

**A CONCEPTUAL FRAMEWORK FOR UNDERSTANDING THE
OUTSOURCING DECISION ***

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INTRODUCTION

Firms as diverse as Nike, Sun Microsystems, Mattel, Calvin Klein and DuPont now engage in extensive outsourcing. Some firms outsource the core of their primary activities on the value chain so extensively that they do not engage in “production” as it has been traditionally understood (Tisdale, 1994; Tempest, 1996). Other firms, in contrast, are extensively outsourcing secondary activities of their value chains, such as information technology, accounting systems and distribution (Cross, 1995; Johnson and Schneider, 1995; Lacity and Willcocks, 1998).¹ Yet many firms appear to have only a vague understanding as to the risks and benefits of outsourcing, apart from a general idea that it will save resources and allow them to focus on core competencies (Smith *et al.*, 1998).

The implicit rationale for any form of outsourcing strategy is that “vertical integration is the organization form not of first but of last resort – to be adopted when all else fails. Try markets, try long-term contracts and other hybrid modes, and revert to hierarchy only for compelling reasons” (Williamson, 1991:75). Yet extensive or intensive outsourcing involves significant risks that must be managed. An outsourcing firm is inevitably placing at least part of its destiny in the hands of other firms that are seeking to maximize *their* profits. Thus, in spite of the fact that outsourcing is often described as a “strategic alliance”, the parties to the outsourcing contract have potentially conflicting interests (Lacity and Hirschheim, 1995)². In order to outsource intelligently the firm must know both the benefits and risks of outsourcing and the specific determinants of conflict. But to fundamentally understand those risks and benefits, the firm must have a clear conceptual framework of the outsourcing decision.

The paper proceeds as follows: first, we present an efficiency framework for assessing outsourcing costs and benefits from the firm perspective; second, we identify the specific costs associated with outsourcing; third, we delineate three major determinants of outsourcing costs: product/activity

¹ This is not to argue that the value chain is the only way of conceptualizing the context of outsourcing. For a broader framework that expands to include “shops” and “networks” as well as “chains”, see Stabell and Fjeldstad (1998).

² Tapon (1989) argues that pharmaceutical firms are more willing to outsource R&D to university laboratories because the latter are non-profit organizations and, therefore, less likely to have a financial conflict of interest with for-profit pharmaceutical firms.

complexity, contestability and asset specificity; fourth, we present four archetypal outsourcing situations and suggest appropriate strategies for each; fifth, we present conclusions.

AN EFFICIENCY PERSPECTIVE ON OUTSOURCING

A firm must confront several issues, if outsourcing is to save resources. First, the purpose of outsourcing must be clear; second, a framework must be developed, and third, it must be shown that such a framework can be applied to real (and potentially complex) firm outsourcing problems. The strategic objective of outsourcing decisionmakers should be to minimize the total costs of "receiving" any given quantity and quality of outsourced good or activity. Costs, in turn, consist of expenditures for good itself and the costs associated with "governing" the outsourcing transaction. The evidence suggests that there is often (but not always) potential for outsourcing to lower the purchase price of the good (by taking advantage of contractees' lower costs, to be discussed below). However, these direct purchase savings may be more than offset by increases in governance costs.³

The major purpose here is to suggest a framework to address two fundamental issues: How can the firm assess *ex ante* the potential governance costs that arise with outsourcing? How, and under what circumstances, can governance costs be reduced? The framework identifies alternative instruments that are more or less effective depending upon the relevant circumstances, and provides a basis for meaningfully categorizing them.⁴

THE COSTS OF OUTSOURCING

Three types of costs are relevant in the choice between internal production and outsourcing: production costs, bargaining costs, and opportunism costs, with the later two being costs of governance. Production costs are either the costs of internal production or the direct purchase price. Bargaining costs include the following kinds of costs: (1) costs arising from negotiating contract details *per se*; (2) the costs of negotiating changes to the contract in the post-contract stage when unforeseen circumstances

³ For an estimation of these "organization costs" see Masten, Meehan and Synder (1991:28).

⁴ This framework was originally discussed in Globerman and Vining (1996).

arise; (3) the costs of monitoring whether performance is being adhered to by the other party, and (4) the costs of disputes which arise if neither party wishes to utilize pre-agreed-to resolution mechanisms, especially “contract breaking” mechanisms. While only the first bargaining cost is experienced at the time of contracting (the others are experienced subsequent to outsourcing), virtually all of these bargaining costs can be anticipated and dealt with at the time of contracting.

Bargaining costs arise when both parties are acting with self-interest, but in good faith (Williamson, 1985). The incremental bargaining costs of outsourcing are relevant because an advantage of "internalizing" the activity is that the distribution of costs across the corporation do not need to be bargained. However, bargaining within organizations -- for example over wages, bonuses or internal transfer prices – can also be costly (Miller, 1992; Alles *et al.*, 1998); thus it is incremental bargaining costs of outsourcing that are relevant (Alchian and Demsetz, 1972).

“Opportunism” is any behavior by a party to a transaction designed to change the agreed terms of a transaction to be more in its favor. Opportunism costs arise when at least one party acts self-interestedly, but in bad faith. Opportunism is more likely in outsourcing contexts than in transactions within organizations, since the distribution of profit is more relevant in dealings between organizations. Additionally, employees within organizations have better and more numerous opportunities to "pay back" (and, therefore, discourage) opportunistic fellow employees (Axelrod, 1984). Opportunism, however, can also occur within organizations (Holstrom, 1982; Alles *et al.*, 1998). Therefore, again it is incremental opportunism costs, which are relevant. Opportunism is usually considered to be more likely *after* the outsourcing contract has taken place, but some behaviors prior to contracting also have "opportunism-like" characteristics (Klein *et al.*, 1978).

Although analytically it is possible to make a clear distinction between bargaining and opportunism costs, in practice, they are difficult to distinguish -- it is almost always in the interest of opportunistic suppliers to claim that their behavior results from an unexpected change in circumstances (i.e. uncertainty). Frequently, the outsourcing firm cannot tell whether this claim is genuine or not. The inability to distinguish between legitimate bargaining and opportunism itself raises outsourcing costs (Akerlof, 1970).

Production costs are directly generated by the opportunity costs of the resources -- land, labor and capital -- actually used to produce the good. Production costs may be lower with outsourcing for a number of reasons.

First, in-house production of the good or activity often entails production at too low levels to be efficient; that is, to achieve minimum efficient scale (McFetridge and Smith, 1988). Many goods and services for which the organization has low unit demand exhibit significant cost “lumpiness”, holding quality constant (Loh and Venkatraman, 1992; McFarlan and Nolan, 1995). An independent producer selling to multiple (outsourcing) buyers can achieve quality-adjusted minimum efficient scale.

The firm should conceive production costs broadly and dynamically -- the most significant economies of scale may be in intangible factors such as administrative and information systems, knowledge and learning, access to capital markets and marketing (Muris *et al.*, 1992). For example, a major rationale for the significant degree of outsourcing of information systems is the inability of firms to achieve minimum efficient scale in either installing, updating or managing these systems (McLellan, 1993).

Of course, it is impossible to design firms to take advantage of economies of scale for all inputs -- large pharmaceutical firms do not manufacture their own computers. Many inputs are inevitably outsourced. In practice, inputs that can be bought in competitive “spot” markets -- “of-the-shelf” purchases -- raise few outsourcing issues.

Second, there is a tendency for internal production units to act like monopolists (Crozier, 1964; Alles *et al.*, 1998). Monopoly blunts efficiency incentives in two ways: first, it reduces comparative performance benchmarks for internal customers and, second, the good is less likely to be efficiently priced in the internal firm “market”, thereby obscuring the efficiency of the internal supply unit. Inefficient internal prices can arise for two reasons. First, because the internal production unit is an efficient low cost producer, but prices monopolistically -- this problem is usually created by production unit *managers* (Reichelstein, 1995). Second, because the production unit does not have sufficient incentives to achieve minimum production costs that are technically feasible and allows production costs

to “drift” upwards – this syndrome can be caused by either managers or *employees* or *both* (Leibenstein, 1976; Button and Weyman-Jones, 1994).

Market competition is normally the crucial driver in forcing down production costs to their lowest level. Profit-maximizing firms in a competitive market will be forced to price at the lowest possible marginal cost, thus eliminating inefficient practices. Internal production units are not normally subject to this same level of competition. (Although firms can simulate such competition by forcing different internal units to bid against each other for production rights.) This second rationale for outsourcing is probably now a more important reason for outsourcing than minimum efficient scale issues, especially for larger, bureaucratized (and unionized) firms.

Third, firms can experience diseconomies of scope in management of multiple firm activities or diseconomies of scale in producing a single activity (Graves and Langowitz, 1993, Zanger, 1994). If this is the case they may wish to concentrate on core competencies and outsource other activities (Prahalad and Hamel, 1990; Cross, 1993; McFarlan and Nolan, 1995).

Fourth, internal production of an input may generate significant organizational negative externalities (or more accurately “internalities”, as they are internal to the organization) that can be reduced or eliminated by outsourcing. (Conversely, as discussed below, outsourcing can also generate negative externalities for the outsourcing firm.) Internal production of an input, for example, may require a distinct corporate culture that is dysfunctional for the rest of the organization (Camerer and Vepsalainen, 1988).

There is considerable evidence from a variety of sources that outsourcing can lower production costs. However, relatively little of this empirical evidence comes from contexts where firms outsource to other firms. Perhaps the best evidence comes from outsourcing by government to private suppliers. Empirical studies tend to find in this outsourcing context that production cost savings are in the 20% to 30% range, especially if competitive bidding is used (Hensher, 1988; Pack, 1989; Walsh, 1991; Szymanski and Wilkins, 1993; Domberger and Hall, 1996). A recent summary of outsourcing by the 66 largest cities in the US suggests that the annual cost saving were between 16 and 20%; respondents also estimated that outsourcing improved service quality by between 24 and 27% (Dilger *et al.*, 1997).

However, studies that have examined the relative production costs of internal provision versus outsourcing have not included bargaining and opportunism costs, which *a priori* might be expected to be higher with outsourcing. Additionally, some forms of outsourcing can be expected to raise production costs, for example if cost-plus contracts are used (Spann, 1974; McAfee and McMillan, 1988).

In summary, the firm should seek the regime that minimizes the sum of its production, bargaining and opportunism costs. Ideally, strategic managers then compare the estimated costs with the costs of internalization, that is, the cost of the firm producing the good itself.

THE DETERMINANTS OF OUTSOURCING COSTS

Three major factors are likely to determine the sum of bargaining and opportunism costs: product/activity complexity, contestability, and asset specificity. We discuss each of these in turn.

Product/Activity Complexity

Product (service) or activity complexity largely defines the degree of difficulty in specifying and monitoring the terms and conditions of a transaction (“activity” simply refers to outsourced inputs that cannot usefully be described as goods or services). Goods, services or activities can be approximately divided into search goods, experience goods and post-experience goods (Vining and Weimer, 1988). A good is a search good if its price-performance (quality) characteristics are known before the “outsourcing” decision is made. Indeed, such decisions are normally not even thought of as outsourcing – the purchase of ballpoint pens is simply purchasing or procurement. A good is an experience good if its price-performance characteristics are approximately known almost immediately after purchase. For example, assessing the quality of food served by a contractee is relatively easy at the time of consumption. A good is a post-experience good if its price-performance characteristics cannot be assessed for a considerable time (if ever, when full revelation is dependent on contingent events) after the outsourcing decision. Measuring the price-performance characteristics of a complex good such as R&D is difficult (Ulset, 1996; Tapon and Cadsby, 1998). Unique and/or new (to the outsourcing firm) goods are almost always complex.

The degree of product/activity complexity largely determines: (1) the uncertainty surrounding the contract (this effects both contracting parties equally) which raises the probability that bounded rationality will come into play (Williamson, 1985); (2) the potential for information asymmetry (the probability that one party to the contract will have information that the other party does not have); and (3) the probability that there will be externalities that will affect other firm activities. Complex goods involve uncertainty about the nature and costs of the production process itself. They also face more environmental uncertainty because complex goods are more likely to be affected by unforeseen changes in the task environment (Van den Ven *et al.*, 1989; Collingridge, 1992). Greater uncertainty raises bargaining costs, both during contract negotiations and post-contract.

Information asymmetry occurs when one party has relevant information that the other party does not. While information asymmetry does not always raise costs, usually it does, especially if a contract involves post-experience goods. High task complexity raises the probability that there will be information asymmetry, because it implies specialized knowledge or assets whose characteristics are only initially known to contractees or other experts. Information asymmetry, thus, raises the probability that a party to the transaction can behave opportunistically. Opportunism arising from information asymmetry can occur either at the contract negotiation stage (typically when there is information asymmetry and low contestability) or at the post-contract stage, but is most likely to be significant post-contract. Either contractor or contractee may generate these costs.

Higher task complexity also increase the potential for production externalities, that is the potential for serious disruption to the rest of the firm if the outsourced service is withdrawn or degraded (Globerman, 1995) .

Thus, from the outsourcing firm's standpoint, product/activity complexity raises costs both because there is substantial uncertainty surrounding the transaction, and because contractees often have more information about attributes of the relevant transactions. The associated concern is that it may be very difficult for contractors to ensure that the quality of services provided is appropriately high. The empirical evidence supports the idea that product complexity raises the probability of internalization. Masten (1984), for example, found that more complex components for the aerospace industry were more

likely to be produced internally than to be outsourced. Jensen and Rothwell (1998) found that nuclear power plants were less likely to outsource “production-critical” activities that are complex and where the quality is more difficult to assess before a problem occurs (see also Anderson and Schmettlein, 1984; Anderson, 1985; Tapon and Cadsby, 1996; Ulset, 1996).

Contestability

A contestable market is one where only a few firms are immediately available to provide any given service, but many other firms would quickly become available if the price paid by the outsourcing firm exceeded the average cost incurred by contractees. For example, the markets for basic accounting and payroll services are highly contestable as many firms have the basic capabilities to supply such services, even if they are not currently doing so. The degree of contestability may, in some cases, be more important than the number of firms actually providing the service (Baumol *et al.*, 1982).

In some circumstances the market for the service in question may be competitive -- there may be a considerable number of firms in the relevant (usually geographic) market producing the service, or a very close substitute. In this case, potential entry by new firms may offer little additional discipline on the behavior of potential contractees.

The degree to which the activity being outsourced is contestable affects opportunism costs. If the market for the activity is contestable, opportunism is reduced at the contract stage and, potentially, at the post-contract stage. Low contestability raises different issues in the contract and post-contract phases. During contract negotiations, a potential contractee in a market with limited contestability is tempted to offer services at a price above marginal cost (or average cost in circumstances where average cost is declining for the demanded good). This higher price can be thought of as a bargaining cost, because it is part of the outsourcing “toll”.

At the post-contract stage low contestability increases the risks of opportunism (and associated costs) facing the other party for two reasons. First, because a contractee cannot be quickly replaced (temporal specificity). Second, because there is a heightened risk of “contract breach externalities”. This risk is especially relevant when the contractee provides services that are related to a network of some kind

within the outsourcing firm. For example, a contractee firm carrying out payroll operations may threaten to withdraw service, jeopardizing the payment of all payroll paychecks. This could effectively shut down the firm. Contexts where firms fear breach externalities are often defined as "strategic" systems.

However, firms do not eliminate these externality problems by producing the good or activity themselves. As the FedEx strike graphically illustrated, employees can also opportunistically hold-up employers by withdrawing essential services (passive breach) or by picketing and various forms of sabotage (active breach).

The evidence suggests that some firms have unintentionally contributed to contestability problems. If potential suppliers perceive that outsourcing firms are soliciting "unreasonably low" bids and/or are arbitrarily requiring rebids at lower-than-originally agreed to prices, a competitive market may not emerge. Similarly some outsourcing firms dampen competition by encouraging excessive specialization by suppliers. This reduces outsourcing firms' switching capacity in the face of unsatisfactory performance. Contractees will, in turn, incorporate the increased risk in higher prices for their services. This latter point underscores the need for firms to think broadly about the cost consequences of specific outsourcing strategies. Short-run cost savings, and even improvements in quality, associated with economies of specialization, may be achieved at the expense of higher long-run costs.

In contrast, in many cases it is possible for outsourcing firms to deliberately enhance competition by expanding the size of the relevant geographic market. This is certainly an important impetus for the explosive growth of cross-national outsourcing (Feenstra, 1998). This strategy is less feasible if contestability problems are not so much the result of sunk cost investments, *per se*, but of the geographical specificity of the relevant assets.

Another potential approach to mitigating competition problems is for the outsourcing firm to own the (sunk cost) assets and for contractees to own only relatively fungible assets. Thus, the outsourcing firm retains formal ownership of relatively specialized and expensive equipment, which is leased to contractees. In this way, the need for potential new suppliers to make large sunk-cost investments can be mitigated and contestability enhanced.

In sum, neither economies-of-scale or the need for sunk-cost investments are the main barriers to contestability. In particular, if either outsourcing firms or contractees are mobile, small population densities need not prohibit competition. If they are not mobile, the problem is better evaluated as one of geographic asset specificity. Indeed, for the remainder of this paper, we assume that contestability can be achieved in all cases.

Asset Specificity

An asset is "specific" if it makes a necessary contribution to the production of a good and it has much lower value in alternative uses (Klein *et al.*, 1978). There are various kinds of specificity including physical asset specificity, location specificity, human asset specificity, dedicated assets (Williamson, 1985:55) and temporal specificity (Masten *et al.*, 1991:9; Pirrong, 1993). Whatever the form of asset specificity, the issue is basically the same: contracts which require either party to employ assets (usually capital assets, but in some circumstances human capital assets) that have little or no alternative use, that is, are "sunk", raise the potential for opportunism. The contracting party who commits assets is vulnerable to hold-up (Shelanski and Klein, 1995; Ulset, 1996). No matter what prices are agreed to in the contracting stage, the other party can behave opportunistically by renegeing and offering lower prices that only cover incremental costs.⁵

Extensive evidence suggests that asset specificity reduces the degree of outsourcing (e.g., Globerman, 1980; Monteverde and Teece, 1982; Stuckey, 1983; Masten, 1984; Anderson and Schmittlein, 1984; Anderson, 1985; Globerman and Schwindt, 1986; Hennart, 1988; Lieberman, 1991; Hallwood, 1991; Zaheer and Venkatraman, 1995; Jensen and Rothwell, 1998). Intermediate levels of asset specificity, when not leading to complete internalization, lead to long-term exclusive contracts (e.g., Joskow, 1987; Goldberg and Erickson, 1987; Crocker and Masten, 1988; DeCanio and Frech, 1993; Pirrong, 1993).

⁵ As Pirrong (1993) notes, sunk costs can generate opportunism even where no contract has been signed, if a party has committed resources whose values would be reduced if the transaction were not consummated.

Although bargaining and opportunism costs can occur during contracting (period 1) or post-contractually (period 2), it is feasible for the outsourcing firm to address both these costs at the contracting stage (that is, in period 1). The two parties are in a multi-period game (Rasmussen, 1994). The outsourcing "player" can anticipate what the optimal strategy in each period of the game will be for the other player (the contractee) and by backward induction identify its own optimal strategy in each period. For example, suppose the outsourcing firm is playing a game where contestability is high in period 1, but is expected to be low in any subsequent periods. Outsourcing firms, therefore, should be able to predict that a contractee will behave opportunistically or generate bargaining costs in some subsequent period. The outsourcing firm should, therefore, incorporate this expectation into its period 1 strategy. The optimal result is an initial contract that anticipates and addresses all potential opportunism costs and bargaining costs.

The practical value of this "game" analogy is that outsourcing firms can use it to formulate consistent expectations about future outsourcing issues and plan accordingly. In order to do so, however, outsourcing firms must think through the factors influencing opportunism and bargaining costs as well as strategies to minimize costs. Thus, it is useful to distinguish between *ex ante* mechanisms and *ex post* mechanisms, emphasizing that in the case of the latter it is only the "trigger" that is *ex post*. To some managers this advice may seem abstract, but recent evidence from an extensive survey of information technology outsourcing suggests that detailed contract specification is the leading predictor of outsourcing firm satisfaction (Lacity and Willcocks, 1998).

OUTSOURCING SITUATIONS AND SOME POSSIBLE STRATEGIES

We now apply the framework to various combinations of product complexity and asset specificity (remembering that contestability problems can be treated as being ultimately co-extensive with asset specificity problems). We consider possible combinations of these two characteristics with the goal of illustrating the conceptual framework rather than providing a definitive guide to all outsourcing issues.⁶

⁶ Coles and Hesterly (1998) provide evidence that "transactional uncertainty" (complexity) interacts with asset specificity to determine the propensity of private hospitals to internalize services.

Low Product/Activity Complexity and Low Asset Specificity

This combination provides the clearest case for outsourcing. It encompasses many standard products, services and activities required by the firm. Outsourcing offers the potential for lower production costs for the good or activity, as well as minimal bargaining and opportunism costs. Low product complexity implies that the outsourcing firm has, or can easily acquire, sufficient knowledge and information to specify contract terms precisely (as there is low uncertainty about price-performance characteristics and no information asymmetry). With low asset specificity (and resulting high contestability), inefficient or opportunistic contractees can be quickly replaced.

Low Product/Activity Complexity and High Asset Specificity

Given low complexity, problems associated with high asset specificity almost certainly involve high temporal or locational specificity. There are likely to be few efficiency costs arising from high physical asset specificity if the outsourcing firm makes the relevant specific investments itself as, given this ownership, it is not costly to replace the contractee (given high contestability). There are likely to be problems, however, if the contractee makes the investment. Once the investment is sunk, a contractee is vulnerable to opportunistic hold-up by the outsourcing firm, which could demand that the contractee deliver the good at marginal cost. Given that all potential contractees can deduce this as a possible *ex post* outcome, they will compensate *ex ante*. They can compensate in one of two possible ways: either by raising the bid price or by utilizing a higher cost production technology that requires less physical asset specificity. Either strategy ultimately raises the outsourcing firm's costs.

One way to avoid these problems is for the outsourcing firm to own the specific asset and to rent it or lease it to the contractee. However, leasing specific assets is not costless. The outsourcing firm is now outsourcing two activities -- the original outsourced service and the lease contract (Hensher, 1988). Lease contracts can also generate opportunistic behavior, including the potential for the lessee to overutilize and run down the leased assets. Including "reasonable usage and maintenance" clauses can mitigate this problem in lease agreements. But this form of outsourcing, then, requires detailed specification of both contracts, adding to costs.

Temporal asset specificity raises several problems (Masten *et al.*, 1991). The first arises if the contractee fails to provide contracted performance. The outsourcing firm's usual insurance against the opportunistic exercise of contract breach is an action in tort. However, this is less desirable than having a contract which mitigates incentives for contractee breach. The outsourcing firm can, for example, write a contract that contains provisions that backloads payment (contract completion bonuses) and requires performance bonding.

The second possible problem arises if the outsourcing firm wishes to terminate because of unsatisfactory performance, but needs to maintain service until a replacement contractee is in place. The risk is that in an "endgame" situation such as this the contractee will act opportunistically. The most obvious way for an outsourcing firm to mitigate this risk is to demand bonding from a winning bidder plus a contract agreement that specifies timely arbitration of the firm's claim for the bond because of unsatisfactory contractee performance (Eaton and White, 1982).

High Product/Activity Complexity and Low Asset Specificity

This configuration perhaps best characterizes the supply of a wide range of services or activities potentially outsourcable to professionals. It should be kept in mind, however, when assessing potential outsourcing problems that firms' employment contracts with professional employees are not very different from those with formally outsourced professionals. Basically the same issues arise under either arrangement (Garen, 1998; James, 1998). The main problem is high bargaining costs owing to honest disagreements surrounding *ex ante* specifications, or *ex post* performance in relationship to *ex ante* specifications. In particular, disagreements can arise because *ex ante* specifications are sometimes costly and difficult to write, and (therefore) the parties often have difficulty agreeing after the fact about whether the specifications were satisfied, and if not, whether the contractee acted incompetently or negligently. However, in this situation opportunism should not be a significant problem, since low asset specificity implies high contestability, suggesting that switching costs will be low for both parties. Opportunistic behavior once identified can be easily countered by contract termination.

High Product/Activity Complexity and High Asset Specificity

The important difference between this situation and the second case described above is that reliance upon arbitration or other third-party contract enforcement procedures is more problematic because it is more difficult for a judging third party to identify whether contract breach has occurred. This type of problem has been discussed in the industrial organization literature. The basic solution suggested is that outsourcing firms provide contractees with an incentive (“economic rent”) which contractees can expect to earn indefinitely in the absence of a verified contract breach (Matheson and Winter, 1990). The potential loss of these rents harmonizes the incentives of contractees with those of outsourcing firms.

Table 1 summarizes the relevant issues for each of the four cases described. The table focuses on two issues: the dominant problem(s) to be expected and the general strategic solution. The table identifies different environmental contexts and alternative instruments to modify each context; however, the overall framework emphasizes the following steps:

1. Formulate consistent expectations about the uncertainties surrounding the potential transactions at all stages of contract formulation and implementation;
2. Identify the potential opportunism at different stages of contract formulation and implementation, including the underlying sources: contestability, complexity and/or asset specificity.
3. Identify contract provisions to attenuate the opportunism and assess the consequences of the preferred strategies for the overall efficiency of outsourcing versus internal production.
4. Implement the relevant strategies prior to the initiation of outsourcing.

CONCLUSIONS

There is increasing interest in outsourcing among firms in a wide range of industries. In this paper, we suggest that the broad problems associated with outsourcing can be mitigated by contractual and related strategies on the part of the outsourcing. We propose a simple framework that relates some alternative strategies for archetypal problem situations surrounding outsourcing. This framework does

not deal with all strategic outsourcing issues. The outsourcing also has to develop information strategies so that it can continue to learn – about changing costs and other relevant factors (Cross, 1995).

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Table 1

A SUMMARY OF OUTSOURCING STATES				
Case	Product /Activity Complexity	Asset Specificity	Dominant Problem(s)	Solution(s)
1	Low	Low	Few	Rely Primarily on contestability via contract termination (i.e. increase potential suppliers).
2	Low	High	Holdup	For physical assets, outsourcing firm owns and leases assets; for temporal specificity, backloaded payments, bonuses and bonding. Use of quick arbitration.
3	High	Low	Honest disagreements about quality and other performance attributes	Where possible, mutually agreed-upon practice guidelines.
4	High	High	Opportunism by contractee	Harmonize outsourcing firm and contractee incentives through "rent-creation".