

Offshoring research directions

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## **Abstract**

Outsourcing and offshoring provide companies with ways to achieve their business objectives better or more cost effectively or despite a shortage of specific resources. From a research point of view, outsourcing and offshoring have mostly been studied as something that large companies do, not small and medium enterprises (SMEs). However, the business rationale for outsourcing and offshoring appears to be at least as compelling for SMEs as they are for large companies.

In this memorandum, the case is made that SMEs are theoretically good candidates for developing an outsourcing and offshoring strategy, which practice actually supports. Furthermore, based on a review of some existing scientific literature on outsourcing and offshoring for mostly large companies, research directions are outlined for applied research that would be relevant for SMEs.



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## **Introduction**

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In this memorandum, the case is made that SMEs are theoretically good candidates for developing an outsourcing and offshoring strategy, which practice actually supports. Furthermore, based on a review of some existing scientific literature on outsourcing and offshoring for mostly large companies, research directions are outlined for applied research that would be relevant for SMEs.

## **The network economy and (offshore) outsourcing**

In 1937, Coase came up with a theory about why companies have come to exist as organizations where people who come together to collaborate on a certain economic endeavour (Coase, 1937). This theory (Transaction Cost Theory, or TCT) states roughly that activities should be performed within a company when the costs of acquiring the output of such activities from the market place are higher than the costs of performing these activities within the company. For a long time, transaction costs drove companies to become bigger and bigger, integrating many functions and activities within the boundaries of the company.

The advent of information and communication technology has done a lot to change transaction costs. Nowadays, many activities are no longer done most effectively cost-wise within the company but rather by other parties outside the company. Economic indicators illustrate, in fact, that companies are relying more and more on work being done by other parties. Value chains are being disaggregated and intermediate inputs are forming an increasing share of all trade (Miroudot et al., 2009; Contractor et al., 2010). Strategy consultants have been telling companies that they have to focus on core competences and to re-allocate all activities that are not part of the core competences to outside parties (Prahalad & Hamel, 1990). Consequently, companies are required increasingly to work together in networks of companies, collaborating in relationships of varying degrees of duration and closeness. The resulting variation of the business world is called the network economy (e.g. Malone & Laubacher, 1998).

Much of the existing business and economics literature, however, is still aimed at monolithic organizations. Guidelines that help companies and their management to understand – and deal with – the network economy and its potential are much less common. The Center of Entrepreneurship<sup>1</sup> of the Hanze University of Applied Sciences addresses in her research the implications of the network economy and translates these into practical guidelines for entrepreneurs and managers.

The regional business environment in the Northern part of The Netherlands is dominated by SMEs. Results from existing business and economics literature do not necessarily apply to

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<sup>1</sup> Actually, Center of Applied Research and Innovation Entrepreneurship in full.

SMEs: an SME is not a scale model of a large company (Devos et al., 2012). Therefore, the Center of Entrepreneurship (CoE) focuses specifically on novel applied research aimed at SMEs and translating existing academic research to the context of SMEs.

The network economy requires a company to rethink periodically if certain activities and business processes or parts of business processes should be performed within the company still, or whether alternatives outside the company have become more profitable. This is, in essence, a “make or buy” decision. Developments in relationship forms as seen in the practice of outsourcing have turned this in a “make, buy, or ally” decision. Activities may be handed over to another party where that activity is being performed at “arm’s length”, i.e. “buy”, or to a party that acts more closely in a partnership mode, i.e. “ally” (Contractor et al., 2010). Combined with the choice whether an activity should be best performed in the domestic country or in a foreign country (“offshore”), this leads to six choices for allocation of an activity (see Figure 1).

The diagram consists of a 3x2 grid. Above the grid is a horizontal arrow pointing right labeled 'Geographical relocation'. To the left of the grid is a vertical arrow pointing down labeled 'Organizational restructuring'. The grid cells contain the following text:

	Domestic country	Foreign country
In-house (conducting activity inside the firm)	1	2
Cooperative (conducting activity cooperatively with partner)	3	4
Market transaction (conducted by arm’s-length provider)	5	6

Figure 1. Six allocation choices (Contractor et al., 2010).

Contractor et al. (2012) point out, furthermore, that companies are looking at an ever finer granularity of activities to be farmed out to other parties, including high-value ones or ones that are part of activities close to a company’s core competence, such as R&D. We will come back to the sourcing of R&D and innovation in a later section.

As is pointed out by Dyer and Singh (1998), arm’s length relationships do not create competitive edge as such, because they are likely to be available to any competitor. Cooperative relationships, therefore, are desirable if and when they can create value that does provide a competitive edge dedicated to the client. Such relationships allow providers to develop solutions that are exclusive to the client, but also to learn about the idiosyncratic systems, processes, procedures, etc. of the clients and the information that is not easily codifiable and to adapt to them to create a more valuable service.

To a large extent, IT and communication technology have brought on the emergence of the network economy (Fingar, 2006). But IT itself has been leading the change in finding new levels of disaggregation. The practice of outsourcing, and especially the practice of IT and

business process outsourcing (IT-BPO), has given rise to an extensive body of research. The area of IT-BPO warrants our special attention. Firstly, it coincides most closely with the research agenda of this professorship (business & IT). Secondly, the extensive practice and theory in IT-BPO may well serve as a basis for applied research in the more generalized domain of SMEs and the network economy.

**IT and Business Process Outsourcing research and practice**

Hätönen and Eriksson (2009) have done an excellent job of organizing more than 30 years worth of research and practice of outsourcing (see Figure 2). The initial objective of outsourcing by a client company was primarily cost saving. And, because from a Western perspective, wages are lower in most other countries, outsourcing rapidly turned into offshore outsourcing, or offshoring, i.e. outsourcing to foreign countries. Such outsourcing deals were mostly transactional. From a theoretical point of view, research was mostly based on Transaction Cost Theory (TCT)). During the 90s, the focus turned to finding external resources that were hard to come by within the company itself, whereas the activities that were transferred to another party remained basically the same. Research adopted theory from the so called Resource Based View (RBV) to explain emerging practice. In the current millennium, outsourcing became also a quest for finding parties that could help transform activities and processes in such a way that they created more value. A recent industry report calls this the change from “*running the business*” (RTB) to “*changing the business*” (CTB) (Card & Jones, 2012). During this time, outsourcing deals had to become less transactional and more partner-based, culminating for now in relationships aimed at mutual development. Research included several other theories to explain the new developments.

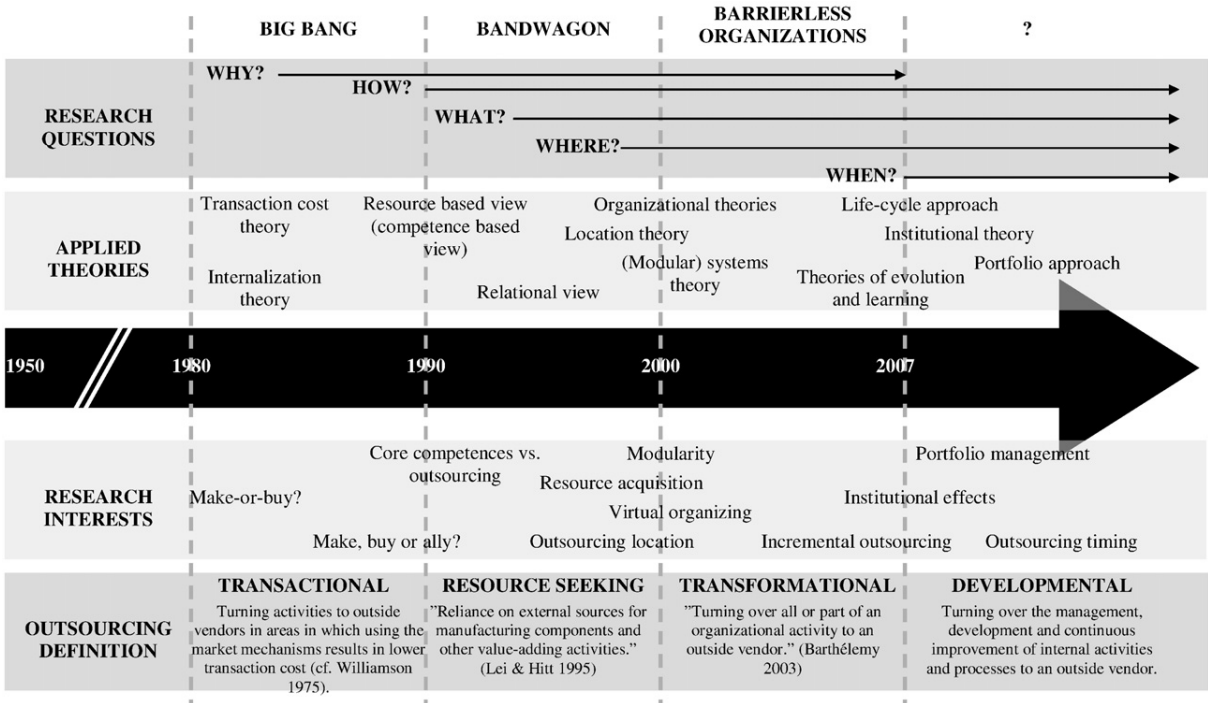


Figure 2. Review of outsourcing research (Hätönen & Eriksson, 2009).

This development from the provider’s point of view has a similar history, but a possible different outcome (Mahaboob, 2012). At first, providers were asked to build IT following

design and specifications from the customer. Then, they were also asked to manage the IT and business processes. Now the next step would be to exploit the advances of cloud computing and to develop new products and services where the providers own the IT and support business processes according to best practices using the extensive knowledge on and insight in business processes gained over decades of building and managing solutions for their clients. This would involve moving from the current hourly rates-based business model to another when products and services are developed at the provider's own entrepreneurial risk.

These two visions of the future differ significantly in the importance that stakeholders put on partnership. From a client perspective, partnership becomes increasingly important. From a provider perspective, providers will aim to gain more independence and looser relationships. Most likely, both will happen. For clients, the choice between "make, buy, or ally" will be affected by a substantial increase of cost-effective, cloud-based, best practices solutions in the market. However, there will remain a need for partner-based relations to create value that provides a competitive edge beyond what is readily available in the market.

### SMEs and (offshore) outsourcing

SMEs are not immune to the consequences of the network economy. SMEs are also subject to a globalizing economy, both as an opportunity to enter new markets and as a threat of new entrants from abroad. And SMEs will be confronted with shortages of all kinds of skilled employees, among which technicians (see Figure 3) and, more specifically, IT specialists<sup>2</sup>. Large companies can draw new talent easier than SMEs, if only because of being bigger and therefore – usually – better known. SMEs will be hard pressed to come up with ways to address their expected resource issues.

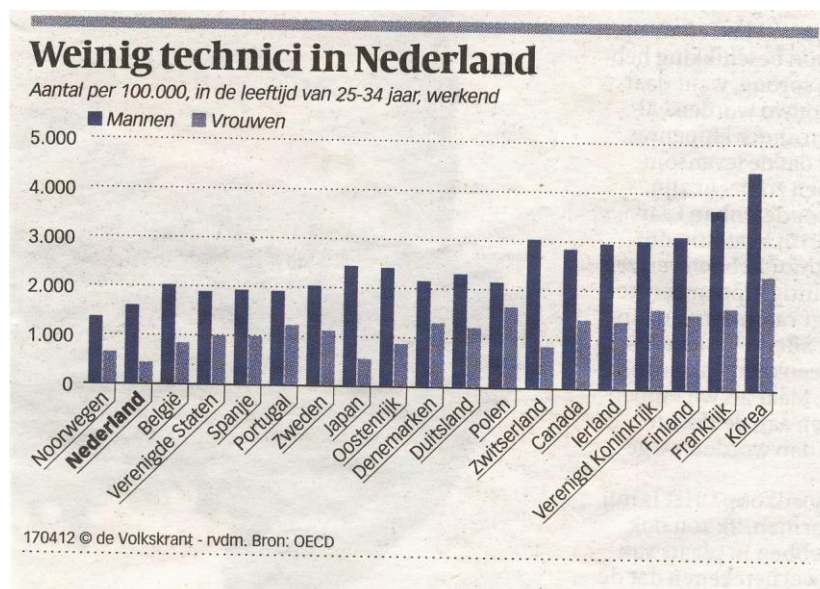


Figure 3. Share of technicians in the labour market (Volkskrant, April 17, 2012).

These observations hold for most SMEs individually. But when we generalize, it points to a potentially very alarming situation. Especially in the Northern part of the Netherlands, the

<sup>2</sup> ICT~Office, see, for instance <http://www.ictoffice.nl/index.shtml?id=11486&ch=ICT>

economy is dominated almost exclusively by SMEs. Nationally and internationally over the last decades, SMEs have become much more essential to innovation (Reynolds et al, 1999, Clifton et al., 2010). And although there may not be agreement on exactly how dependent innovation is on technology, it is clear that SMEs having access to technology, and therefore to skilled technicians, is very important for the economy to stay innovative and competitive.

Skilled technicians are abundantly available in the typical offshore countries such as India, China, and several Eastern European countries. These skilled technicians can be employed to help developing Dutch companies either by bringing them to work domestically<sup>3</sup> or by transferring the work to a foreign country (offshore outsourcing).

In the current scientific literature on (offshore) outsourcing, large companies are dominant. However, (offshore) outsourcing is by no means the exclusive domain of large organizations. Oksanen (2011), Uimonen (2011), and Gellert & Velthuisen (2012) describe several SMEs in various NW European countries that have successfully built offshore outsourcing relationships with other SMEs in various other countries. Moreover, initial results show that SMEs may have an advantage over large companies in dealing with companies from another culture in a partner-based relationship. This serves not only as an example that (offshore) outsourcing is a viable alternative for SMEs, but also that theory and practice may turn out to be different from what is known to apply to large companies.

In general, the economies of scale are such for SMEs, that – more often than will be the case for large companies – a “buy” option will be much more feasible than an “ally” option. Gartner’s 2008-2009 report on trends in outsourcing (2008) indicate that the two main solutions to closing the existing gap of IT application in SMEs will be cloud computing and outsourcing. Of these, cloud computing offers the least opportunity to achieve a sustained competitive edge.

When discussing the network economy and its implications for SMEs specifically in relation to IT, one should be aware that the exposure of SMEs to IT may vary wildly. There are at least three categories to distinguish:

1. SMEs with IT as their core business (e.g., IT service providers)
2. SMEs which are highly dependent on IT, but IT is not their core business (e.g., on-line marketing service providers)
3. SMEs where IT is mostly incidental to the business.

It is to be expected that the value creation of (offshore) outsourcing will be highest for SMEs of the first two categories.

## **Innovation and offshore outsourcing**

IT and BPO providers have been asked to contribute to ever earlier stages of the development process. At first, providers were only asked to build software and systems according to specifications prepared by the clients. Later, providers became involved in the design phase of the development process. Also, they were required to provide input in

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<sup>3</sup> More than 80% of R&D employees at Dutch technology firm ASML have a non-Dutch background.

continuous improvement of systems and processes as part of the responsibility of managing the systems and processes. Rarely are providers asked to come up with innovations themselves, but providers are starting to initiate and develop their own innovations, as seen during a recent trip visiting Indian IT and Tech providers and in market studies (e.g., QS Advisory, 2012).

Contractor et al. (2010) illustrate how R&D functions can be part of (offshore) outsourcing, but the examples given do not put offshore providers as participants in the process of creating new intellectual property, but rather as executors of voluminous and tedious testing work. For now, involving (offshore) outsourcing providers as partners in innovation appears to be a rather untried exercise.

## **Directions for applied research**

Given the previous discussions, we arrive at a number of observations on the needs for applied research in the area of (offshore) outsourcing by SMEs.

1. Given the advent of the network economy, SMEs need to rethink regularly which parts of their business to make or to buy or to obtain in cooperative partnerships (to ally) to remain competitive in the global economy.
2. There is a shortage of well-trained employees to be expected, especially in technical disciplines. Most likely, SMEs will have a greater challenge to hire the right resources than larger companies. Thus, “*buy*” and “*ally*” decisions will become more important and more numerous for SMEs.
3. There is still a lot to learn about (offshore) outsourcing – especially as it applies to SMEs – around the basic questions What?, Why?, Where?, and How? (Hätönen & Eriksson, 2009), see also Figure 4.
4. IT drives innovation; innovation drives the economy; SMEs play an increasingly substantial role in innovation and economic growth. If SMEs in our region do not become more skilled in using resources from elsewhere, it will have serious consequences for the future economic growth of the region.
5. There is a need to help SMEs to understand better (offshore) outsourcing and to apply it successfully.

We built our case for doing applied research in the area of (offshore) outsourcing based on macro-economic considerations. However, applied research starts with a need that is explicitly felt by people active in the field, i.e., a need felt at the micro-economic level. Currently, we have not yet established if the need is felt explicitly, or if there is sufficient awareness. Therefore, any progress in this area should be preceded by investigating whether there is a real and urgent need, or maybe a lack of awareness. Basically, this investigation is a prerequisite and could be linked to the Why? question. Provided that an explicit need is established, the following research questions are apparent.

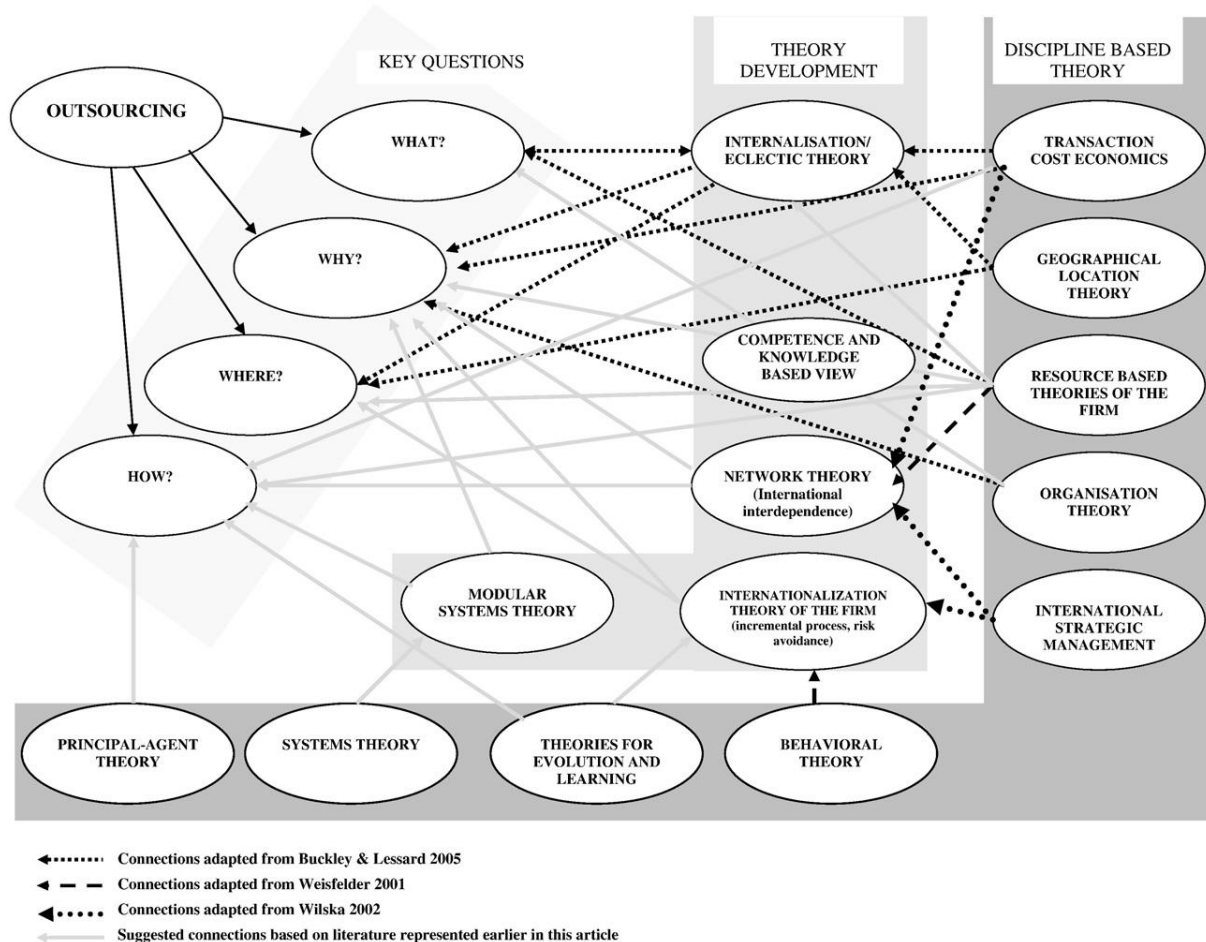


Figure 4. Key outsourcing questions (Hätönen & Eriksson, 2009).

### Why?

- Do SMEs see benefit in an increased networked approach to their business?
- Do SMEs expect a (future) shortage of skilled employees?
- Do SMEs expect to be more involved in (offshore) outsourcing?
- Do SMEs have problems or needs w.r.t. (offshore) outsourcing?
- What are the differences between SMEs where IT is their core business, a key resource, or only incidental to the SME's business?
- Can we build a database of SMEs involved in (offshore) outsourcing for the purpose of more quantitative research?

### What?

- Which activities lend themselves to be done by others ("buy" or "ally")?
- Which of these activities are available on the market ("buy") or should be sourced ("ally").

### Where?

- How do SMEs find good providers or partners?
- Is there a business opportunity for linking SMEs to good providers or partners?
- Should an activity be performed domestically or in another country, and – in case of the latter – in which country?

How?

- What preparations are necessary?
- How can an SME get into an adequate contract?
- What is a good governance system?
- How should the performance be monitored?
- How should SMEs manage the relationship?
- What should an SME do to prepare for the situation where a provider or partner does not perform adequately? And what should an SME do when that happens?
- How do SMEs and their providers and/or partners handle developments that require change of the offered products and services?
- What knowledge or competences should an SME build or retain?
- Is there a business opportunity for supporting SMEs during the set up and maintenance of a “buy” or “ally” relationship?
- What should an SME do when the end of the contract gets nearer?
- How can SMEs employ (offshore) outsourcing providers as partners in innovation projects?

Many more questions can probably be formulated, but this will be left to a later stage.

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