Minimising risks in IT outsourcing: Choosing target services

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Minimising risks in IT outsourcing: Choosing target services

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Abstract

This paper provides a risk-based framework for deciding on which IT services to outsource and which to keep in-house. This framework considers the probabilities both of negative outcomes, and of failing to achieve positive outcomes. The authors examine the major components of outsourcing risk and their drivers, and from this derive a series of questions decision-makers can ask when deciding what sourcing options to adopt for different services. The framework was developed on the basis of five years of qualitative and quantitative research into the experiences of organizations involved in outsourcing IT.

Keywords

Outsourcing, risk, decision framework, selective outsourcing.

Introduction

One important decision when developing an IT strategy is how to source the various IT services needed by an organization. While many sourcing strategies are available, the decision-maker is ultimately confronted with two choices. The organization may manage, control and coordinate the delivery of an IT service internally (whether services are performed by internal staff, or contract staff under the organisation’s control). Alternatively, it may delegate this management to an external provider who is responsible for specified outcomes. The label “outsourced” is applied to situations where this management is devolved.

Outsourcing of IT services is now widely promoted by both vendors and consultants, yet empirical research has revealed large-scale dissatisfaction and the frequent failure to achieve the financial and strategic goals set for it (Rouse, 2002; Gartner, 2002). In light of this, choosing when and what to outsource, and subsequently, how to evaluate alternatives to outsourcing, have become key issues for IT decision-makers. There are several models and rules of thumb available. Some are appealingly simple, such as “don’t outsource strategic services – outsource commodities”. We found that, in practice, these were unhelpful, because of the difficulty in determining what is “strategic” and what is “commodity”. Other rules of thumb, such as those based on transaction cost economic (TCE) theory (Williamson, 1975) or agency theory (Eisenhardt, 1985), are complex, and simple decision-rules based on these theories often downplay important variables like complexity, uncertainty, and market depth. Still other decision-rules emphasize competitive positioning (Lacity, Willcocks & Feeny,
1995; 1996) – an important issues for commercial organizations, but less so in the not-for-profit and public sectors.

In this paper we approach the choice of services to outsource from a risk-based perspective, and present a framework and a set of questions managers in the field can ask when evaluating candidate IT services to outsource.

**Research method and data sources**

This framework draws on existing theory, as well as a series of qualitative and quantitative studies we have done over the last five years. These include a survey of 240 medium to large government and non-government purchasers of IT services (described in Rouse, 2002); a longitudinal case study of the Federal Government’s IT outsourcing arrangements (Rouse & Corbitt, 2002); and 16 focus group interviews with vendors and managers involved in selecting IT services to outsource (Rouse, 2002).

Our qualitative informants (from the case studies and focus groups) included both public and private sector purchasers of IT services, and ranged from those with over 7 years experience of outsourcing to those evaluating sourcing options for the first time. The organizations they represented ranged in size from relatively small (50 “seats”) to very large (2000+ “seats”).

As part of a wide-ranging discussion with these informants on their outsourcing experiences, we asked them to identify problems they were experiencing with selecting IT services to outsource, and what their experiences were once they did outsource. It is from their responses that we developed our framework. The approach we used to analyse the data was hermeneutic analysis (c.f. Lee, 1994). Full details of the analysis strategies are discussed in Rouse (2002).

**The issue of criteria**

A key issue for decision-makers when choosing the best sourcing strategy for different IT services is “what is the criteria to be optimised?” Most of the existing decision frameworks address the services-choice in efficiency terms: i.e. “Which strategy is likely to lead to the lowest cost?” This approach assumes that services are held constant; whereas our research revealed that different options may deliver quite different levels of services, with consequent impacts on organizational performance.

Outsourcing is now carried out for many different reasons and decision-makers typically need to choose between competing objectives. In particular, the need to conserve organizational and managerial attention (so that it can be redirected to the organization’s core competencies) is now well recognized, while the rapid changes in markets and technologies highlight the importance of scalability, flexibility and organizational agility. In many cases, the maximisation of these can conflict with the need to conserve financial resources, so the usefulness of decision-rules based just on cost savings is limited.

Another problem with efficiency-based decision rules is that they are essentially abstract. The decision-rule might predict that certain courses of action will lead to greater efficiency in the long run. However, the prediction may be undermined when decision makers receive bids from vendors and proceed to cost alternatives. In essence “tangible” financial figures crowd out theoretical considerations. Yet these “tangible” figures are not risk or error free. A number of respondents reported that their decision-making was overly optimistic. When presented with a seemingly attractive service/cost ratio, decision-makers chose a sourcing
strategy (usually outsourcing) on the basis of a “best case scenario” without considering the probabilities either of attaining the expected service/cost goals, or of experiencing critical negative consequences.

This perhaps explains why so few quantitative studies have been able to substantiate the benefits promoted for outsourcing. In our survey, only one in three (36%) outsourcing arrangements were reported as satisfactory by the survey respondents, and structural equation modelling revealed the negative outcomes were largely due to the failure to achieve cost savings and other strategic benefits (Rouse et al, 2001). The likelihood of not obtaining expected cost savings expected from outsourcing IT was high, with only 42% of respondents reporting any savings at all, and only 7% reporting substantial savings. In our qualitative research, both vendor and client informants described many situations where vendors deliberately or unconsciously underbid the outsourcing contract. Kern et al (2002) label bids won in these circumstances the “winner’s curse” because vendor and client tend, in the long run, to suffer substantially. Given the apparently widespread practice of underbidding, treating financial projections at face value, without taking into account the risk that they won’t eventuate, or the risk of service degradation, is likely to lead to poor decision outcomes.

Minimizing risk in outsourcing

These observations led us to reframe the choice of which services to outsource in terms of risk minimisation, rather than efficiency. The positive benefits of IT outsourcing – such as organizational flexibility and agility, cost reductions, and the capacity to redirect attention and resources to core competencies – are extensively promoted by vendors, and by consultants who often derive substantial outsourcing-related income. Discussion of risks and downsides is generally left to academics and researchers. Yet the choice of which services to outsource and which to retain in-house depends on the interplay between benefits and risks.

For each potential outsourcing contract the various risks must be weighed against the likely outsourcing benefits.

Both potential benefits and risks are probabilistic, and herein lies a problem – if decision makers are misinformed about the likelihood either of benefits, or of negative consequences, this weighing up will be faulty. Estimating probabilities and the negative impacts of a decision is a core aspect of risk management, but it is less common to consider the probabilities of achieving benefits (or conversely, of failing to achieve these). The outsourcing literature is characterized by little probabilistic research into the extent of risks, partly because most outsourcing research has been based on statistically unrepresentative case studies. While many of these cases experienced poor outcomes from outsourcing, their singularity means they provide no data on the extent of risks in the wider community.

For the same reason, there is limited information available on the extent to which expected benefits fail to materialize; although the spate of recent studies reporting widespread dissatisfaction with IT outsourcing (including Rouse et al, 2001 and Gartner, 2003) provides evidence that this failure is commonplace. Given the intense effort required to investigate and adequately plan for IT outsourcing, the failure to achieve expected benefits is important, as the resources devoted to outsourcing have a substantial opportunity cost. Consequently, the extent to which expected benefits do not eventuate represents a significant risk associated with the endeavour.

Practitioners and academics have articulated the risks of IT outsourcing for over a decade. These will vary in magnitude and impact on the organization, and may include immediate,
local consequences (such as the failure to roll out a planned desktop upgrade, for example) as well as subsequent and longer-term negative effects on organizational performance. The most obvious risk is that cost savings projections are not achieved. Other IT outsourcing risks highlighted by case study and theoretical literature (particularly Lacity & Hirschheim, 1993, 1995; Earl, 1996; Lacity & Willcocks, 2001; and Rouse, 2002) include:

- Service degradation, with consequent impacts on organizational performance;
- Being locked into higher-than-market cost structures, or obsolete technology;
- Additional unforeseen costs of ensuring compliance, negotiation, and litigation;
- Organizational disruption and additional costs of poor transition;
- Vendor related risks (e.g. vendor overselling its capabilities; vendor going out of business or walking away from that market; vendor failing to protect records; vendor unresponsiveness);
- “Lock in” (where the purchaser has no option but to continue with an unsatisfactory arrangement);
- Diversion of managerial attention and resources (away from core business);
- Inflexibility (due to contractual constraints or prohibitive amendment costs);
- Downstream organizational losses (loss of skills and tacit knowledge - and capacity to exploit IT for business advantage, loss of innovative capacity; loss of intellectual property);
- Impacts on competitive advantage.

While careful contracting might mitigate some of these risks, they can rarely be avoided completely.

**Components of risk**

Analysis of our focus group interviews indicates that three key dimensions either increased the likelihood of negative consequences, or decreased the likelihood of achieving the benefits expected from outsourcing. These are similar to dimensions identified in the Transaction Cost literature of the seventies and eighties (Williamson, 1975; 1985):

1. Level of uncertainty
2. Level of complexity
3. Potential for opportunistic behaviours

**1. Uncertainty**

Sourcing decisions, which require managers to analyse alternative cost streams for services to be delivered in the future, inevitably incorporate substantial uncertainty. The essence of the contractual relationship lies in attempts by both the vendor and client to project what will occur over the life of the contract (and beyond) in order to agree on a mutually satisfactory exchange. Unfortunately, our studies reveal that levels of uncertainty involved in the outsourcing of IT services are much higher than for other services used as exemplars of
satisfactory outsourcing - cleaning, catering, or refuse collection (Domberger, 1998). Yet this uncertainty is rarely reflected in benefit/cost analyses.

The economic arguments for outsourcing IT assume that the purchaser and provider can largely foresee, codify, and cost the services that will be required by the purchaser, during the life of the contract. “Best practice” advice (e.g. Lacity and Hirschheim, 1993; 1995; Lacity and Willcocks, 2001) demands a detailed contract that describes the services, fees, and penalties that will occur during a foreseeable future, and assumes that these projections are relatively accurate. To the extent that this idealized situation can be approximated, decision-making becomes a matter of comparing cash flows over time for alternative service-delivery strategies. Our research indicates, however, that even in a situation of relative predictability such comparisons are not easy, as they involve high levels of uncertainty when issues of projected volumes, timing, and even taxation treatment, are considered. Our study of the Federal Government’s outsourcing experiences confirmed that even when detailed financial analysis is carried out, business case estimates of the savings produced by outsourcing IT can be overstated by a factor of 100%. Issues of legal and taxation interpretations can further compromise benefit/cost projects (Rouse & Corbitt, 2002).

Our case studies (Rouse & Corbitt, 2002) also reveal that in situations of only moderate uncertainty a complex, detailed contract decreased organizational flexibility and dramatically increased the level of managerial attention needed to govern the outsourcing relationship. Many line managers in the Federal Government agencies found that, rather than letting them concentrate on their core business, outsourcing was a major distraction that forced them to pay attention to issues that were previously handled smoothly because of common understandings with their internal delivery function. They are not alone, less than 40% of the 240 Australian organizations we surveyed reported that they could concentrate more on their core business as a result of outsourcing – yet this benefit is promoted as the most attractive for outsourcing.

Like earlier researchers (Lacity & Hirschheim 1993; 1995; Willcocks & Fitzgerald, 1994) we concluded that outsourcing services will succeed to the extent that decision-makers can reduce the uncertainty involved in predicting and articulating the required services, volumes, and likely delivery costs. However, our informants revealed that in many cases their capacity to accurately forecast these aspects was poor. Some reasons for this are discussed below.

2. Complexity

The sheer number of elements involved in complex undertakings means that they are difficult to comprehend, and this is a source of error if systems for managing complexity fail. Processes for improving systems development success through project management and control of details are grounded in this observation, as are strategies such as breaking down outsourcing arrangements into small, manageable subprojects that can be more easily evaluated and managed. But we observed errors and problems even with detailed, highly structured outsourcing projects. In situations of complexity the combinatorial explosion of these potential interactions can quickly magnify small individual risks into large, compound risks. Risk is magnified, rather than just accumulated.

3. Potential for opportunistic behaviour

Opportunistic behaviour has been described (Williamson, 1985) as self-seeking with deception (or guile). It occurs in outsourcing when one party exploits, to its own ends,
information not held by the other party, or the other party’s inflexibility or vulnerability. The extent to which such behaviour is likely is a critical component of outsourcing risk, and has received considerable attention in earlier research (eg Lacity & Hirschheim, 1993; 1995).

**Drivers of opportunism, uncertainty and complexity**

We identified a number of drivers that increase the three key dimensions of risk: opportunism, uncertainty, and complexity. By considering these drivers, decision makers can more accurately choose which IT services to keep in-house, and which to outsource. These drivers, and the relationships between them, are summarised in Figure 1.

![Figure 1: Facets and drivers of IT outsourcing risks](image_url)
Drivers of opportunism

Market depth

In outsourcing, opportunism on the part of the vendor is likely to occur when the client becomes dependent, either because of switching costs; a substantial mismatch in knowledge and information (information asymmetry); or because there are too few vendors in the marketplace to ensure competition (lack of market depth). In the Australian IT marketplace, such circumstances occur frequently, and lack of market depth exacerbates other sources of dependency.

Our informants revealed many instances where they were continuing with unsatisfactory arrangements because the organization could not face the financial or organizational costs of changing vendors. In one Government agency this had forced the purchaser to extend the original contract three times, not because management were satisfied, but because they could not afford the organizational disruption involved in switching vendors. Since there was no competitive pressure on the vendor, the contract prices paid by this purchaser on renewal were substantially higher than market prices.

Not all our respondents reported this level of “lock in” but many were involved in unsatisfactory arrangements that were difficult to get out of. Several (purchaser) informants reported that at contract end they could not attract bids from alternative vendors. Some also reported their incumbent vendors were claiming that as a result of initial underbidding, they expected to raise prices 30 to 40% when the contract came up for renegotiation, even though historically technological changes have led to cost reductions. Having disbanded their internal delivery capability, these purchasers reported that they felt held to ransom by their vendor, as the time and investment associated with re-establishing the capability were prohibitive. It is noteworthy that a number of the existing large government IT outsourcing contracts (including the South Australian Government and many Federal agencies) are now moving away from single-vendor outsourcing to a multiple-vendor, multiple-contract strategy. While such a strategy will almost certainly involve substantial increases in transaction and coordination costs, it has become necessary because of lack of competition in the Tier 1 vendor marketplace.

Level of standardization

Transaction Cost Theory (Williamson, 1975; 1985) argues that because of the likelihood of opportunism, outsourcing is economically unattractive for tailored services, and our research supported this. Informants involved in outsourcing standard service components (like network wiring, hardware support, and the support of simple desktop environments) generally reported greater levels of satisfaction and higher levels of perceived control. There is a relatively robust and reliable vendor market in Australia for these services, with a pool of skilled staff in the employment marketplace. On the other hand, purchasers of complex infrastructure arrangements that were tailored to the purchaser’s needs — particularly those that involved multi-tier architectures, integration of legacy systems with desktop environments, or where security was important — often reported that services provided by vendors were inadequate and costly.

For standardized, mature services there was also a robust body of expert consultants from whom purchasers could seek advice and information. This helped purchasers avoid the problems of information asymmetry, a situation that also leads to opportunism. In
circumstances where technologies were rapidly evolving vendors had substantially more technical and pricing knowledge than most purchasers. Many purchasers felt their vendors exploited this information asymmetry. Other purchasers in these circumstances hired external consultants to advise them, but this added substantial costs that destroyed their original benefit/cost business case. Despite the risks of opportunism associated with information asymmetry, most of our informants (and the large majority - 72% - of those in the survey) were outsourcing to obtain skills and expertise they did not have available in house – a situation almost certain to lead to asymmetry.

A common strategy used by informants to mitigate information asymmetry was benchmarking. Our research revealed that those who spent money on benchmarking had statistically discernable improvements in vendor service, and strategic and technical benefits, as well as lower costs (Rouse, 2002). Our qualitative research, though, revealed that while benchmarking was necessary, the costs and limitations were significant. High-level industry-benchmarks were too general to reveal true comparisons, and in many cases unless they actually market tested, purchasers found it difficult to establish with any accuracy what “market prices” were for the services they required. Yet a detailed market testing exercise consumes substantial levels of organizational resources (including managerial attention), and benchmarking is really only possible for services already widespread, and standardized, in the community. The inability to accurately determine how efficient the internal delivery group actually was meant that decision rules, like those of Lacity et al (1995; 1996) that relied on relative efficiency (lagging vs. leading practices) were less helpful than expected.

**Drivers of uncertainty**

**Technical maturity**

In a classic paper, McFarlan (1981) identified two key source of uncertainty in IT projects that have implications for IT outsourcing. The first, *technological uncertainty*, is associated with the technological maturity of the client organization. In relation to outsourcing, technologies might be “immature” because:

- the technology is rapidly evolving,
- the marketplace has not yet stabilized, or
- the technologies are new to the organization.

Our research leads us to conclude that lack of technological maturity was a critical reason for the widespread dissatisfaction reported for outsourcing. Many informants reported particular problems with complex inter-networked desktop platforms and n-tier e-business technologies. Specifying and evaluating such technologies (in a situation of rapid technological evolution) was difficult for most, leading to substantial problems and cost escalations.

In contrast, where the services outsourced were well understood and technically mature, such as 1970’s and 1980’s mainframe services, or relatively simple standardized desktop platforms and networks, outsourcing was more successful. In these circumstances, purchasers were able to clearly articulate their requirements and standards, knew how to evaluate service quality, and could diagnose common service failures.
Clarity of requirements

A second source of uncertainty reported by McFarlan was related to requirements. Our informants identified several reasons why a high level of requirements uncertainty exists in outsourcing arrangements. Sometimes their organizations had no practical experience of the features a new IT system or service was to provide, particularly if these involved novel technologies. Consequently those specifying requirements were largely relying on imagination. In such cases the client’s initial experiences of the system or service inevitably changed their understanding of what was required, leading to expensive variations in the contract. Other organizations knew at an abstract level what was needed, but could not articulate the detailed requirements and performance levels expected because they no longer had staff experienced at an operational level with the technologies. This resulted in specifications that were ambiguous, and as a result to disputes requiring a high level of managerial attention.

Uncertainty also arose when there were widely divergent views in the organization about future requirements, and the priorities to be assigned to them. Several informants reported situations where individual organizational units were clear about their own requirements, but there was no agreed corporate priority. In these cases, the requirements changed depending on the political power and influence of different organizational units.

These problems were exacerbated when business requirements were evolving rapidly. In the public sector agencies we studied, frequent changes in policy requirements, and the machinery of government, often dictated radical changes in service requirements. In private sector organizations, mergers/acquisitions and new business strategies had the same effect. In such circumstances the use of legal contracts and control processes became inflexible and expensive. Our case studies and survey data suggest that organizations significantly underestimated the level of organizational change they would encounter. This had major implications for their optimistic financial projections.

Uncertainty was compounded when services were provided on a time and materials, or full-time-equivalent (FTE) staffing basis. While outsourcing is promoted as an outcome-based delivery model, many of our informants could only forecast some services (such as analysis and design, or specialist technical services) by the hour or manday. In these circumstances, predicting final costs was difficult, and there were opportunities for vendors to exploit the situation.

Drivers of complexity

Scope

The scope of an outsourcing arrangement affects its complexity. Several of our case studies involved large-scale outsourcing arrangements, and without exception, these were complex, difficult to manage, and major drains on the management attention in the organization, even though they were not necessarily financial failures (Rouse & Corbitt, 2002). Despite their scope, these arrangements involved what has been described as “selective” outsourcing (Lacity & Willcocks, 1996), as purchasers outsourced only about half the IT budget. Conversely, we found examples of smaller organizations successfully outsourcing almost all their IT services (based on standardized environments) to a single vendor (that is, “total” outsourcing). These arrangements were relatively low in complexity, even though they met Lacity et al’s definition of “total” outsourcing. Our research suggests that the failures of the
“total outsourcing” cases studied by Lacity and Hirschheim (1995) — the source of Lacity and Willcocks’ 1998, data — was related to their complexity, not to the extent of IT budget outsourced.

**Interdependence**

Because of the pervasive nature of IT services, most of our informants reported that their operational activities were highly dependent on their outsourced services. Consequently “best practice” advice to outsource only services that are relatively quarantined from other business processes (Lacity et al, 1995; 1996) was not feasible. Many reported that managing business processes dependent on outsourced services was more difficult than managing those dependent on services delivered in-house, because the formality of control processes for outsourcing reduced responsiveness. Situations that would have been handled in-house with a brief internal discussion often escalated into major administrative headaches. The problems of interdependence are magnified when an outsourced arrangement in place.

**Points of responsibility**

Our informants also reported that complexity increased substantially when the number of “points of responsibility” increased. Many, after experiencing vendor problems with a prime-contractor or single-vendor model, had adopted, or were contemplating moving to, a multiple-contractor strategy. Such a strategy was strongly encouraged by the consultants and experts they relied upon. However, those who had adopted this strategy reported that having multiple vendors increased contractual and managerial complexity considerably. Multiple-vendor arrangements also substantially increased contractual and coordination costs (transaction costs), particularly for small purchaser organizations, and tended to decrease the influence purchasers had with individual vendors. Another source of “points of responsibility” complexity was the process of clustering, or grouping relatively disparate organizational units to gain economies of scale. In the Federal IT outsourcing case (reported in Rouse & Corbitt, 2002) clustering was economically successful, but was abandoned because of the operational trade offs required, and the increased demands on managerial time.

**Technological Complexity**

Many of our informants’ organizations had complex technical environments, which proved problematic when outsourced. A typical purchaser might have several networked desktop operating environments, multiple servers running different operating systems and different applications tailored to the organization’s needs, some multi-tier e-business and Internet-based systems, and sometimes legacy systems based on outdated software environments. Diagnosis of problems in these circumstances is difficult, and our informants often reported that a single vendor could not adequately support their environment. This led to difficulties and disputes when multiple vendors were involved. There was a marked contrast between the technical environments in our informants’ organizations and those of the highly publicized early IT outsourcing success stories. While large in scope, those involved relatively low levels of technical complexity — a single-vendor and homogeneous mainframe environment that preceded the Internet, n-tier client-server, and desktop environments of the mid to late 90s.
A consolidated framework of selection risk

We found that many of these drivers were interrelated. For example, outsourcing of technically immature services affected both uncertainty (through inability to specify and measure outcomes) and opportunism (through lack of standardization). Conversely, when the service outsourced was highly standardized, many risks could be overcome because the standardized requirements meant there was generally a large body of purchasers with common needs, and as a consequence a deeper and more vigorous vendor marketplace. Informants with largely standard requirements believed that they could easily move to an alternative supplier, and so were willing to outsource services that were integral to their business. They also had the option, if necessary, of re-insourcing the service, as the pool of skilled staff in the employment market was high.

This interrelation is reflected in the framework shown in Figure 1 where technological maturity tends to lead to standardization, which creates a greater pool of customers, and hence deeper marketplace of vendors. At the same time, technological maturity also leads to less uncertainty as requirements are easier to specify and performance is more easily measured. Figure 1 also incorporates the impact of failure, as this will have an important moderating effect on the level of risk.

Evaluating the Risks for Candidate Services

The discussion above highlights a range of factors that decision-makers can consider when choosing alternative sourcing strategies for individual services. Where the likelihood of opportunism, uncertainty, or complexity is high, purchasers need to be convinced that the benefits of an outsourcing strategy (whether outsourcing as part of a traditional arrangement or a “best sourcing” arrangement) justify the high levels of risk. In such cases alternatives such as retaining the services in-house, or hiring in contractors are likely to reduce risks, even though these options may on the surface appear to be more expensive. Conversely, where services are likely to involve only moderate levels of these three aspects of risk, decision-makers can feel more confident that the cost/benefit projections they make when bids are received are likely to be achieved.

In Table 1 below, the elements of the framework shown in Figure 1 are applied. The table provides a series of questions purchasers can ask when evaluating the likely risks of particular outsourcing ventures, or when choosing whether or not a particular IT service is a good candidate for outsourcing.

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Key questions for purchaser</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low level of standardization</td>
<td>For this IT service, how willing is your organization to trade off unique requirements for the benefits of standardization? How well-codified is the service delivery process, and how widely is process-knowledge distributed in the community?</td>
</tr>
<tr>
<td>Shallow market depth</td>
<td>How many viable players are in the marketplace now; how many likely at contract end? What are the switching costs (financial, organizational) associated with moving to an alternative supplier? What are the lead times? What is your capacity to re-insource the services if necessary?</td>
</tr>
</tbody>
</table>
Technical immaturity

Do market standards exist; how stable are they?
What is your organization’s technical maturity in delivering these services previously - so how well can you specify requirements and service levels?
How familiar is your organization with this IT service - hence your capacity to evaluate performance quality?
What is your vendor’s track record for delivering this particular service?
What is your own organization’s experience at managing outsourced IT services?

Requirements uncertainty

What is your organization’s capacity to clearly articulate the requirements and the service levels to be provided?
How much agreement is there within your organization about service levels and measures?
About priorities?
Are you demanding competing requirements (eg flexibility or industry development vs. reduced costs)?

Interdependence

How many other technologies in your organization interface with the technologies involved in delivering this IT service?
How many business processes depend on this IT service?
How tightly are your business processes coupled with this IT service?

Potential for opportunism

To what extent are the services you require standardized (asset non specific) and common to many purchasers in the marketplace?
To what extent does your access to information and advice about these IT services match those of the vendor?
To what extent does your access to information and advice about how to manage an outsourced arrangement match those of the vendor?

Uncertainty

How likely are substantial changes to service requirements over the life of the contract? To volume changes?

Complexity

How many different processors, operating systems, and operating system versions are involved?
How many different applications and software environments?
How many independent organizational units are involved in the purchase?
How many “points of responsibility” for delivery are there?
How many telecommunications environments?
How many applications that do not use a common user interface?

Impact of failure

How many critical business processes would be affected if there was a service delivery failure?
How serious would the consequences of failure be on business operations, customers, privacy, or other legislative obligations?
How long could your organisation go without delivery of this IT service? With substantially degraded service?
What are the (short term) cost implications of service degradation, or of major changes to your cost/benefit projections?
What would be the longer-term impacts on your competitiveness of continual poor service?

Table 1: Risk factors to consider when evaluating IT services to outsource

Conclusion

The risk-based analytical framework we have developed, and the questions provided in Table 1 expand and clarify existing decision frameworks, and act as a focus for the thinking that purchasers need to do before deciding on the best sourcing option. This risk framework also helped us make sense of the sometimes-confusing messages we received from our focus group and case study participants. Those services where focus group informants reported
substantial cost savings and satisfaction (equipment support, installation and maintenance of networks, mainframe hosting, and basic support of generic software products) are generally low in the risk characteristics highlighted in Figure 1. They are well understood and involve highly standardized processes, with the consequence that purchasers are able to readily specify the outcomes required, and the standards expected. Such services are also technically mature and stable – often involving technologies or processes developed 20+ years earlier. In some areas where the technologies are quite recent (eg web hosting) – the growing convergence of Internet based standards has resulted in a range of newly standardized products and knowledge-promulgation. As a consequence of these characteristics, there are robust vendor marketplaces, providing a check against opportunism and vendor lock-in.

However, few IT services are such clear candidates for outsourcing. Most involve one or more risks highlighted in Figure 1, signalling the need for critical evaluation on the part of decision makers. The evidence from our converging studies is that in most cases, outsourcing will involve trade offs amongst the various success criteria discussed earlier in the paper, as well as trade offs between different sources of risk. Table 1 can assist decision makers to recognize and choose among these tradeoffs, and thus to increase their chances of a satisfactory IT outsourcing arrangement. The framework also provides guidelines for purchasers who have no choice but to outsource, because they do not have the internal capacity to deliver an IT service, and do not have the time or resources to build it. By minimizing the various risk factors shown in Table 1(by, for example, adopting highly standardized requirements), and by recognizing the cost implications of these risks in their business cases, such purchasers are less likely to be unpleasantly surprised.

References


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¹ The survey described here was conducted by a team comprising the University of Melbourne, Oxford Institute of Information Management and Deloitte Consulting, under the direction of Dr. Peter Seddon of the University of Melbourne. Analysis of the data was conducted by the authors of this paper, one of whom was a member of the survey team.