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## Does reliance on internal auditors' work reduced the external audit cost and external audit work?

Siti Zabedah Saidin\*

*School of Accountancy, Universiti Utara Malaysia 06010 UUM Sintok, Kedah, Malaysia*

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### Abstract

The main objective of this study is to examine whether reliance by the external auditors on the internal auditors' work lead to a reduction in the external audit cost and external audit work. Two different questionnaire surveys were sent to 387 head of internal auditors and 142 external auditors of the English local authorities, yielding a response rate of 43.9% and 45.0% respectively. Findings of the study show that the external auditors in English local authorities perceived that their reliance on internal audit work has no effect on the external audit fees or on the external audit work. Internal auditors in English local authorities perceived the external auditors' reliance on their work has no effect on the external audit fees but has reduced the extent of the external audit work. To conclude, the reliance on internal audit work in the local authorities in England does not have much impact on reducing external audit fees and external audit work. However, it does help to minimize increases in external audit fees.

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### 1. Introduction

Professional standards (for example, see International Auditing Standards (ISA 610) suggest that the means for internal and external audit to achieve their respective objectives are often similar and there is the opportunity for a substitution of effort between internal and external audit to avoid unnecessary duplication of work. CIPFA Code of

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\* Corresponding author. Tel.: +604-9287330.  
*E-mail address:* [zabedah@uum.edu.my](mailto:zabedah@uum.edu.my)

Audit Practice (2006) stated that the aim of the relationship between internal and external auditors is to avoid duplication of work. Accordingly, such substitution of effort with no duplication of work should logically lead to a corresponding reduction in external audit fees (Abbass & Aleqab, 2013; Brody, 2012; Mihret & Admassu 2011; Schneider, 2009; Schneider, 1985). However, empirical results examining the relationship between external auditors' reliance on internal audit work and reduced audit fees and audit work appear mixed and inconclusive. Several studies such as Abbass and Aleqab (2013), Felix, Gramling and Maletta (2001) and Wallace (1984) support a negative relationship between external auditors' reliance and audit fees. However, Suwaidan and Qasim (2010), Stein, Simunic and O'Keefe (1994) and Carey, Craswell and Simnett (2000) found that external auditors' reliance on internal auditors' work did not affect external audit fees.

There have been a number studies on the reliance of external auditors on the work of internal auditors (e.g. Brody, 2012; Suwaidan & Qasim, 2010; Stein et al., 1994; Carey et al., 2000; Felix et al., 2001), but these have generally been from the perspective of the external auditors. Studies of external auditors' reliance on the work of internal auditors from the perspective of internal and external auditors have focused on companies in the private sector rather than the public sector (Mihret & Admassu, 2011; Al-Twajjry, Brierley & Gwilliam, 2004). This study contributes by exploring internal auditors' interaction with external auditors from the perspective of both the internal and external auditor in a public sector setting, specifically in English local authorities. This study was also motivated by the increasing emphasis on the role of internal audit as a corporate governance mechanism in the public sector (Kangarlouei, Motavasse & Mohammadzadeh, 2013).

The main objective of this study is to examine whether reliance by the external auditors on the internal auditors' work lead to a reduction in the external audit cost and external audit work. The remainder of the paper is organized as follows. The second section discusses previous evidence on the relationship between the external auditors' reliance on internal audit work and audit fees. Section 3 discusses the research method, including the approach to data collection and data analysis. Section 4 presents the results and finally, section 5 concludes the paper.

## 2. Literature review

To the author's knowledge, few studies have examined the relationship between the external auditors' reliance on internal audit work and audit fees. An early study by Elliot and Korpi (1978) reported that the percentage reduction of audit scope due to the reliance on internal audit work was significant in predicting audit fees. Wallace (1984) reported that internal audit assistance to the external auditors resulted in a 10% reduction in the audit fee. In contrast, Stein et al. (1994) found that internal audit assistance was not a significant determinant of external audit fees. A study by Carey et al. (2000) used a combination of measures of external auditors' reliance on the work of internal audit (i.e. both continuous and dichotomous measure) and examined their association with audit fees. The results from this study are consistent with the results from Stein et al. (1994).

Felix et al. (2001) investigated whether the internal audit's contribution to the financial statement audit is a determinant of external audit fees, and examined factors that influence the contribution of the internal audit to the financial statement audit. The results revealed that the internal audit's contribution is a significant determinant of external audit fees. Al-Twajjry et al.'s (2004) study in Saudi Arabia found that there was mixed evidence as to the impact of internal auditor reliance on external audit fees.

Suwaidan and Qasim (2010), investigate whether there is relationship between external auditor's reliance on internal work and external auditor's fees. The results revealed no relationship between the reliance of external auditor on internal auditor and external auditor's fees.

Abbass and Aleqab (2013) investigated the extent in which internal auditor characteristics influence reliance of external auditors on their works, whether it increase or decrease audit fees. The results revealed that internal auditors' characteristics assist in increasing external auditors' reliance on their works and so minimize external auditors' efforts and fees. It appears that a reduction in the external audit fee is only likely if the external auditors relied heavily on the internal auditors' work.

Further, professional standards (International Auditing Standards (ISA 610) *considering the work of Internal Audit*) also suggested that the means for internal and external audit to achieve their respective objectives are often similar and there is the opportunity for a substitution of effort between internal and external audit to avoid unnecessary duplication of work. Accordingly, such substitution of effort should logically lead to a corresponding

reduction in external audit fees. However, empirical results appear mixed and inconclusive. This type of research has important implications for external auditors and local authorities as both have a common goal to reduce the cost of audit, and one way to achieve this is through reliance by the external auditor on internal audit work.

The determination of external audit fees in the public sector may be different to the private sector. In the public sector, particularly local authorities, the Audit Commission Act 1998 requires the Commission to prescribe scales of fees in respect of the audit of accounts which are to be audited in accordance with the Act. The Commission has a statutory duty to consult with associations of local authorities (or Local Government Association) and the accountancy profession before prescribing any scale of fees.

The Commission sets scales on a 'fee for audit' approach, i.e. one that is outcome-focused rather than based on input costs. The scales allow external auditors to agree on audit fee with each audited body on the basis of delivering an agreed range of audit outputs to an agreed timetable. The Commission has determined that the scales of audit fees for each local authority comprises of a fixed element, for different types of local authority, and an element related to the gross expenditure of the local authority.

The Commission has the power to determine the fee above or below the scale fee where it considers that substantially more or less work is required than envisaged by the scale fee. The Commission may therefore charge a fee which is larger or smaller than the scale fee to reflect the actual work that needs to be carried out to meet the auditor's statutory responsibilities, on the basis of the external auditor's assessment of risk and the scale and complexity of the audit of a particular local authority. The Commission normally expects to vary the scale fee by no more than 30 per cent (upwards or downwards) between years. This fee then becomes payable ([www.audit-commission.gov.uk](http://www.audit-commission.gov.uk)).

It is a matter for the external auditor to decide the work that is necessary to complete the audit and, subject to approval by the Commission, to seek to agree variation to the scale fee with the audited body (local authority). The Commission will normally approve a proposed variation to the scale fee where that is agreed by the auditor and the audited body.

### 3. Research method

The populations of the study were the entire Heads of Internal Audit and the appointed external auditors to the UK local authorities. Mail survey questionnaires were used to collect data for this study. Two different surveys of internal and external auditors on the perceptions of the relationship between internal and external auditors were carried out. A total of 387 of the first version of the questionnaire, including a covering letter and a reply-paid pre-addressed envelope, were mailed to the Heads of Internal Audit in each of the UK local authorities. Another 142 questionnaires were mailed to all the appointed external auditors of the local authorities. The covering letter introduced the researcher, explained the objectives of the study, and stressed the confidentiality of their responses.

Out of the 387 questionnaires distributed to the Heads of Internal Audit in local authorities of England, a total of 177 questionnaires were returned, yielding a response rate of 45.7%. The analysis for the internal audit survey was based on the 170 useable questionnaires (useable response rate = 43.9%). In total, 69 questionnaires were returned from 142 questionnaires sent out to external auditors, yielding a response rate of 48.6%. After excluding five unusable questionnaires, 64 questionnaires were used for the analysis (useable response rate = 45.0%).

From the perceptions of internal auditors, a parametric test of an independent-samples t-test was used to compare: (1) the mean scores between those that have reduced external audit fees and those that have not, and (2) the mean scores between those that have reduced external audit work and those that have not, as a result of the external auditors' reliance on internal audit work. For the perceptions of external auditors, a non-parametric Mann-Whitney test was used to compare: (1) those that have reduced external audit fees and those that have not, and (2) those that have reduced external audit work and those that have not differ in terms of the level of external auditors' reliance on internal audit work. This test is the non-parametric alternative to the t-test for independent samples. A non-parametric statistic is used because the data violated the parametric assumption of normally distributed data.

In addition to the t-test and Mann-Whitney tests, Spearman's Rank Order Correlations are used to examine the correlation between the level of external auditors' reliance on internal audit work for those that have reduced external audit fees and external audit work. The non-parametric Spearman's Rank Order Correlations was used

rather than the parametric Pearson Product Moment Correlations, because the reduced audit fees and reduced audit work constructs were each coded on an ordinal scale. For those that have reduced external audit fees and external audit work, Spearman's Rank Order Correlations were used to examine the relationship between: (1) the level of external auditors' reliance on internal audit work and the amount of reduced external audit fees, and (2) the level of external auditors' reliance on internal audit work and the amount of reduced external audit work.

#### 4. Findings and results

##### 4.1 Internal auditors' perspective

From the perceptions of the internal auditors, an independent-samples t-test was conducted to compare the level of external auditors' reliance on internal audit work mean scores for those that have reduced external audit fees and those that have not. The results of the t-test showed that there was no significant difference in mean scores for reliance for those that have reduced external audit fees (Mean = 4.06, n = 70) and those that have not reduced external audit fees (Mean = 3.96, n = 69), ( $t = 0.804$ ,  $p = 0.423$ ). As this value is above the required cut-off of 0.05, it can be concluded that there is not a statistically significant difference in the mean external auditors' reliance on internal audit work scores for those that have reduced external audit fees and those that have not.

However, the results of the t-test for the perceptions of the internal auditors on reduced external audit work due to external auditors' reliance on internal audit work showed that there was a significant difference in mean scores for those that have reduced external audit work (Mean = 4.09, n = 117) and those that have not reduced external audit work (Mean = 3.76, n = 29), ( $t = 2.191$ ,  $p = 0.030$ ). As this value is below the required cut-off of 0.05, it can be concluded that there is a statistically significant difference in the mean external auditors' reliance on internal audit work scores for those that have reduced external audit work and those that have not.

Overall, the results from the t-tests show that internal auditors perceived that the external auditors' reliance on internal audit work has no effect on the external audit fees but has reduced the external audit work. This may be because of the number of samples size differs greatly between those that have reduced external audit work and those that have not reduced external audit work.

Results of the Spearman's Rank Order Correlation for the relationship between the level of external auditors' reliance on internal audit work and the amount of reduced external audit fees revealed a moderate, negative, but not statistically significant, correlation between the two variables ( $r = -0.36$ ,  $n = 70$ ,  $p = 0.768$ ). The relationship between the level of external auditors' reliance on internal audit work and the amount of reduced external audit work showed a strong, negative, but not statistically significant correlation between the two variables ( $r = -0.60$ ,  $n = 117$ ,  $p = 0.521$ ). However, there was a strong, positive correlation between the amount of reduced external audit fees and the amount of reduced external audit work ( $r = 0.692$ ,  $n = 67$ ,  $p = 0.000$ ), with a higher percentage of reduced external audit fees associated with a higher percentage of reduced external audit work.

##### 4.2 External auditors' perspective

A Mann-Whitney test for the effect of external auditors' reliance on internal audit work on external audit fees revealed no statistically significant difference in the reliance level scores of the reduced external audit fees (Median = 3.00, n = 45) and non-reduced external audit fees (Median = 3.00, n = 10), ( $z = -0.376$ ,  $p = 0.707$ ).

Similarly, the results of the Mann-Whitney test on reduced external audit work due to external auditors' reliance on internal audit work showed that there was no statistically significant difference in the reliance level scores of the reduced external audit work (Median = 3.00, n = 48) and non-reduced external audit work (M = 3.00, n = 8), ( $z = -1.291$ ,  $p = 0.197$ ). Overall, the results show that external auditors felt the external auditors' reliance on internal audit work has no effect on the external audit fees as well as on the external audit work. This result is similar to the internal audit survey, in that the internal auditors perceived the external auditors' reliance on internal audit work has no effect on the external audit fees. On the other hand, the result is different where the internal auditors perceived the external auditors' reliance on internal audit work has reduced the external audit work.

Results of the Spearman's Rank Order Correlation for the relationship between the level of external auditors' reliance on internal audit work and the amount of reduced external audit fees revealed a small, positive, but not statistically significant correlation between the two variables,  $r = 0.256$ ,  $n = 45$ ,  $p = 0.090$ . Similarly, the

relationship between the level of external auditors' reliance on internal audit work and the amount of reduced external audit work showed the same pattern, with  $r = 0.216$ ,  $n = 48$ ,  $p = 0.088$ . However, there was a strong, positive correlation between the amount of reduced external audit fees and the amount of reduced external audit work,  $r = 0.678$ ,  $n = 44$ ,  $p = 0.000$ , with a higher percentage of reduced external audit fees associated with a higher percentage of reduced external audit work.

In short, the external auditors in England perceived that their reliance on internal audit work has no effect on the external audit fees or on the external audit work. However, internal auditors in England perceived the external auditors' reliance on their work has no effect on the external audit fees but has reduced the extent of the external audit work.

## 5. Conclusion

In summary, the findings of this study revealed that external auditors' reliance on internal audit work has no effect on external audit fees. These findings are consistent with Suwaidan and Qasim (2010), Stein et al., (1994), Carey et al., (2000) and Mat Zain (2005), but inconsistent with Abbass and Aleqab (2013), Wallace (1984) and Felix et al. (2001). In addition, findings from internal auditors show that the external auditors' reliance on internal audit work has reduced the external audit work. These finding are consistent with Elliot and Korpi (1978), who reported that there was a reduction of external audit work due to the reliance on internal audit work. External auditors viewed the quality of internal audit work as a factor that can affect their decision whether or not to rely on internal audit work. It is difficult to make a link between the work internal auditors carry out and the impact this will have on external audit fees. This is more about the quality of the output rather than direct cost saving. If the internal audit were inefficient, the external audit fee would be higher because the external auditors would rate the audit risk as being high. With regards to the control environment, if the control environment is good, the external auditor should be able to rely on the controls within the systems. If there were deficiencies in the control environment, the external auditor could not rely on the controls and would need to perform more substantive tests. Consequently, the quantity of external audit work and the external audit fees would be higher. To conclude, the reliance on internal audit work in the local authorities in England does not have much impact on reducing external audit fees and external audit work. However, it does help to minimize increases in external audit fees.

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