

Sourcing strategies of facilities management

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Abstract

In this study, four sourcing strategies are identified in the delivery of maintenance service in facilities management, namely *in-sourcing*, *out-tasking*, *outsourcing for cost saving*, and *outsourcing for capability*. Since each of these strategies has merits under specific circumstances, a framework for the selection of appropriate sourcing strategy in particular situations is presented. This framework, which takes into consideration scope of sourcing under consideration and purpose of the sourcing decision, was developed on the basis of results of an earlier research and has been validated by the findings obtained from interviews with practitioners in exemplary organizations. This paper also provides guidelines for implementing the selected sourcing option, along with discussion of the related strategic and operational issues.

Practical Implications

The traditional approach to outsourcing cannot be the best sourcing strategy under all circumstances. Out-tasking is an alternative option that may be more appropriate in specific situations. This latter approach is widely practised in information technology and facilities management. While the strategic importance of out-tasking is generally recognized, little is understood about its practice. The decision matrix of strategic sourcing presented in this paper provides a useful management tool for selecting the appropriate sourcing strategy. In addition, the ensuing discussion on the implementation process offers insights into the strategic and operational issues related to putting specific sourcing strategies into practice. Although the proposed framework is formulated in the context of facilities management, its application can also be extended to the management of information technology, marketing, human resources and financial services.

Introduction

Corporations nowadays tend to contract out more manufacturing and service activities than they did a decade ago (Bates, 1997; Fuller, 2002; Musich, 1996; Tysdal, 1999). This trend has been driven by changes in the business environment and the pursuit of lean operations. Corporations stay lean to reap the benefits of cost reduction, better strategic focus, and agility in responding to fast market changes. The traditional approach to staying lean is through outsourcing whereby a whole package of support function is off-loaded to an external service provider. This contrasts with in-sourcing which is defined as the management process of performing a service by the in-house staff. Through outsourcing, the organization can devote its scarce resources to developing its core competencies in a bid to sustain competitive advantages (Tsang, 2002).

The strategy espoused by an organization may focus on cost leadership, differentiation, or other intents which form the basis of the competitive edge (Porter, 1980). Core activities are derived directly from the corporate strategy. Once an activity has been identified as non-core, the conventional wisdom is to outsource it to external parties through some contractual arrangements (Fuller, 2002). However, it would be too simplistic a decision to outsource every activity that is classified as non-core, because these non-core activities may contribute to the successful implementation of the corporate strategy to different extents.

While outsourcing is gaining popularity, the number of reported cases of failure is also increasing (Brown, 2002; Copeland, 2001; Crocker, 1999; James, 2000; Van der Werf, 2000). Very often, expectations of the client organization are not fully met. A study of the failure cases has revealed that some of the outsourcing should have been administered from a strategic perspective. In some situations, there should have been more input from the client organization. In other situations, selective outsourcing or out-tasking may be a better alternative to outsourcing.

Out-tasking is a management process whereby specific tasks, as opposed to a whole package of support function in the case of outsourcing, are performed by a contractor. Out-tasking is a common practice in the field of facilities management; its usage outnumbers that of out-sourcing (Kleeman, 1994). However, little is known about the criteria for choosing out-tasking, let alone the process of implementation. It is important to know what to contract out, who to do it, what options are available and how to manage the process.

Sourcing Practices in Facilities Management

In this study, a focus group session was conducted to identify major issues of sourcing in facilities management. The focus group comprised twelve participants most of whom were

experienced professionals in the property management sector and three others were professionals in the manufacturing sector. The findings of the focus group confirm that out-tasking is a more common practice than outsourcing. Those participants who practise outsourcing admit that contract administration is a major issue as they have little control over day-to-day operational matters. Those practising out-tasking find that it is a common approach among maintenance organizations to staying lean. They identify cost saving, enhanced flexibility and sharing of workload as merits of out-tasking, and they are generally satisfied with the collaborative relationship with their contractors. Their in-house technical staff are proactive in the daily maintenance work. Contractors are motivated to deliver quality service as those with unsatisfactory performance will not be allowed to bid for future service contracts.

Subsequent to the focus group session, three one-to-one interviews were conducted with senior maintenance executives of large and exemplary organizations. In these interviews, the existing policy of contracting out, current approach to contractor management, and lessons learnt from the sourcing practice of the interviewee are probed. Extracts of these interviews presented below shed light on the best practices of sourcing in facilities management.

One of the three interviewees is the associate director of estate management of a tertiary institution in Hong Kong. He had the following comments on the subject of out-tasking:

“... out-tasking makes it possible for the maintenance organization to stay lean; cost is an important factor in deciding who will get the award of service contracts or renovation projects. Contractors should be treated with respect. However, contractor management must be emphasized, and close monitoring of works is necessary. In case the contractor under-performs, it will be handled with reference to the terms and conditions of the legal contract.”

Another interviewee is the chief engineer of a renowned property developer. He adopts a contingent approach to sourcing. He revealed that “...the company uses outsourcing in commercial buildings and out-tasking in the hotels. Contract management is an essential function in sourcing. Our maintenance managers are empowered to exercise discretion in selecting the approach to managing contractors. Typically, the selected contractors have been directly involved in the installation of facilities. These contractors are technically more competent and our in-house maintenance staff learn a lot from them.”

The third interviewee is the engineering director of a hotel chain. He stated his philosophy on relationship with external service provider as follows:

“...partnership with the contractor is a win-win proposition. When a lot of uncertainty is perceived, there will be more emphasis on control characterized by a detailed service contract.

On the other hand, when the degree of trust between the organization and its contractor increases, the emphasis will be shifted towards maintaining a partnership relationship with the contractor.”

It is noted that the use of contractors gives the interviewees enormous leverage in rendering efficient service delivery. They all maintain a team of in-house technical staff to provide responsive services. The sourcing strategy they adopt varies according to the criticality of service demands. There is evidence that a mix of in-sourcing, out-tasking and outsourcing are being practised in each of the companies represented in the focus group and those covered in the interviews. However, the extent of usage of each of these service delivery options differs from one company to another.

Outsourcing versus Out-tasking

Outsourcing is a widely researched topic in strategic management, supply chain management, services, manufacturing and operations management (Belinski & Koehler, 1995; Blumberg, 1998; Campbell, 1995; Fan, 2000; Fitzsimmons, et al, 1998; Zeffane, 1995). When applied to asset maintenance, one has to be aware of the pros and cons of outsourcing as summarized in Table 1 (Dubbs, 1992; Embleton & Wright, 1998; Hubbard, 1993; Kleeman, 1994; Raynor, 1992).

Table 1. Pros and Cons of Outsourcing Asset Maintenance

	Pros	Cons
Maintenance Strategy	Focus on core competencies	Need to manage opportunism
Customer Service	Improved Accountability	Slower response
Financial impact	Cost saving	Increased contract cost
Internal Processes	Operational flexibility	Loss of control
Innovation & Learning	Access to special know-how	Lack of staff training

A major challenge of outsourcing is managing the risk of service agents’ opportunism. Williamson (1975) defines opportunism as “self-interest seeking with guile”. Examples of opportunistic behaviours are contract violations by way of poor workmanship, taking advantage of the client’s dependence to maximize short-term gains, and reluctance to meet new requirements of the client.

In some situations, outsourcing the services of an entire function might cost more to the company and might be harmful from a strategic perspective (Dubbs, 1992). If, for some reasons, slower response cannot be tolerated, quality of outcome is essential or the skill set is important for development of future capabilities, outsourcing the services of an entire function en bloc may not be in the best interest of the company.

The first interviewee recommends that an activity that is essential to support the organization's operations should be out-tasked when enhanced efficiency is the primary purpose of the sourcing decision, on condition that this move will not expose the organization to high risks. In this arrangement, even though work is performed by an external service agent, the in-house staff are ultimately responsible for the outcome.

There are publications reporting success cases of out-tasking information technology services. In these cases, tasks are regularly contracted out to designated service agents that have some forms of partnership relationship with the company. This enables the client organization to have more effective control over the performance of the service agent. This view is shared by the third interviewee who was using the service of a contractor on a heat pump project at the time of the interview.

The similarities and differences between outsourcing and out-tasking are listed in Table 2.

Table 2. Comparison between Outsourcing and Out-tasking

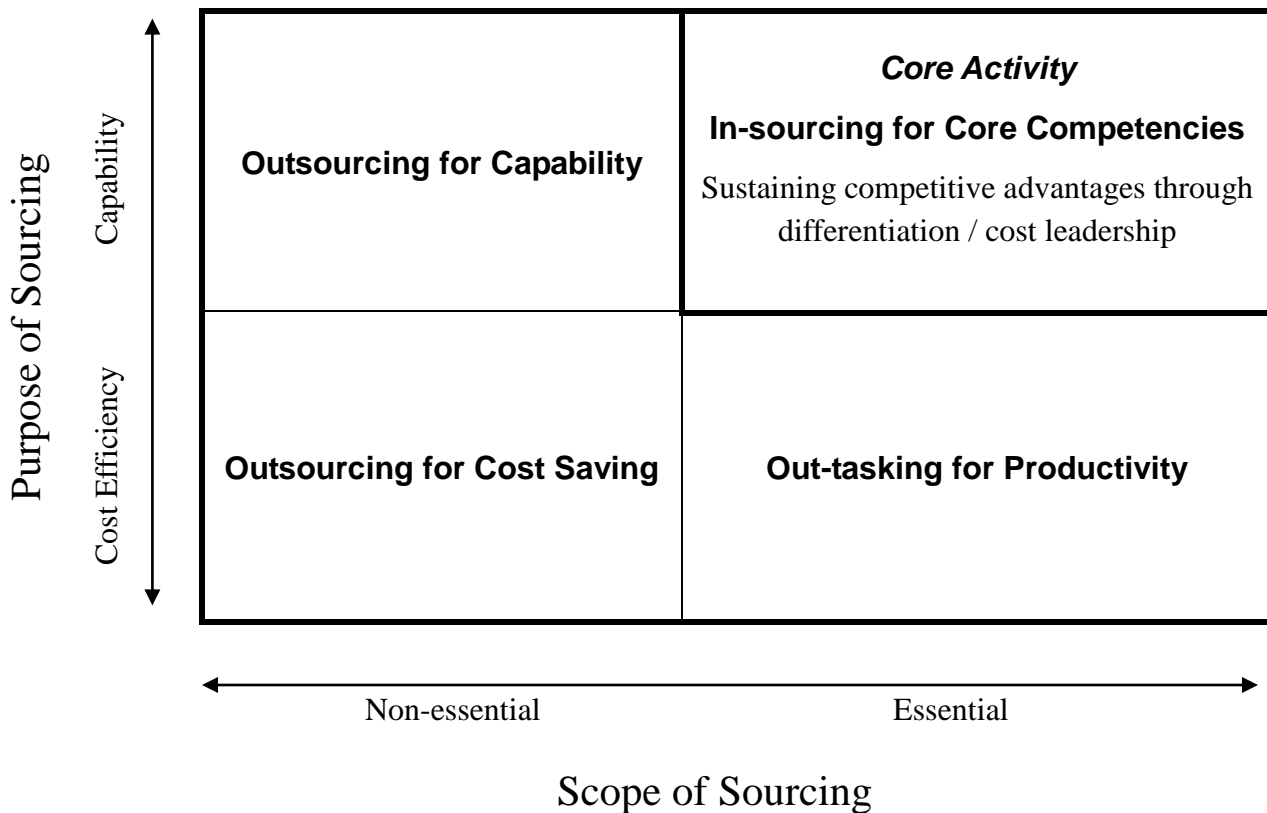
Comparison		Outsourcing	Out-tasking
Similarities	Choice between buy or make	Buy	Buy
	Expected impact	Saving in headcount	Lean organization
Differences	Scope of Work	Entire function of maintenance	Part of maintenance
	Duration	Medium to long	Short
	Control	Contract administration	Contractor management
	Size of contractor	Large	Small
	Role of in-house staff	Coordinating	Proactive

When outsourcing is practised, the company usually employs a small number of staff to serve as coordinators between internal customers and the external service provider. This is in contrast to out-tasking in which case the internal staff members play a proactive role of initiating and planning service activities, and leading the external service provider for delivery of the needed service. Thus, the internal staff are fully responsible for the consequences of out-tasking.

Making the Sourcing Decision

Choosing between in-sourcing and outsourcing is just the beginning. A number of service delivery options are available when in-sourcing is out of the question. From a strategic perspective, a sourcing decision can be made by taking into account both the scope and the purpose of sourcing (Kakabadse & Kakabadse, 2000). Figure 1 shows a decision matrix that provides guidance for making a sourcing decision.

Figure 1. A decision matrix for selecting a service delivery option



In the context of facilities management, if a service is regarded as essential and the purpose of sourcing is for maintaining or developing a capability, the activity will be classified as core and, according to the suggestion given in the decision matrix (Figure 1), it should be in-sourced. All the interviewees reported earlier echoed this view. Other examples illustrating the use of the decision matrix for selecting the service delivery option in facilities management are given below.

Building management systems (BMS) are IT-based solutions for remote control and monitoring of building facilities as well as implementation of energy conservation measures. The task of operating and monitoring a BMS for signs of alarm is essential, and its purpose is for capability, i.e. ensuring that the operation parameters of building facilities are set properly and in a timely manner. Thus, management of the BMS should be performed by in-house operation and maintenance staff.

In a commercial complex, a large number of air handling units may be used for the ventilation and air-conditioning of tenant areas. The task of inspecting and fixing defective parts is essential. The purpose of sourcing such service is to minimize maintenance costs. The service workload varies with usage of the units and site conditions. Keeping a permanent maintenance crew that can cater for the demand of the peak load may not be justified. It may be possible that

some of the uneven workload of maintenance can be handled more economically by leveraging on the use of contractors. In such case, out-tasking is recommended.

Training is desirable for the development of multi-skilled and safety aware service crew. An electrician may be sent to attend a training course on the programming of variable frequency drives in an energy saving project. A plumber may have to acquire a new skill for repairing epoxy floors by attending a workshop conducted by an external specialist. In these cases, outsourcing for capability is an obvious choice because the scope of sourcing is non-essential and the purpose of sourcing is for capability.

Cleaning is a labour intensive work which requires relatively low skill. Furthermore, service providers are plentiful in the market. By awarding the service contract through an open tender process to the qualified bidder asking for the lowest price, considerable cost saving can be realised. This is a typical example of outsourcing for cost saving as the scope of sourcing is non-essential and the purpose of sourcing is for cost efficiency.

The Implementation Process

The effectiveness of a strategy hinges on how it is implemented. The process of implementing a sourcing strategy consists of five stages, namely planning, setting of performance standards, work transactions, performance review, and review of strategy. Figure 2 shows a flow chart of the process. There are three feedback loops in the process — the feedback to ‘work transaction’ refers to repeated cycles of work execution, the feedback to ‘service agreement’ may entail modifying the level of service delivered to customers, and the feedback to ‘choice of strategy’ may result in change of sourcing strategy in response to a new business environment.

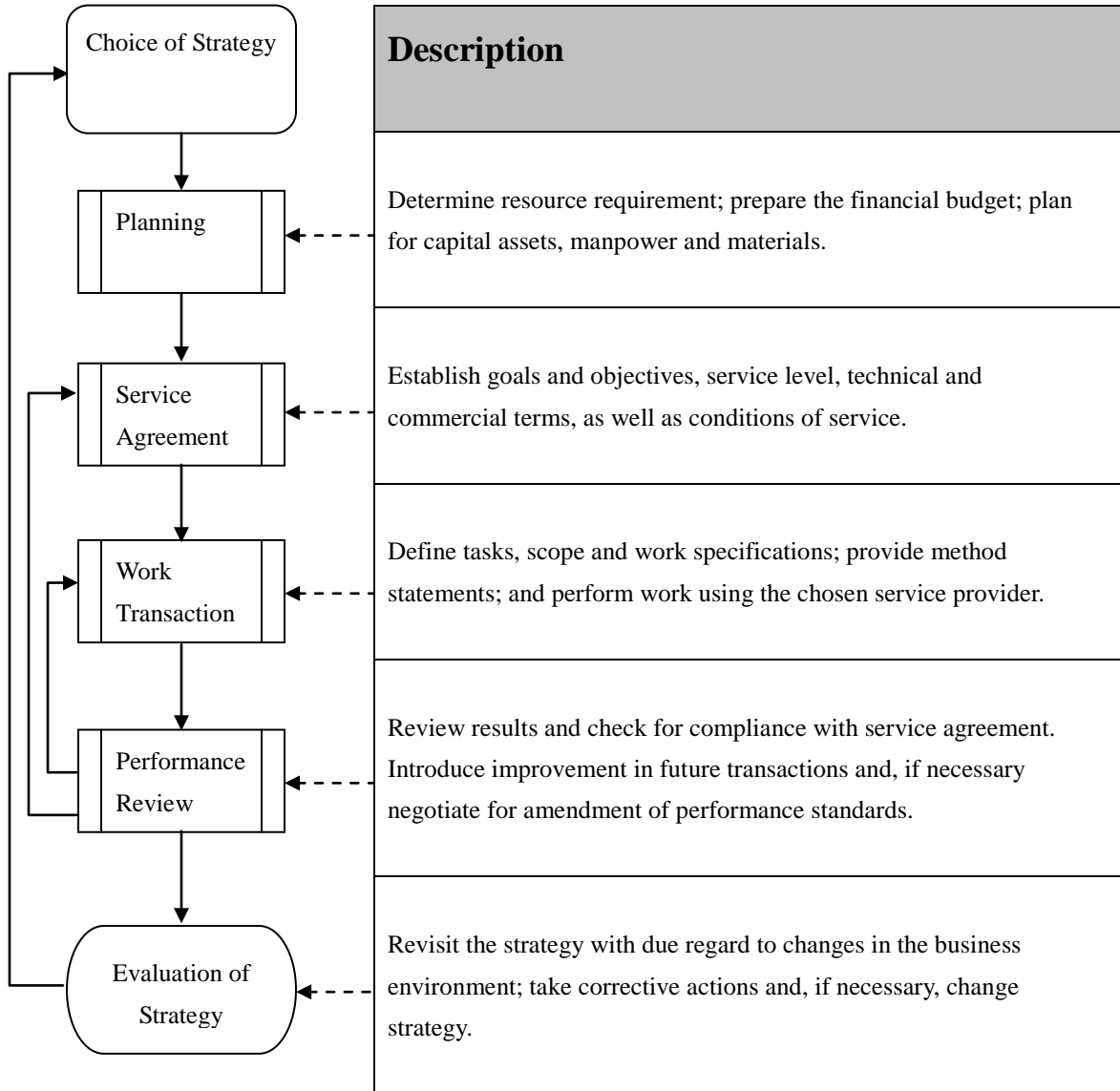
[Insert Figure 2 here]

To ensure that a chosen sourcing strategy is effective, one needs to be aware of the related strategic and operational issues that arise at various stages of the implementation process. See Tables 3 and 4 for a list of these issues. Usually, the strategic issues take priority over operational issues. A discussion on these issues is as follows.

[Insert Table 3 here]

[Insert Table 4 here]

Figure 2 The process of implementing a sourcing strategy



In-sourcing

The service activities to be in-sourced are regarded as core to the organization's business. The long-term development of people and the required core competencies associated with these service activities is important.

At the 'planning' stage, the manager has to consider the current status as well as the required level of process capability, skill inventory and manpower, organization structure as well as budget for implementing the business strategy. At the 'service agreement' stage, the manager has to be specific about the performance standards, system and technology, employment contract and necessary training. The guiding principles for consideration are investment justification and knowledge management.

At the 'work transaction' stage, issues of assignment of people, program schedule and contingency measures need to be addressed. Work execution should be governed by a management system that covers quality assurance, work procedure, coaching method and stakeholder coordination.

Regular 'performance review' meetings are held to review what has been accomplished, consider outstanding issues, identify gaps, and come up with corrective and preventive measures. Internal communications take place both vertically and laterally. Lessons learnt from past experiences are shared among members of the stakeholder groups. With the support of management leadership, operational issues are dealt with proactively.

Outsourcing for Cost Saving

This category of service activities is of secondary importance to the organization's business, and cost saving is the primary objective of choosing this sourcing option.

The 'planning' stage is prominent for its tendering activities. The typical contract period covers at least one year, renewable annually. Based on a prepared tender specification, competitive offers are solicited from qualified contractors in the open market. The lowest bidder usually gets the award of the contract. At the 'service agreement' stage, a detailed service level contract is negotiated. The contract should have clearly defined service standards. There should be provisions for all foreseeable contingencies, including an exit mechanism. Both parties of the contract must be open about their expectations. Unit rates have to be cited for possible variation claims. Results in terms of performance indicators are measured and reported at agreed intervals. This process works under a market mechanism and it is a zero sum game.

At the 'work transaction' stage, the contractor delivers service autonomously in accordance with documented work procedure. The service delivered is monitored and periodic audits are conducted by the client organization to assure quality of service received. Possible opportunistic

acts of the contractor also need to be controlled. 'Performance review' provides a forum for upward reporting, tabling of issues, and committing to corrective actions. The focus of the review is to apply budget control and ensure value for money.

Outsourcing for Capability

Outsourcing for capability and outsourcing for cost saving are similar in many ways. In both cases, the service activities to be outsourced are not critical to the organization's business, the contract periods are usually long, and the 'planning' stage is characterized by the tendering process. However, in the case of outsourcing for capability, the technical requirements are emphasized because qualified service agents are in short supply. Benchmarking is the recommended approach to comparing the capabilities of various service agents. At the stage of 'service agreement', a detailed service level contract is negotiated. The requirements pertaining to contingencies and exit mechanism are same as outsourcing for cost saving. The relative power of supplier and buyer rather than price is the factor determining the agreement reached.

As the sourcing purpose is for capability, the participation of the client is important at the 'work transaction' stage. The effectiveness of this strategy is measured by the amount of know-how transferred. The 'performance review' meeting provides a forum for review and control of outcomes.

Out-tasking

The service activities to be out-tasked are well defined tasks. This mode of sourcing is favoured over in-sourcing in situations where it can lower total costs (Williamson, 1985). A network of external service providers is maintained as buffer to meet peak load demands.

At the 'planning' stage, a contractor is chosen from a list of approved contractors on the grounds of capability and competitiveness of offer. At the stage of 'service agreement', a service contract is negotiated. In the contract document, specifications of typical tasks are stated with provision for future incorporation of new tasks. The contract document may also specify penalties or incentives that are linked to results on specific performance attributes such as workmanship, safety practices, on time completion of work, and cost reduction. The outcome of the negotiation reflects the balance of power between the client and the service agent. Above all, the contract document forms the basis for a win-win relationship.

At the 'work transaction' stage, an out-task job order is triggered by a maintenance need when it is more economic to hire a contractor to deliver the service. After risk assessment, the job order is issued with a permit to work. The permit to work is prepared by the client with the endorsement of other stakeholders, such as the process owner and the safety officer. It basically governs the right of access of personnel within a specified time slot, precautionary measures, compliance with regulations, approved method statements, housekeeping for the site and criteria

for final acceptance. Execution of the task is characterized by joint action, particularly for tasks with high perceived risk. On-site monitoring and coordination among stakeholders are key to reducing information asymmetry for effective control. As suggested by the first interviewee reported earlier, one approach is to treat the service agent as one's equal first, but one should resort to the authority of the contract in taking corrective actions whenever necessary.

At 'performance review' meetings, management representatives as well as supervisory staff of both parties of the service contract review the performance of recent tasks. Occasionally, reference is made to terms and conditions of the service level agreement. The atmosphere is characterized by information sharing, consensus and partnership. This feeds through the next cycle of transactions for more productive working relationship that will benefit all stakeholders.

Table 3 Strategic issues of different sourcing strategies

Key Stages of Implementation	In-sourcing	Outsourcing for Cost Efficiency	Outsourcing for Capability	Out-tasking
Planning	Integration with business plan	Budgeting	Benchmarking	Supply chain
Service Agreement	Investment justification Knowledge management	Zero sum game Market mechanism	Relative power between Supplier and Buyer	Win-win game Power balance
Work Transaction	Process management	Control of opportunism	Know-how transfer	Reducing information asymmetry
Performance Review	Performance management system	Budget control Value for money	Alignment of partners' strategic objectives	Alignment of partners' performance goals

Table 4 Operational issues of different sourcing strategies

Key Stages of Implementation	In-sourcing	Outsourcing for Cost Efficiency	Outsourcing for capability	Out-tasking
Planning	Process capability Skill inventory Organization structure Budget	Open tender Competitive offers	Invitation for tender Prequalification Competitive offers	Task specifications List of approved contractors
Service Agreement	System / technology Employment contract Training	Define service level Expectations Accountability Contingencies	Due diligence Define service level	Define service level Risk & contingencies Incentives & penalties
Work Transaction	Task assignment Program schedule Risk & contingencies Quality assurance Procedure Coaching Stakeholder coordination	Autonomous Procedure control Monitoring Quality control/audit	Autonomous Procedure driven Participation Documentation	Job order for task Permit to work Joint action Monitoring Coordination
Performance Review	Performance Appraisal Stakeholder satisfaction Learning from experience Proactive approach to issues	Reporting Corrective actions	Performance feedback Effective control	Information sharing Productivity Stakeholder satisfaction

Discussion

If resources were not a constraint, the manager would prefer to adopt the classical approach of in-sourcing. With the power of hire and fire, the manager can maintain the right size of the organization and enjoy the convenience of people deployment. In response to changes in the business environment, the manager has full control over measures of intervention such as re-structuring, re-training, and investment in assets. When a needed skill is not available internally, the manager procures the service from an external party. These choices are the two upper quadrants of the decision matrix of sourcing in Figure 1.

However, it is not economically viable if the in-house manpower cannot be fully utilized most of the time. When cost efficiency is an issue, the sourcing decision can be guided by application of the transaction cost theory (Williamson, 1985). According to that theory, the sourcing option that will minimize the total cost of transaction (all costs associated with planning, service agreement, work transaction, performance review in the implementation process) should be selected (Bello, Dant, & Lohtia, 1997). This gives rise to the lower quadrants of the decision matrix of sourcing.

It is not advisable to just pick the correct mode of sourcing and leave things to their own devices in implementing the selected strategy. Problems will occur if the practice fails to adequately address the strategic and operational issues of the implementation process discussed in this paper. The proposed framework for characterizing an effective strategy implementation process provides a theoretical basis for explaining why many outsourcing attempts failed in practice.

It would be misguided to focus only on cost saving if the mode of sourcing should have been out-tasking. Similarly, it would be counter productive to focus on short-term cost saving if the purpose is to invest in developing or reinforcing a capability. Even when an outsourcing decision is driven by cost saving, the importance of monitoring opportunism should not be overlooked (Wathne & Heide, 2000). In many cases, it is advisable to maintain some form of partnership relationship between the sourcing company and the service agents.

In case of doubt, it is prudent to opt for out-tasking because the risk of default by the service agent is lower. The sourcing company will still be in control as it maintains a small team of in-house staff with the capability to take over the task in case things have gone awry. Besides, the time period of a service contract can be as short as a single transaction. There is always the opportunity for the company to change service agent or re-negotiate the service agreement if the service agent fails to deliver the required level of performance.

Two of the key success factors in facilities management are choosing the right sourcing strategy and its proper implementation. Once a strategy has been chosen, the manager has to decide who is to provide the service. Ideally, the service provider should have the ability to deliver the service with reasonable reliability, predictability, cost-effectiveness and on time performance. Very often, this can only be ascertained through the test of time. When it is necessary to maintain an on-going productive relationship with the service provider, managing such a relationship becomes an issue.

As rightly pointed out by the third interviewee, it is possible to reap the benefits of synergy by partnering with the contractor. Can any contractor be trustworthy to become a good partner? If a contract lasts longer than one year, how can the company tackle the problem of dependence and safeguard itself from possible opportunistic acts of the contractor? These questions are challenges to the management of the sourcing organization and these issues need to be addressed in future researches.

Although the framework for sourcing strategy implementation has been presented from the perspective of facilities management, it can also be extended to other functions of an organization such as information management, human resources, marketing and finance. All these functions are subject to the pressure of staying lean and yet competitive. In order to make it work, doing all things in-house and in the old way may no longer be the best option to a visionary manager. With minor adaptation, the framework proposed in this paper should find broad applications in optimizing the performance of an organization.

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