IT Outsourcing and Firm Characteristics: Empirical Evidence from Survey Data

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ABSTRACT

This paper seeks to identify the characteristics of firms that choose to transfer all or at least part of the fulfillment of their information technology needs to an outside party. The authors focus both on outsourcing and on offshoring. With a statistical approach, based on a large and nationally representative data set at the firm unit level, the authors look at the profiles of firms that have decided to outsource and/or offshore at least part of their ICT activities. The authors show that the firms with the most specific ICT needs choose to acquire these services from external suppliers or firms located abroad. The firms with the highest level of ICT investment are also the firms that choose to resort to outsourcing to a great extent.

Keywords: Empirical Approach, Information Technology (IT) Services, Offshoring, Outsourcing, Survey Data

INTRODUCTION

IT outsourcing has emerged as a key method for managing information systems, especially since the report about Eastman Kodak and IBM’s outsourcing partnership in 1989 (Loh & Venkatraman, 1992). IT outsourcing practices cover many different situations, from delivering all the information services to providing specific services (Elitzur, Gavious, & Wensley, 2012). With technological changes, the compatibility and tradability of many services across the world have become easier (Abramovsky, Griffith, & Sako, 2004; Goodman & Steadman, 2002). At the end of the 1990s, the offshoring phenomenon spread from the manufacturing to the service sector (Stringfellow, Teagarden, & Nie, 2008), in particular in IT, banking, and financial services. For most firms, IT does not belong to their core competencies and they obtain IT resources and capabilities from IT outsourcing (Dibbern, Goles, Hirschheim, & Jayatilaka, 2004). Therefore, the phenomena of outsourcing and/or offshoring have grown during the last decade: 44% of enterprises in the European Union (the EU with 27 countries) used external suppliers to perform IT functions fully or partly during 2006 (Eurostat, 2007). The Economist (2004) has published a survey on outsourcing, which points out the growing development of IT outsourcing, especially in Asia.

A broad literature focuses on the outsourcing and offshoring of activities (Gonzalez,
Gasco, & Lopis, 2006; Grossman & Helpman, 2005; Marin & Verdier, 2003). Although some researchers find negative impacts of outsourcing on organizational competencies (Aubert, Patry, & Rivard, 1998), on the strategic direction of companies (Gupta & Gupta, 1992), or on security and control (Fink, 1994), it is recognized that outsourcing has a positive effect on companies: cost savings, technical efficiency, the development of alliances, and the expansion of the IT infrastructure (Tjader, May, Shang, Vargas, & Gao, 2014). Conversely, it is largely considered that offshoring has negative societal impacts (Doh, 2005). Particularly for developed countries, offshoring affects the bargaining power and the level of wages (Bronfenbrenner, 2000) and induces job destruction. In the US, 830,000 jobs in the service sector moved to foreign countries in 2005 (Geewax, 2004). Because outsourcing and offshoring have direct and different implications for public policies (Doh, 2005), this contribution proposes to identify companies that will resort to outsourcing and offshoring based on their features (size, sector, technological investments, belonging to a group, etc.).

To achieve this goal, as Olsen (2006) suggested, this study focuses on the outsourcing of IT services and distinguishes “offshoring” from “outsourcing”. We also investigate different IT services (the management of the information and communication technology (ICT) system, the development of software, the database, the website, and the administration of the internal and external communication networks) and use a statistical approach to look at the profiles of firms that have decided to outsource and/or offshore at least part of their IT activities.

The paper is organized in three sections: firstly, we present both the theoretical and the empirical literature concerning the outsourcing and offshoring of IT services in order to formulate our research hypotheses; secondly, we present the methodological aspects; and lastly, we present our statistical evidence and discuss the main findings.

**RELATED LITERATURE AND RESEARCH HYPOTHESES**

The concepts of outsourcing and offshoring suffer from the lack of a common definition, as underlined by Loh and Venkatraman (1992) for outsourcing and by the literature review of Jahns, Hartmann, and Bals, (2006) for offshoring. As underlined by Abramovsky and Griffith (2006), Curzon Price (2001), Diaz-Mora (2008), and Kimura and Ando (2005), the first phenomenon concerns the ownership dimension of the production of IT services and the second the geographical dimension of the choice. Thus, the outsourcing decision occurs when firms choose to “buy” rather than “make” in-house. It involves greater specialization as firms switch from sourcing inputs internally to sourcing them from external suppliers. When a firm provides services or goods for another, the word “subcontracting” could also be used. However, “Outsourcing refers to the special case where the contractor has no in-house production capability and is dependent on the subcontractor for the entire product volume” (Mieghem, 1999, p. 954). The offshoring decision occurs when firms move their production overseas, either to their own foreign affiliates or to outsourced suppliers. In comparison with outsourcing, this concept takes into account another dimension: where the activity takes place. The OECD (2010) also uses the terms “offshore outsourcing” and “subcontracting abroad”. In this paper, we retain the definition of Abramovsky and Griffith (2006) illustrated in Figure 1: “Outsourcing is the decision to make or buy, regardless of where the activity takes place (denoted by the vertical arrows). Offshoring is about where the activity takes place, regardless of whether it is within the corporate boundary or outside it (denoted by the horizontal arrows).”

According to the reviews by Blaskovisch and Mintchik (2011), Dibbern et al. (2004), and Lacity, Khan, and Willcocks (2009), the broad areas of research conducted on outsourcing and offshoring decisions mainly contain four topics:
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