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Abstract

Ensuring a return on information technology investments and deciding to outsource are closely intertwined. This paper reports research conducted to examine the association between these issues from the viewpoints of experienced executives, managers, and consultants in comparison with those of veteran information technology professionals. The results show that the expected results from outsourcing are changing. Moreover, understanding the areas where managers and IT professionals agree and where they differ provides valuable insights into strategies for gaining adequate returns on IT spending.

Introduction

It is widely known that a significant and growing number of firms are outsourcing one or more aspects of their information technology (IT) functions. An even more substantial number of firms intend to undertake outsourcing, or are seriously investigating the feasibility of doing so [1]. Although the reasons a particular firm chooses outsourcing will vary, reduction in the cost of delivering services is among the most frequently reported objectives [4].

At the same time, senior executives and IT directors alike continue to express keen interest in assessing the value returned for their firms' ongoing spending on information technology [3]. At issue is whether firms can or should expect to undertake outsourcing without unduly affecting a return on IT spending in the form of increased business value to the enterprise.

In order to gain greater insight into these issues, an investigation was conducted (1) to identify the differing and implicit assumptions with respect to outsourcing held by experienced managers and consultants versus those of IT professionals, and (2) to understand how they relate its benefits to the business value associated with deployment of IT. The study, involving 207 practitioners, reveals both that the groups' view the cost reduction impact of outsourcing in significantly different ways and that they believe outsourcing *does not* reduce costs.

Outsourcing as a Force in IT Management

The outsourcing of IT, wherein a firm contracts with another to manage, develop, or maintain its IT functions [5] has been practiced since the earliest days of computing. However, the practice became highly visible when Eastman Kodak outsourced its IT operations to the IBM Corporation in 1989. Currently more than half of all midsize and large firms in the United States and other major international regions either outsource or plan to do so [6]. The trend toward corporate outsourcing is growing, with revenues generated by companies offering these services escalating from $4 billion in 1989 to $40 billion in 1996 [7]. The annual rate of growth, some 16% since 1989, is expected to accelerate. Some estimates size the outsourcing revenue stream at over $54 billion by 1998 and project it to exceed $76 billion by the year 2000 [2].

Companies outsource for diverse reasons, including (1) reduction of costs via subletting specific IT functions, (2) refocusing leadership attention on core business functions, (3) overcoming IT-related organizational challenges, and (4) to stimulate higher returns for costly IT training and development [4,6]. Experience has proven that the outcomes are not always consistent with expectations. A growing body of literature is documenting disappointments, painful experiences, and outright failures [2,3,8]. Moreover, investigators report that outsourcing is not as favorably viewed as it was only a few years ago [9].

These contrasting facts—growing revenue streams in the midst of increased frustrations and lowered expectations—merit careful investigation. Understanding why companies continue to outsource is a focus of this study.

Research Program

This research is part of a project addressing the following question: What forces contribute to or detract from the actual and perceived creation of business value resulting from spending for information technology. The following discussion addresses findings concerning the effect outsourcing has on the return on business value.

tem Validation and Data Collection

In order to conduct this investigation, a series of evaluation items related to business value was first assembled from the field. Fourteen IT directors were convened for a day-long session focusing on the challenge of assessing business value. Among the 37 strategic and operational items emerging at the end of the day was the outsourcing of IT [9]. A three-step validation process was used to test and refine the items, producing the final set of 35 distinct items that were instilled in the research program.

Data Collection

A sample of 207 highly experienced managers, business consultants, and IT professionals participated in this investigation (3 participants were later dropped from the results). The sample represented all ranks: The management group (n=145) included CEOs, managing directors, line managers, project managers, and consultants. The IT professionals group (n=59) included CIOs, IT directors, and project managers.

At the end of one of several identical half-day industry workshops exploring IT trends, participants completed a 35-item questionnaire consisting of validated statements encapsulating the strategic and operational issues discussed above. All questions were of the same two-part format. A statement pertaining to business value and a brief explanation were presented as follows:

> *Outsourcing IT is cheaper than "insourcing."* IT spending can be reduced by outsourcing all or parts of the IT function to an appropriate third party.

Individuals were asked to indicate whether the subject of the statement constitutes a force that contributes to, detracts from, or has no effect on the business value of IT. In addition, they were asked to indicate their agreement with the accuracy of the statement using a 7-point Likert scale.

Findings

The association between the business value of IT and the impact of outsourcing is examined from 3 perspectives.

Influence On The Business Value of IT

The results show that managers and IT professionals view the impact of outsourcing on the business value returned from IT spending differently (Table 1). Managers indicate that outsourcing mildly *contributes* to business value, while IT professionals conclude that it *detracts* from the value of the firm's IT.

Table 1. Assessment of Outsourcing

	Non-IT Personnel	IT Personnel
Outsourcing IT contributes to business value (Means)	.0924 (.725)	-.1321 (.761)
Outsourcing is cheaper than insourcing (1-7 Likert Scale)	3.8092 (1.530)	3.5000 (1.851)

Outsourcing and the Value of Reduced IT Spending

A correlation analysis was performed to understand how participants associate activities that increase the return from IT spending with the use of outsourcing to reduce spending levels (Table 2). Both strategic and operational variables were examined.

Although managers and IT professionals view the strategic factors associated with business value in virtually identical ways, there is no statistically significant association between those views and the likelihood that outsourcing will reduce IT spending levels. Simply stated, the participants are not predisposed to pursue outsourcing as a means of reducing spending when the issues are strategic in nature.

In contrast, the viewpoints of managers and IT professionals with respect to operational issues vary significantly. Manager assessments of outsourcing are *negatively* correlated with four factors: changing IT demands, the constant demand for IT applications, hidden IT costs, and the belief that IT managers are not effective business managers. In other words, managers do not associate these factors with the use of outsourcing to reduce IT spending. However, they *do* associate the limited business scope they perceive in IT managers and the fact that IT spending continues to occur with the choice of outsourcing as a means of reducing IT spending levels.

Table 2 shows how different the correlates are for IT professionals. They associate outsourcing with cost savings when IT spending totals are perceived as too high, when IT is feared, and when good benchmarks are unavailable. Significant correlates were also found when systems suffer from poor reliability, when the easy-to-do applications are already automated, and when there is a lack of fit between IT managers and users.

Table 2. Correlation Coefficients of Business Value Factors with Cost Savings by Outsourcing

IT-Related Business Value	Non-IT Personnel	IT Personnel
Strategic Factors (representative)		
IT influences survival	-.0491	-.0735
IT is a competitive necessity	-.0567	-.2183
IT infrastructure spending is critical	-12.79	-.1829
Operational Factors		
IT demands change constantly	**-.2279****	.1169
IT decisions have hidden costs	**-.2927****	.0763
IS managers are not business managers	**-.2927****	.0763
IT applications are in continual demand	**–.1967***	-.0243
IT benchmarks are not generally available	.0810	**.3488****
Executive management does not use IT	.0058	**.4651****
IT is feared	.0376	**.4991****
IT costs are dropping	-.0243	.3247*
IT is not well-liked by non-IT members of the enterprise	-.0269	**.5452****
IT systems suffer from poor reliability	.0153	.3514*
IT spending totals are too high	.1493	**.4508****
Easy-to-do applications are automated	-.1831*	**.4950****

(* significant at $\alpha = .05$; ** significant at $\alpha = .01$)

Outsourcing and Cost Reduction

Participants were asked about their view of cost savings without regard for any business value issue. They expressed disagreement with conventional assertions: Both groups indicated they do not believe outsourcing reduces the cost of information technology. Rather, the predisposition of both groups is to expect outsourcing to generally be *more expensive* than insourcing. There is no significant difference between the manager and IT professional groups.

Summary

As these results show, the manner in which outsourcing of IT functions is viewed appears to be changing. Participants do not favor outsourcing to reduce cost. Moreover, the different outlooks by managers and IT professionals suggests new areas for study. The correlation analysis suggests that new insights may be gained from exploring the factors associated with the delivery of business value from both outsourcing and for all spending on IT.

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