

December 2002

OUTSOURCING INFORMATION SYSTEMS: AN ALTERNATIVE FOR LOCAL GOVERNMENT

Christine Alexander
Southern Illinois University, Carbondale

Follow this and additional works at: <http://aisel.aisnet.org/amcis2002>

Recommended Citation

Alexander, Christine, "OUTSOURCING INFORMATION SYSTEMS: AN ALTERNATIVE FOR LOCAL GOVERNMENT" (2002). *AMCIS 2002 Proceedings*. 290.
<http://aisel.aisnet.org/amcis2002/290>

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in AMCIS 2002 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

OUTSOURCING INFORMATION SYSTEMS: AN ALTERNATIVE FOR LOCAL GOVERNMENT

Christine Alexander

Southern Illinois University, Carbondale
alxndrc@siu.edu

Abstract

In the current era of high-tech computer systems and rapidly changing technology, many organizations are finding it difficult to keep pace. To meet the myriad technological challenges facing them, many organizations are turning to outsourcing to find economic relief, access to world class technology, and help with integrating new technology with existing systems. Local government agencies are no exception. This paper explores the pros and cons of outsourcing, examines the idea of IS as a value center rather than a cost center, and offers an alternative to outsourcing for local government.

Keywords: Outsourcing; local government; value center

Introduction

The past decade has seen phenomenal growth in outsourcing, particularly in outsourcing of information technology (IT) and information systems (IS). From 1996 to 2000 the outsourcing market has grown from \$100 billion to \$345 billion (Lackow, 2001). This paper will look at outsourcing options for IS/IT functions, focusing specifically on local government (city and county) organizations.

Local government organizations differ from other non-profit service sector organizations. They are often mandated to provide certain services to the tax-paying public. In addition, they usually have no competition for providing those services. In this age of high-tech computer systems and demand for accurate and current information, local government, like most business organizations, faces the challenge of providing more information more quickly, integrating systems, implementing new technology and reducing the cost of providing these services (Norris and Kraemer, 1994). These demands are often imposed in order to help an organization operate in a more effective and efficient manner. There may also be competitive pressures which compel an organization to seek new technologies or new uses for old technologies (Krumwiede and Gatian, 1995).

This paper will look at IS/IT functions of local government and explore the pros and cons of outsourcing as a solution for meeting these demands. It will examine the idea of IS as a value center rather than a cost center. It will also propose an alternative to the outsourcing solution. The remainder of this paper is structured as follows. First, an overview of outsourcing will be presented. Then, a look at outsourcing in government will be presented. This will be followed by a discussion of the IS value center and a look at an alternative to the outsourcing solution. Finally, some areas for future research will be proposed.

Outsourcing IS/IT

Technology is changing so rapidly in recent years that it defies an organization to retain expert personnel in all of the various segments of IS such as networks, distributed processing, client servers, Inter/intranet and systems development tools to name a few (Yesulatitis, 1997). Many companies have turned to outsourcing to save money, obtain access to world-class capabilities or to share the risk of new technology development (National Commission For Employment Policy, 1988; Lacity and Hirschheim, 1993).

IS has come to be looked at as a utility function. As such, it is treated as a cost center, a place to cut when budgets need trimmed (Lacity and Hirschheim, 1993). There is a general perception that in-house staff are incapable of bringing about effective and efficient management of IS resources. However, some current research shows that this is not the case. Internal IS staff have been shown to be able to identify and change certain aspects of their job so that they can provide better service to their users. This is seen in Lacity's research at Westchester County (Lacity Willcocks, 1997) and in the development of COMPIS (the City of Mobile Police Information System) in Mobile Alabama (Nelson, 1996).

The Evolution of IS/IT Outsourcing

Over the years, outsourcing of IS has undergone an evolution of sorts. In the early 1980's, outsourcing of IS was characterized by long-term contracts covering complete outsourcing of data center operations (Lacity and Hirschheim, 1993). There were a limited number of major players, IBM, CSC, EDS and Andersen Consulting, that were able to provide this type of "full service". These relationships were undertaken primarily for cost-cutting reasons (McFarlan and Nolan, 1995). A vendor could provide IS services cheaper than the internal IS group. The organization felt it would no longer need to worry about IS.

Subsequently, organizations became more discerning in their outsourcing decisions. Commodity type IS functions such as systems maintenance and help desk became candidates for outsourcing while those functions related to the firm's core competencies, new system development for example, were retained in-house (Lackow, 2001; Lacity and Hirschheim, 1993). Contracts were still long-term, there were few major service providers to choose from, and expectations were for cost reductions in those areas that were outsourced.

The current literature on outsourcing proposes that outsourcing be undertaken to achieve a specific goal, be short-term (usually less than three years in duration), and contain detailed service level expectations, provide for renegotiation, and lay out procedures for contract termination (Lackow, 2001; Lacity et al, 1995, 1996). While most firms hope to gain some economic benefit vis-à-vis reduced costs, there are other benefits to be gained. These include access to leading edge technology and shared risk of new development that employs leading edge technology (Lackow, 2001; O'Looney, 1998). While there are still a limited number of major service providers, using smaller firms that specialize in a particular area is now a viable alternative (Schwartz, 1997; Scrupski, 1994).

IS Outsourcing Failures

There are a number of reasons that outsourcing ventures are deemed failures. Primary among these is that expected cost reductions never materialize (Lacity et al, 1995; Saunders et al, 1997). Some reasons for this may be the difficulty in measuring the effectiveness and efficiency of the IS function. It may also be difficult to distinguish benefits gained because of outsourcing and those gained from other changes the organization has undergone in the same time period. If a long-term contract has been employed, the firm may be overcharged because the cost of providing certain services has decreased because of the maturity of the technology, but those cost savings are not passed on.

If care is not taken during contract negotiation, an organization could find that it is paying extra for services that it thought were provided in the original contract (Lacity and Hirschheim, 1993). If the firm does not have a clear idea of what it hopes to achieve through outsourcing, it could find that it has to pay for renegotiating the contract to achieve a clearer definition of expectations.

Achieving IS Outsourcing Success

Generally, there is consensus that some degree of success can be achieved in outsourcing IS (Lacity and Hirschheim, 1993; Lacity et al, 1995; Rubin, 1997; Jones, 1997; Saunders et al, 1997). To achieve success, however, requires that an organization make an investment in both time and money. First, management needs to understand what services IS provides the organization and how those services contribute to the firm achieving its strategic goals.

There also needs to be a clear understanding of what will be achieved by choosing outsourcing (Lacity et al, 1995; Jones, 1997). The successful firm will have a good idea of what current service levels are and what type of improvements they expect to see. It should be noted that in evaluating current service levels, a firm may find that its internal IS group can make changes that will lead to effective and efficient functioning of IS, thus making outsourcing unnecessary (O'Looney, 1998).

Having a tight contract that specifies detailed expectations as well as penalties for failure to meet service levels and terms for contract termination also contributes to successful outsourcing (Saunders et al, 1997). This may require hiring outside consultants and legal help to ensure that a fair and equitable contract is obtained (Lacity and Hirschheim, 1993). The organization should also retain some IS expertise in-house to manage the contract and ensure that technology requirements are being met (Lackow, 2001; O’Looney, 1998).

Outsourcing and Government

Government organizations have long ridden the outsourcing¹ bandwagon. They have been under pressure to provide the same or increased service levels for less money. The areas where they have enjoyed success in outsourcing range from outsourcing of sanitation and refuse collection, janitorial services and fleet maintenance to food service, hospital laundry, police department and jail operations, and airport services (Dilger et al., 1997). Not all of these functions are fully outsourced. Some are partially outsourced with the idea of creating a competitive environment for both the internal group and the external service provider (O’Looney, 1998; National Commission For Employment Policy, 1988).

Often, the reasons for government outsourcing are cost savings and to reduce the size of government. While cost saving in the form of direct payments may decrease, the overall cost to government, i.e. indirect payments, often increases (O’Looney, 1998). One way this happens is that the federal government contracts with state and local governments to provide services, e.g. delivery of Medicaid. Since the federal government no longer provides this service, it can reduce its workforce. However, at the state and local level, the size of government actually increases. State government can, to some degree, also outsource services to local governments, thus the putting additional growth requirements on local governments (O’Looney, 1998). O’Looney (1998) also points out that that “while the federal government has worked out elaborate and standardized strategies and procedures for outsourcing services, state and local governments appear to still be developing strategies...” (p. 3).

While many of these outsourcing efforts can be considered successful from an economic perspective (Dilger et al, 1997), i.e. the organization engaging in the outsourcing activity has seen a decrease in the amount of money spent to provide the particular service, there are some areas where questions remain. For instance, in outsourcing jail operations, who is responsible to ensure that proper medical attention is received by inmates (Hakim and Blackstone, 1996)? Who is responsible if a guard or an inmate is injured because of an altercation? What happens if the service provider goes out of business? Would the government agency be in a position to resume operations? Is the selling off of government assets a short-term solution to cash flow problems that will resurface at a later time?

In addition there are other impacts of the government contracting out. These include assistance for those employees who were displaced because of outsourcing, union issues, reduced wages for those remaining, and impacts on the local labor force (National Commission for Employment Policy, 1988; Dilger et al, 1997). There may also be antitrust concerns as outsourcing may place hitherto government owned and operated monopolies and oligopolies under the control of a private, unregulated entity (Gordon and Walsh, 1996).

Government and Outsourcing IS

There are many similarities between an IS department in the private sector and an IS department in the local government sector. Both groups face the challenge of aligning the IS strategy to the organizational strategy (Lacity and Willcocks, 1997). Both need to foster key relationships between IS management and organizational management. Both face difficulties in measuring performance and both are generally viewed as utility service providers by others within the organization.

Likewise, there are many similarities between outsourcing IS in the private sector and outsourcing in the government sector (Lacity and Willcocks, 1997). Both groups pursue the outsourcing option for similar reasons, as a cost-cutting measure, to obtain access to world-class technology resources, or to refocus the use of scarce IS resources toward core needs. Both face similar

¹O’Looney (1998, p. 23) distinguishes between government outsourcing and privatization: with the outsourcing choice, the government still retains ultimate responsibility for providing a service; with privatization choice, the government may either retain ultimate responsibility or withdraw from providing the service.

environments in that upper management doesn't understand IS and doesn't view IS in terms of its strategic significance and so are willing to enter into outsourcing ventures without first evaluating in-house capabilities (Lackow, 2001; Lacity et al, 1995).

However, there are several key differences between IS in the private sector and IS in the government sector (Lacity and Willcocks, 1997). Government entities do not choose their customers. Their ultimate customer is the tax-paying public. But, they fall under the constraints imposed by outside agencies for such things as budget, reporting requirements and employee compensation. The private sector has more experience in dealing with many technologies (Hendrick, 1994). The government sector has trouble attracting and retaining IS professionals because of below market salaries (Lackow, 2001; O'Looney, 1998). There is also a political environment that private sector organizations don't have to deal with. In local government organizations there is not only input from the boards of supervisors or county/city councils that determine who holds key positions within the organizations, but voters also have a voice in electing certain officials. In addition, laws are passed by politicians without regard to the affected agencies' ability to handle the changing responsibility.

The IS Value Center

The traditional perception of IS is as a cost center. The idea of looking at IS as a value center seems a far stretch at first. But, upon further investigation it doesn't seem so far-fetched. According to Venkatraman (1997), the value center is comprised of four components with the following focuses:

- cost center - minimize risk and emphasize operational efficiency
- service center - minimize risk, create an IT-enabled business capability to support current strategies
- investment center - long-term focus on creating new IT-based business capabilities
- profit center - designed to deliver IT services to the external marketplace for incremental revenue and gaining valuable experience in becoming a world-class IT organization

The cost and service centers focus on current strategies while the investment and profit centers focus on maximizing opportunities from IT resources.

Migrating to this view of IS requires looking at IS in terms of its strategic significance. A function is strategic if it changes the way an organization conducts its business. This entails shifting focus from technology and computers to making better use of the information that IS provides. These challenges are faced in both the private and public sectors.

An Alternative to Government Outsourcing of IS Functions

Counties and the cities within those counties serve the same constituency. An alternative to outsourcing IS functions to an outside vendor is for local government organizations to partner with other local government agencies, within the county-city framework, to form a consortium for providing IS services to its members and its public. In this manner, economies of scale could be reached by combining such non-strategic functions as payroll and purchasing, thus enabling all members to enjoy a reduction in costs. They could also work together to integrate similar systems or systems where there are interagency requirements. Likewise, members could work together to develop new systems, such as GIS, that would have far-reaching benefits for myriad divisions within each organization. Datawarehousing is another area where joint development could offer benefits to local government agencies.

Looking at outside agencies as partners in providing IS services is frowned on. The outside vendor has different profit motivations than the firm entering the outsourcing relationship (Lacity and Hirschheim, 1993). However, in choosing to partner with other government agencies this obstacle can be overcome. In addition, there is some research that indicates that strategic partnerships can yield a successful outsourcing relationship (Saunders et al, 1997). The primary goal of government organizations should be to provide maximum service at minimum cost to the tax-payers (Globerman and Vining, 1996). This is a shared goal among local government agencies. By forming a partnership to provide IS services, the local government agencies can save some costs of entering and managing an outsourcing arrangement. Rather than paying outside agencies to provide certain services, the services can be centralized and provided to multiple agencies. Rather than each organization performing such mundane tasks as payroll, personnel management, and recruiting, these tasks can be managed from a central location allowing all agencies to share pertinent information while benefitting from reduced costs. In new system development, care can be taken to examine areas where multiple agencies can benefit from shared information and integrated systems (Hendrick, 1994). A partnership would offer the government

agencies the opportunity to track developing technology and determine how best to integrate it with existing systems. Local government agencies may benefit from sharing a common strategic vision for the IS/IT future of their constituency.

By keeping the IS function internal to the organization, the organization will be better able to respond to strategic direction changes. These changes may take the form of developing a GIS to augment certain services provided to the public or to enhance community planning. They may take the form of an improved system for better meeting Justice system needs or enhancing a Parks and Recreation reservation systems. They could spur the development of a comprehensive data warehouse that could serve the information needs of multiple agencies at multiple levels (van den Hoven, 1997).

Once the IS function has been outsourced, it is very expensive to rebuild.

One benefit of forming the partnership over choosing outsourcing is that if a party wishes to terminate the partnership it still has in-house expertise and will not have the expense of rebuilding its IS organization. In addition, forming a partnership may encourage electronic information exchange. In local government, mandates already exist requiring information exchange, but the partnership could encourage a more seamless exchange thus reducing redundant data entry, enhancing data accuracy, and improving timeliness of information availability.

Another advantage of an interagency partnership would be the possibility of changing the organizational perspective of IS from being a cost center, where cost reduction is the primary focus, to being a value center. Many cities and counties provide the same services, from animal control to court room management to tax collection. Local governments working together could develop systems that other local governments, or even state and federal government agencies, could benefit from.

Research Method

The first stage of this research will consist of examining the interorganizational relationships that exist within the local government environment in an effort to identify facilitators and inhibitors of interagency cooperation. This will be accomplished with depth interviews with CEOs and IS managers of local government agencies within a county-city geographic area.

Conclusion

Outsourcing is becoming more prevalent in business today as companies seek to reduce costs and still stay abreast of technological breakthroughs that offer them the opportunity to develop a competitive advantage. While government organizations don't face the same competitive environment that other organizations do, they are faced with the challenge of providing better service to their customers - the tax paying public - at a reduced cost. Outsourcing offers one means of doing this. However, this alternative may not best meet their financial and technological needs. By choosing to work together, local government agencies can create a win-win situation in which they can more easily integrate new technology with existing systems and continue to meet the demand for standard type functions while reducing the cost of providing IS services.

References

- Dilger, Robert Jay and Randolph R. Moffett and Linda Struyk. "Privatization Of Municipal Services In America's Largest Cities," *Public Administration Review*, Jan/Feb 1997, pp. 21-26.
- Globerman, Steven and Aidan R. Vining. "A Framework for Evaluating the Government Contracting-Out Decision with an Application to Information Technology," *Public Administration Review* (56:6), November-December 1996, pp. 577-586.
- Gordon, Mark and Timothy Walsh. "Overcoming Obstacles in IT Outsourcing. (Public Sector Outsourcing of Information Technology)," *American City & County*, Nov 1996, pp. 14.
- Hakim, Simon and Erwin Blackstone. "Privately Managed Prisons Go before the Review Board," *American City & County/April* 1996, pp. 40-50.
- Hendrick, Rebecca. "An Information Infrastructure For Innovative Management Of Government," *Public Administration Review*, Nov/Dec 1994, pp. 543-550.
- Jones, Wendell, (1997). "Outsourcing Basics," *Information Systems Management*, Winter 1997, pp. 66-69.
- Krumwiede, Kip R. and Amy W. Gatian. "Why FMC's Strategy Still Includes A Mainframe," *Journal of Systems Management*. Nov/Dec 1995. pp. 10-15.

- Lacity, Mary C. and Rudy Hirschheim, (1993). "The Information Systems Outsourcing Bandwagon," *Sloan Management Review*, Fall 1993, pp. 73-86.
- Lacity, Mary C. and Leslie P. Willcocks, David F. Feeny. "IT Outsourcing: Maximize Flexibility and Control," *Harvard Business Review*, May-June 1995, pp. 84-93.
- Lacity, Mary C. and Leslie P. Willcocks, David F. Feeny. "The Value of Selective IT Sourcing," *Sloan Management Review*, Spring 1996, pp. 13-25.
- Lacity, Mary C. and Leslie Willcocks, (1997). "Information Systems Sourcing: Examining The Privatization Option In USA Public Administration," *Information Systems Journal*, July 1997, pp. 85-108.
- Lackow, Howard M. "IT Outsourcing Trends", The Conference Board, Research Report 1289-01-RR. New York, NY, 2001.
- McFarlan, F. Warren and Richard L. Nolan, (1995). "How To Manage An IT Outsourcing Alliance," *Sloan Management Review*, Winter 1995, pp. 9-23.
- Norris, Donald F. and Kenneth L. Kraemer, (1994). ICMA Special Data Issue: Leading Edge Computer Use in U.S. Municipalities.
- O'Looney, John A. *Outsourcing State and Local Government Services: Decision-Making Strategies and Management Methods.*, Westport, CN, Quorum Books, 1998.
- "Privatization and Public Employees: The Impact of City and County Contracting Out On Government Workers." National Commission for Employment Policy, May 1988.
- Rubin, Howard A. "Using Metrics For Outsourcing Oversight," *Information Systems Management*, Spring 1997, pp. 7-14.
- Saunders, Carol and Mary Gebelt, Qing Hu. "Achieving Success in Information Systems Outsourcing," *California Management Review* (29:2), Winter 1997, pp. 63-79.
- Schwartz, Karen D. "Making A Buck Off The Good Ol' Boys," *Reseller Management*, July 1997, pp. 148-152.
- Scrupski, Susan. "Second Tier Isn't Second Rate," *Datamation*, August 1, 1994, pp. 26.
- Van den Hoven, John. "Data Warehousing: New Name for the Accessibility Challenge," *Information Systems Management*, Winter 1997, pp. 70-72.
- Venkatraman, N. "Beyond Outsourcing: Managing IT Resources as a Value Center," *Sloan Management Review*, Spring 1997, pp. 51-64.
- Yesulatitis, Joseph A. "Outsourcing For New Technology Adoption," *Information Systems Management*, Spring 1997, pp. 80-82.