

# Chapter 8.19

## Small Firms and Offshore Software Outsourcing: High Transaction Costs and Their Mitigation

**Erran Carmel**

*American University, USA*

**Brian Nicholson**

*Manchester Business School, UK*

### ABSTRACT

It seems surprising that small firms engage in offshore outsourcing given that they lack the resources that large firms possess to overcome the difficulties involved. We examine these factors using transaction cost theory's three stages: contact costs, contract costs, and control costs. Then, using our field data from small client firms (in the United States and the United Kingdom), intermediaries, and offshore vendors, we analyze the mitigation approaches that reduce transaction costs for small firms. We identify nine such approaches: three for client firms and six for suppliers. For the small client firm, they are liaisons of knowledge flows, gaining experience, and overcoming opportunism; and, for the service providers, they are onshore

presence, reducing contact costs, simplifying contracting, providing control channels, expert intermediaries, and standardization of services.

### INTRODUCTION

Over the last decade, many firms in the U.S. and Western Europe have outsourced software development tasks to offshore sites in countries such as India, Russia, and the Philippines. More than 50% of the American Fortune 500 firms and an increasing proportion of Western European and Japanese firms are users of offshore software sourcing (Carmel & Agarwal, 2002; Sahay, Nicholson, & Krishna, 2003). Research on onshore or domestic information-systems outsourcing has

significantly enhanced our understanding of why such firms outsource software development (Lacity & Hirschheim, 1993) and how relationships may be effectively managed with appropriate risk mitigation, coordination, and control strategies (for example, Kern & Willcocks, 2000; Lacity & Willcocks, 2001; Levina & Ross, 2003; Sabherwal, 1999, 2003). Other scholars and practitioners have drawn attention to the particular difficulties presented by offshore software outsourcing (Apte, 1990; Kumar & Willcocks, 1999; Nicholson & Sahay, 2001). Communication may be impacted by technical issues such as telecommunications infrastructure, cultural differences, accents, and language ability (Walsham, 2001). Time-zone differences may lead to coordination difficulties (Carmel, 1999). Often the offshore team lacks domain knowledge in the business application in question, and transferring this knowledge is hampered by distance (Sahay et al., 2003).

This prior research in onshore and offshore software sourcing has improved our understanding of the management of software outsourcing and the additional complexities presented in offshore relationships. However, most of this research has centered on large organizations that have the internal resources to address the problems of managing across time and space. Therefore, in this article our approach is to focus on the issues faced by small companies when sourcing<sup>1</sup> software offshore.

We have noticed in the course of our related research, fieldwork, conference attendance, and consultancy that an increasing amount of offshore sourcing of software development work is taking place between small client firms and offshore vendors in India and other countries. This trend looks set to continue. Small and large firms have chosen to outsource for a number of reasons such as skills shortages, cost, capacity, flexibility, and a “bandwagon effect” (Heeks, 1995; Lacity & Hirschheim, 1993). We have encountered cases of small U.S. and U.K. technology firms engaging in offshore software development since the

late 1990s. At that time, the growth of the Indian IT industry was closely linked to the demand for skills from Europe and the U.S. for Y2K (year 2000) alleviation and subsequently the demand for development skills in dot-com companies. During the late 1990s, small U.K. and American technology firms faced a recruitment crisis due to the high cost of IT skills and the inability to provide the perks and career paths that large companies could offer. Access to scarce skills was shown to be a major driver in the cases of Sierra (Nicholson & Sahay, 2004; Nicholson, Sahay, & Krishna, 2000; Sahay et al., 2003) and Harlequin Solutions (Ballard, 2003), which are both small technology firms that sourced software development in India during the late 1990s. After the dot-com bust and U.S. economic downturn post-2001, the Indian IT industry has continued to grow despite recession in the U.K. and the U.S. (“Nasscom Indian IT Industry: A Success Story,” 2004). This is largely because the highly competitive American and British IT services market compelled technology firms into sourcing software offshore in order to cut production costs.

Our sample of small firms is comprised of American and British firms, so we note these two nations’ propensity to source offshore. First, small American and British firms are more likely to source offshore than small firms from other nations (Aepple, 2004; Sonwalkar, 2004). The second point is inferential; since, as is repeatedly stated in the media, a greater proportion of U.S. firms have been outsourcing than firms in Europe, it is likely that a greater proportion of small American firms have been outsourcing than in the U.K. Nevertheless, the forecasts for the U.K. suggest growth. According to Datamonitor, IT spending by U.K. smaller firms is estimated to rise from \$76 billion in 2002 to \$109 billion by 2006 (Mortleman, 2003). Inevitably, as outsourcing increases from small companies and becomes common practice, offshore firms will be striving to compete.

18 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: [www.igi-global.com/chapter/small-firms-offshore-software-outsourcing/19208](http://www.igi-global.com/chapter/small-firms-offshore-software-outsourcing/19208)

## Related Content

---

### An Application of Multi-Criteria Decision-Making Model for Strategic Outsourcing for Effective Supply-Chain Linkages

N. K. Kwak and Chang Won Lee (2008). *Global Information Technologies: Concepts, Methodologies, Tools, and Applications* (pp. 1205-1218).

[www.irma-international.org/chapter/application-multi-criteria-decision-making/19035](http://www.irma-international.org/chapter/application-multi-criteria-decision-making/19035)

### Information Management and IoT Technology for Safety and Security of Smart Home and Farm Systems

(2021). *Journal of Global Information Management* (pp. 0-0).

[www.irma-international.org/article//273883](http://www.irma-international.org/article//273883)

### Country Environments and the Adoption of IT Outsourcing

Wen Guang Qu and Alain Pinsonneault (2013). *Global Diffusion and Adoption of Technologies for Knowledge and Information Sharing* (pp. 31-52).

[www.irma-international.org/chapter/country-environments-adoption-outsourcing/72181](http://www.irma-international.org/chapter/country-environments-adoption-outsourcing/72181)

### A Survey on Contactless Smart Cards and Payment System: Technologies, Policies, Attacks and Countermeasures

Brij B. Gupta and Shaifali Narayan (2020). *Journal of Global Information Management* (pp. 135-159).

[www.irma-international.org/article/a-survey-on-contactless-smart-cards-and-payment-system/262960](http://www.irma-international.org/article/a-survey-on-contactless-smart-cards-and-payment-system/262960)

### The Co-Evolution of Systems and Communities in Free and Open Source Software Development

Yunwen Ye, Kumiyo Nakakoji, Yasuhiro Yamamoto and Kouichi Kishida (2008). *Global Information Technologies: Concepts, Methodologies, Tools, and Applications* (pp. 3765-3776).

[www.irma-international.org/chapter/evolution-systems-communities-free-open/19210](http://www.irma-international.org/chapter/evolution-systems-communities-free-open/19210)