International outsourcing of information technology services: review and future directions

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Purpose – The purpose of this paper is to review the development of the empirical literature on international outsourcing of information technology services (ITS) over the 1992-2007 period and to identify future research areas.

Design/methodology/approach – A sample of 78 empirical academic publications on international outsourcing of ITS conducted between 1992 and 2007 across 46 scholarly journals constitutes the main data for analytical purposes. The sample is compiled following extensive electronic searches of the main academic databases. After clustering the studies in the sample according to their main research areas, a narrative approach is 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 (OSM), outsourcing outcome and the role of offshore service providers (OSPs). The review suggests that research efforts to date have been predominantly on outsourcing decision and OSM, mostly from the perspective of clients. Future research opportunities exist in the areas of outsourcing strategy and performance, the behaviour and performance of OSPs particularly within the context of firms from less-developed countries competing globally, and the nature of competition among OSPs both within and among countries.

Originality/value – This is the first review which focuses on empirical studies of outsourcing for ITS. This paper identifies several gaps in the literature and points to the need for more research on outsourcing from the perspective of OSPs.

Keyword(s): Outsourcing; Servicing; Off shore investments; Communication technologies.

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)[1] has grown rapidly in recent years to become one of the fastest growing international businesses (IBs) in the world. The ITS market is 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 includes the triad economies which account for 87 per
cent of the world market: USA 37 per cent, Western Europe 35.4 per cent, and Japan 14.2 per cent (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, backsourcing, offshoring, onshoring, 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 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 a firm in one country outsources work to firms in another country either by setting up its own operation in the foreign country or by contracting with an outsourcing providers who then transfer 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), from overseas (international outsourcing) with services supplied internally (insourcing), or by an external supplier (outsourcing). International sourcing, also commonly referred to as offshoring in the case of ITS, 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 affiliated firms (area 3) or non-affiliated firms (area 2).

Another distinction between outsourcing and offshoring can be made from an ownership and location perspective[2]. Since 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 considerations of appropriate locations. 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 a whole block (total outsourcing) of services such as the services of an entire IT or accounting department. Backsourcing refers to the repatriation of outsourced activities back to the company at home.
Firms providing services to offshore clients are commonly referred to as OSPs. The terms onshore and offshore are used to refer to whether a service is being delivered remotely. For instance, an Indian ITS provider located in the USA and providing services to an US firm located in the USA is considered to be work done onsite or onshore (Table I). 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.

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. First, 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 potential 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 ITS 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 EBSCO host, and using information from the reference lists of recently published empirical studies. Different key words such as outsourcing, offshoring, ITS and OSPs were used as locators for the search. The first round of searches identified more than 20,000 publications. After narrowing down the search criteria to include only empirical refereed academic journal publications since 1992, a sample of 78 studies was compiled. Further checks confirmed that this list was exhaustive and up-to-date. The information in Table II summarises the salient features of the studies in the sample.

During the 1992-2007 period, the intensity of research papers published in academic journals increased steadily and considerably (from eight 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 ITS outsourcing has appeared in all classes of journals considered, 70 per cent 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 ITS; 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. Four main research areas are identified in the sample (Table II) with outsourcing decision (34 per cent) being a dominant area, followed by outsourcing management (OSM) (28 per cent), outsourcing outcome (16 per cent) and OSP (16 per cent). There is also an increasing trend for embedding cross cultural comparisons in the studies above in recent years with 6 per cent of papers identified taking this approach. Given the 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 which is presented next.

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 on 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:

*RQ1.* 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. Thus, outsourcing allows a firm to free scarce resources and to deploy these in 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 firms to outsource. However, while attempting to gain strategic benefits, firms may also be exposed to strategic risks such as loss of core competencies and critical skills, mismatch of client vendor priorities (Quinn and Hilmer, 1994), loss of know-how and innovative capability (Earl, 1996; Hoecht and Trott, 2006), 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 ITS (Ang and Straub, 1998; Barthelemy and Geyer, 2001; Kakabadse and Kakabadse, 2002), particularly when the quality of service delivery is not affected. However, research results are mixed on the extent to which cost savings are cited as the main reasons for outsourcing. In a US-based survey, 67 per cent 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 USA and UK in 1996, 85 per cent of managers interviewed identified cost savings as a major motivator for
international outsourcing of ITS (Lacity and Willcocks, 1996). In his study, Serapio (2005) found that 44 per cent of firms in the USA realised cost savings of up to 40 per cent from international outsourcing; and 50 per cent of firms rated the productivity and quality of vendors to be the same as in the USA. 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, a study by Lewin and Peeters (2006) found cost reduction to be the main reason for 97 per cent of firms to engage in outsourcing, followed by growth strategy (73 per cent), competitive pressure (71 per cent) and access to qualified staff (70 per cent). 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 in 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) following their competitors, is a good example of how pressure from external sources may change firm behaviour. However, Hu et al. (1997) found that dual internal and external influences are what influence 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):

*RQ2. 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. 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 the presence of cultural and professional proximities with OSPs is essential for offshoring (international outsourcing). In a study of offshoring of research activities by investment banks, only non-core activities such as junior tasks or support type tasks were
found to be strong candidates for offshoring while core research activities were kept in house (Grote and Taube, 2007).

In certain cases, the outsourcing of core activities can 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 ITS 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 (Beaumont and Costa, 2002). Also, because outsourcing allows firms to leverage specialised knowledge and skills embedded into the service providers, 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:

RQ3. 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 through its own offshore subsidiaries becomes a major consideration. International insourcing involves firms contracting activities to their own foreign subsidiaries. Subsidiary companies which 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 consideration of the costs and benefits of establishing 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 can be costly and firms have to undertake cost benefit analyses of 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 has been attributed to the influence of labour unions in Germany. However, although cost saving is often cited as a major driver for offshoring of ITS, firms tend to locate their offshore service facilities in locations where they have greater cultural similarities, high-education levels (Bunyaratavej et al., 2007) and where risks and uncertainty are at acceptable levels. Thus, contrary to widespread beliefs, firms do not necessarily outsource to the cheapest offshore locations:

RQ4. Where and with whom to offshore?
The fourth question which firms have to address when considering outsourcing relates to the location and choice of OSPs. Dunning's framework for explaining the choice of location for foreign direct investment (FDI) (Dunning, 1980, 1988, 1995, 2000, 2001) can also be applied to non-FDI activities such as offshoring. Accordingly, location advantages are external to the firm and relate to the geography and location attractiveness (external environment) of a particular country and/or region. 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 fit 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. 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 OSPs have well-established and reliable coordination and management capabilities. The selection of an appropriate OSP is critical for fully realising the benefits of offshoring since the relationship between the client and the vendor often goes beyond pure contractual arrangements.

**Outsourcing management**

Once the strategic decision to outsource has been taken, the next issue 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), 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 ITS between a vendor (OSP) 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 a fee at a certain rate for services rendered and material supplied. A third type of contract is an incentive-based contract, which can be either a fixed price contract or a time and material contract with a performance incentive component.

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 ITS. In the case of software development, which is often considered to be risky, 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 functions which are outsourced. It does not necessarily imply that clients lose the knowledge base of activities that they outsource. The peripheral knowledge of clients has 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 activities 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 ITS has also received some attention from researchers. Contrary to widespread belief, competitive tendering does not necessarily lead to cheaper contracts 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 mutual trust. Hence, it may be argued that it is not the pricing variations of contracts but rather the contract specifications that lead to better international sourcing outcomes. A detailed contract has been found to be an essential tool for the effective management of outsourcing (Barthelemy, 2001; Lacity and Hirschheim, 1993; Saunders et al., 1997; Shepherd, 1999; Willecocks and Choi, 1995; Willecocks 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 unforeseen uncertainties legitimise the role of the so-called “soft side” of contracts. Unforeseen contractual complexities can have counterproductive effects on the overall outcome of the sourcing venture (Shepherd, 1999). Furthermore, 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 outcomes (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 all parties. In an outsourcing venture for ITS, clients can benefit from better innovative solutions as better relationships help service providers (the vendors) better understand the needs of their clients. Similarly, better relationships may help vendors retain their clients, obtain 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 the purposes of offshoring and the skills and experience of the service providers (Kedia and Lahiri, 2007). The intensity of the 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 the 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 has 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 between the client and the vendor grows, the dangers of opportunism also increase although 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 ITS, the range of clients can be very broad and it is not unusual for a single ITS provider to have clients from a range of sectors and industries. For this reason, client-vendor relationships often experience complexities such as 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 the hard and soft sides**

The fulfilling of mutual obligations by clients and vendors, termed as the psychological contract, also contributes 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. Successful balancing of contractual (hard) and relational (soft) aspects in an outsourcing venture is more likely to lead to better outsourcing outcomes. Outsourcing ventures with a balance of soft and hard sides are generally more successful because good contracts provide 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 types of service outsourcing (Beaumont and Costa, 2002). Contractual and relational governance complement each other and have positive effects on exchange performance (Poppo and Zenger, 2002). The effective management of an outsourcing venture depends on an understanding of the partner's culture (Beaumont and Costa, 2002) and the influence of culture is often 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, results in increased opportunity costs of contract termination for all 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 performance dimensions, while those focused on hard side management perform well on cost dimension.

**Outsourcing outcome (OSO)**

Despite rapid growth in international outsourcing of ITS 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 of ITS at the firm level. Through specialisation, outsourcing has the potential to add value to a client's activities, thereby enhancing its international competitiveness (Bryce and Useem, 1998). However, there is scant empirical evidence that outsourcing adds value to clients in the long run. Investigations of the outcome of outsourcing 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. They argue that core services should be internalised because this 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 to reduce clients' investments, enhance operational flexibility and improve market performance. These findings may not be applicable to the ITS sector because, unlike the manufacturing sector, ITS 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 the result of overstated benefits of outsourcing. They also refute the commonly held argument that outsourcing may lead to the 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 ITS in particular. Hence, it would be informative to comprehensively investigate how the international outsourcing of ITS 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**

The majority of international outsourcing research to date has addressed offshoring decisions, offshoring management and, to a lesser extent, offshoring outcomes. Much less research has been undertaken on OSPs (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's capabilities (Feeny et al., 2005) because the vendor is an integral part of the value chain of its 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 critical.

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 ITS 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 markets 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. (1998) 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 the international competitiveness of small and medium size service exporters. 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 ITS providers have been undertaken at the industry and 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 ITS 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, culture, contract structure, 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. The performance of service providers has been found to be influenced through effective management of people and technology (Shee and Pathak, 2005), the development of IT professionals and management of client relationship (Levina and Ross, 2003). 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 a significant positive relationship between technology strategy and the performance of ITS providers. 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, responsive and adaptable to a 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 ITS outsourcing has drawn from four main streams of theoretical literature; namely:

1. strategic management;
2. economics;
3. economic sociology; and
4. IB.

The contribution of each theoretical perspective to the four main areas of outsourcing research considered in this paper is summarised in Table III. It is clear from this information that the strategic management literature has had a dominant influence on the development of
the empirical literature on international outsourcing for ITS. Surprisingly, however, researchers have been slow in applying IB theories in explaining ITS outsourcing, and the contribution of economics to this area of research has been limited to explaining outsourcing decisions.

**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 considered rare when they are not held by a large number of competitors and non-imitable when the firms not possessing the rare and valuable resources are unable 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 per cent) was the main reason for firms to engage in offshoring, strategic objectives such as growth strategy (73 per cent), competitive pressure (71 per cent) and access to qualified staff (70 per cent) were also cited as major factors influencing 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. Mahanke et al. (2005), however, 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. 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 ventures.

The relational and resource dependence approach (Dyer and Singh, 1998) provides valuable “soft side” theoretical insights in explaining the international outsourcing of ITS. 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 interfirm 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 influences the management of relationships in an outsourcing venture.
Through specialisation, firms may enhance and sustain their competitive advantage by retaining their core resources and capabilities and offshore activities which require non-core resources for the client, but which constitute core activities for the vendor. 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 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 costs 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 studies to investigate outsourcing decisions and OSM (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 ITS.

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 agency cost theory 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 presence of rewards and punishments. However, Granovetter (1985) cautioned that social relations might be a necessary condition for trust and trustworthy behaviour, but they 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 ITS outsourcing supports complementing contract-based OSM 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**

By its very nature, international outsourcing or offshoring falls largely in the IB domain and the relatively small number of papers on the subject utilising IB as their theoretical frameworks is surprising. This may be because IB theories do not instantly lend themselves to analysing international outsourcing. The contributions of IB theories in explaining international outsourcing have been from two main sources; namely Porter's (1990) competitive advantage framework and Dunning's (1980, 1995) eclectic paradigm. Porter's competitive advantage focuses on the conditions under which firms are born and compete. Although this framework is helpful, it has some inherent limitations in explaining international outsourcing. This is because international outsourcing is often characterised by firms from small developing countries where domestic demand conditions are not relevant (Cartwright, 1993), specialise in ITS (Kapur and Ramamurti, 2001), and have global orientations (Knight et al., 2000; Knight and Cavusgil, 1996). Porter's framework has been shown to be inadequate in explaining the competitiveness of firms with the characteristics above.

Dunning's (1980, 1995, 2001), Eclectic Paradigm explains the "why" (Ownership advantages), "where" (Location advantages), and "how" (Internalisation advantages) of FDI and MNE activities. OLI also helps to explain non-FDI activities such as why client firms choose outsourcing, from whom and from where services can be outsourced. Dunning (2000) argues that alliance capitalism or strategic partnership 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. Although Dunning's OLI framework adds to our understanding of various aspects of international outsourcing, its primary purpose was to explain FDI and as such remains limited in fully explaining international outsourcing. Because of the limited contribution of IB theories to our understanding of international outsourcing, Doh (2005) argues that offshoring has implications for IB 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 ITS, research on the subject has not kept pace with developments in this rapidly growing IB activity. The development of empirical research on the subject has been asymmetrical with 69 of the 78 papers in the sample focusing on outsourcing decisions and OSM. Furthermore, the majority of research on international sourcing of ITS focuses on the client. Thus, an opportunity exists to study offshoring with a particular focus on the OSPs (vendors). OSPs are integral partners in any ITS 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 shown in Figure 2 that may be further explored by researchers to increase our understanding of international sourcing. These areas are not exhaustive but, rather, provide an illustrative guide for future researchers to explore.
The first area of research relates to international sourcing decisions. 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 their limitations. 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 OSM 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, comparisons of contract types, evolution of client and vendor relationships, the possible risk factors in such relationships and how these can be minimised. How and to what extent do cross cultural differences influence OSM? How do local and global players interact and influence each other? The influence of the depth of relationships on the effective management of offshoring ventures is also not well understood. Which governance mode (legal contracts, relational governance or psychological contracts) is 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. Further research could address the following questions: how does the scope, depth and level of outsourcing affect the performance of clients? What are the moderators of outsourcing strategy and performance relationships? 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 a client firm's value in the long run? How can firms sustain their competitiveness through outsourcing part of their activities?

The OSP's perspectives in outsourcing ventures remain an underdeveloped area of research despite the fact that they are integral parts 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 OSPs are mostly and
increasingly from developing countries, opportunities exist to address the following questions: What are the sources of competitiveness of OSPs 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 also help improve our understanding of the internationalisation of firms from developing countries in general.

Summary and conclusions

The outsourcing of ITS 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. Furthermore, the progressive liberalisation of services trade under the World Trade Organisation's General Agreement on Trade in Services is likely to accelerate the intensity of international outsourcing activities across national borders. An interesting feature of outsourcing for ITS 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. The scale of international outsourcing of ITS, its rapid growth, and development has also been controversial, particularly on implications for 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 has focused on four main areas, namely, outsourcing decision, OSM, outsourcing outcome and, to a lesser extent, on OSPs. From a theoretical perspective, studies to date have tended to draw primarily from four main streams, namely, economics, strategic management, IB 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 how new theoretical lenses from areas such as international management, economic geography, finance and accounting can complement strategic management and IB theories to improve our understanding of international outsourcing.

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 empirical 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 would add to our understanding of the emerging research landscape on international outsourcing for ITS.

Figure 1 Outsourcing and offshoring: illustrative concepts

Figure 2 International outsourcing of ITS: research gaps

<table>
<thead>
<tr>
<th>Location of US client firm</th>
<th>India</th>
<th>Location of Indian service provider</th>
<th>Country close to USA</th>
<th>USA</th>
<th>Table I</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>Offshore</td>
<td>Nearshore</td>
<td>USA</td>
<td>Offshore</td>
<td>Onshore-offshore examples</td>
</tr>
<tr>
<td>USA</td>
<td>Offshore</td>
<td>Nearshore</td>
<td>Onshore</td>
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Table I Onshore-offshore examples
Table II. Salient features of studies in the sample

<table>
<thead>
<tr>
<th>Main research areas</th>
<th>Economic</th>
<th>Strategic management</th>
<th>Economic sociology</th>
<th>International business</th>
</tr>
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</table>

**Table III. Theoretical contributions to ITS outsourcing and offshoring research**

Notes: The categorization 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 without theoretical frameworks are not included in the analysis.
Notes

1. 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.
2. We are grateful to one reviewer for providing us with this perspective.

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**Further Reading**


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