



Business Process Outsourcing: an event study on the nature of processes and firm valuation

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Abstract

Business Process Outsourcing (BPO) is a phenomenon that is rapidly increasing in both incidence and importance. This study empirically examines the value proposition of BPO with respect to the nature of the processes being outsourced. Using the event study methodology, we employ the value chain (VC) position and existing ownership of a business process as our primary independent variables, and the stock abnormal return in response to the BPO announcement as the dependent performance variable in our research model. The study was conducted on 298 BPO announcements from 1998 to 2005. Results support the argument that outsourcing is valuable for both primary and supportive business processes. However, we found that BPO announcements on primary processes yield higher abnormal returns than supportive processes. Although existing process ownership was not found to be a powerful differentiator for BPO performance, its interaction with VC position provides important insights into the timing of outsourcing. The evidence suggests that internal cultivation of processes is important for BPO success, particularly when BPO is applied to primary processes.

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Introduction

Outsourcing occurs when a business subcontracts a business function or process to an external supplier, who is then responsible for the delivery of the desired goods and services that would have been produced internally (Kakabadse & Kakabadse, 2000). The practice has been common within the U.S. economy for decades, and can be even traced back to the Industrial Revolution in the 18th century and possibly earlier. The relatively new wave of outsourcing – Business Process Outsourcing (BPO) – differs from traditional outsourcing practice in that it affects white-collar high-paying jobs, which have until recently been immune to the threats of outsourcing. During a recent World Economic Forum, the CEO of Infosys commented, ‘everything you can send down a wire is up for grabs’. In similar vein, Paul Craig Roberts, an economist with the Institute for Political Economy said, ‘Any worker whose job does not require daily face to face interaction is now in jeopardy of being replaced by a low-paid, equally skilled worker thousands of miles away’.

It was the landmark deal between Kodak and IBM that spawned the use of the term ‘outsourcing’ in place of ‘subcontracting’ (Applegate & Montealegre, 1991). Through the last 15 years, outsourcing has undergone rapid evolution beyond simple re-engineering of peripheral processes and the management of technical infrastructure (Gottfredson *et al.*, 2005). Rather than just a method of contracting out, BPO is now increasingly

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being adopted as a weapon to transform the way of conducting business to achieve rapid, sustainable improvement in value chain (VC)-level competitive performance (Linder *et al.*, 2002; Linder 2004). It now even encompasses certain strategic processes (e.g. R&D) that have until recently been kept in-house (Engardio & Einhorn, 2005). According to John Harris, corporate vice president of EDS, 'What is outsourceable has now drifted to *primary* business functions and processes of the enterprise'.

According to a study by IDC, the worldwide BPO market will reach \$682 billion, dominated by the North American region (see Figure 1). The premise of the exponential BPO growth is that much greater knowledge gains can be theoretically achieved because of the bundling of IT and business processes (Willcocks *et al.*, 2004).

In this study, we wish to foster a stream of research on BPO by drawing on existing research on Information Technology Outsourcing (ITO) and business process. In particular, we aim to answer the following fundamental research questions:

How can we effectively conceptualize BPO and is it a valuable initiative for all processes in a firm or only for some? Specifically, does the nature of the process (primary, prior ownership) affect valuation?

Answers to these questions can provide insight into the nature of processes that can be effectively outsourced. This paper is organized as follows. In the next three sections, we review existing literature relevant to ITO and business processes. We then present the research model developed from these perspectives. Next, we describe the research method including the event generation process, data sources, variable operationalization, and the computation of critical statistics. Empirical results assessed

from our sample of events are then presented, followed by implications for both research and practice. Following this, we discuss limitations of this study and suggest future research directions.

Conceptualizing business processes

Most companies, even very large and complex ones, can be broken down into a number of major processes (Davenport, 1993). We review three high-level process classification frameworks from the 1980s, 1990s, and post millennium era, respectively.

To systematically examine sources of competitive advantage, Porter (1985) introduced the concept of value chain, which disaggregates a firm into a set of many discrete but strategically related activities. The VC framework is a model that helps to analyze specific activities through which firms can create value and competitive advantage. Porter (1986) divided value activities into primary and supportive activities. Primary activities are those involved in the physical creation, delivery, and sale of the product or services, as well as the after sale assistance. Supportive activities support the primary activities and each other by providing needed resources. Porter's VC framework is illustrated in Figure 2.

The Process Classification Framework (PCF), developed by the American Productivity and Quality Center (APQC), provides a high-level taxonomy that caters to the needs of both service and manufacturing organizations (see Figure 3). It encourages businesses to envision their activities from a cross-industry process viewpoint rather than a narrow functional viewpoint. The PCF serves as a generic framework of business processes that can be applied to multiple industries and sectors – manufacturing and service, healthcare, government, education, and others. The PCF contains 13 business

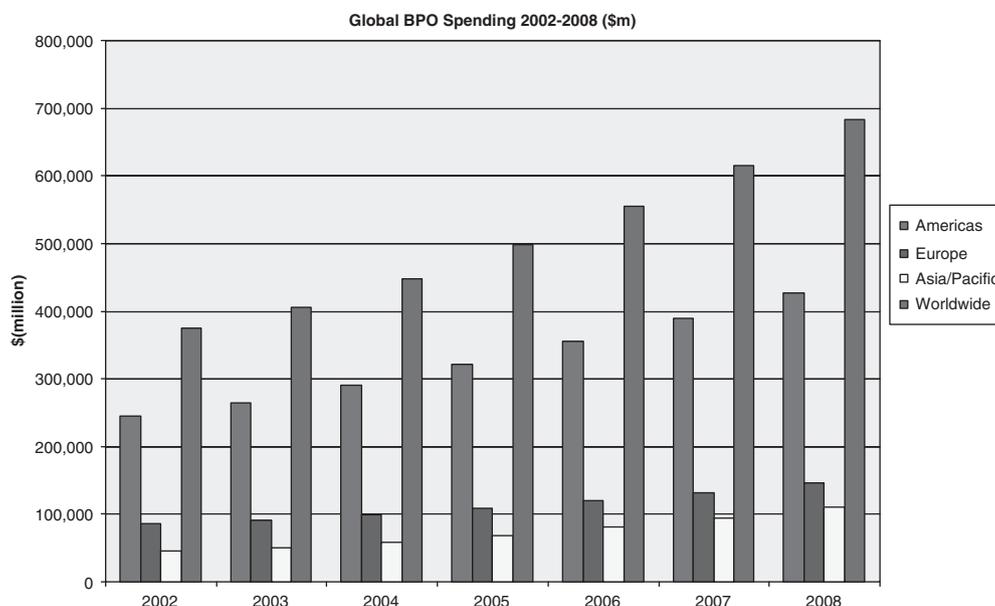


Figure 1 BPO market 2004–2008.

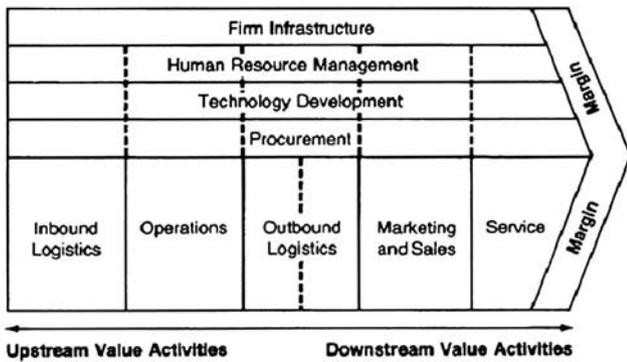


Figure 2 Porter's value chain framework.

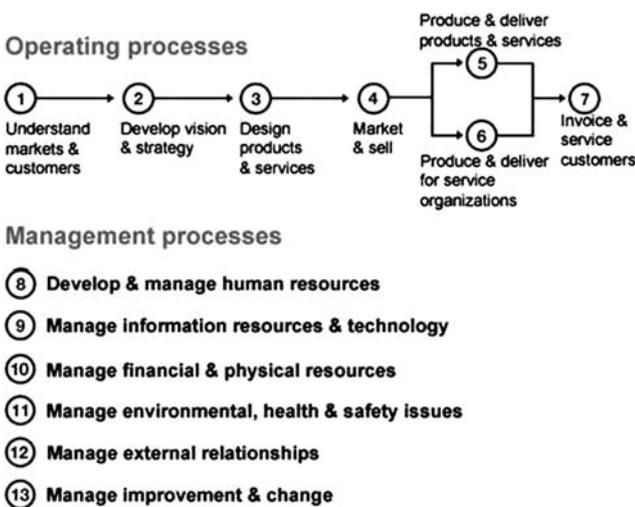


Figure 3 Process classification framework developed by the American Productivity and Quality Center (APQC).

processes applicable to almost any business. The first seven are operating processes that companies follow to develop and move products to the market. These processes include understanding markets and customers, designing products and services, and marketing and selling. The last six processes are management and support processes that make it possible for the company to operate effectively. These processes include human resource management, information systems management, and finance and accounting.

To help enterprises systematically analyze their internal business processes and external BPO service providers' offerings, Gartner Inc. in 2003 created the BPO Market Model. The model segments business processes into three broad categories: (1) Demand Management Processes – these processes link an organization with its customers, and include customer selection, customer acquisition, and customer retention and customer extension; (2) Supply Management Processes – these processes focus on responses to customer demand, and include moving products or services, storing products or information, creation and delivery of products or services, and buying

materials for product or service generation; and (3) Enterprise Service Processes – these are activities that are necessary for every enterprise, regardless of industry, and include HR, finance, accounting and regulatory, IT, and facilities management. Gartner analysts noted that significant differentiation exists for specific industries with the first two categories of processes, and that industry expertise is an important selection criterion in evaluating offers by potential BPO providers. However, as the popularity of enterprise service processes increases in the BPO marketplace, BPO providers are creating and strengthening their offerings in this category, since such an offering can be more easily leveraged across several industries (Anonymous, 2003).

Despite their different inception times, these three frameworks share a key commonality: casting business processes into categories that are directly involved in value creation (primary, operating, and demand and supply chain management processes) and categories that support those value-creating processes (supportive, management, and enterprise services processes). This commonality enables us to view outsourcing not only as a tool to offload peripheral work, but also as a strategic value chain configuration tool. Firms engage in such (re)configuration seeking superior productive capabilities (Jacobides & Hitt, 2005). Technically, the three process frameworks discussed above allow us to position business processes horizontally across functional boundaries and conduct a process-based examination of the valuation effect of BPO initiatives.

Business Process Outsourcing

The definition of outsourcing used in outsourcing studies is so broad that it refers to the procurement of virtually any goods or services by an organization from outside firms (Gilley & Rasheed, 2000). The most popular and well-accepted definition of BPO offered by Gartner-Dataquest is 'the delegation of one or more IT-intensive business processes to an external provider that in turn owns, administers and manages the selected process based on defined and measurable performance criteria'. Davenport (1993) defines business process as 'a set of logically related tasks performed to achieve a defined business outcome'. Joining these two definitions together, we can interpret BPO as *an action of delegating a set of related activities to an external service provider, who is responsible for the defined and measurable business outcome*. Most existing conceptualizations reflect a common disintegration understanding that emphasizes the delegation of a previously internally administered process to an external service provider. However, as outsourcing evolved into a standard management practice, it does not necessarily entail the shift of process ownership. The notion of abstention-based outsourcing refers to a firm's decision to outsource the services for a process that has never been operated in-house (Gilley & Rasheed, 2000). The line of demarcation between what is and what is not outsourcing is rather dynamic and contingent on

accepted practices at a certain time (Linder, 2004). A typical example of abstention-based outsourcing is e-commerce and m-commerce operations. A company may have never hosted its e-commerce and m-commerce applications before. But when it contracts a professional service provider to launch such operations, the decision is an outsourcing one. This is due to the common perception that core operations should usually be handled in-house (Gottfredson *et al.*, 2005). Therefore, outsourcing can also be construed as a firm's *rejection* to internalize a process. For instance, Ryder System Inc. signed a multi-year contract with Home Depot to provide third-party logistics services including warehouse management and equipment management for Home Depot's distribution centers. Home Depot did not develop these services in-house. In this context, it is useful to expand the conceptualization of outsourcing from the narrow 'buy' option toward the portfolio of options that fall into the 'not make' category.

Studies on ITO

Gilley & Rasheed (2000) note that investigations of outsourcing have largely been conceptual in nature, relying mainly on anecdotal or early case study evidence to support assertions. Originally, research on ITO focused on the sourcing decision itself and sought to identify motivators and inhibitors for outsourcing (Levina & Ross, 2003). As ITO gradually evolves from option to obligation, researchers have refocused their efforts on the explication of variations in ITO outcomes.

Among the many factors impacting the decision and/or degree of outsourcing, the leading reason is the need to reduce and control IT operating cost (Levina & Ross, 2003). Loh & Venkatraman (1992a), operationalized production cost advantage (firm's cost structure and IT cost structure) based on the Theory of Production Economics (TPE). Ang & Straub (1998), on the other hand, measure it using managers' subjective assessment of the comparative cost advantage offered by vendor's solution. Regardless of the nature of the measurement, the positive relationship between production cost advantage and the decision and degree of outsourcing has received strong empirical support with high statistical significance (Loh & Venkatraman, 1992a,b; Ang & Straub, 1998). In studying pre-event (entering an ITO deal) firm characteristics, Smith *et al.* (1998) confirmed that firms engaged in ITO deals exhibit higher cost-consciousness than their industry peers. Adding to the documented strong support offered by ITO research, a key survey of practitioners by Lacity & Willcocks (1998) identified 'expected IT cost savings' as the most cited reason for outsourcing. Applegate *et al.* (1996) note how an ITO can bring an entirely different set of dynamics to a firm's view of IT expenses by the conversion of fixed costs into variable expenses.

In addition to the parsimonious explanation offered by TPE, outsourcing researchers have adopted Transaction Cost Economics (TCE) as the major theoretical lens

to examine the outsourcing phenomenon, treating outsourcing as a vertical firm boundary option. The negative relationship between transaction costs and (high) degree of outsourcing is generally supported (Ang & Straub, 1998; Roodhooft & Warlop, 1999; Wildener & Selto, 1999; Hancox & Hackney, 2000). The derived relationships between the set of antecedents of transaction costs and the degree of outsourcing, however, received mixed support from empirical investigations. Asset specificity, particularly in human forms (e.g. tacit knowledge), was found in most studies to have a negative impact on the degree of outsourcing (Ang & Cummings, 1997; Poppo & Zenger, 1998; Roodhooft & Warlop, 1999; Wildener & Selto, 1999). However, other major TCE constructs – environmental and behavioral uncertainty – did not have the suggested negative impact on outsourcing decision (Ang & Cummings, 1997; Poppo & Zenger, 1998; Wildener & Selto, 1999). When TPE and TCE were applied in the same study (Ang & Straub, 1998), production cost advantage demonstrated a dominant causal effect on the degree of outsourcing over transaction costs.

Other theories brought to bear on ITO include resource dependence theory (Teng *et al.*, 1995), institutional theory (Ang & Cummings, 1997), and the diffusion of innovation (Loh & Venkatraman, 1992a,b; Hu *et al.*, 1997). Viewing ITO as a way to gain access to critical resources possessed by external owners, Teng *et al.* (1995) posited and confirmed that the ITO decision is positively related to the perceived resource gap between internal IT groups and external vendors. Institutional factors, representing regulatory forces and peer competitive pressures from an organization's environment, are found to drive the adoption of outsourcing either as an action of conformance or just an imitative behavior (Loh & Venkatraman, 1992a,b; Hu *et al.*, 1997; Ang & Straub, 1998; Smith *et al.*, 1998).

Prior work on ITO can guide our thinking regarding BPO for two reasons. First, even though BPO may not involve IT, most contemporary BPO is supported through an IT infrastructure. Therefore, BPO and ITO could share common resources. Second, the theoretical perspectives applied in ITO research are relevant for BPO, since both types of outsourcing are motivated by the same rationale based on economics, and building resources and competencies.

The questions on 'why' defined through the various theoretical perspectives above and 'what' to outsource are logically tied together (Dibbern *et al.*, 2004). Regarding the question of what to outsource, core competence-based thinking dictates that only generic or non-core activities should be outsourced (Prahalad & Hamel, 1990). However, there have been only few empirical studies to date supporting the competence-based argument that retaining core activities in-house improves performance (Mahnke *et al.*, 2005). A classical application of the core competence thinking can be found in the study by Gilley & Rasheed (2000) in which peripheral and

core outsourcing intensity are used to predict outsourcing performance. Rejecting associations proposed by core competence logic, they found that peripheral outsourcing intensity has no significant positive effect on firm performance, and core outsourcing intensity has no significant negative effect on firm performance. Further, Kakabadse & Kakabadse (2002) argued that 'what is core and what is peripheral is an academic debate, as outsourcing decisions should be driven by the nature of the sourcing contracts, and the contractual and informal relationships between the purchaser and supplier' (p. 190). Gottfredson *et al.* (2005) noted that outsourcing itself has become so sophisticated that even some core functions like R&D can be delegated to external providers.

Based on the preceding review, there are therefore certain tenets that guide our thinking regarding BPO:

- Business processes can be placed into categories based on whether they are directly involved in value creation and categories that support those value creating processes.
- It is useful to recognize the distinction between disintegration- and abstention-based outsourcing, which has been largely ignored in existing research.
- Prior research on outsourcing draws from a number of theoretical perspectives (transaction cost, resource base, production cost), but primarily focuses on antecedents to outsourcing decisions.
- Although core competence thinking argues for outsourcing of only non-core activities, empirical evidence in support of this is, however, sparse.
- There have been limited empirical studies on the more recent BPO phenomena.

Theory and hypotheses

In this study, we focus on two process-level factors that impact the valuation of a firm announcing a BPO deal. The first is the process's value chain position – whether it is a primary or supportive processes according to Porter's value chain framework. The second factor is the existence of internal process ownership when the process is outsourced. Disintegration-based outsourcing takes place after the focal process was implemented internally. Abstention-based outsourcing occurs before actual implementation and does not necessitate shift of control. We will also look at the interplay between process maturity and VC position. Individual hypotheses are developed based on the logic of the theoretical perspectives discussed earlier – TPE, TCE, and resource-based view (RBV).

We choose stock abnormal return in response to a BPO decision as the main dependent variable (DV). We believe this DV is superior to the majority of perceptual measures, since it represents assessment by an efficient and rational third party (stock market) rather than the managers from within. Among many equity valuation models, we subscribe to the free cash-flow approach in

explaining the stock price change caused by a BPO decision on a specific process. According to the famous MM (1958) theory, the intrinsic value of the equity in a firm is the present value of the stream of net cash flows to shareholders that can be produced by the firm's existing assets, plus future investments (Bodie *et al.*, 1996). Although stock price is a firm-level financial measure, its change in reaction to the specific BPO announcements and its associated characteristics can be argued to be a measure of business value at the process level.

Theory of Production Economics

In neoclassical economics, a business is treated as a production function with profit maximization as the sole objective (Williamson, 1981). The Theory of Production Economics posits that the production function describes the technology available to the producer and dictates the maximal outputs, into which the process can transform fixed quantities of various input factors (Hitt & Brynjolfsson, 1996). As an implied attribute of this production function, marginal productivity, governed by the law of diminished returns, sets the price of input factors equal to their respective marginal products. In the situation of perfect competition, a (Paretian) producer can only take prices from both output and factor markets. To attain a profit, a producer simply has to alter its existing production function to achieve higher technical efficiency. Past research on ITO has, in general, confirmed that cost reduction is the top expected benefit and the most significant driver for outsourcing decision-making (Ang & Straub, 1998; Lacity & Willcocks, 1998; Smith *et al.*, 1998; Lacity & Willcocks, 2000). Therefore, from the standpoint of TPE, a BPO decision is simply the result of a comparative efficiency assessment of the internal production function and those of the external providers.

With regards to gains in productive efficiency, we expect a BPO decision will benefit an outsourcing firm, and thus propose the following general hypothesis about BPO:

H1: *BPO will positively impact firm valuation.*

RBV of the firm

The resource-based view of the firm explains, from the internal perspective of an organization, why firms obtain competitive advantage and are able to retain it. Deviating from the perfect competition of TPE, RBV is based on two underlying assertions as developed in the strategic management field (Rumelt, 1984; Wemerfelt, 1984; Conner, 1991): (1) resources are heterogeneously distributed across firms (resource heterogeneity); and (2) these differences may be long lasting (resource immobility). RBV prescribes that heterogeneous resources are the main driver of firm performance (Barney, 1991). Valuable resources contribute to competitive advantage because they enhance the ability of a firm to create superior customer value and/or have lower costs. Rare resources

are those that few competitors possess. Durable resources maintain their value over time and are not highly vulnerable to obsolescence or depreciation. Finally, competitors cannot easily and readily duplicate resources that are inimitable. The central tenet of RBV is that when a firm's resources possess all these four attributes (valuable, rare, imperfectly imitable, and non-substitutable), they can offer a sustainable competitive advantage (Barney, 1991).

With growing specialization and resource constraints, businesses are increasingly seeking to benefit from alliances and networks to which they contribute and from which they can gain access to diverse and complementary resources. Relational rents represent supra-normal returns to a group of firms in a network, which are not attainable by any individual member firm alone. The central thesis of the relational view of competitive advantage is that a network of firms can develop idiosyncratic inter-firm linkages (relationships) that lead to sustained competitive advantage (Dyer & Singh, 1998). Collaborating firms can generate relational rents through investment in dedicated assets, knowledge-sharing routines, and trust building. The relational view of competitive advantage extends the RBV rationale to the inter-firm level.

According to Grover *et al.* (1998), outsourcing is a strategic decision, which can be leveraged to fill gaps in a client firm's resources and capabilities. Dyer (2000) argues that a core competency that businesses need to develop is the ability to design their supply chains – knowing what to do in-house, what to outsource to supplier partners, and what to outsource to arms-length suppliers. From the resource-based perspective, we can view BPO as a modern way to foster global specialization. By specialization, we mean the achievement of the match between a process and an owner with the best resources to operate it.

The VC framework and the subsequent PCF and BPO market models highlight the apparent heterogeneity in business impact associated with the variety of business processes that a firm operates (Keen, 1997). We postulate that BPO of primary processes (supply chain management, operations, and sales + marketing + customer care) will likely have a greater business impact than those supportive processes (business administration processes). We base our postulation on the following three arguments.

First, because of their direct involvement in the creation and delivery of customer value, Porter (1985) emphasized that each category of primary business processes is vital to competitive advantage. In other words, primary business processes serve as both necessary and sufficient conditions for a firm's identification to customers and investors with its strategic positioning. However inseparable, supportive processes are only necessary conditions because they feed into primary business processes (Cooper *et al.*, 1997). In fact, Ranganathan & Brown (2006) showed that firms that purchased ERP systems for VC modules had greater stock market reactions than those that purchased non-VC modules.

Second, a BPO implemented on primary business processes determines the degree of vertical integration, which in turn influences the competitive scope (vertical scope) and the supply chain structure of the outsourcing firm (Porter, 1986). The resource-based and relational view of competitive advantage provide further support to the stronger business impact for BPO involving primary processes due to the potential of reaping relational rents through exploitation of idiosyncratic inter-firm linkages (vertical linkages as Porter originally described). The generation of relational rents is enabled by knowledge sharing, trust building, and investment in specialized assets, which jointly penetrate the corporate silos across supply chain (Cooper *et al.*, 1997; Dyer, 2000). Most importantly, exploration and nurturing of vertical linkages lead to co-specialization and the development of higher order capabilities that distinctively combine lower-order resources distributed across partnering firms (Lambe *et al.*, 2002). Knowledge associated with supporting process, on the other hand, is inherently generic and can be leveraged across firms and even industries (Stone & Scholl, 2003), and thus can hardly qualify for any source of sustainable competitive advantage.

Finally, investors and stockholders seek maximal returns on their investments and decide on granting financial resources based on the value building potential of actions taken by managers. Primary processes, regardless of their ownership, constitute the chain-level production function and serve the same end customer. BPO in the domain of primary processes are more likely to improve the chain-level production efficiency and effectiveness because the co-specialization cultivates the creation of new knowledge applicable to the whole value chain. Outsourcing of supporting processes mainly results in resource savings, and has relatively less instant direct impact on the grand inter-firm production function.

Based on the preceding discussion, we therefore propose our second hypothesis:

H2: *BPO of primary business processes will have a stronger positive impact on firm valuation than those of supportive processes.*

Existing process ownership

In this study, we utilize disintegration-based BPO to denote outsourcing of an already internally deployed process, and abstention-based BPO to reflect outsourcing of a process prior to internal deployment. The benefit of disintegration-based BPO can be best described as 'cheaper price', which is merely a result of resource substitution. In other words, a firm can still keep running and delivering goods and services to customers without disintegration-based BPO.

The existence of internal process ownership is also indicative of the resource gap between the outsourcing

firm and external service provider. When a firm decides to outsource a process prior to internal deployment, it faces a substantially large resource gap to fill. By embarking on abstention-based BPO, a firm gets 'instant service availability' and access to critical resources. Abstention-based BPO does not involve any significant upfront investments in fixed assets. The pay-as-you-go approach neither enlarges the asset base nor lengthens payroll. Potential investors might buy in if they interpret such BPO decisions as indicators of a firm's efficiency and effectiveness in exploiting and expending scarce financial resources.

The benefits of BPO, especially production cost advantage, are seen to be largely stemming from the vendor's economies of scale. By offering the same process to multiple buyers, vendors are able to drive down the average cost of producing one product or providing one service instance. Abstention-based BPO can derive lower average cost because the increased production volume does not entail significant increases in total fixed cost. Disintegration-based BPO simultaneously drives up both fixed cost (due to asset transfer) and production volume. Therefore, for the same process, abstention-based BPO can yield better production advantage on the vendor side.

The existence of internal process ownership is tied to the existence and size of resource gap between the outsourcing firm and the external service provider. The size of the resource gap filled by BPO in turn determines the size of the effect of a BPO deal on firm valuation. By relating the existence of internal process ownership to outsourcing success, we provide the following hypothesis on abstention- and disintegration-based BPO:

H3: *Abstention-based BPO will have a stronger positive impact on firm valuation than disintegration-based BPO.*

Interaction effects based on transaction cost logic

In setting the framework for the interaction between process type and ownership, we review the basic tenets of TCE. TCE traces the existence of firms and the structure of firm to the efficiency of organizing transactions (Hart, 1989; Williamson, 1995; Williamson, 1996). The fundamental 'discriminating alignment' claim of TCE, as laid out by Williamson (1995), states that transactions should be governed in such a way as to minimize the costs incurred in carrying them out – transaction costs. Transaction costs, described by (Williamson, 1996) as the '(comparative) costs of maladaptation', include both direct costs of managing relationships and the possible opportunity costs of making inferior governance decision. Two principal attributes of transactions are asset specificity and uncertainty. Asset specificity refers to the degree to which the assets supporting a transaction can be redeployed to 'alternative uses by alternative users without sacrifice of productive value' (Williamson, 1991). Uncertainty refers 'parametric changes'

in exogenous forces (environment) compounded by behavioral unpredictability of transacting parties stemming from limited cognitive competence and opportunistic motives (Auster, 1994).

The core tenets of TCE can then be stated by specifying the relationships between the key constructs: asset specificity, uncertainty, transaction costs, and governance mechanisms. As asset specificity increases, the transaction costs associated with market governance increase and hierarchies become preferred modes of governance over markets. When asset specificity is present to a non-trivial degree, uncertainty raises the transaction costs associated with market governance, which render hierarchies preferable to markets. Governance modes aligned with transaction characteristics should exhibit performance advantages over other misaligned modes. In other words, when both asset specificity and uncertainty are high, hierarchies and hybrids should display better performance over markets.

Outsourcing viewed as vertical disintegration accompanied by a high-powered pay-for-performance incentive typically represents a shift in the locus of governance of the focal process, and has been traditionally regarded as the migration from internal bureaucratic control to market regulations. Owing to the economies of specialization available in the market, applications of TCE generally assume that the market provides a more efficient mechanism for exchange rather than does hierarchy (Leiblein & Miller, 2003). However, in certain situations the transaction costs associated with the market mechanism may rise substantially and surpass the efficiencies offered by the market. Thus TCE focuses on aligning certain exchange attributes with market, hierarchy in order to minimize associated transaction costs.

There is an inherent specificity difference between primary business processes and the supporting processes feeding into these primary processes. Most supporting processes are generic across firm and even industry boundaries and therefore exhibit very low process specificity. Primary processes, on the other hand, are most likely product, process, and/or firm specific, and therefore indicative of high specificity. The relatively higher specificity of primary BPO, according to TCE, requires more sophisticated governance structures to mitigate exchange hazards. Prior research has already found that firms having less experience with a process are more likely to externalize it than firms with greater experience (Leiblein & Miller, 2003). For abstention-based BPO, the large resource gap means the buyer has little knowledge about the process. The disadvantageous bargaining position limits the buyer's options to only outcome or performance-based control mechanism (e.g. Service Level Agreement (SLA)) to lower transaction costs. For disintegration-based outsourcing, the buying organization has adequate knowledge about the process and can apply either execution (behavioral) or performance (output)-based control mechanisms to curb exchange hazards.

We now examine the interplay between process ownership and VC position. For abstention-based BPO of primary processes, the combination of high process specificity and a buyer's limited (exchange) hazard-mitigation options tend to offset the potential greater gains from outsourcing primary processes. In cases of abstention-based BPO of supportive processes, the relatively low process specificity does not require a buyer to possess sophisticated process knowledge, and the exchange can be efficiently handled with only the available outcome (contract)-based mechanisms. Therefore, without existing process ownership (abstention), the postulated performance superiority associated with BPO of primary processes (H2) is likely to be offset by the high potential transaction costs due to the lack of sufficient process knowledge and ensuing limited mitigation mechanisms.

For disintegration-based BPO of primary processes, the combination of high process specificity and a buyer's multiple (exchange) hazard-mitigation options is the congruent pattern suggested by TCE. Therefore, we expect this well-aligned mode to exhibit performance advantages over other misaligned modes. One such misaligned mode would be disintegration-based BPO of supportive processes in which lower process specificity is possibly overmatched with both behavioral- and performance-based controls. Consequently, we expect the performance gap between primary BPO and supportive BPO is likely to further expand with the existing process ownership and process knowledge.

As reasoned above, the performance advantage associated with BPO of primary processes over BPO of supportive processes is likely to diminish with the abstention of existing process ownership. The same performance advantage is also likely to be augmented in situations of disintegration-based BPO. Reflecting on the interplay between process ownership and maturity, we presented the following pair of related hypotheses:

- H4a:** *In cases of abstention-based BPO, the valuation effect of primary BPO is no different than that of supportive BPO.*
- H4b:** *In cases of disintegration-based BPO, the valuation effect of primary BPO is greater than that of supportive BPO.*

Research method

An event study was used to test the hypotheses. A set of BPO public announcements was compiled based on a careful search procedure. The sample events were purified based on a review and elimination of those with other events around the same period. In event studies, when financial markets learn of unanticipated news that will affect a firm's performance, we expect a reaction expressed in stock price adjustment indicative of the

value that is placed on that news. Because of market efficiencies, information is absorbed immediately and is reflected in the change in stock price (Fama, 1998). Daily stock price data for the event company as well as market returns were compiled from the CRSP database. A market model was then used to compute the excess daily returns attributable to the announcement. The two variables on VC position (primary *vs* supportive) and existing process ownership (abstention *vs* disintegration) were coded based on a content analysis of the announcements. This allowed for a direct testing of the various sub-groups as per the hypotheses. Below, we describe the detailed process followed.

Generating the set of BPO announcements

Following Oh *et al*'s event study (2006) on ITO, we used Lexis and Nexis to construct a sample of events (BPO announcements) for the period between 1998 and 2005. We defined a BPO event as the decision of a publicly traded company (listed on NYSE, NASDAQ, and AMEX) to engage an external provider in the provision of needed services. Such an event definition allowed us to include abstention-based outsourcing, which has been overlooked in existing outsourcing research, into our investigation. A list of keywords used to identify a BPO announcement was then created by analyzing the content of 15 highly publicized outsourcing announcements. The main keywords identified were 'outsource*', 'agreement', 'arrangement', and 'contract'. Other auxiliary key verbs identified in BPO announcements were 'announce', 'purchase', 'sign', and 'award'. Each monthly search yielded approximately 80–300 news items after deletion of cross-listed news items (both on PR Newswire and Business Wire). Each item was then manually examined to confirm the existence of the outsourcing company and the outsourced process. One additional BPO-related criterion we applied to each item is that the outsourced process must be fitted into one of the categories in the BPO market model.

We also endeavored to ensure that there were no other major confounding events on (0 day) or around (−1 and +1 day) the same day as the BPO announcement. The types of confounding events included in our screening were earnings announcement, executive turnovers, launches of new product lines, recalls of defective products, large investment decisions, mergers and acquisitions, and legal actions taken by important stakeholders (competitors, customers, etc.). After this detailed screening procedure, approximately 3–10 items per month survived all criteria, resulting in a final sample of 298 BPO events.

Two sample BPO announcements are listed in Table 1. The cases represent two public companies. In examining the words given in bold we can map them onto process categories in the BPO market model (HR for International Paper and contract manufacturing for Arris). We use these cases to discuss the classification of processes later in this section.

Table 1 Sample BPO announcements

REF	BPO Announcement Text
IP20011018	<p>HEADLINE: Exult Signs \$600 million HR Outsourcing Agreement with International Paper DATELINE: IRVINE, Calif., 18 October 2001 BODY: Exult, Inc. (NASDAQ:EXLT), the leading provider of integrated services designed to manage human resources functions for large, multinational corporations, today announced that it has signed a 10-year HR process management contract with International Paper (NYSE:IP). Exult will apply its business process expertise to refine the transactional and administrative systems used in delivering HR services to approximately 70,000 International Paper U.S. employees covered under the scope of the contract. Exult's Service Delivery Model (SM) is designed to streamline HR processes, reduce costs, and improve service to employees through self-service and increased efficiencies. Under the terms of the agreement, Exult will assume responsibility for managing key core administrative HR services for International Paper, including payroll, benefits administration, service delivery (human resources call center management), HR information services, and systems support. Exult will also assume responsibility for various third-party providers related to these processes. The transaction is expected to generate revenues to Exult of approximately \$600 million over the life of the contract. The agreement will result in significant annual cost savings to International Paper for the administrative functions to be directly managed by Exult. 'This agreement supports International Paper's focus on finding innovative ways to introduce business efficiencies, thus allowing us to better focus on strategic HR business issues', said Jerry Carter, senior vice president, Human Resources for International Paper. 'IP has made a significant investment in building and successfully transforming our HR service delivery platform. Partnering with Exult allows us to continue improving the HR services available to our employees, while providing flexibility required in today's dynamic business environment'. 'We are very pleased to provide International Paper with a comprehensive HR process management solution that can extend its excellence in the provision of HR services, while supporting the company's strategic business objectives', said Exult's chairman and CEO, Jim Madden. 'We look forward to working with International Paper to develop an expansive, mutually beneficial business partnership'. 'Exult has established itself as a focused HR BPO provider, and in the past two years has validated its model by signing several contracts with global corporations', said Allie Young, chief analyst Gartner</p>
ARRS20011023	<p>PR Newswire 23 October 2001, Tuesday SECTION: FINANCIAL NEWS DISTRIBUTION: TO BUSINESS AND TECHNOLOGY EDITORS LENGTH: 585 words HEADLINE: ARRIS and Solectron Expand Manufacturing Partnership DATELINE: DULUTH, Ga. and MILPITAS, Calif., 23 October BODY: ARRIS (Nasdaq: ARRS), and Solectron Corporation (NYSE: SLR), the world's leading provider of electronics manufacturing and supply-chain management services, today announced the expansion of their manufacturing relationship. In alignment with ARRIS's expanded outsourcing strategy, the company has decided to outsource most of its current in-house manufacturing to Solectron. This will allow ARRIS to achieve significant cost savings and balance sheet improvements while maintaining a high level of service for its customers. Under the agreement, Solectron will provide a full range of supply-chain services, including design for manufacturability, manufacturing, test, and complete systems assembly for ARRIS's Network Technologies Product Set. As soon as the transition to Solectron is complete, ARRIS will close its manufacturing facilities in El Paso, Texas, and Juarez, Mexico. 'We are very pleased to expand our manufacturing relationship with Solectron, leveraging the excellent partnership that has been developed over the past four years with Arris Interactive, LLC for the Cornerstone(R) family of product', said Bob Stanzione, CEO and President of ARRIS. 'We are confident that Solectron will provide us with a cost-effective solution and flexibility going forward', stated Bob Stanzione, CEO and President of ARRIS. 'We are excited to further extend our strategic relationship with ARRIS who is a key industry partner', said Mitch Schoch, Solectron Vice President of Account Management, Americas. 'This partnership strengthens our leadership position in providing superior end-to-end solutions for our customers and we are pleased to expand our service offering to meet ARRIS's evolving needs'.</p>

The dependent variable – stock market's reaction to a BPO announcement

In event study methodology (Campbell *et al.*, 1997), the stock market's response to an event is computed as the

abnormal return (*AR*) assigned to a firm's stock. The timeline of our event study is shown in Figure 4. Initially, we computed the abnormal returns over the 3-day window, namely days -1 , 0 , and $+1$ with respect to

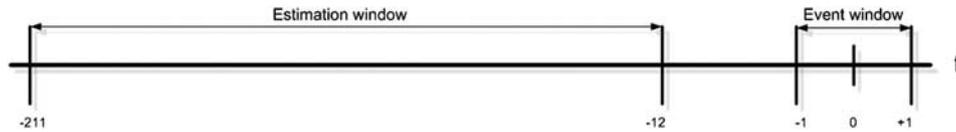


Figure 4 Event study timeline.

the event date (as day 0). Based on the result (ARs) data set obtained, we then decided on whether to expand or shorten the 3-day event window.

The daily stock returns R_{it} (ith stock on tth day) and market returns R_{mt} were extracted from the CRSP database. We adopted an estimation window of 200 days (–210th day to –11th day, with 0th day as the event day) to estimate the association of the focal stock and the market, as expressed in Eq. (1):

$$r_{it} = \alpha_i + \beta_i r_{mt} + \varepsilon_{it}, \tag{1}$$

where r_{it} represents the daily stock returns to firm i on day t ; r_{mt} denotes the corresponding daily returns of the market; α_i and β_i are firm specific parameters representing stock i 's association with the overall market; and ε_{it} represents the daily residual. The estimates (α_i and β_i) obtained from this market model were then used to predict (normal) return for stock i across the event window, as expressed in Eq. (2):

$$AR_{it} = r_{it} - (\alpha_i + \beta_i r_{mt}). \tag{2}$$

The daily excess returns, as denoted by AR_{it} , reflect the daily unanticipated movements in the stock price for the outsourcing firm over the BPO event period. The variance of these ARs was then calculated using the formula in Eq. (3):

$$\sigma_{(AR_{i0})}^2 = \sigma_{\varepsilon_{it}}^2 + \frac{1}{L_1} \left[1 + \frac{(R_{mt} - \mu_{R_m})^2}{\sum_{t=1}^{L_1} (R_{mt} - \mu_{R_m})^2} \right], \tag{3}$$

where L_1 is the size of the estimation window; μ_{R_m} is the mean market return during this window; and $\sigma_{\varepsilon_{it}}^2$ is the variance of the residuals (ε_{it}) during this window. When L_1 becomes large, the second term approaches zero as the sampling errors of the parameters vanish (MacKinlay, 1997). Because of the very long 200-day estimation window in our study, we ignored the second term in calculating the variance.

One of the most critical design issues in an event study is the width of the event window (McWilliams & Siegel, 1997), which concerns the signal to noise ratio in detecting the capital market's reaction to a BPO event. A constraint circumscribing our selection of an event window was that the impact duration of the stimulus to capital market provided by a BPO deal varies with the nature of the outsourced process. For the whole sample, the correlation between AR_0 (i.e., AR on day 0) and AR_1 (i.e., AR on day +1) was marginally significant at the $P=0.09$ level.

Next, we split the whole sample by the VC position. The correlation between AR_0 and AR_1 was now significant

at the $P=0.02$ level for primary processes, while AR_0 and AR_1 were not significantly correlated to each other ($P=0.3$) for supportive processes. The two contrasting significance levels supported our claim that the valuation effect spills over to the time period after the announcement for primary BPO, whereas for supportive BPO the valuation effect is sufficiently digested by the market within the day of the announcement itself. In addition, the abnormal returns on day 0 and day –1 are not correlated significantly for both the whole sample as well as the split samples. Based on the above results, we established the event window as the day of the event (day 0), which is sufficiently short to capture only the abnormal returns surrounding the event of interest (Uhlenbruck *et al.*, 2006).

Classification of BPO announcements

Because our hypothesis testing involved grouping events according to the process level characteristics, we detail in this section our coding schemes for VC position and existing process ownership.

Since Porter's VC framework was conceptualized in a manufacturing-oriented environment, we extended its applicability by incorporating Gartner's BPO market model to address the complexity of modern business organizations. In uniting the two models, we mapped the two processes categories of demand and supply management in Gartner's BPO Market Model into the primary category in Porter's VC model. Because of their similarity in internal containment and indirect contribution to value creation, we treated enterprise service process as supportive class in VC framework. For the event of IP20011018 in Table 1, it is classified as supportive BPO because the outsourced process is 'HR process management'. For the announcement of ARRS20011023, it is put into the category of primary BPO due to the fact that 'in-house manufacturing' was handled over to Solectron.

The indicators of shifting process ownership included closure of existing facilities and liquidation of fixed assets, layoff of existing employees or re-employment by the service provider, transfer of assets from the outsourcing firm to the provider, transition or migration of existing systems, and cost savings. When one or more of the above indicators was identified within the text of the BPO wire, we labeled the announcement as disintegration-based BPO. Otherwise, we labeled it as abstention-based BPO. For the event of IP20011018, we label it as disintegration-based BPO for the collective existence of keywords such as 'assume responsibility', 'significant annual cost savings', 'to refine', and 'streamline'. The event of ARRS20011023 is also disintegration-based BPO

because 'current in-house manufacturing' was turned over. In most cases the classification was apparent. In the few exceptions where it was not, the authors discussed the case, obtained additional public information, and made a judgment regarding classification.

Data analysis

Hypothesis testing in event study typically entails aggregating individual stock ARs into portfolio abnormal return. Related to this abnormal return aggregation is the aggregation of individual variances. Both aggregations rest on the assumption that all the individual events (BPO announcements) are independent of each other and observe the same normal distribution. Our adoption of standardized abnormal returns (SAR_0) is also purported to observe the above-stated requirements of independence and distribution.

To test H1, we aggregated the individual abnormal returns on day 0 to calculate the z-statistic for the portfolio of $N=298$ events by the formula expressed in Eq. (4):

$$Z = \sqrt{N} \times \frac{1}{N} \sum_{i=1}^N \frac{AR_{i0}}{\sqrt{\sigma^2_{(AR_{i0})}}} \quad (4)$$

$$= \frac{\sum_{i=1}^{N=298} SAR_{i0}}{\sqrt{N}}$$

To test H2 and H3, we conducted independent-samples *t*-tests in SPSS with SAR_0 as the test variable and VC position (= 1 for primary processes, and = 0 for supportive processes) or process ownership shift (= 1 for disintegration-based BPO, and = 0 for abstention-based BPO) as the grouping variable. To test H4a and H4b, we first split the whole data set using process ownership shift as the grouping variable in SPSS and then ran the independent-samples *t*-tests on both split samples.

To ensure robustness of our results, we also ran multiple regressions with a multitude of control variables related to the industries of the outsourcing firms, size (logarithm) and firm age. In addition, we follow McWilliams & Siegel's (1997) recommendation and run non-parametric analyses to supplement the above parametric analyses (*t*-test and regression).

Results

In this section, we present the major results of our study. First, we provide descriptive statistics about the events, the DV, and event classifications. Next, we present results from data analysis to assess the empirical support offered to our hypotheses.

Descriptive statistics

Figure 5 displays a breakdown of the events by time. In general, the frequencies indicate the booming trend of BPO documented in the opening section. Perhaps due to the political backlashes associated with the 2004 U.S. Presidential election, the years 2004 and 2005 seem to

suggest a BPO slowdown. Note that our sample covers both service (e.g. banking, software) and manufacturing industries (e.g. oil exploration and refinery, automobile). Among all 50 covered industries, computer software (SIC code 73**), telecommunication (SIC code 36**), and banking (SIC code 60**) are the top three industries represented by our sample, with 34, 28, and 27 occurrences, respectively.

Table 2 presents a breakdown of the BPO events by process type following Gartner's BPO market model. About half of the sample (49%) is for BPO of primary business processes, including supply management processes and demand management processes. Enterprises service processes constitute the other half of the sample (51%).

Table 3 provides the descriptive statistics for AR_0 , including the mean, standard deviation, median, and the quartile ranges. On average, a firm that enters a BPO arrangement experiences only a marginal 0.23% gain in market valuation on the day of announcement. Reflecting the considerable variation in ARs and SARs across sample events, the values are roughly divided evenly above and below 0% return. Because of the considerable variation in $VAR(AR_0)$, we seek to use SAR_0 to smooth out stock-specific volatility that might distort subsequent interpretations as stated earlier.

From Table 4, we can observe that among the 298 BPO, 150 are dealing with primary business processes. About half of the sample BPO is disintegration-based with clear indicators of prior process ownership. Table 5 describes the results of hypotheses testing and is discussed below.

Hypothesis testing

The first hypothesis (H1) anticipates a positive market value impact of BPO. As shown in Table 5, the z-statistic was not significant. Consequently, we found no support for the positive impact on firm valuation suggested by H1.

With regards to H2, the group of primary BPO yielded a mean SAR_0 of 0.1438 while the group of supportive BPO yielded a mean SAR_0 of -0.0832 . This mean difference of 0.2269 is significant with a one-tailed *P*-value of 0.03. From multiple regression analysis, with controls described above, we observe a standardized coefficient of 0.149 significant at the 0.05 level. Non-parametric Wilcoxon rank sum test yields a z score of -1.963 significant at the 0.05 level. Consequently, we found support for H2 and concluded that BPO of primary business processes have a stronger positive impact on firm valuation than those of supportive processes.

To test H3, we repeated the independent-samples *t*-test conducted for H2 except that the grouping variable used here was the existence of prior ownership (= 1 for disintegration-based BPO, and = 0 for abstention-based BPO). In this case, the mean SAR_0 for the abstention-based BPO group was 0.0781 and the mean SAR_0 for the disintegration-based BPO group was -0.0197 . The mean difference of 0.0978 is not significant with a one-tailed

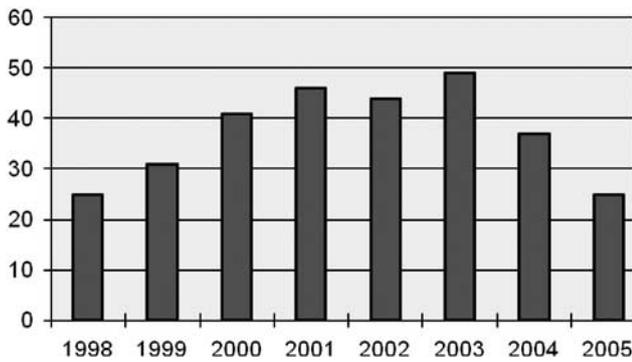


Figure 5 Distribution of BPO events by time.

P -value of 0.21. Regression and non-parametric analysis provided similar results with non-significant P -values at the 0.10 level. Therefore, we found no support for H3.

Finally, to test H4a and H4b, we ran the independent-samples t -test separately on the appropriate sub-samples created first using process ownership shift as the grouping variable, and then using VC position as the grouping variable. With regards to the two sub-samples consisting only of abstention-based BPO, the group of primary BPO yielded a mean SAR_0 of 0.1089 and the group of supportive BPO yielded a mean SAR_0 of 0.0481. The mean difference of 0.0607 is not significant with a one-tailed P -value of 0.359. However, within the two sub-samples consisting only of disintegration-based BPO, the group of primary BPO yielded a mean SAR_0 of 0.1787 and the group of supportive BPO yielded a mean SAR_0 of -0.2180 . The mean difference of 0.3966 is very significant with a one-tailed P -value of 0.011. In regression analysis, the coefficient of VC position is 0.014 with P -value of 0.905 for the group of abstention-based BPO. For the group of disintegration-based BPO, the β is 0.237 with P -value of 0.027. Non-parametric analysis shows a similar change (P -value of 0.702–0.038) in significance level associated with ranking difference between primary and supportive BPO from abstention-based BPO to disintegration-based BPO. Thus, we found strong support for both H4a and H4b.

Discussion

The premise of this study is that in an efficient capital market, investors ought to quickly recognize the cash flow consequences of a publicly released BPO decision. If a BPO is perceived to lead to additional cash flow, the stock price reaction to the announcement should be favorable.

The test results for the individual hypotheses are summarized in Table 6. In the aggregate, the chance for a BPO decision to get a positive response from stock market is about the same as the chance to get a negative one. In general, we found that BPO of primary business processes enjoyed a significantly higher level of abnormal return than those of supportive processes. Although

existing ownership was not a powerful performance differentiator (there was no support for H3), its interaction with process VC position provides valuable insights into the impact of existing process ownership on BPO outcome. In the case of abstention-based BPO, both primary and supportive processes receive marginally positive abnormal returns at about the same level. However, for disintegration-based BPO, primary processes BPO enjoy significantly higher positive abnormal returns, while supportive processes BPO suffer negative abnormal returns from the market. In the latter case, our theoretical arguments indicate that low process specificity is mismatched with the behavioral and performance-based control mechanisms.

Implications for research

In light of our research, a definition of BPO is more useful when it is broadened to include abstention-based outsourcing (and prior process ownership). With this expanded definition, we learn more about 'when to outsource'. Additionally, the process typology examined, enables us to go beyond a functional view of outsourcing toward a corporate view that transcends 'silos' and examines the role of the process within the enterprise.

The study adopts a resource-based view and relational view (RV) arguments to facilitate a process-based view of outsourcing. With the exception of Roy & Aubert (2002), the RBV and RV arguments have not been used in outsourcing research. In our study, we not only relate the existence of prior ownership to resource gaps between buyer and provider, but also link the VC position of business processes to possible sources of competitive advantage. Our study extends previous research by empirically demonstrating a discernable performance differential between primary and supportive processes being outsourced. The essence of our process-based view is that outsourcing is the (re)alignment of business processes with better resources and thereby new capabilities found in a BPO provider. The rapid pace of globalization and technological advances increasingly permit even primary parts of the VC to be productively dispersed in different geographical locations. By adopting a VC-based approach for the study of outsourcing, we imply that BPO represents a modern way of specialization and division of labor triggered by globalization and the information revolution.

Lastly, our study raises an interesting research question regarding the nature of outsourcing. Although tests related to prior ownership did not indicate significant differences in performance between abstention-based and disintegration-based BPO, the ARs were in the anticipated direction. Further, the significant interaction effects between process maturity and VC position supports our theoretical arguments on the need for matching process specificity with transaction costs of monitoring. It is possible that the issue of ownership is congruent with the timing of outsourcing – where abstention-based outsourcing involves a process that is

Table 2 Distribution of events by year and process type

Process type	1998	1999	2000	2001	2002	2003	2004	2005	Total
Supply Chain Management	8	11	12	16	12	19	12	6	96 (32%)
Demand Management	3	2	12	7	14	6	6	1	51 (17%)
Enterprise Service Processes	14	18	17	23	18	24	19	18	151 (51%)

Table 3 Descriptive statistics for AR_0

Variable	Mean	Std. Dev.	Minimum	1st quartile	Median	3rd quartile	Maximum
AR_0 (Abnormal return on day 0)	0.23%	4.4%	-17.1%	-1.5%	-0.18%	1.4%	31.8%
$VAR(AR_0)$	0.0028	0.0176	0.0000507	0.00028	0.00064	0.00179	0.297
SAR_0 (Standardized AR_0)	0.0295	1.0433	-3.26	-0.5732	-0.0614	0.4616	6.57

Table 4 Event classification by value chain position and process ownership

Variable	Value 0	# of occurrences	Value 1	# of occurrences
Value chain position	Supporting processes	150	Primary processes	148
Process ownership	Low (abstention based)	150	High (disintegration based)	148

Table 5 Standardized abnormal returns and hypotheses testing

Hypothesis	Sample size	SAR_0 mean (Median)	Significance (P-value)
H1		0.0295 (-0.0614)	0.4235 (z-test)
H2	Primary	0.1438 (0.0481)	0.03 (one-tailed t-test)
	Supportive	-0.0832 (-0.1751)	
H3	Abstention	0.0781 (-0.0163)	0.21 (one-tailed t-test)
	Disintegration	-0.0197 (-0.1184)	
H4a	Abstention		
	Primary	0.1089 (0.0777)	0.359 (one-tailed t-test)
	Supportive	0.0481 (-0.0620)	
H4b	Disintegration		
	Primary	0.1787 (-0.0003)	0.011 (one-tailed t-test)
	Supportive	-0.0218 (-0.2999)	

Table 6 Summary of hypothesis testing results

Hypothesis	Support
H1 In general, BPO will positively impact firm valuation.	No
H2 BPO of primary business processes will have a stronger positive impact on firm valuation than those of supportive processes.	Yes, significant
H3 Abstention-based BPO will have a stronger positive impact on firm valuation than disintegration-based BPO.	No
H4a In cases of abstention-based BPO, the valuation effect of primary BPO is no different than that of supportive BPO.	Yes
H4b In cases of disintegration-based BPO, the valuation effect of primary BPO is greater than that of supportive BPO.	Yes, significant

of low maturity (no experience) within the firm, while disintegration involves higher maturity (greater experience). Hopefully, our initial effort will stimulate further research on the timing of BPO.

Implications for practice

In approaching BPO, business executives must make a series of challenging decisions related to process ownership transfer or externalization. Drawing on our

empirical findings, we seek to answer several BPO-related questions faced by managers.

As outsourcing evolves 'from option to necessity', many managers will find themselves debating over whether they should join the BPO bandwagon. Our results, based upon stock returns as a performance metric, suggest that on average investors deem BPO as neither value adding nor value diminishing (H1). Our tabulation of SAR_0 signs reaffirm previously reported low ITO success

rates (Lacity & Willcocks, 1998; Susarla *et al.*, 2003). Hence, a BPO by itself is not sufficient to generate positive returns for stockholders.

In the 'selective outsourcing' doctrine, outsourcing is only appropriate for the transaction intensive, peripheral functions of an enterprise. An important question business executives need to address is whether they should outsource core primary processes. The fact that more than half of the BPO (52%) in our sample deal with primary processes indicates that BPO is increasingly being used for strategic purposes. On average, primary BPO in our sample achieved a statistically significant improvement in firm valuation over supportive BPO. The high abnormal return associated with primary BPO should be very encouraging for business executives reluctant to embark on strategic outsourcing.

A third question that managers should address in making BPO decisions would be whether that should first own a process before choosing to outsource it later. The fact that only half of our sample BPO are disintegration based while the other half are abstention based suggests that managers should scan BPO vendors regularly in order to acquire the service of newly developed processes (and capabilities). Even after deciding the timing of a BPO, a manager still needs to answer the question of which type of process they should outsource at what time. Our results indicate that the gain from abstention-based BPO is only slightly positive regardless of the VC position of a process. However, when supportive processes are outsourced on a disintegration base, firm valuation on average will suffer a significant loss. In contrast, the outcome is exactly the opposite for primary processes – disintegration-based BPO in general enjoys a significant positive abnormal return. As such, managers might consider cultivating and operating primary processes internally for a sustained period of time before delegating it to BPO service providers. The existing process ownership not only entails favorable reactions from capital markets, but also equips existing process owners with sufficient knowledge to monitor and manage their new process owners more effectively. In contrast, our results suggest that for supportive processes, managers should scan BPO providers as early as possible in order to acquire processes externally when possible.

Future research

Although our study found evidence for the importance of the process-level factors to outsourcing success, we note below some opportunities to improve upon and extend this research in future studies. First, our study assessed

stock market reaction to BPO announcements, which limits our analyses to publicly held firms in post-IPO periods (at least 215 days after IPO). This selection bias casts some doubt over the representativeness of our selected sample events. Future research should attempt to examine how private firms, especially young startups, can manage and benefit from BPO. By longitudinally investigating the impact of process maturity on valuation, we can gain insight into the dynamics involved in cultivating and transferring processes.

Our measurement of the dependent variable (SAR_0) focuses on capital market perceptions of performance, which relies solely on publicly available information. Further, our measurements of the independent variables rely on content analysis of publicly available information. As such, the research findings inferred here might be limited by the possible information asymmetry between public investors and internal decision makers. Future research can hopefully overcome this limiting asymmetry by resorting to other primary data based research methods, such as case studies and surveys.

Conclusion

The management practice of outsourcing has been traditionally viewed from a functionally oriented insiders' perspective. Within this thought school, outsourcing is nothing more than an operational tool adopted to offload some peripheral transaction intensive tasks. The emergence of BPO poses serious challenges to the widely held functional conceptualization. Incorporating Porter's VC framework, RBV, and other theoretical logic, we attempt to examine how the process-based view of outsourcing is a way to realign a process with better resources and facilitate global division of labor and specialization. Using capital markets' reaction to a BPO announcement as our gauging metrics, we evaluate the practice of BPO by focusing on two process-level factors, namely, a process's strategic impact and ownership. We found that investors respond more favorably to BPO applied to the area of primary business process than to the area of supportive processes. Further, we detected that existing process ownership significantly enhances a firm's valuation when BPO is applied to primary processes, while in-house deployment only negatively impact an outsourcing firm's performance for supportive processes. We are hopeful that as one of the early large-scale empirical studies on the emerging BPO phenomena, this study can stimulate further research on the conditions for successful outcomes of BPO.

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