent from the results of a recent survey (Lewin and Peeters, 2006) where although cost reduction (97%) was the main reason for firms to engage in offshoring, strategic objectives such as growth strategy (73%), competitive pressure (71%) and access to qualified staff (70%) were also cited as major factors influencing firms' decisions to outsource. With declining trade barriers and increased mobility of resources across national boundaries, firms have greater access to the global pool of rare resources regardless of their locations. But, Mahanke *et al.* (2005) argue that because service providers operate in an open and competitive market, their services are available to all competing firms and therefore outsourcing is unlikely to be a source of sustained competitive

advantage. However, this argument ignores the ‘soft side’ sources of competitiveness which can effectively create imperfect market conditions between vendors and clients for the benefit of the outsourcing venture.

The relational and resource dependence approach (Dyer and Singh, 1998) provides valuable ‘soft side’ theoretical insights in explaining the international outsourcing of IT services. Client firms may engage in outsourcing by forming alliances and entering into exchange relationships with vendors to acquire rare and inimitable resources. According to Dyer and Singh (1998) inter firm resources and routines may expand beyond the firm’s boundaries and become critical sources of competitiveness. They identify four critical elements of inter firm relationships which may constitute sources of competitiveness, namely, relation specific assets, knowledge sharing routines, complementary resources and capabilities, and effective governance. The management of client-vendor relationships and the context under which effective relationships lead to offshoring thus become critical elements for offshoring to succeed. In this context, alliance capitalism or strategic partnerships has been found to be beneficial in cases of very specific purpose collaborative arrangements (Dunning (2000) and thus influence the management of relationships in an outsourcing venture.

Thus, by specialising, firms may enhance and sustain competitive advantage by retaining their core resources and capabilities (RBV) and offshore activities which require non core resources, but which constitute core activities for the vendor. And, it has been found that client firms do not necessarily lose control of the activities being outsourced (Tiwana and Keil, 2007) and that knowledgeable clients are more likely to work constructively with their vendors to ensure the success of the outsourcing venture. Thus, through specialisation, the cost structures faced by client firms are likely to decline and, as such, offshoring has the potential to increase consumer welfare while also increasing productivity and efficiency.

Economic theories

The economics literature treats outsourcing as an economic transaction involving costs and benefits and the benefits of outsourcing come mainly through specialisation. However, according to transaction cost theory (Coase, 1937; Williamson, 1973; 1989; 1991) the benefits of specialisation are not necessarily realisable in cases where transaction cost are prohibitive. Thus, according to the economics perspective, firms should weigh the cost and benefits of outsourcing carefully, while also taking into consideration the transaction cost

involved. When the transaction costs incurred in outsourcing are lower than the benefits, then outsourcing is economically feasible. Transaction cost theory has been used in a number of empirical research to investigate outsourcing decisions and outsourcing management (Aubert *et al.*, 2004; Carmel and Nicholson, 2005; Murray and Kotabe, 1999; Wang, 2002) with a particular focus on the impact of asset specificity, uncertainty, frequency of transactions, and post contractual opportunism on various aspects of the outsourcing of IT services.

Agency cost theory (Mitnick, 1975; Ross, 1973) highlights the conflicting goals between agents (vendors) and principals (clients), and the intrinsic problems in such relations. Outsourcing decisions can also be explained by and based on agency costs through the monitoring of costs by the client, bonding of costs by the outsourcer and the residual loss to the client. Like transaction cost theory (Williamson, 1991), agency cost theory has also been used to assess outsourcing decisions such as whether to outsource or to insource. Both transaction cost theory and agency cost theory are based on similar assumptions, including self interest seeking behaviour, goal conflict, bounded rationality, information asymmetry and pre-eminence of efficiency (Eisenhardt, 1989). Risk aversion and treating information as a commodity are additional assumptions underlying agency cost theory (Eisenhardt, 1989). Furthermore, since international outsourcing involves doing business across national boundaries, the economic and financial risks associated with changes in exchange rates, cross country interest rates and taxation standards can significantly increase the transaction and agency costs of an outsourcing venture and erode any competitive advantage likely to be had from such a venture.

Economic sociology theories

The economic sociology literature (Granovetter, 2005)) asserts that a firm's economic behaviour is closely embedded into structures of social relations for three reasons: information, ability to punish or reward and trust. People rely on information from the people they know and not on others and, thus, social relationships influence the flow and the quality of information. Trust emerges from such relationships and the ability to reward or punish as information comes from close relationships. However, Granovetter (1985) cautioned that the social relations might be a necessary condition for trust and trustworthy behaviour, but are not sufficient conditions. In the case of future uncertainties, human inability to foresee the future, long contracts, and self interest seeking behaviours may provide competitiveness. The empirical literature on IT outsourcing supports complementing contract based outsourcing

management with relational management (Barthelemy, 2003; Lacity *et al.*, 2004; Poppo and Zenger, 2002; Willcocks and Kern, 1998) to improve the success of the outsourcing venture.

International business theories

International business theories such as OLI (Dunning, 1980, 1988) and Porter's competitiveness diamond (Porter, 1990) have also contributed significantly in explaining various aspects of international outsourcing. Porter's (1990) diamond of competitive advantage considers factor conditions, domestic demand conditions, related and supporting industries, and firm strategy, structure and rivalry to argue that these determinants create a national environment in which firms are born and compete. Domestic demand conditions have been shown not to be necessarily relevant for small countries (Cartwright, 1993), IT services (Kapur and Ramamurti, 2001), and firms commonly known as born global (Knight *et al.*, 2000; Knight and Cavusgil, 1996).

Dunning's Eclectic Paradigm (1980; 1995; 2001), explains the "why" (**O**wnership advantages), "where" (**L**ocation advantages), and "how" (**I**nternalisation advantages) of FDI and MNE activities. OLI also helps to explain non-FDI activities such as why client firms may choose outsourcing and from whom and where such services can be outsourced. Dunning (2000) posits alliance capitalism or strategic partnerships is particularly helpful in a continuous knowledge sharing relationship, in controlling and monitoring the ownership of a set of property rights and in cases of very specific purpose collaborative arrangements.

By its very nature, international outsourcing or offshoring falls largely in the international business domain and the relatively small number of papers on the subject utilising IB as their theoretical framework is surprising. This may be because IB theories do not instantly lend themselves to analysing international outsourcing. Dunning (1980, 1995, 2001) and Porter (1990) are the two main contributions of IB theories to the international outsourcing literature so far, but these offer only limited perspectives on a subject which is rapidly evolving. Doh (2005) argues that offshoring has implications for international business and strategic management theories and these theories need to be re-specified in the current business environment where diversification of MNE activities has taken place at a rapid pace.

Agenda for future research

Despite the rapid growth in international outsourcing of IT services, research on the subject has not kept pace with developments in this rapidly growing international business activity. The development of empirical research on the subject has been asymmetrical with 69 of the 78 papers in the sample focusing on outsourcing decision and outsourcing management. Furthermore, the majority of research on international sourcing of IT services focuses on the client. Thus, an opportunity exists to study offshoring with a particular focus on the offshore service providers (vendors). OSPs are integral partners in any IT services offshoring venture and, as strategic partners, their performance is critical to the success of the venture. Based on the review of the empirical literature in this paper, several areas of research are identified in Figure 3 that may be further explored by researchers to increase our understanding of international sourcing. The areas identified in Figure 3 are not exhaustive but, rather, provides an illustrative guide for future researchers to explore.

The first area of research relates to international sourcing decision. Although several motivators and barriers to outsourcing have been identified in the literature, there are no empirical investigations of their influence on the outsourcing ventures' performance. Which of the motivators result into benefits in real forms, and to what extent? Which of the barriers are real and how can the associated risks be minimised? What are the sources of risks and how can they be managed? From a theoretical standpoint, it is still unclear how different theories explain outsourcing decisions and which theories are better at explaining outsourcing decisions? Furthermore, how do firms decide on the extent or level of offshoring, from where, and from whom?

A substantial amount of research exists in the area of outsourcing management which focuses largely on various forms of contracts, relationships and a combination of both. This area of research may be further extended to investigate the implications of incentive and non-incentive based contracts, comparison of contract types, evolution of client and vendor relationship, the possible risk factors in such relationships and how these can be minimised. How and to what extent do cross cultural differences influence outsourcing management? How do local and global players interact and influence each other? The influence of the depth of relationships on effective management of offshoring ventures is also not well understood. Which governance mode (legal contracts, relational governance or psychological contracts) are more suitable for managing outsourcing ventures? Are these governance modes

complementary? How does their significance change over time as the vendor-client relationships evolve? How do they affect the overall outcome of the outsourcing venture? What causes failure in an outsourcing venture and how can this be managed and avoided? What is the impact of asymmetrical resources, dependency and power relations in strategic outsourcing venture alliances on the overall performance of the venture? Answers to these questions should improve our understanding of the dynamics between outsourcing partners and the management of outsourcing ventures.

Empirical investigation of the impact of outsourcing strategy on firm performance is another neglected area of research. Potential avenues for further research include the following: how do the scope and depth and level of outsourcing affect client firm performance? What are the moderators of outsourcing strategy and performance relationship? How do various strategies such as total sourcing vs selective sourcing, core vs non-core sourcing, near vs offshore sourcing affect the performance of client firms? Furthermore, there is an opportunity to develop and test a comprehensive outsourcing strategy taxonomy on performance. Do firms which outsource perform differently from those which do not? Other questions worthy of investigation include: Does outsourcing success vary across cultures or countries and why? Does outsourcing enhance or reduce client firm's value in the long run? How can client firms maintain their sustained competitiveness while outsourcing some activities?

The offshore service provider's (OSPs) perspectives in outsourcing ventures remain an underdeveloped area of research despite the critical importance for understanding the behaviour and performance of OSFs because they are an integral part of the value chain of their clients. Given that outsourcing of ITS to offshore vendors is a relatively recent phenomenon involving firms from less developed countries quickly becoming global players, an interesting question arises as to how these firms develop and compete in international markets. The literature on international outsourcing to date has tended to focus mostly on or draw from the experience of manufacturing firms from advanced industrialised countries. Generally, these firms are well endowed in resources and have developed within more or less similar institutional environments. However, firms from developing countries are generally resource poor and their establishment, development and international expansion have taken place within an environment different from those found in western economies. As OSFs are mostly and increasingly from developing countries, opportunities exist to address the following questions: What are the sources of competitiveness of OSFs from developing

countries? How do OSPs internationalise and become global leaders? How does the performance and behaviour of OSPs from developing countries vary across countries and cultures? What competitive strategies do they follow in order to grow and sustain their business? What theories explain the emergence of firms from developing countries rapidly establishing themselves as global leaders? What role do governments and institutions play in the development and growth of OSPs from developing countries? Answers to these questions may help improve our understanding of the internationalisation of firms from developing countries in general.

Summary and conclusions

The outsourcing of information technology services is the result of visible shifts in the strategy of multinational firms from the diversification of production activities during the 1960s to outsourcing during the 1990s. The widespread availability and use of more affordable advanced information and communication technologies has made outsourcing more viable for a larger number of firms. And, the progressive liberalisation of services trade under the World Trade Organisation's General Agreement on Trade in Services (GATS) is likely to further accelerate the intensity of international outsourcing activities across national borders. An interesting feature of outsourcing for IT services is that a growing number of firms from advanced industrialised countries outsource an increasing range and variety of IT functions to firms mostly located in developing countries. India, China, the Philippines and Malaysia have established themselves as leading offshore service centres. And, given the magnitude of offshoring of IT services, its growth and development has not been without controversy, particularly on its likely economic impacts on the economies of client firms. Thus, more research on the subject should improve our understanding of this complex phenomenon and assist policy makers with the design and implementation of appropriate policies for the sound development and growth of the sector.

The review of the empirical literature suggests that in its initial stages of development, international outsourcing research have focused on four main areas, namely outsourcing decision, outsourcing management, outsourcing outcome and, to a lesser extent, on offshore service providers. From a theoretical perspective, studies to date have tended to draw primarily from four main streams, namely, economics, strategic management, international business and, to a lesser extent, economic sociology.

As the practice of outsourcing becomes more intense, it is likely to give rise to new issues and challenges for researchers to address. The paper identifies a number of unanswered questions which provide valuable avenues for future research. As new problems arise, researchers will also need to explore new theoretical lenses from areas such as international management, economic geography, finance and accounting to complement strategic management and international business theories.

The studies included in this paper constitute a representative sample of empirical investigations on the subject to date. While care was taken to ensure that the list is complete, it is important to stress that the objective was to limit our review to refereed published journal articles only. As such, it is acknowledged that the list may not be exhaustive as industry and government reports are not taken into consideration. International organisations such as the OECD, UNCTAD, IMF and numerous government agencies have valuable research reports on the subject and insights from these reports can add to our understanding of the emerging research landscape on international outsourcing for IT services.

Figure 1

Outsourcing and Offshoring: Illustrative Concepts

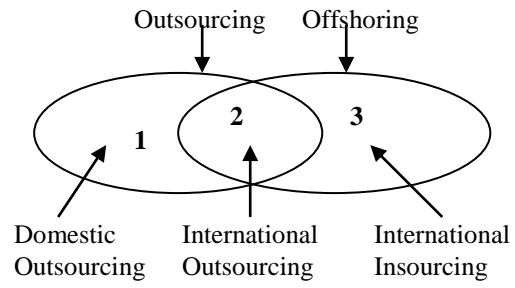
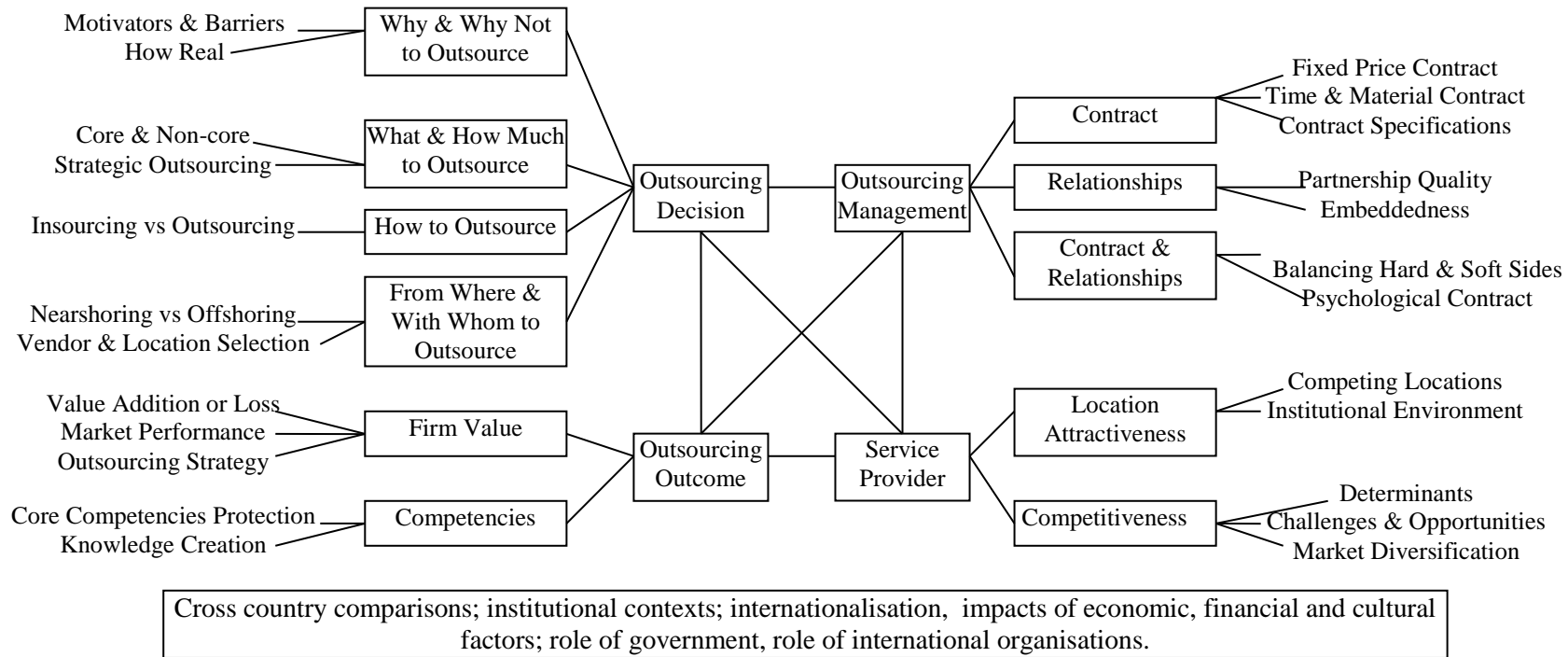


Table 2: Theoretical contribution to ITS Outsourcing and Offshoring Research

Main Research Areas	Main Theoretical Perspective			
	Economic	Strategic Management	Economic Sociology	International Business
Outsourcing Decision	Ang and Straub, 1998; Apte <i>et al.</i> , 1997; Aubert <i>et al.</i> , 1996, 2004; Bahli and Rivard, 2003; Barthelemy and Geyer, 2005; Lewin and Peeters, 2006; Loebbecke and Huyskens, 2006; Murray and Kotabe, 1999; Quelin and Duhamel, 2003; Smith <i>et al.</i> , 1998; Watjatrakul, 2005.	Apte <i>et al.</i> , 1997; Baden-Fuller <i>et al.</i> , 2000; Barthelemy and Geyer, 2001, 2005; Espino-Rodríguez and Gil-Padilla, 2005; Grover <i>et al.</i> , 1994; Khan and Fitzgerald, 2004; Kotabe <i>et al.</i> , 1998; Lacity and Willcocks, 1998; Lacity <i>et al.</i> , 1996; Lewin and Peeters, 2006; Loebbecke and Huyskens, 2006; Loh and Venkatraman, 1992a; Loh and Venkatraman, 1992b; Mol <i>et al.</i> , 2004; Nam <i>et al.</i> , 1996; Pinnington and Woolcock, 1995; Quelin and Duhamel, 2003; Saunders <i>et al.</i> , 1997; Smith <i>et al.</i> , 1998; Watjatrakul, 2005; Willcocks, Lacity <i>et al.</i> , 1995.		Apte <i>et al.</i> , 1997; Barthelemy and Geyer, 2001; Bunyaratavej <i>et al.</i> , 2007; Grote and Taube, 2007; Kakabadse and Kakabadse, 2002.
Outsourcing Management	Aubert <i>et al.</i> , 1996; Beaumont and Costa, 2002; Gopal <i>et al.</i> , 2003.	Aubert <i>et al.</i> , 2005; Barthelemy, 2003; Beaumont and Costa, 2002; Beulen <i>et al.</i> , 2005; Domberger <i>et al.</i> , 2000; Gonzalez <i>et al.</i> , 2005; Gopal <i>et al.</i> , 2003; Gottschalk and Solli-Sæther, 2005; Kern and Willcocks, 2002; Koh <i>et al.</i> , 2004; Lacity <i>et al.</i> , 2004; Lacity and Willcocks, 1998; Lee, 2001; Lee and Kim, 1999; Miozzo and Grimshaw, 2005; Pinnington and Woolcock, 1995; Poppo and Zenger, 2002; Saunders <i>et al.</i> , 1997; Shepherd, 1999; Tiwana and Keil, 2007; Willcocks and Choi, 1995; Willcocks, Fitzgerald <i>et al.</i> , 1995; Willcocks and Kern, 1998.	Barthelemy, 2003; Kakabadse and Kakabadse, 2002; Kern and Willcocks, 2002; Lacity <i>et al.</i> , 2004; Lee and Kim, 1999; Poppo and Zenger, 2002; Saunders <i>et al.</i> , 1997.	Kakabadse and Kakabadse, 2002; Miozzo and Grimshaw, 2005.
Outsourcing Outcome	Gopal <i>et al.</i> , 2003; Murray and Kotabe, 1999.	Carmel and Nicholson, 2005; Domberger <i>et al.</i> , 2000; Gilley and Rasheed, 2000; Gopal <i>et al.</i> , 2003; Gorg and Hanley, 2004; Grover <i>et al.</i> , 1996; Kotabe <i>et al.</i> , 1998; Lacity <i>et al.</i> , 2004; Lacity and Willcocks, 1998; Lee, 2001; Lee and Kim, 1999; Misra, 2004; Shee and Pathak, 2005.	Grover <i>et al.</i> , 1996; Kakabadse and Kakabadse, 2002; Lacity <i>et al.</i> , 2004; Lee and Kim, 1999.	Carmel and Nicholson, 2005; Kakabadse and Kakabadse, 2002.
Service Provider		Carmel and Nicholson, 2005; Chadee and Pang, 2007; Currie, 2000; Dayasindhu, 2002; Feeny <i>et al.</i> , 2005; Grover <i>et al.</i> , 1996; Hussey and Jenster, 2003; Kern and Willcocks, 2002; Koh <i>et al.</i> , 2004; Leiponen, 2005; Levina and Ross, 2003.	Dayasindhu, 2002; Grover <i>et al.</i> , 1996; Hussey and Jenster, 2003; Kern and Willcocks, 2002.	Carmel and Nicholson, 2005; Chadee and Pang, 2007.

Note: The categorisation is based on the author's evaluation of the main theoretical framework of each paper. Studies in the sample which use more than one theoretical perspective appear in more than one group. Case base studies lacking any theoretical framework are not in the analysis.

Figure 3: International Outsourcing of Information Technology Services: Research Gaps.



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ⁱ For the purpose of this paper, ITS include software development services, system services and a broader range of IT supported business services commonly referred to as IT enabled services or BPO services.

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