"SUBCONTRACTING" AS A SOLUTION, NOT A PROBLEM, IN OUTSOURCING

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As outsourcing has come into vogue for both commercial and government downsizing initiatives, the success or failure of the contracting efforts has increasingly become dependent on the effectiveness of the related subcontracting. With that extensive subcontracting has come loss of control and often disappointing cost savings. The response of some companies has been to select their own subcontractors—which has resulted in cost savings, but also has created the necessity for increased contract monitoring. Whether or not one uses this new approach, several measures can be included in the contract to improve the likelihood that the outsourcing will be successful in terms of cost savings and task performance.

O ver the past several years businesses have adopted a new management philosophy which asserts that the organization does not grow and prosper through acquisitions, but rather through partnering and networking. Part of this new mindset entails that the organization no longer needs direct line control over all of its components. Rather, components that are not part of the "core functionality" of the organization might be better performed by experts from those areas. This would reduce the overhead expenses of the organization, and improve the quality of the work product. This trend is similar to the trend in hardware manufacturing, where manufacturers no longer need to produce all the components of their products inhouse. Instead, they competitively procure components from outside the company to use in the manufacturing process.

As outsourcing has become more accepted, and more companies outsource whole functions, especially in the automatic data processing (ADP) area, subcontracting and how it is handled could have a significant impact on the success or

failure of the outsourcing effort. This concern came to light in a Deloitte and Touche study that included a survey of 1,500 chief information officers (CIOs) in the United States and Canada, which indicated that only 31 percent believed that their outsourcings generated significant cost savings, with 69 percent being disappointed in their outsourcing results ("Uneasy Pieces," 1997). This survey made two things apparent.

First, these executives believed that they would achieve savings through economies of scale or superior contractor resources. But these expectations did not materialize, because the fixed-price contracts they entered into did not subsequently pass along the hardware, software, or personnel savings over time. These experiences were also supported by Lacity and Hirschheim (1993), Lacity, Willcocks, and Fitzgerald (1996), and Scheier (1997), who found that commercial contracts dealing with outsourcings have experienced problems with long-term contracts similar to those previously mentioned. As such, the current trend has been to look at shorter time spans, so that changes in scope and productivity improvements can be reflected in the contract agreement; or, to frame the contract such that it is renegotiated at periodic intervals to adjust it to current market prices or changes in requirements.

Second, the executives also complained that vendors were not up front about the amount of subcontracting that would be used for the execution of their contracts. This became a problem when the subcontractor was unfamiliar with the contract provisions or customer expectations, and did not deliver the required services in the expected way. This concern was also voiced in an *Info World* article ("Managing Your Outsourcing," 1996), which described how many firms that had outsourced their information technology functions were starting to reduce the scope, or cancel parts of those efforts, because of lack of control over the vendors or subcontractors.

These results were similar to an earlier Gartner Group survey of 180 clients (1995), which found that only about 37 percent of information technology outsourcings were viewed as being successful, either through improved performance (21 percent), or cost savings (16 percent); while the remainder of the respondents indicated either a mixed or too-early-to-tell response. Recent Gartner Group surveys have continued to show that gains from outsourcing have consistently fallen short of expectations by CIO's ("Outsourcing to the Rescue," 1997). These surveys blamed the contracting process for not defining key issues and anticipated expectations. In the article, Gartner vice president Mike Vargo said customers also do not realize that an outsourcing relationship takes more time and effort than they anticipated.

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The above problems reflect what can happen when little thought is given to the outsourced function. In a perfect world, of course, it would be much easier to allow a prime contractor to manage the whole outsourced function, smoothing over difficulties and integrating the subcontractor's performance. However, the above study indicates that the prime

contractor may not always be good at performing those functions, or may not choose the least expensive approach.

The government might address these concerns in one of two ways. First, it can undertake its own selection of subcontractors, and subsequently monitor their performance, by contracting separately for each "subcontractor" function. Thus, it can convert what normally would be subcontractor functions (which cannot be monitored under the "privity of contract" principle) into regular contracted functions, which can be monitored and directed. Second, it can place detailed monitoring measures and baselining provisions in the contract.

Selecting your own subcontractors as a way to save additional money on outsourcing has recently become a popular avenue for those companies willing to take on the responsibility. This process is similar to becoming your own general contractor in building a house, where you interview and select the different trade people who will perform the various construction tasks.

Likewise, in information technology endeavors, multiple vendors are selected according to their areas of expertise. This was recently done by Halliburton Company, which found that specialized information technology vendors could provide optimal services for as much as 10 to 15 percent less than what a prime contractor would charge ("Outsourcing Megadeals," 1995). The company also reported that by breaking the outsourcing into pieces, it could see the value better by getting a clearer picture of where the vendor was making its investments and profits. Other companies that have followed this strategy are Aetna, Eastman Kodak, DuPont,

Zale's, and J. P. Morgan; they all sought better service and more control over their information technology ("The New Outsourcing," 1996). Part of this trend of breaking out functions within an outsourced area originates from the recognition that a single contractor is usually not able to perform all the functions required, and, in turn, would have to subcontract

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some functions that were outside of its capability. An additional benefit of selecting your own subcontractor is that it allows for greater control over what is outsourced and what remains in house.

With the prospect of managing several subcontractors, some thought should be given as to how they will work together in functioning and dealing with one another; especially since some areas of responsibility will likely overlap. J. P. Morgan ("The New Outsourcing," 1996; and Bell Atlantic, 1997), in its outsourcing effort, specified a risk-reward contracting procedure that would provide positive and negative incentives for cooperation between the subcontractors. In this reward contract, savings achieved through better procedures and purchases would be put into a contingency pool, which would be shared between the company and the subcontractors. Likewise, if the subcontractors did not perform in accordance with the specified performance measurements, they would be penalized by some predetermined amount.

It should be said, though, that the selection and monitoring of subcontractors is a two-edged sword. While it affords the possibility of additional outsourcing savings, it may not come free either in terms of cost or time required to manage the effort. It could cost between 5 to 7 percent of the value of the contract to manage and oversee the subcontractors. That would cover renegotiating the contract agreements, resolving disputes, and tracking the contractor's performance (Scheier, 1996). These costs would vary depending upon the nature of the outsourcing, with the more flexible contracts requiring more contract oversight and subsequently a higher management cost. It should be pointed out, however, that these costs might be mitigated considerably if sufficient effort is spent on carefully defining in the contract how problems are to be resolved and how unexpected changes in requirements are to be addressed.

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Another concern that should be considered in the contracting process is the degree of specificity in what is outsourced, and what specifically the contractor is supposed to do. This is a fine line, for if the service levels are too tightly defined, the government could end up paying high fees for incremental projects outside the defined scope of the contract. For instance, companies have reported paying as much as 70 percent more than the original contract value for tasks outside of the defined scope of the contract (Lacity and Hirschhiem, 1993). Thus, there will be a tradeoff for the government, to make the contracts as flexible as possible to cover a broad range of needs and changing requirements, without overburdening them with too much contract oversight. Lacity and Hirschhiem further point out that outsourcing does not seem to work well in the following areas:

- where a specific or unique knowledge of the business is required;

- where all services are custom; or

- where the employee culture is too fragmented or hostile for the reorganization to come back together.

An additional consideration would be how the contract should be structured. For instance, the offeror's proposal should delineate what will happen to all of the existing assets under consideration: Which ones will the contractor assume responsibility for, which ones will remain with the government, and which if any will go to third parties? In addition, one should also consider if there are any intellectual property issues, such as software licenses (i.e., whether existing software can be transferred to the outsourcer), and ownership of self-developed software.

Finally, a significant consideration to improve one's chances of having a successful outsourcing effort concerns the use of detailed monitoring measures and baselining provisions that should be included in the contract. For instance, there are a number of measures that one can include in the contract to help determine if the contractor is meeting the goals and costs projected for the outsourcing

(Mylott, 1995; Rubin, 1997). These measures can be grouped together under the headings of performance criteria and comparability measurements.

PERFORMANCE CRITERIA

These measurements are those that can be used to emphasize areas that are considered critical, or can aid in the customer satisfaction process, by informing the contractor what specific expectations exist for the effort. In addition, these measures should link specific operations to strategic goals. For instance, many performance measurements are still tied to the old concepts of standard accounting that were developed back in the 1920s; those measurements, however, no longer represent the current work environment (Lynch and Cross, 1991; Drucker, 1988). This problem has also been recognized by many accountants, for in a survey at a meeting of the National Association of Accountants and Computer Aided Manufacturing–International, 60 percent of the financial officers expressed dissatisfaction with their current performance measures (Howell, Brown, Soucy and Seed, 1987).

Performance measures that could be problematic are:

- **The purchase price**, which may not reflect quality and performance of the item;

- **Machine utilization**, which is subject to managers overrunning the machine to maximize utilization, which may not be warranted; and

- **Cost center reporting**, which is subject to managers focusing on centers and not activities, thus overlooking common activities.

Performance measures to consider are:

- **Response time.** Specify an average or specific response time for maintenance on critical equipment or software.

- **System availability.** Specify that particular hardware or software is functional on a daily, by shift, or by application basis.

- **Downtime.** Specify that particular hardware or software be down less than a particular amount of time, or require a particular mean-time-between-failure.

- **Turnaround time or schedule of performance.** Specify either a specific turnaround time on repairs, or a particular schedule of performance for equipment.

- **Performance reports.** Specify general performance criteria that are considered important to the outsourcing effort.

- **Penalties for nonperformance.** Penalties might also be used on some of the availability factors, to add emphasis for meeting the specific performance requirements.

- **Satisfactory performance statement.** State the organization's expectations of the vendor. These need to be clearly defined and discussed with the vendor.

- **Subcontractor approval rights.** Build these into the contract, to aid in

specifying what mission critical projects or systems are handled only by the primary vendor.

COMPARABILITY MEASUREMENTS

For comparison, reports can be used to determine if the contract is relevant to similar costs for these services by other providers.

- **Operation's cost measures.** Specify that the contractor report cost in terms of CPU hours, storage costs, total cost per hour, fixed costs, or variable costs.

- **Communication's cost measures.** Specify that the contractor report cost per hour, by distance, per line, or per switch.

- **Service's cost measures.** Specify that the contractor report costs per person, or per application.

- **Value-based pricing and benchmarking.** Specify that the contractor periodically adjust the contract price to the "market price." An alternative to this would be to negotiate rates annually.

These measures should be reported on a monthly basis, and consist of a mix of both performance and comparability measures, which would be used to determine the monthly payment for the contractors. On the basis of their performance, the contractor may receive either an incentive fee for exceeding certain performance perimeter bands, or a penalty for falling below those bands. Scheier (1997) also suggests that cost measures should be broken out for specific items, rather than bundling large areas together, to make it easier to pinpoint which prices should be renegotiated.

DISCUSSION

In general, outsourcing has become a very popular vehicle in the commercial sector, with more and more companies and now government entities obtaining services in this way (Washington, 1997). To maximize the possible savings and achieve the desired performance improvement, considerable forethought is necessary in structuring the contract, in monitoring the contractor's performance, and in the administration and oversight of the contract. One of the ways that additional savings could be achieved in the outsourcing area would be through the selection and monitoring of the subcontractors for specific areas of expertise. Care needs to be taken here, however, for there are both additional costs and time requirements associated with the process.

To mitigate some of the potential risks with outsourcings due to problems with the contracting process, a number of performance measures should be included in the contract to aid in meeting its goals for both performance and cost. These measures would then be used in the contract administration process to make sure that the contract is on track, and also, perhaps, to control contractor payments.

REFERENCES

Drucker, P. F. (1988, January-February). The coming of the new organization. *Harvard Business Review*.

Gartner Group Survey (research note). (1995, April 10).

Howell, R. A., Brown, J. D., Soucy, S. R., & Seed, A. H. (1987). Management accounting in the new manufacturing environment. Montvale, NJ: National Association of Accountants. (Cited in Lynch & Cross, 1991, p. 4.)

Lacity, M. C., & Hirschhiem, R. (1993). *Information systems outsourcing*. John Wiley & Sons.

Lacity, M. C., Willcocks, L., & Fitzgerald, G. (1996). *An empirical investigation of IT sourcing decisions: Lessons for best practice* (discussion paper). Oxford Institute of Information Management Research.

Lynch, R. L., & Cross, K. F., (1991). *Measure up: Yardsticks for continuous improvement*. Blackwell.

Managing your outsourcing (1996, September 9). *Info World*, 77-78.

Mylott, T. R. (1995). Computer outsourcing, managing the transfer of information systems. Prentice Hall.

The new outsourcing partnership (1996, June 24). *Information Week*, 585, 50.

Outsourcing megadeals. (1995, November 6). *Information Week*, 552, 34.

Outsourcing to the rescue. (1997, September 22). *Forbes Magazine 160*, 25–26.

Rubin, H. A. (1997, Spring). Using metrics for outsourcing oversight. *Information Systems Management*, 14, 7–15.

Scheier, R. L. (1996, August 19). Outsourcing's fine print. *Computerworld*, 70.

Scheier, R. L. (1997, July 21). Business outsourcing more but less thrilled with results. *Computerworld*, 14.

Uneasy pieces (No. 5, part 2, outsourcing; CIO White Paper). (1997, May 5). Available http://www.cio.com/.

Washington, W. N. (1997, July). *Outsourcing automatic data processing requirements and support* (research and development technical report, CECOM-TR-97-4, ADA327808). Fort Monmouth, NJ: U.S. Army Communications Electronics Command.

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