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A review of the IT outsourcing literature: Insights for practice

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ABSTRACT

This paper reviews research studies of information technology outsourcing (ITO) practice and provides substantial evidence that researchers have meaningfully and significantly addressed the call for academics to produce knowledge relevant to practitioners. Based on a review of 191 IT outsourcing articles, we extract the insights for practice on six key ITO topics relevant to practitioners. The first three topics relate to the early 1990s focus on determinants of IT outsourcing, IT outsourcing strategy, and mitigating IT outsourcing risks. A focus on best practices and client and supplier capabilities developed from the mid-1990s and is traced through to the late 2000s, while relationship management is shown to be a perennial and challenging issue throughout the nearly 20 years under study. More recently studies have developed around offshore outsourcing, business process outsourcing and the rise, decline and resurrection of application service provision. The paper concludes by pointing to future challenges and developments.

0. Introduction

This paper provides substantial evidence that information technology outsourcing (ITO) research has meaningfully and significantly addressed the call by Lee (1999) and Westfall (1999) for academics to produce knowledge relevant to practitioners. The ITO academic literature that studies practice is widely cited and indicates that academics have clearly served to disseminate learning. In addition, thoughtful practitioners have published their IT outsourcing experiences in academic outlets (Cross, 1995; Huber, 1993), further fueling the ability of academics to abstract lessons for practice. In several ways then, ITO research has been an exemplar of how information systems (IS) academics can study and inform practice.

ITO research aimed at studying and influencing practice has examined multiple aspects of the phenomena, from reasons why organizations outsource through to the long-term consequences of outsourcing from both client and supplier perspectives. The first published outputs from academic research appeared in 1991, which documented companies pursuing large-scale *domestic* IT outsourcing (Applegate and Montealegre, 1991; Huber, 1993). More quantitative research and multiple-case studies followed, focusing on why firms outsource (Loh and Venkatraman, 1992a) and how firms benefit (or do not benefit) from IT outsourcing (Lacity and Hirschheim, 1993; Willcocks and Fitzgerald, 1993). Between 1994 and 2000, at least 79 other academic studies were published (Dibbern et al., 2004), many geared towards practice. Since the beginning of 2009, we found 357 published papers on ITO.

The 18 years of research on domestic IT outsourcing has generated a good understanding of the practice. Overall, we learned *why* firms outsource (mostly to reduce costs, access resources, and focus internal resources on more strategic work[1]), *what* firms outsource (mostly a portion of their overall IT portfolio), *how* firms outsource (mostly by formal

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[1] Besides these rational reasons, some studies find personal agendas dominating large-scale outsourcing decisions (Hall and Liedtka, 2005; Lacity and Hirschheim, 1993).

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processes), and IT outsourcing *outcomes* as measured by realization of expectations, satisfaction, and performance (Dibbern et al., 2004). Overall, we know that client readiness, good strategy, good processes, sound contracts, and good relationship management are key success factors (Cullen et al., 2005a; Feeny and Willcocks, 1998; Teng et al., 1995; Willcocks and Lacity, 2006).

More recently, much of the academic research has focused on *offshore* outsourcing. Offshore outsourcing research addresses macroeconomic issues, supplier capabilities in developing countries, and specific client and supplier practices to ensure success. From the client perspective, researchers have found that offshore IT outsourcing poses additional challenges when compared to domestic IT outsourcing (Rottman and Lacity, 2006). Some of these issues are so difficult to manage that, more recently, according to Carmel and Abbott (2007), practitioners are turning to nearshore alternatives.

There are many other emerging outsourcing trends that interest practitioners, including business process outsourcing, application service provision, freelance outsourcing, rural sourcing, certifications of outsourcing professionals, and global standards. Academics have already contributed to practice for the first two trends among this list. The remaining topics offer academics a chance for future research.

Our aim in this paper is to extract the insights academics have identified for ITO practice. From an in-depth study of the literature, we classified 191 ITO research papers into six topics. Each topic is thoroughly reviewed in this paper (see Table 1). Each topic answers specific questions relevant to practice.

0.1. Research method

Our study goal requires a complete review of past ITO research relevant to practice. To identify papers which adequately represent the topics above, we searched the full-text of articles within ABI/INFORM, EBSCOHost, and JSTOR databases with ITO-related keywords for articles published between 1990 and 2008. The preliminary search resulted in 765 papers. Perusal of abstracts resulted in the elimination of 408 articles which did not directly pertain to ITO. This resulted in a list of 357 papers related to ITO across 71 journals (see Appendix). Following this, we carefully examined each paper and categorized it into the six topics (see Table 1). Some papers cover more than one topic, thus the total number of papers considered for this review was 191. These papers are a rich mix of conceptual and empirical studies.

As ITO researchers will well attest, there are few standard terms and definitions applied across ITO studies. For example, ITO outcomes have been measured as cost expectations realized (Lacity and Willcocks, 1998), project duration, re-work, and quality (Gopal et al., 2002), perceptions of strategic, economic, and technical benefits (Grover et al., 1996), and effects on stock price performance (Hall and Liedtka, 2005). In order to compare findings across this vast body of literature, we coded the empirical findings[2] for both qualitative and quantitative articles using a unique grounded coding technique we developed and published in Jeyaraj et al. (2006).

The method works as follows. We first extracted the authors' terms and definitions for dependent and independent variables to begin building a master list. We then began to combine variables that had similar definitions, altering the master list with each pass through another article. For example, 18 articles empirically examined the variable we call "Access to expertise/skills". The specific variable names in the articles were, for example, "Technical expertise for new IT" (Kishore et al., 2003), "Access to experts" (Al-Qirim, 2003), and "Access to a larger group of highly schooled professionals" (Sobol and Apte, 1995). Each pass through a new article also triggered a re-analysis of the master list and a re-examination of previously coded articles, until all articles were coded against the master list of terms and definitions. In the end, we identified 174 variables of which 130 were independent variables, 17 were dependent variables, and 27 variables were used as both an independent and a dependent variable. We use these codes to report on the overall findings for practice for the six topic areas.

1. Determinants of IT outsourcing

As evidenced by Table 1, the category "Determinants of IT outsourcing" is one of the most researched areas in our database of ITO articles with 73 empirical articles. Researchers who study the determinants of IT outsourcing primarily ask:

- Which types of firms are more likely to outsource IT?

Researchers examine attributes of client organizations that engage in IT outsourcing. These client firm attributes include *financial attributes* (firm profitability, return on assets, earnings per share, operating expenses, and financial slack in the organization), *size attributes* (size of the client firm in terms of total revenues or number of employees or size of the IT department within the client firm) and *industry attributes.* Below we present the findings from the academic literature on the three types of determinants of ITO.

[2] The articles were coded by Mary C. Lacity, Shaji Khan and Aihua Yan.