

Co-sourcing and External Auditors' Reliance on the Internal Audit Function

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Co-sourcing and External Auditors' Reliance on the Internal Audit Function¹

Introduction

For years, external auditors have had the option of relying on the internal audit function in the course of a financial statement audit. However, there has been renewed interest in such reliance for two reasons. First, the U.S. Public Company Accounting Oversight Board (PCAOB) addressed reliance on the internal audit function in Auditing Standard No. 5 and has made the decision to retain AU Section 322 (Statement of Auditing Standards No. 65 (SAS 65)). Second, although outsourcing of the internal audit function was relatively uncommon when the American Institute of Certified Public Accountants issued SAS 65 in 1991, utilizing outsourcing is now viewed as a strategic sourcing option. Furthermore, in light of recent and emerging sourcing arrangements, namely co-sourcing (which was not common in 1991), it is important to understand how these newer co-sourcing arrangements compare to alternate arrangements (outsourced and in-house internal audit functions).

Types of Sourcing Arrangement

There are three major types of sourcing arrangements for the internal audit function: (a) in-house, where a company maintains its own internal audit department; (b) outsourced, where an internal audit service provider or independent accounting firm conducts the internal audit function; or (c) co-sourced, where the internal audit is conducted by a partnership between the internal audit department of the company (in-house) and an internal audit service provider. There are various advantages and disadvantages related to each of these sourcing arrangements in terms of control of the internal audit function, business knowledge, costs, and objectivity.² However, co-sourcing is growing in popularity because it can be an efficient way of providing quality internal audit services. Co-sourcing advantages include: (1) access to professionals' skills, knowledge, and expertise; (2) a new point of view that may improve the internal audit function; and (3) being able to cover unexpected staffing needs.

Prior studies comparing in-house and outsourced internal audit functions indicate that the sourcing of the internal audit function has a significant effect on external auditors' perceptions about the quality of the internal audit function and the planned external audit effort for any particular audit engagement. Moreover, external auditors consider an outsourced internal audit function to be of a higher quality only if the inherent risk associated with the company is high; external auditors are indifferent between outsourcing and in-house arrangements when the inherent risk associated with the company is low.³

In our study, entitled "Co-sourcing: A Win-Win Internal Audit Sourcing Arrangement," we evaluate the effect of various internal audit sourcing arrangements on: (1) external auditors' reliance on the internal audit function, and (2) the preferences of managers that are responsible for selecting internal audit sourcing arrangements. Our study shows that managers prefer internal audit co-sourcing over outsourcing or in-house sourcing, and external auditors are willing to rely on a co-sourced internal audit function to the same extent as an outsourced internal audit function.

¹ This article is adapted from *Cosourcing: A Win-Win Internal Audit Sourcing Arrangement* by Naman Desai, Gregory Gerard and Arindam Tripathy, which received generous support from The Institute of Internal Auditors Research Foundation

² For prior *Internal Auditor* articles on internal audit sourcing, see Rittenberg, Moore, and Covaleski (1999, April, 42-46), Serafini, Summers, Apostolou, and Lafleur (2003, October, 61-65), and Smith (2002, October, 37-41).

³ See e.g., Glover, Prawitt, and Woods' (2007) article in *Contemporary Accounting Research*.

Study Objectives

Our study had three primary objectives. First we evaluated external auditors' reliance on the internal audit function in the context of the internal audit sourcing arrangement: co-sourcing, outsourcing, and in-house sourcing. External auditors prefer an outsourced internal audit function only in relatively high-risk areas; a company could co-source internal audit work related to the relatively high-risk areas and maintain an in-house function to perform the remaining work. Such a co-sourcing arrangement could lead to two benefits. First, the company reaps the benefits of co-sourcing as mentioned earlier and provides the internal audit function in an effective and efficient manner. Second, external auditors' perceptions regarding the quality of the internal audit function, extent of reliance placed on the internal audit function, and planned external audit effort would be the same as that for an outsourced internal audit function — which in turn would ensure that the external audit costs and efforts would be the same for both options. Thus, co-sourcing results in potential savings for the company on external audit services due to higher reliance by external auditors on the internal audit function, and the company enjoys incremental benefits of co-sourcing through knowledge sharing and access to technical expertise.

Our second research objective was to investigate the effect of an independent accounting firm providing internal audit co-sourcing (or outsourcing) services along with other services (e.g., tax services) on the external auditors' reliance decision. Although the U.S. Sarbanes-Oxley Act of 2002 prohibits independent accounting firms that are engaged in an external audit of a client from providing internal audit and consulting services to the same client, there are no such prohibitions placed on internal audit co-sourcing or outsourcing providers. In other words, as long as an independent accounting firm is not performing a company's external audit, the accounting firm can provide internal audit co-sourcing and outsourcing services as well as any other consulting services. The separation of external audit from other services is an objectivity issue — it is presumed that an external auditor will not be as objective when their firm is also providing other services. However, objectivity is one of the cornerstones of SAS 65, and thus we were interested to see whether external auditors' reliance decision changes when an internal audit co-sourcing (or outsourcing) provider additionally provides tax services. Supplementing our objective, we investigated the perceptions of internal audit quality and planned audit effort as a function of the sourcing arrangements.

Finally, we evaluated managers' choices in the context of the internal audit sourcing arrangements. Although the external auditors evaluate the reliance on the internal audit function, the internal audit sourcing arrangement is ultimately the company's decision.

Research Experiment: Reliance on Internal Audit Function

Our first experiment, which evaluated external auditors' reliance on the internal audit function, was based on responses from 150 experienced certified public accountants (CPAs), with an average of almost nine years of auditing experience. Of the 150 respondents, 36 were current Big Four auditors, 114 were employed by regional firms, 112 had prior internal audit experience, and 92 had prior employment with Big Four firms.⁴ Participants were randomly assigned to one of five cases that varied the description of the internal audit function (in-house, outsourced, co-sourced, outsourced with tax services provided, and co-sourced with tax services provided). The participating CPAs answered questions about the perceived quality of the internal audit function, the extent of reliance placed on the internal audit function, and the increase or decrease in external audit effort based on the type of case they studied. The level of assessed

⁴ There was no significant difference in responses between past Big Four and current Big Four respondents.

audit risk (i.e., inherent risk) and likelihood of acquiescing to management were the measures used for capturing the perceptions about the independence (an element of objectivity) of the internal audit function. These responses were measured on a scale of 0-10 (low to high) objectivity/competence. The level of overall audit risk assigned under each treatment, the extent to which the internal auditors were likely to acquiesce to management, and the extent of reliance placed on the internal audit function for the high-risk and low-risk areas were recorded on a scale of 1-10 (low to high) risk/probability of acquiescing/reliance. External audit effort was measured by the extent to which external auditors would adjust the planned audit hours for the relatively complex and high inherent risk areas and the relatively low inherent risk areas. This was measured on a scale of -5 (substantially reduce effort) to +5 (substantially increase effort), with 0 being no change in effort.

Results

The analysis of the results of the three cases based on in-house sourcing, co-sourcing, and outsourcing indicated a statistically significant effect for sourcing arrangement for all five quality measures (objectivity, competence, technical skills, overall assessed risk, and likelihood of acquiescing to management) of the internal audit function. Furthermore, the co-sourcing and outsourcing arrangements were rated as significantly more objective, competent, skillful, and independent (measured by assessed risk and likelihood of acquiescing to management) than the in-house arrangement. However, there was no statistically significant difference between the ratings of co-sourcing and outsourcing participants.

Table 1
Average Responses for the Five Cases

Measure	In-house	Co-source	Outsource	Co-source /Tax	Outsource/Tax
Objectivity	4.33	8.17	8.13	4.50	4.97
Competence	6.92	8.68	8.55	8.47	8.15
Technical skills	7.62	8.72	8.42	8.62	8.38
Reliance (High Risk Areas)	3.97	8.17	7.68	2.62	3.98
Reliance (Low Risk Areas)	6.97	6.93	8.25	5.45	5.90
Overall assessed risk	7.53	2.67	2.88	7.60	7.57
Adj. audit hrs (High Risk Areas)	2.73	0.30	0.33	2.28	2.23
Adj. audit hrs (Low Risk Areas)	-0.57	-0.17	-1.1	0	0.10
Acquiescence to management	7.57	2.57	2.52	7.73	7.35

Note on measures:

Objectivity: Perceived objectivity by external auditors (range 0-10). Competence: Perceived competence by external auditors (range 0-10). Technical skills: Perceived technical competence by external auditors (range 0-10). Reliance (high risk areas): Extent of external auditors' reliance on high-risk areas (range 0-10). Reliance (low risk areas): Extent of external auditors' reliance on low risk areas (range 0-10). Overall assessed risk: overall risk assessed by external auditor (range 0-10). Adj. audit hrs (high risk areas): Extent to which external auditors want to increase or decrease audit effort (range -5 to +5) for high-risk areas. Adj. audit hrs (low risk areas): Extent to which external auditors want to increase or decrease audit effort (range -5 to +5) for low risk areas. Acquiescence to management: The perceived likelihood that internal auditors will acquiesce to management and not report honestly (range 0-10).

Analysis for the perceived reliability of the internal audit function by sourcing arrangement (see Table 1) indicate that the co-sourced and outsourced internal audit function are considered to be significantly more reliable than the in-house function for the high inherent risk areas. However, there is no significant

difference in the perceived reliability of the co-sourcing and outsourcing functions. Further, in-house and co-sourced internal audit functions (where only the high inherent risk areas were audited by an independent accounting firm) were significantly less reliable than the outsourced internal audit function in low inherent risk areas (Table 1). However, this lack of reliance does not have any effect on the planned audit effort for the low risk areas. There is a significant increase in the planned external audit effort for in-house internal audit arrangement compared to the outsourced and co-sourced arrangements for high inherent risk areas, and there is no significant difference in the planned external audit effort for the co-sourced and outsourced arrangements. There was no statistically significant difference between planned audit effort for in-house and co-sourcing or between co-sourcing and outsourcing in planned audit effort for low inherent risk areas.

Our analysis showed a statistically significant adverse effect on the perceived objectivity, probability of acquiescing to management, and overall assessed risk in the two cases where the accounting firm to which the internal audit function was outsourced or co-sourced while providing tax services to the company (Table 1) compared to the outsourced or co-sourced cases where tax services were not provided. These results indicate that the act of providing tax or other services does not affect the perceived technical skills of the internal auditors, which appears to be logically correct. However, providing tax services affects external auditors' perceptions about independence and objectivity of the internal auditors as they have other incentives to maintain their relationship with their clients. This, in turn, also appears to be affecting the overall audit risk associated with their clients.

The results also indicate external auditors would consider an internal audit function to be significantly less reliable where an internal audit service provider (co-sourcing or outsourcing) also provides other additional services to the company (this holds for both the high and low risk areas). It is also observed that there is a statistically significant increase in the planned external audit effort for the high inherent risk areas, where an internal audit service provider (in cases of outsourcing and co-sourcing) also provides other additional services — in addition to internal audit services — compared to the treatments where an internal audit service provider does not provide any other services. A similar trend is observed for low-risk areas.

There is a statistically significant increase in the planned external audit effort for the high inherent risk areas — treatments where the internal auditors provided tax services compared to the treatments where the internal auditors did not provide tax services. In the “co-source with tax” and “outsource with tax” cases the planned increase in external audit effort is 2.29 and 2.24 respectively, while the planned increase in the “co-source no tax” and “outsource no tax” cases is only 0.31 and 0.33 (Table 1). A similar trend is observed for low-risk areas.

Research Experiment: Managers' Preferences for Internal Audit Sourcing Arrangements

We conducted a second experiment to examine managers' preferences for various sourcing arrangements. There were 36 company managers, with an average of 7.32 years of experience at major companies located in the northeast United States, and 20 Masters of Accountancy students participating in the experiment. Each participant was asked to assume the role of a manager in charge of designing an adequate internal audit function for his or her company and choose the most appropriate internal audit sourcing arrangement for each of the two companies.

Participants were presented with two types of companies and were provided brief descriptions of the company's business and operations, and advantages and disadvantages associated with each of the sourcing arrangements. The participants were then asked to choose the most appropriate internal audit sourcing arrangement for each company. The first company (called the complex case below) had a vast

geographic coverage and some relatively high inherent risk areas. It was the same company described above in the five cases used to examine external auditors' decisions and reactions. The participants should ideally prefer outsourcing or co-sourcing for such a company.

The second company (called the simple case below) was of the same size as the first one, but it was located in a single major U.S. city and had relatively simple operations and no major high inherent risk areas. The managers in such a scenario would have relatively less incentive to choose outsourcing or co-sourcing, and an in-house internal audit function would more likely be adequate for such a company.

For each of the two cases, participants were divided into two groups. One group of participants was provided with the option to select from all three sourcing arrangements (in-house, outsourcing, and co-sourcing), while the other group was provided with only two sourcing arrangements to select from (in-house and outsourcing). This was done to observe the potential shift from outsourcing, which is not necessarily the best option for a company in comparison to a co-sourcing arrangement.

The results indicate that there was a significant shift in preference towards the co-sourcing arrangement from the outsourcing arrangement, indicating that managers recognize the co-sourcing arrangement as a superior alternative to the outsourcing arrangement. These results, in addition to the previous results, indicated that perceived quality of an outsourced and co-sourced internal audit function is the same in the opinion of external auditors (see Figure 1), and provides evidence that co-sourcing would be a win-win situation for the company, as argued by Paul Smith in his *Internal Auditor* article, "Win-win Co-sourcing" (2002). Co-sourcing would not only allow the company to achieve the benefits and associated synergies, but it would also allow the company to control its external audit costs and efforts, which are sensitive to the quality of an internal audit function.

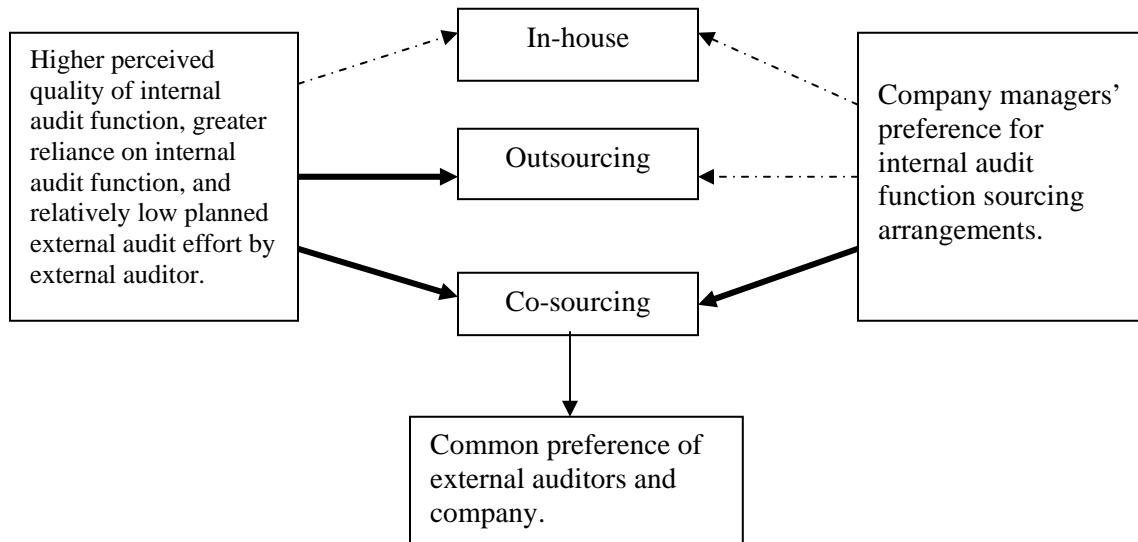
Table 2
Percent Choosing Each Sourcing Option

	Co-sourcing Option Not Provided to Participants	Co-sourcing Option Provided to Participants
	Number (%) of participants choosing option	Number (%) of participants choosing option
Simple Case		
In-house	16 (57.14)	1 (3.57)
Outsourcing	12 (42.85)	10 (35.72)
Co-sourcing	Option not provided	17 (60.71)
Complex Case		
In-house	4 (14.28)	1 (3.57)
Outsourcing	24 (85.71)	9 (32.14)
Co-sourcing	Option not provided	18 (64.28)

Note:

This table gives details of the percentage of participants opting for a particular sourcing arrangement. The simple case had less complex operations and the complex case had more complex operation.

Figure 1
Co-sourcing and External Auditors' Reliance
on the Internal Audit Function



Note: Bold arrows have a relatively stronger effect compared to dashed arrows.

Overall, our results suggest that managers believe co-sourcing to be a superior alternative to in-house and outsourcing arrangements. In conclusion, the results of our study suggest that internal audit co-sourcing may be a win-win situation for companies because they can benefit from the advantages (knowledge expertise, manpower, etc.) of co-sourcing and at the same time there can be higher perceived quality (in terms of reliance by the external auditor) associated with it. Results of our experimental study indicate that external audit effort (and, hence, external audit costs) associated with a co-sourcing arrangement where high-risk areas are co-sourced are: (1) lower than that for an in-house internal audit function, and (2) equal to that for an outsourced internal audit function. Care must be taken to not over generalize these results because they are contingent on our sample participants, choices of measures, and case construction. Future research needs to explore other dimensions of internal audit outsourcing, such as optimal sourcing arrangements to balance external audit efforts and costs. We conducted behavioral experiments to evaluate the information processing and the professional judgment of the auditors. Given the complexity of the human decision-making process, more extensive research, including field studies investigating companies' and auditors' experiences with various sourcing arrangements, should also be pursued to increase our knowledge and understanding of actual experiences with internal audit sourcing.