

3-22-2004

Developments in Practice XIV: IT Sourcing - How Far Can You Go?

Heather A. Smith

Queen's School of Business, Queen's University, hsmith@business.queensu.ca

James D. McKeen

Queen's School of Business, Queen's University, jmckeen@business.queensu.ca

Follow this and additional works at: <https://aisel.aisnet.org/cais>

Recommended Citation

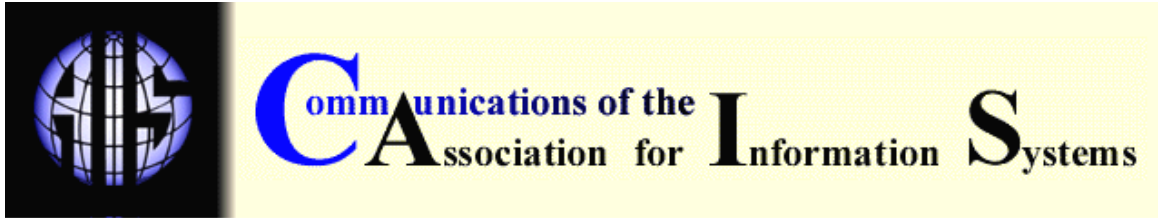
Smith, Heather A. and McKeen, James D. (2004) "Developments in Practice XIV: IT Sourcing - How Far Can You Go?,"

Communications of the Association for Information Systems: Vol. 13 , Article 31.

DOI: 10.17705/1CAIS.01331

Available at: <https://aisel.aisnet.org/cais/vol13/iss1/31>

This material is brought to you by the AIS Journals at AIS Electronic Library (AISeL). It has been accepted for inclusion in Communications of the Association for Information Systems by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.



DEVELOPMENTS IN PRACTICE XIV: IT SOURCING – HOW FAR CAN YOU GO?

Heather A. Smith
James D. McKeen
School of Business
Queen's University
hsmith@business.queensu.ca

ABSTRACT

Outsourcing is now a widely accepted part of doing business. What started as a mechanism to lower costs is now an integral part of a much larger IT strategy. Today, newer forms of outsourcing are on the horizon and newer approaches that will change yet again how IT sourcing decisions are made. Better connectivity, the availability of high quality staff, and much lower costs in other countries are shifting sourcing markets and expanding sourcing possibilities for companies. To examine how sourcing is changing in IT organizations, the authors convened a focus group of senior IT managers from a variety of companies. This paper explores the evolution of sourcing and how sourcing strategies are shifting. Then it looks at emerging sourcing models and particularly at offshore/nearshore outsourcing. Finally, it identifies critical factors for successful sourcing. The paper concludes that while sourcing is changing the nature of the work that is done internally in IT, it is unlikely that it will eliminate this function altogether or reduce the its value to that of a utility. To the contrary, more and more organizations will need the systems thinking, architectural understanding, and strategic awareness embodied in a modern IT department to ensure that they don't end up with a hollow shell of an organization which provides limited added value to the marketplace.

Keywords: outsourcing, offshore outsourcing, sourcing, IT strategy

I. INTRODUCTION

Outsourcing is now a widely accepted part of doing business. In IT, companies are outsourcing everything from operations and help desks to maintenance and development. What started as a mechanism largely to lower costs is now an integral part of a much larger IT strategy. IT departments find that outsourcing gives them access to a wider range of skilled resources, helps them focus on their core strengths, and speeds the time to market of products and services. Lower operational costs, reduced upfront investment, and the ability to convert fixed to variable costs also make outsourcing an attractive option for some IT services.

As they gained experience with outsourcing, IT organizations learned to do it more effectively – to manage the relationships, risks, benefits and outcomes better. As a result, interest in outsourcing is growing, although a study found reluctance to use it is still considerable [Mackie, 2002]. Clearly, outsourcing now has a place in the IT executive's toolkit.

The danger now is complacency. Thinking that they have a handle on outsourcing, IT managers could fail to consider newer forms of outsourcing, different options, different strategies, and/or changing economics. Certainly, new players are on the horizon and new approaches to sourcing are looming that will change yet again how IT sourcing decisions are made. Some of these changes include strategic sourcing practices, offshore contracting using companies based in India, Ireland and Eastern Europe, and near shore sourcing in Mexico and other nearby places. Better connectivity, the availability of high quality staff, and much lower personnel costs (although these can be deceptive – see Section III) are changing sourcing markets and expanding sourcing possibilities for companies.

In previous research, we examined outsourcing through Application Service Providers (ASPs) and concluded:

“The emerging external IT services marketplace offers rich opportunities and many possibilities for IT organizations to become more cost-effective. ...Strategic business applications development and management for mission-critical applications will [continue to] be in-house but delivery for standard and meta-industry applications, processes and technology will be off-site. Thus,... it is likely that external IT providers will form part of [a] future service delivery package... However, as is so often the case in the IT industry, today’s reality falls far short of what the industry promises. Companies wishing to take advantage now of what the external IT services marketplace can offer must evaluate [it] carefully and ...proceed in full awareness of the risks involved. It is recommended that organizations articulate a sourcing strategy which balances internal versus external capabilities.” [McKeen et al., 2002]

To explore how IT sourcing is changing and becoming more global and how the role of IT is evolving with it, the authors convened a focus group of senior IT managers from a variety of companies across a broad spectrum of industries. This paper first explores how sourcing strategy is evolving in organizations (Section II). Then, it looks at emerging sourcing models, with particular emphasis on offshore/nearshore outsourcing (Section III). Next, it discusses some new critical success factors for effective sourcing (Section IV). Finally, it examines how the role of IT itself is changing as a result (Section V).

II. THE EVOLUTION OF SOURCING

Since the late 1980s, the concept of outsourcing IT services, that is, transferring some or all of a company’s IT activities to a third party, which performs them on behalf of the enterprise, has been a significant factor in IT decision-making [Lacity & Willcocks, 2001]. Globally, the outsourcing industry was estimated to be over \$1 trillion in 2000 [Kern et al., 2002]. It is growing steadily as companies explore new possible sourcing models and outsourcing companies become better at what they do and expand the range of their services. At first, sourcing decisions were driven largely by economics, with outsourcers promising to take millions of dollars out of a firm’s IT budget. However, today they reflect a significant shift in business strategy from diversification to a focus on core competencies. In turn, evolving sourcing models are transforming the underlying economics of IT [Lacity and Willcocks, 2001, McKeen et al., 2002].

As our understanding of sourcing developed, three distinct yet complementary, approaches became clear:

1. Outsourcing for operational efficiency
2. Outsourcing for tactical support
3. Outsourcing for strategic impact.

OUTSOURCING FOR OPERATIONAL EFFICIENCY

This approach to sourcing is the most well-established, dating from the late 1980s, and is still by far the most common one [Lacity and Willcocks, 2001]. Here, the “utility” functions of IT (e.g., computer operations, communications, infrastructure, help desk) are transferred to an outsourcer, often along with company staff. The objective is to save money by sharing staff and resources with other companies in areas that do not make the company distinct and which were routinized [Carr, 2003]. Outsourcing companies are typically autonomous entities that use their extensive experience in these areas, economies of scale, and the discipline of a contractual relationship to reduce cost to a company and generate a profit. Many organizations found that outsourcing to businesses that specialize in these services allow them to offer the same or better service at a reduced cost. Over time, sourcing for operational efficiency became increasingly successful as companies learned how to write good contracts and make outsourcing work.

OUTSOURCING FOR TACTICAL SUPPORT

In about the mid-1990s, companies recognized that outsourcing could be used to help free up their own IT staff to perform selected support and development work and eliminate some of the peaks and valleys of the IT staffing cycle.

“We are under continual pressure to reduce the cost of our existing applications, We spend 85% of our development budget on maintenance and support.” A Focus Group Manager.

Facing the dual challenges of Y2K and the dot-com bubble, and the resulting staff shortages they caused, many businesses began to use outsourcing in new ways. They offloaded their mature IT to an outsourcer who could “keep the lights on”, while company staff introduced new applications. They also used outsourcers as a way to introduce new technologies quickly (e.g., e-business) through such practices as managed hosting of a web-site and using the outsourcer’s staff to transfer their experience and skills to in-house staff. With this approach to sourcing, IT managers seek to add rapidly to their capacity to deliver applications and new technology to their organization [Lacity and Willcocks, 2001] While cost is still important, the primary driver for using tactical outsourcing is to achieve flexibility and responsiveness. As tactical outsourcing developed, contracts became more flexible and outsourcers are now viewed increasingly as partners who can add other forms of value rather than simply reducing cost.

OUTSOURCING FOR STRATEGIC IMPACT

The beginning of the new century saw a growing recognition that sourcing can be a tool for achieving an organization’s strategic objectives in addition to driving costs down and adding capacity. As companies became more focused on their core competencies, new possibilities for sourcing opened up. With greater connectivity, it is now possible to outsource whole business processes that are not considered business critical. Non-core applications, such as accounting, can languish in-house because they cannot justify the same business value as other projects, explained the focus group managers. By outsourcing these processes, companies can get full functionality without needing to develop the applications themselves.

Some organizations are using outsourcing to drive organizational change.

“Today, we consider outsourcing at a higher level. We look at sourcing holistically. While you still need to outsource routine activities, you also need to look at it from the top down. Sourcing shouldn’t be an ad hoc process.” A Focus Group Manager.

Companies are seeing that outsourcing can give them access to world class capabilities, disciplines, quality, and innovation. To this end, some firms established strategic alliances with a few vendors to take advantage of what they can offer. These preferred relationships are typically

broad in scope and complex in nature and are designed to deliver significant business value [Smith and McKeen, 2003].

“Our supplier alliances are now part of getting any project approved. We must present the full continuum of sourcing options in any business case.” A Focus Group Manager.

Finally, organizations are learning that “right-sourcing” can change with time. Certain functions that were outsourced can become business critical, while others that were deemed core can now be outsourced.

“In our company, we are constantly testing what should be outsourced. The business has to be fully engaged in the process so they understand the implications.” A Focus Group Manager

While strategic sourcing is a trend, it is a recent one. Companies have little experience doing it. The focus group therefore suggested moving carefully into strategic sourcing until more is known about how to accomplish it successfully. Members also cautioned that customers should watch for hidden costs at this level (e.g., the need for integration by the customer) that can be quite expensive and could kill a business case for this type of sourcing.

Each of these three approaches to sourcing represents an increase in the size, scope, and impact of what is sourced. Table 1 summarizes these approaches. It should be stressed that no one precludes another. Companies tend to begin outsourcing for operational efficiency and move towards tactical and strategic approaches as they gain experience and confidence at each level.

Table 1. Three Cumulative Approaches to IT Sourcing

Approach	Driver	Mode	Activities	Relationship
Operational Effectiveness	Cost reduction	Utility	Infrastructure, operations, support	Fee-for-service
Tactical Support	Capacity, flexibility	Service delivery	Mature technology, New technology	Partnership
Strategic Impact	Focus, business value	Tool kit	Processes, transformation, innovation	Strategic alliance

Companies are now quite good at basic utility, fee-for-service sourcing. In fact, by far the largest majority of sourcing is of this type [Lacity and Willcocks, 2001]. All of the companies in the focus group were involved in some sourcing initiatives to improve operational efficiency, although none completely outsourced their services even at this level. Overall, studies show that about 38% of IT functions were outsourced to vendors by 2000 [Barthelemy, 2001]

Research identified five factors that are needed for successful outsourcing initiatives:

- **Use selective sourcing.** Careful selection of what to outsource and what to retain in-house is a demonstrably more effective approach than total outsourcing or total insourcing. Companies find it more controllable, more satisfactory, and considerably less risky [Chen et al., 2002].
- **Joint business-IT sponsorship.** When both business and IT executives are involved in making outsourcing decisions, the results are far more likely to meet expectations than when either group acts alone [Lacity and Willcocks, 2001].

- **Ensure a thorough comparison with internal operations.** Too often companies don't achieve expected savings because they forget to include or identify the hidden costs involved in outsourcing [Overby, 2003b].
- **Develop a detailed contract.** Focus group members strongly agreed that tighter contracts, with carefully thought-out flexibility, evolution and reversibility clauses leads to more successful sourcing [Barthelemy, 2001].
- **Limit the length of the contract.** Short-term contracts (1-3 years) are more likely to be successful than mid or long-term contracts because they involve less uncertainty, motivate supplier performance, help ensure a fair market price for services, and enable recovery from mistakes more quickly [Lacity and Willcocks, 2001].

In spite of all that has been learned, between 14% and 78% of outsourcing deals are deemed failures [Barthelemy, 2001; Overby, 2003b] and re-insourcing is becoming more and more common [Overby, 2003b]. A major reason for this huge discrepancy in success rates is that companies are experimenting with increasingly more radical options to extend outsourcing models, thereby moving into areas of higher risk [McKeen et al., 2002].

III. OFFSHORE AND NEARSHORE OUTSOURCING: EMERGING SOURCING MODELS

In addition to outsourcing larger and more complex chunks of work, e.g., innovation, business processes, and developing more complex relationships with vendors (i.e., strategic outsourcing), companies are working with vendors at increasingly greater distances, typically in other countries. Known as offshore outsourcing, the primary driver for this new sourcing model and its many variations is economic [Aron, 2003; Kripalani and Engardio, 2003]. The increasing globalization of large companies and the need for global processes is also a factor [Chen et al., 2002]. Vendors located in other countries, such as India, can charge a fraction of what it costs to provide the same service in the United States. Facilitated by ever-greater connectivity; ubiquitous, cheap bandwidth; and web technologies, companies can afford to knit together people, processes, and platforms in different ways than were possible previously [Aron, 2003]. Although offshore outsourcing is relatively new, Forrester Research found that 44% of Fortune 1000 companies are outsourcing some activities in this way (cited in [Blackwell, 2003]).

We know considerably less about how offshore outsourcing fits into a company's overall outsourcing strategy and very little about how to make it successful [Chen et al., 2002]. However, global outsourcing represents a significant shift in how organizations manage their IT activities [Elmuti and Kathawala, 2000]. Therefore, the managers in the focus group were approaching it cautiously and building on what they had learned about other forms of outsourcing.

"There is certainly a lot of hype about offshore outsourcing, but we're still skeptical about its benefits. We had a bad experience 10 years ago. The level of professionalism and understanding just wasn't there, so it didn't work." A Focus Group Member

Nevertheless, the cost differentials and the "hype" are forcing all the members of the focus group to look seriously at offshore as part of a future sourcing strategy.

OFFSHORE OUTSOURCING BENEFITS

There is no question that it is cheaper to do IT work outside of the United States. Even doing work in Canada can be a reduced cost for many US-based firms. However the big savings come from sending work to third world countries where salaries are 40-60% lower than in North

America. Most of these countries offer significant numbers of well-trained staff¹ and considerable tax breaks. As a result, even with additional travel and connectivity charges, companies are expecting to save 20-40% on costs such as managing infrastructure or operating a help desk [Bhandari, 2003]. The differentials are so significant, the increased competition is also driving down the rates of traditional North American outsourcing vendors [Blackwell, 2003]. These vendors are setting up centres in India so that they can compete more effectively [Kripalani and Engardio, 2003].

Typical activities that are being sourced offshore include [Chordas, 2003].:

help desk	personal computer repair	disaster recovery
back office processes	application maintenance	network management and operations
application and IT support	problem resolution	

Many companies feel quite comfortable in outsourcing these relatively routine and straightforward utility types of functions. In moving these functions offshore, they are limiting risk while taking advantage of the resulting cost benefits. However, many offshore outsourcers, especially in India, seek to scale up the types of activities in which they are involved. Quality standards in India for example, are often higher than in North America [Blackwell, 2003]. In many cases, Indian companies provide better software and risk management processes and were among the first in the world to achieve the highest SEI CMM rating of five [Satyam, 2003]. These firms seek a larger presence in the high end software development and consulting areas of the market (i.e., tactical and strategic outsourcing). Big vendors, such as Oracle, Accenture and Microsoft are also establishing partnerships and software development centres in India to take advantage not only of the cost savings involved, but also of the skills available [Blackwell, 2003].

OFFSHORE OUTSOURCING LOCATIONS

While 85% of offshore outsourcing work currently goes to India, several other countries are looking to increase their share of this work. China, Russia and the Philippines are the most serious competition, although they were far behind India at the end of 2002 [Overby, 2003a]. Canada is also involved in this market because of its proximity to the United States, even though it is more expensive than other offshore vendors. Ireland, Israel, Mexico and South Africa are positioning themselves in this market. Forrester Research predicts that by 2015 about 3.3 million jobs will have moved offshore – 70% to India, 20% to the Philippines, and 10% to China (cited in [Chordas, 2003]).

While all of these countries offer reduced or substantially lower costs, they are not considered equal in other important characteristics, which should be considered before a company makes a significant outsourcing decision. These factors include:

language	political stability	education
cultural similarities	quality	infrastructure
time differentials	project management skills	

¹ The number of IT engineers in Bangalore alone is greater than in Silicon Valley (Kripalani and Engardio, 2003).

Table 2 summarizes these factors for the five main countries involved in offshore sourcing with the United States.

Table 2. A Comparison of Offshore Outsourcing Nations

Country	Language	Cultural Similarities	Time Differential	Political Stability	Project Management Skills	Education	Infra-structure
Canada	English	Many	None	Excellent	Very good	Excellent	Excellent
India	Good English	Some	Large	Good	Excellent	Excellent	Improving
China	Limited English	Few	Large	Good	Unknown	Good	Good
Philippines	Good English	Some	Large	Good	Unknown	Good	Very good
Russia	Limited English	Few	Large	Fair	Poor	Good	Unknown

(Sources: [Overby 2003a, Gallagher 2002, Chordas, 2003, Damsell, 2003])

OFFSHORE OUTSOURCING RISKS

As Table 2 shows, offshore outsourcing involves considering a number of factors, such as language and political stability, that were not traditionally part of outsourcing decision-making. Comments from some of the focus group managers illustrate some of the risks involved clearly.

"We outsourced a call centre to India and then brought it back. There were problems with the time to transfer calls, language, and spelling. The accents weren't bad but there was often poor understanding on the phone."

"We outsourced project management and then lost all their interfaces with the users when they left. Now, we have 100% internal project management."

"We outsourced our help desk. It was brutal. We had the mix wrong. We needed more decomposition of activities and a more granular understanding of what we were doing."

Focus group members and others documented a number of additional risks that must be addressed as part of the offshore outsourcing decision-making process:

- **Transaction costs.** These costs include the cost of finding a vendor, drafting the contract and managing the effort, as well as the cost of transitioning to a new vendor if the first doesn't work out. Monitoring, bargaining, and negotiating needed changes to a contract typically add up to about 8% of the yearly contract amount [Barthelemy, 2001]. Travel and visa costs are also often substantial [Blackwell, 2003]. As a result, many companies are finding they are not achieving the savings they anticipated [Elmuti and Kathawala, 2000].
- **Reduced control.** While outsourcing in general reduces an organization's control over how its services are delivered, offshore sourcing can greatly increase these risks because the vendors operate in substantially different business environments. A company may therefore experience greater liability exposure and face problems with such issues as confidentiality, security, and time schedules [Elmuti and Kathawala, 2000].

- **Legal and political uncertainties.** Working in other countries means dealing with a wide variety of unfamiliar government regulations and restrictions, legal systems that may be unable to cope with the types of disputes that may arise between companies or between companies and the government, and weak intellectual property rights [Overby, 2003b]. Furthermore, governments in third world countries may be considerably less secure than in North America or Europe. India lost work due to the instabilities in that part of the world following the attacks of September 11, 2001.
- **Cultural differences.** Different cultural backgrounds can cause numerous difficulties. In addition to language problems, such matters as the pace of daily life, employees' relationship to authority, attitudes to security, and adherence to socialist principles, can lead to misunderstandings that can be daunting [Overby, 2003b].
- **Social justice.** Focus group members were very aware of the "optics" of offshore outsourcing. "Public perceptions are important to us," stated one. Another member noted that his company has a labour code of conduct and a risk rating for different countries that assesses their labour practices and other dimensions of risk. Government organizations in particular are especially sensitive to the issues of moving jobs out of the country. For example, a public outcry forced the state of Indiana to cancel a \$15 million dollar contract with a firm in India [Kripalani and Engardio, 2003].

VARIATIONS IN OFFSHORE OUTSOURCING MODELS

Some of these risks and concerns are forcing vendors and companies to rethink the basic offshore outsourcing model. Some are distinguishing between offshore and "near shore" sourcing. Not only are some US vendors setting up sourcing centres in Canada, but some Indian firms are doing so as well. For example, Satyam Computer Services opened a development centre in Toronto. It believes this action will ensure that Canadian and US firms can "deal with a company that's always close to home, close to their unique needs" [Satyam, 2003]. While much work can actually be completed in India, having relationship managers and business analysis in closer proximity to their customers provides additional security and mitigates many of the risks mentioned above.

Other companies are looking at near-shore opportunities in lower cost areas of their own country. One Canadian firm in the focus group is using near-shore sourcing to move development work to New Brunswick. Several native American Indian reservations are now in the sourcing business.. They argue that they can offer the same low cost, high value work that is done offshore but without the headaches of language barriers, remote management, or security concerns [Field, 2002]. These options are particularly attractive for sensitive legal and government work that should not be sent overseas.

Other focus group members find they can obtain many of the benefits of offshore sourcing by working with a major vendor who will undertake to manage the offshore work and relationships.

"You can have global options if you pick your vendor carefully," said one. "We triage our projects with our partner to find the best sourcing choice possible."

The group pointed out that sourcing today is actually a continuum of practices that can be "sliced and diced many different ways", depending on the needs of the company and the particular activity involved. They stressed that partnerships with key vendors are especially important in these situations so that they can optimize the blend of internal and external staff appropriately. "You shouldn't go with a one-off project offshore," one manager explained, but rather with a carefully-designed strategy that enables experimentation with different sourcing models and which includes the ability to reverse a sourcing decision if it doesn't work out.

IV. SUCCESSFUL SOURCING

As sourcing evolved and new models emerged, organizations learned more about what makes it successful. Although some critical success factors are well-established (Section III), others are just becoming apparent or became more important as sourcing became a more central part of IT and organizational strategy. The focus group identified several other factors that are essential to successful sourcing.

SOURCING STRATEGY

Whether a company uses sourcing strategically or not, every organization should have an overall sourcing strategy. This strategy helps it determine what to source, where to source and to whom to source. The experts suggest many different ways of determining what to source – what's core and what's not; what contributes to business knowledge-intensive; entry-level functions [Lacity and Willcocks, 2001; Aron, 2003; Barthelemy, 2001]. Focus group members felt there were numerous possible approaches to "right-sourcing" and that what is right for one organization might not be right for another. They stressed that companies must first understand their business drivers and strategy in depth before developing a value; maturity of technology; activities that are routine and less knowledge intensive functions; and what are entry-level functions [Lacity and Willcocks, 2001; Aron, 2003; Barthelemy, 2001]. Then, IT managers must have a detailed understanding of their functions, processes and the overall IT portfolio. Without this knowledge, it is possible that too much or too little could be outsourced, leading to significant problems. Then, they should apply their particular sourcing criteria to IT activities (see Sidebar 1) and determine which parts of IT can be sourced successfully. The focus group also pointed out that sourcing strategy must be continually tested and re-evaluated as an industry, business strategy, and sourcing possibilities change.

<p style="text-align: center;">SIDEBAR 1 SAMPLE SOURCING CRITERIA</p> <p>What are our industry dynamics and where are we in the food chain?</p> <p>What are we good at?</p> <p>What do we want to be good at?</p> <p>What should we be good at?</p> <p>Do we want to invest in this?</p> <p>How many vendors do we want to deal with?</p>

RISK MANAGEMENT/MITIGATION

Almost every focus group member reported a sourcing "war story" where activities had to be resourced to a different vendor, re-insourced, or contracts renegotiated because of problems. Sourcing introduces new levels of risk to the organization. Loss of control, security and privacy problems, poor quality work, hidden costs, lack of standards, unmet expectations, and bad publicity are just some of the problems they experienced. When moving into new forms of sourcing, it is therefore important to incorporate risk management and mitigation into every aspect of sourcing.

1. Detailed planning is essential. Precise definitions of roles, responsibilities, and expectations must be developed. Specialists in outsourcing are now available to provide advice on how to select a vendor and plan the work involved. They can assist, but not replace, the IT sourcing team in understanding how to assess and engage a vendor. This understanding is especially important when considering offshore sourcing because of the additional complexities involved.
2. Monitoring and an audit trail must be incorporated into the contract to encourage both self-correction and ensure all parties live up to their commitments.
3. All potential risks should be rated both as to the likelihood of occurrence and to their impact if they do occur [Aubert et al., 2001]. Appropriate steps should be explicitly taken to reduce and/or manage these risks.

4, An exit strategy must be devised. “Any well-designed sourcing strategy must retain alternatives to pull activities back in-house” explained one manager.

5. Focus group members recommended caution when moving into new avenues of sourcing. They noted that the “hype” in the popular press and from vendors often greatly inflates the benefits that can be achieved while minimizing the risks. Therefore, they recommended experimenting with a “simple, substantial pilot” before committing the company to a substantial new outsourcing initiative.

GOVERNANCE

“With any sourcing initiative, governance must be super-good,” said a focus group manager. Most IT functions now recognize the importance of relationship management at the front line, middle, and senior management levels in delivering value. Nevertheless, it cannot be underestimated.

“When the relationship between the client and its vendor is adversarial, the vendor will take advantage of gaps in the agreement. When there is mutual trust, vendors often work hard to deal fairly with the gaps.” [Barthelemy, 2003].

“Layers of governance are critical to successful sourcing relationships,” said a focus group manager. Members also suggested retaining strong internal project management and ensuring that vendors are also skilled in project management. “You can’t outsource project management or the relationship with the customer,” they agreed.

Governance problems are exacerbated when offshore sourcing is undertaken because of the difficulties of managing relationships at a distance [Chordas, 2003]. The time and distance problem is one reason why the larger offshore vendors are setting up local development centres. At minimum, an offshore outsourcer should name an internal manager who will act as the organization’s champion and be responsible for quality. Ideally, an outsourcing relationship should be structured to ensure shared risk so that both parties are incented to make it work [Garr, 2001].

COST STRUCTURES

One of the most important elements of successful sourcing, the focus group stressed, is complete understanding of the cost structures involved. Previously, vendors profited from their ability to squeeze value from outsourced activities because their appreciation of their costs was better and more detailed. Furthermore, they were able to apply disciplines and service level agreements to their work, that IT organizations were often prohibited from doing [Lacity and Willcocks, 2001]. This situation is changing. Companies now apply the same standards to their own work, enabling them to make more appropriate comparisons between the costs of doing an activity in-house and outsourcing it. They also understand the true costs of outsourcing better, including relationship management and contract management, which were frequently underestimated in the past.

“We need to thoroughly understand our economic model. Vendors have the advantage of knowing best practices and economies of scale, but they are at a disadvantage from a profit and knowledge point of view. If we can’t compete in-house, we should outsource.” A Focus Group Member.

Many of the companies in the focus group believe they can compare favourably in many areas with outsourcing vendors. Ongoing cost comparisons are ideal, according to researchers, since they motivate both parties to do their best and most cost effective work [Lacity and Willcocks, 2001]. The reduced cost of labour is simply one element of the outsourcing value proposition according to the focus group.

“We must learn to understand and track every cost involved. There are new governance costs, privacy, legal, and regulatory costs and other hidden costs that have to be articulated and monitored.” An IT Manager.

The need understand the total cost of ownership of each IT activity to better is forcing managers to become considerably more aware of the financial implications of their decisions and develop a whole new set of skills as a result.

IV. THE CHANGING ROLE OF IT

The growth of sourcing over the last decade led to a number of new roles for IT managers and changed the relative importance of key IT skills. As lower level IT activities are outsourced, what is increasingly left behind is the high value-added work that only knowledgeable, in-house IT practitioners can provide. *“The development skills we need these days are not coding, but integration, business analysis and project management. We need to hone these skills to do the jobs that are difficult to outsource.”* A Focus Group Manager.

While important pieces of development can be done offsite, it is still IT’s job to put all the pieces together and make technology work for the enterprise. In short, organizations need to improve their solution delivery skills -- by no means a straightforward or simple task.

Systems thinking skills are also becoming increasingly critical. They are fundamental to the detailed decomposition of tasks, which is the first step in better understanding both cost structures and the relative strategic importance of each task. IT organizations also need more formal processes and decision-making frameworks within which to tackle the key sourcing questions of what to outsource and how it should be done. These processes and frameworks should include the parts of the business that will be affected by outsourcing and involve both tactical and strategic discussions with business management.

Emerging sourcing models will also need to be incorporated into the organization’s technology plans and its business strategies. IT architectures must be designed for greater connectivity and collaboration across organizational boundaries. They should anticipate a wide variety of possible options in how the company’s processes and transactions will be undertaken.

Finally, IT organizations are recognizing that they need new management skills, governance structures, and organizational processes to make outsourcing work effectively. At several focus group companies a “supplier relationship management” function at a mid to senior level is responsible for ensuring their outsourcing arrangements are working well. Similarly, they are learning how to develop effective sourcing contracts and monitor them, both for supplier compliance and for internal satisfaction [Smith and McKeen, 2003]. In the future, they will also need skills to analyze the external sourcing marketplace and their industry better to select the most appropriate options for their organization.

V. CONCLUSION

Sourcing is an integral part of almost all IT organizations.. Originally a straightforward mechanism for reducing operational costs, it is rapidly evolving into a strategically important means of delivering optimal IT value. Companies and vendors are experimenting with new models of sourcing, only some of which will be sustainable. Increasingly, it is IT management’s

SIDEBAR 2 NEW IT ROLES AND RESPONSIBILITIES

- ✓ Solution delivery
- ✓ Task decomposition
- ✓ Task costing analysis
- ✓ Right sourcing decision-making
- ✓ Architecting for collaboration and connectivity
- ✓ Supplier relationship management
- ✓ Contract management and monitoring
- ✓ Sourcing marketplace analysis.

job to guide the organization in making the best sourcing decisions possible and then to ensure that it is obtaining the anticipated value from its vendor relationship(s). This responsibility involves developing new IT skills that incorporate an understanding of technology with strong business knowledge and analytic capabilities. As a result, while sourcing is changing the nature of the work that is done internally in IT, it is unlikely that it will eliminate this function altogether or reduce the its value to that of a utility, as has suggested by some [e.g., Carr, 2003]. To the contrary, more and more organizations will need the systems thinking, architectural understanding and strategic awareness embodied in a modern IT department to ensure that they don't end up with a hollow shell of an organization which provides limited added value to the marketplace.

REFERENCES

- Aron, R. (2003) "Sourcing in the Right Light", *Optimize*, June, p. 26-34.
- Aubert, B., M. Patry, S. Rivard, and H.A Smith,(2001) "IT Outsourcing Risk Management at British Petroleum", *Proceedings of the 34th Hawaii Conference on System Sciences*, Maui, Hawaii, January 5-8.
- Barthelemy, J. (2001) "The Hidden Costs of IT Outsourcing", *Sloan Management Review*, (42) 3, Spring, pp. 60-69.
- Bhandari, A.(2003) "'Near-shoring' India's IT Companies", *Toronto Star*, June 2.
- Blackwell, G.(2003)"Sending It Offshore", *Edge*, (2)2, February .
- Carr, N. (2003), "IT Doesn't Matter", *Harvard Business Review*, (81)5, May.
- Chen, Q., Q. Tu and B. Lin (2002) "Global IT/IS Outsourcing: Expectations, Considerations and Implications", *Advances in Competitiveness Research* (10)1, pp. 100-111.
- Chordas, L. (2003)"Eyes on India", *Best's Review*, (104)1, May, pp.98-103.
- Damsell, K. (2003)"Offshore Outsourcing Seen Reshaping the Tech Sector", *The Globe and Mail*, November 11, p. B7.
- Elmuti, D and Y. Kathawala (2000) "The Effects of Global Outsourcing Strategies on Participants' Attitudes and Organizational Effectiveness", *International Journal of Manpower* (21,2), pp.112-128.
- Field, T. (2002)."How to Get In and Out of an Outsourcing Deal", *CIO*, (15)6, Jan 1, pp. 85-86.
- Garr, D.(2001) "Inside Outsourcing", *Fortune: Technology Review*,(143)13, Summer, pp. 85-92.
- Lacity, M. and L. Willcocks (2001). *Global Information Technology Outsourcing: In Search of Business Advantage*, Chicester, UK: John Wiley & Sons.
- Kern, T., M. Lacity and L. Willcocks (2002). *Netsourcing: Renting Business Applications and Services over a Network*, Upper Saddle River, NJ: Financial Times Prentice Hall.
- Kripalani, M. and P. Engardio (2003), "The Rise of India", *BusinessWeek*, December 8..
- Mackie, A. (2002) "Outsourcing Outlook", *Computer Dealer News*, (18)19 October 18.
- McKeen, J. and H. Smith (2003) *Making IT Happen: Critical Issues in IT Management*, Chicester, UK: John Wiley & Sons.
- McKeen, J., H. Smith and N. Joglekar. (2002) "Developments in Practice V: IT Sourcing: Build, Buy, or Market", *Communications of the Association for Information Systems* (9)8.
- Overby, S. (2003a) "Passages Beyond India", *CIO*, (16)6 January 1, pp. 60-61.
- Overby, S. (2003b) "Bringing IT Back Home", *CIO* (16)10, March 1, pp. 54-56.
- Satyam Computer Services Limited (2003) Internal Company Document, Secunderabad, India

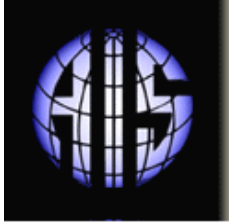
Smith, H. and J. McKeen (2003), "Strategic Sourcing at the Bank of Montreal", *CIO Brief*, (9)2, 2003, Kingston, Canada: School of Business, Queen's University

ABOUT THE AUTHORS

James D. McKeen is Professor of MIS at the School of Business, Queen's University at Kingston, Canada and is the Director of the Queen's Centre for Knowledge-Based Enterprises. He received his Ph.D. in Business Administration from the University of Minnesota. His research interests include IT strategy, user participation, the management of IT, and knowledge management in organizations. His research is published in a variety of journals including the *MIS Quarterly*, *JITM*, *CAIS*, the *Journal of Systems and Software*, the *International Journal of Management Reviews*, *Information & Management*, *CACM*, *Computers and Education*, *OMEGA*, *Canadian Journal of Administrative Sciences*, *JMIS*, *KM Review*, and *Database*. He currently serves on the Editorial Board of the *Journal of End User Computing* and was the MIS area editor for the *Canadian Journal of Administrative Sciences* for seven years. Jim and Heather Smith's most recent book: *Making IT Happen: Critical Issues in IT Management* was published in January 2003 by Wiley.

Heather A. Smith is Senior Research Associate with Queen's University School of Business, specializing in IT management issues. A former senior IT manager, she is a founder and co-director (with James McKeen) of the IT Management Forum, the *CIO Brief*, and the *KM Forum*, which facilitate inter-organizational learning among senior executives, and co-author (with James McKeen) of *Management Challenges in IS: Successful Strategies and Appropriate Action* (1996). She is also a Research Associate with the Lac Carling Conference on E-Government, the Society for Information Management, and Chair of the IT Excellence Awards University Advisory Council. Her research is published in a variety of journals and books including *CAIS*, *JITM*, *Information and Management*, *Database*, *CIO Canada*, and the *CIO Governments Review*. Her book, *Making IT Happen: Critical Issues in IT Management* with James McKeen was published by Wiley in January 2003 and she is co-author of a new book, *Information Technology and Organizational Transformation: Solving the Management Puzzle* published by Butterworth-Heinemann.

Copyright © 2004 by the Association for Information Systems. Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and full citation on the first page. Copyright for components of this work owned by others than the Association for Information Systems must be honored. Abstracting with credit is permitted. To copy otherwise, to republish, to post on servers, or to redistribute to lists requires prior specific permission and/or fee. Request permission to publish from: AIS Administrative Office, P.O. Box 2712 Atlanta, GA, 30301-2712 Attn: Reprints or via e-mail from ais@gsu.edu



Communications of the Association for Information Systems

ISSN: 1529-3181

EDITOR-IN-CHIEF

Paul Gray

Claremont Graduate University

AIS SENIOR EDITORIAL BOARD

Detmar Straub Vice President Publications Georgia State University	Paul Gray Editor, CAIS Claremont Graduate University	Sirkka Jarvenpaa Editor, JAIS University of Texas at Austin
Edward A. Stohr Editor-at-Large Stevens Inst. of Technology	Blake Ives Editor, Electronic Publications University of Houston	Reagan Ramsower Editor, ISWorld Net Baylor University

CAIS ADVISORY BOARD

Gordon Davis University of Minnesota	Ken Kraemer Univ. of Calif. at Irvine	M.Lynne Markus Bentley College	Richard Mason Southern Methodist Univ.
Jay Nunamaker University of Arizona	Henk Sol Delft University	Ralph Sprague University of Hawaii	Hugh J. Watson University of Georgia

CAIS SENIOR EDITORS

Steve Alter U. of San Francisco	Chris Holland Manchester Bus. School	Jaak Jurison Fordham University	Jerry Luftman Stevens Inst. of Technology
------------------------------------	---	------------------------------------	--

CAIS EDITORIAL BOARD

Tung Bui University of Hawaii	Fred Davis U. of Arkansas, Fayetteville	Candace Deans University of Richmond	Donna Dufner U. of Nebraska -Omaha
Omar El Sawy Univ. of Southern Calif.	Ali Farhoomand University of Hong Kong	Jane Fedorowicz Bentley College	Brent Gallupe Queens University
Robert L. Glass Computing Trends	Sy Goodman Ga. Inst. of Technology	Joze Gricar University of Maribor	Ake Gronlund University of Umea,
Ruth Guthrie California State Univ.	Alan Hevner Univ. of South Florida	Juhani Iivari Univ. of Oulu	Munir Mandviwalla Temple University
Sal March Vanderbilt University	Don McCubbrey University of Denver	Emmanuel Monod University of Nantes	John Mooney Pepperdine University
Michael Myers University of Auckland	Seev Neumann Tel Aviv University	Dan Power University of No. Iowa	Ram Ramesh SUNY-Buffalo
Maung Sein Agder University College,	Carol Saunders Univ. of Central Florida	Peter Seddon University of Melbourne	Thompson Teo National U. of Singapore
Doug Vogel City Univ. of Hong Kong	Rolf Wigand U. of Arkansas, Little Rock	Upkar Varshney Georgia State Univ.	Vance Wilson U. Wisconsin, Milwaukee
Peter Wolcott Univ. of Nebraska-Omaha			

DEPARTMENTS

Global Diffusion of the Internet. Editors: Peter Wolcott and Sy Goodman	Information Technology and Systems. Editors: Alan Hevner and Sal March
Papers in French Editor: Emmanuel Monod	Information Systems and Healthcare Editor: Vance Wilson

ADMINISTRATIVE PERSONNEL

Eph McLean AIS, Executive Director Georgia State University	Samantha Spears Subscriptions Manager Georgia State University	Reagan Ramsower Publisher, CAIS Baylor University
---	--	---