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# Information technology outsourcing and organizational restructuring: An explanation of their effects on firm value

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**Abstract**

This paper draws from behavioral finance theory to provide an alternative explanation to the efficient market hypothesis that investor under- and overreactions occur by chance. Hypotheses propose relationships between information technology/systems outsourcing (hereafter IT/IS) decisions on short- and long-term abnormal returns, while exploring the potentially confounding effect of organizational restructuring events that frequently follow such decisions. Using event studies techniques, it is found that although IT/IS outsourcing announcements are positively related to short-term abnormal returns, restructuring charges after the announcement moderate the relationship between the short-term effect of such announcements and long-term abnormal returns, so that long-term returns become negative when followed by organizational restructuring efforts resulting from IT/IS outsourcing.


*Keywords:* Information technology management; Information technology restructuring; Management information systems; Information systems outsourcing; Information technology outsourcing; Event studies

## 1. Introduction

The outsourcing of information technology (IT) and information systems (IS) has transformed corporate strategy in the past 10 years. This technology-led phenomenon has given rise to a $100 billion industry and an expected market penetration of over 50% by 2006 (King, 2004). The unprecedented growth has not been without pain both for corporations and their shareholders. IT/IS outsourcing strategies have, in some instances, preceded costly restructuring efforts, failure to attain strategic goals, and loss of firm value.

The purpose of this study is to examine the dual effect of IT/IS outsourcing decisions and organizational restructuring initiatives on firm market value. Traditionally, both types of decisions have been billed as cost-reducing, efficiency-enhancing efforts that allow the firm to focus on their core competencies and markets to improve performance. With either strategy, the firm's value is expected to increase, due to the intended fundamental changes to the firm's discounted future cash flows. However, while IT/IS outsourcing decisions are generally well received by investors (Hayes, Hunton, & Reck, 2000), organizational restructuring is not (Lopez, 2002; Poon, Newbould, & Durtschi, 2001).

Firms often pursue both strategies sequentially. That is, major outsourcing decisions are not uncommonly followed by a downsizing of related functions, sometimes even to the extent of transferring whole departments

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(including human and physical resources) from the firm to the service provider. Given the polar effects of IT/IS outsourcing announcements (a positive signal) and restructuring decisions (a negative signal) on investor reactions, it is important to understand how their sequential occurrence may in the aggregate affect firm value. The focus of this paper, therefore, is to explore the changes to firm value – both short-term and long-term – when both strategic initiatives are employed. To investigate these issues, we draw on market efficiency and behavioral finance research.

According to the market efficiency hypothesis, anomalies in short- and long-term market returns happen by chance (Fama, 1998). Behavioral finance theory provides an alternative explanation. Emanating from cognitive psychology, this theory agrees that investors pay scant attention to the fundamentals of firm value, but proposes that investor decisions are influenced by cognitive biases (Barberis, Shleifer, & Vishny, 1998; Daniel, Hirshleifer, & Subrahmanyam, 1998). Based on this theoretical approach, we develop a more complete explanation of short- and long-term firm value than that provided by the efficient market hypothesis. We further contribute to theory and practice through the focus on IT/IS outsourcing and restructuring decisions, an integration that is very common in technology management practice but has received little research attention. This approach provides a better understanding of the interaction effects of complex strategic decisions, and a better specified model of firm strategic behavior (Gilley & Rasheed, 2000; Gilley, Worrell, Davidson, & El-Jelly, 2000; Lei & Hitt, 1995).

Using event studies techniques, we test our hypotheses with a sample of IT/IS outsourcing announcements released from 1997 to 2003 by publicly traded firms. Event studies research has a long tradition in finance, economics, and management, examining the association between short- and long-term effects of corporate strategic announcements and abnormal market returns (Brown & Warner, 1985; McWilliams & Siegel, 1997; Neill, Pfeiffer, & Young-Ybarra, 2001; Park, Mezias, & Song, 2004; Shi, 1998). Consistent with prior research, our results show that investors generally respond well to IT/IS outsourcing announcements, as demonstrated by positive short-term abnormal returns. However, results also show that the long-term investor response to IT/IS outsourcing initiatives appears to be negative. Interestingly, the degree of restructuring that takes place after the outsourcing announcement influences the long-term impact of IT/IS outsourcing on firm market value.

The following section briefly discusses the IT/IS outsourcing decision, outlines unanswered questions, and develops hypotheses to address these questions.

## 2. Theory and hypotheses development

### *2.1. The intent underlying IT/IS outsourcing decisions*

IT/IS outsourcing has been described as the process of turning over part or all of an organization's technology/systems-related functions to an external services provider(s) (Loh & Venkatraman, 1992). Although the practice of IT/IS outsourcing has been around since 1954 when General Electric Corporation contracted with Arthur Anderson, its popularity as a tactical and strategic corporate move has exponentially increased. According to IDC, a market research firm, spending on IS outsourcing is expected to top $100 billion by 2005.

IT/IS outsourcing encompasses not only functions such as help desks, data centers, network management, and application development, but also business processes enabled with IS and technology such as human resources or accounting and finance. In practice this latter type of outsourcing is known as business process outsourcing (BPO) and involves the delegation of certain non-core business processes to an external provider for ownership and management (The Outsourcing Institute, 2005).

Traditionally, companies made outsourcing decisions for tactical, rather than strategic, reasons. They limited their IT/IS outsourcing initiatives to cost-reducing objectives, namely off-loading non-critical, back-office functions. Strategic functions (that is, core competencies that supposedly engendered a competitive advantage in the marketplace) were typically beyond this decision-making purview (Craumer, 2002). Over the last few years, however, observers claim that the intent underlying many IT/IS outsourcing decisions has moved from tactical (cost reduction) to strategic (competitive advantage and leveraging providers' knowledge) (Teng, Cheon, & Grover, 1995). They explain this trend by pointing to firms' increasing recognition that greater IS expertise can be obtained externally, rather than internally, and that, moreover, this expertise is a key driver of economic competitive advantage (Yang & Huang, 2000). Others have observed that, in general, outsourcing decisions of publicly traded firms are more likely to be of the cost-saving type (Chalos & Sung, 1998).