

Factors Affecting Internal Audit Effectiveness: A Research in China SMES

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Abstract: *The purpose of this study is to examine the factors that influence the effectiveness of internal auditing of unlisted SMEs in China. The research design of this paper is a questionnaire-based quantitative research method used to collect empirical data from 26 internal auditors. The findings show that firm size, independence of internal audit, level of communication with external auditors, support from management, and competence of internal auditors have significant positive impact on internal audit effectiveness. Among them, MS and IND have relatively the greatest impact on IAE. At the same time, in order to improve the effectiveness of internal auditing of small and medium-sized enterprises, enterprises are more inclined to strengthen communication and cooperation with external auditors, rather than improving the ability of internal auditors. The current research has some value for policy makers in SMEs. This provides a new way of thinking for enterprise decision-making in order to improve the effectiveness of internal audit - to implement outsourcing of internal audit. To the best of the authors' knowledge, this study is the first to examine the factors that influence the effectiveness of internal auditing in Chinese non-listed SMEs. But it also has its limitations: the survey sample is too small. The current study is helpful for further in-depth research in the future.*

Keywords: *Internal audit Effectiveness, SMEs, External audit*

1. Introduction

Small and medium enterprises (SMEs) are constantly emerging, growing and evolving with the changing business environment. They play a key role in developing countries as they are important contributors to developing economic growth and job creation. SMEs are the most dynamic microeconomic entities in China. According to the data disclosed at the first meeting of the State Council Leading Group for Promoting the Development of Small and Medium Enterprises in 2018: At present, small and medium-sized enterprises have contributed more than 90% of the number of enterprises, more than 80% of jobs, more than 70% of technological innovation, and 60% of China's More than 50% of GDP and more than 50% of taxes. Currently, the growing focus on corporate accountability is linked to the need for proper risk management and internal auditing. Tighter governance and internal audit-related regulations have emerged around the world in the wake of several major financial and accounting scandals. Previous research has shown that an effective internal audit function has a positive impact on a company's operating performance and corporate governance [1]. The prominent role of internal audit in corporate governance has made Internal Audit Effectiveness (IAE) a topic of constant interest. [2]

Current literature suggests that these studies typically focus only on large public companies and the public sector, while the effectiveness of internal auditing in SMEs has received little attention. This indicates a gap in the literature on IA and SMEs. There is a lack of IAE research on SMEs in the Chinese context because SMEs often cannot afford the resources and expenses required to establish an effective internal audit. However, due to the lack of resources to establish and maintain this internal audit function, SMEs may face significant difficulties in ensuring good internal control and governance systems for the preparation of financial statements [4]. At the same time there is not enough research in the international literature to satisfy the importance of this topic, and many scholars [3] suggest further research, especially focusing on developing countries. For the above reasons, this study attempts to examine the effectiveness of internal auditing in China's small and medium-sized non-listed companies, with the aim of eliminating existing gaps in the research field. The rest of this article is

organized as follows. Section 2 presents the literature review and the development of the hypothesis. Then, Section 3 will explain the research design. The fourth part is the research results. In the last section, conclusions and limitations are presented.

2. Literature Review & Hypothesis Development

2.1 Definition of SMEs of China

In China, an SME is defined as a company that is smaller than the large and listed companies, or usually with fewer than 500 employees. SME companies are companies that employ a maximum of 2,000 people with an annual revenue of not exceeding RMB300 million, and total assets should not exceed RMB400 million. While medium-sized companies employ a minimum of 300 people with annual revenues of not exceeding RMB 30 million and annual total assets of not exceeding RMB 40 million, the rest of the states mentioned above are considered small enterprises.

2.2 Size of internal audit

The "Guidelines for Internal Auditing of Companies Listed on the Small and Medium Enterprise Board" put forward requirements on the independence, scale, system construction, and competence of the person in charge of internal auditing of internal auditing. Zain et al. (2006) [5] believe that when internal auditors evaluate their own contributions to the audit of financial statements, they should focus on the size of the department. Sun Xiaoguang (2012) [6] found that the objectivity of internal audit, the size of the department, and the professional competence of personnel have a positive impact on the standard unqualified opinion issued. Zain et al. (2006) found that under the same conditions, if a company established a larger internal audit organization, the higher the effectiveness of its internal audit. D Shamki et al. (2017) [7] found that the larger the size of the internal audit agency, the higher the quality of financial reporting, and the more effective the internal audit. Wang Shouhai. (2010) [8] evaluates the effectiveness of internal audit through three aspects: independence, size of department, and professional competence of personnel. This paper uses Size to represent the size of internal audit, Thus, the following hypothesis is posited:

H1: There is a positive relationship between the size of internal audit and internal audit effectiveness.

2.3 Independence and professional competence of internal audit

Independence and professional competence are the two most important factors in the quality of audit committee members. Drogalas George et al. (2015) [9] believes that traditionally, the effectiveness of internal auditing is measured according to the specific requirements of relevant auditing standards, through the evaluation of independence, professional competence of personnel, scope of responsibility, and audit performance. Drogalas George et al. (2015) used regression analysis in the IPPF-based Attribute Criteria and Performance Criteria. Through empirical research, it is found that the factors that affect the effectiveness of internal audit are independence, internal audit quality and the ability of the audit team, the most important factor is independence. Sun Xiaoguang (2012) found that the objectivity of internal audit and the professional competence of personnel (whether they have CPA or CIA qualification certificates) have a positive impact on the standard unqualified opinion issued. Wang Shouhai et al. (2010) studied the relationship between the level of internal audit and the quality of financial reports, they used the objectivity and professional competence of internal auditors to measure the effectiveness of internal audit. It is generally believed that there is a close relationship between independence and effectiveness, which proves that the more independent the auditor, the more effective [10]. Thus, the following hypothesis is posited:

H2: There is a positive relationship between Independence of internal audit and internal audit effectiveness.

H3: There is a positive relationship professional competence of internal audit and internal audit effectiveness.

2.4 Cooperation with External Auditor 2

Ahmet ONAY (2020) believe that when internal auditors evaluate their own contributions to

financial statement auditing, they need to pay attention to the time effectiveness and closeness of the department's relationship with external auditors. Felix (2001) [14] found that internal audit quality, fixed risk level, and coordination between internal and external auditors are all important factors for internal auditing. Salehi

(2016) [11] found that the communication and coordination of internal and external auditors and the quality of internal audit have a significant impact on whether internal audit can play an effective role. Thus, the following hypothesis is posited:

H4: There is a positive relationship between the cooperation with external Auditor and internal audit effectiveness.

2.5 Management Support

A Musah (2018) pointed out that the effectiveness of internal audit depends on management support. Mihret and Yismaw (2007) [12] believed that the effectiveness of internal audit is the interaction of the four factors of internal audit quality, senior management support, organizational setting and the characteristics of the audited unit. Among them, the quality of internal audit and the support of senior management have the greatest impact on the effectiveness of internal audit. Drogalas George et al. (2015) found that the factors that affect the effectiveness of internal audit are independence, internal audit quality and the support of senior management. Cohen and Sayag (2010) [13] used in its methodology a questionnaire and mail survey of 292 organizations and believes that management support is critical to the functioning and success of internal audit effectiveness. Research also shows that other determinants of internal audit effectiveness come from top management support, such as skilled internal auditors, career development, organizational independence of the internal audit work, etc., as a result of top management decisions. Thus, the following hypothesis is posited:

H5: There is a positive relationship between management support and internal audit effectiveness. Accordingly, the proposed conceptual framework is as follows:

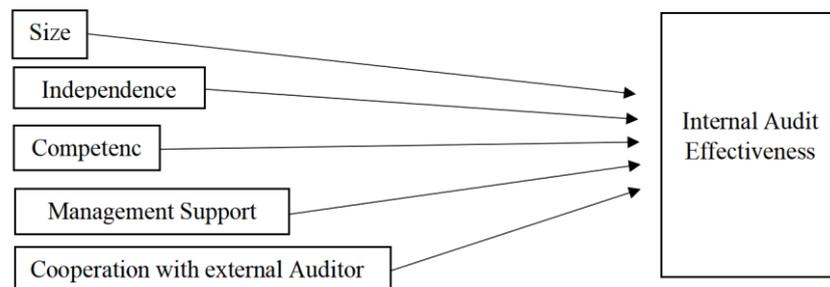


Figure 1: The Coneceptual Framework

3. Methodology

3.1 Research Design

This research has been designed using quantitative method. This study collected primary data by distributing questionnaires. Questionnaires distributed to respondents use closed-ended questions. The questionnaire used a five-point Likert scale ranging from strongly disagree to strongly agree.

3.2 Population and Sample

The respondents were internal auditors of 26 companies from China. Respondents took approximately 15 minutes to complete the questionnaire. The questionnaire is divided into four parts, namely Part A, Part B, Part C and Part D. Part A of the questionnaire includes demographic information about the respondents. Part B consists of the company's internal audit effectiveness, and Part C consists of independence of IA, competence of IA, management support for IA, cooperation between IA and external auditors.

3.3 Variable Measurement

The questionnaire items were adopted from previous literature, and they are as follows:

3.3.1 Dependent variable (IAE)

The internal audit effectiveness scale consists of ten items developed by Ahmet ONAY (2021). Respondents were asked to rate each of the ten items on a Five-point Likert scale, ranging from 1 (Strongly disagree) to 5 (Strongly agree).

3.3.2 Independent variables (INA, CE, COI, MS, Size)

A quantitative measure of Size can be obtained from Part A of the questionnaire. Second, a research tool for other variables was developed by Ahmet, ONAY (2021). Respondents were asked to rate a Five-point Likert scale from strongly disagree (1) to strongly agree (5) to assess the perception of respondents on the influence of each variable based on the mean response. Independence of IA was measured by seven items, competence of IA was measured by six items measures, management support for IA was measured by five items, and cooperation between IA and external auditors was measured by seven items.

4. Results & Discussion

Table 1: Profile of Respondents

| Demographic Variables | Categories | Frequency | Percentage |
|--------------------------|-------------------------|-----------|------------|
| Gender | Male | 12 | 46% |
| | Female | 14 | 54% |
| Age | <30 | 8 | 30% |
| | 30-40 | 12 | 46% |
| | 40-50 | 5 | 20% |
| | >50 | 1 | 4% |
| Size | 1-3 | 8 | 30% |
| | 4-5 | 8 | 30% |
| | 6-9 | 6 | 23% |
| | 10-12 | 3 | 12% |
| | 13 and more | 1 | 4% |
| Work experience | <5 years | 9 | 35% |
| | 5-10 years | 15 | 58% |
| | 10-20 years | 2 | 7% |
| | >20 years | 0 | 0% |
| Highest education level | Below Undergraduate | 1 | 4% |
| | Bachelor's degree | 20 | 77% |
| | Master's degree | 5 | 13% |
| | PhD | 0 | 0% |
| Professional certificate | Junior Accountant | 0 | 0% |
| | Intermediate Accountant | 2 | 8% |
| | Advanced Accountant | 18 | 69% |
| | CPA | 6 | 23% |

The position of the respondents is internal audit. From Table1, the work experience held by the respective positions shows that they were substantially experienced in their working field such that 65% of the respondents have more than 5 years of working experience, 35% with less than 5-year experience. 30% of participants were younger than 30 years old, 46% were 30-40 years old, 20% were 40-50 years old, and 4% were older than 50 years. Regarding the size of auditors, 30% of companies employ 1 to 3 auditors; 23% employ 4 to 5 auditors, 12% employ 10 to 12 auditors, and 4% employ more than 13 auditors. The educational level of most participants is bachelor's degree. This study reported that 8% of the respondents had Intermediate Accountant while 69%、23% others respectively indicate for, Advanced Accountant and CPA.

4.1 Descriptive Analysis of Variables

Table 2: Descriptive Statistics and Factor Structure

| | N | Min | Max | Mean | Std. Deviation |
|-----|----|------|------|--------|----------------|
| IAE | 26 | 3.00 | 4.40 | 3.6192 | .38577 |
| COI | 26 | 3.00 | 4.17 | 3.4904 | .33444 |
| MS | 26 | 3.30 | 4.50 | 3.7269 | .35277 |
| CE | 26 | 3.43 | 4.57 | 3.8901 | .36210 |
| IND | 26 | 3.29 | 4.43 | 3.6868 | .36538 |

Descriptive statistics in Table 2 show that the overall mean scores range from approximately 3.00 to 4.40. This shows that companies are positive about the effectiveness of the IAE.

Cooperation with External Auditor had the highest mean (3.89). Competence of Internal Audit had the lowest mean (3.49). This may be attributed to the lack of capital and resources in the business environment, making it difficult for SMEs to maintain a competitive advantage over large companies [17]. Scarce resources are defined as a company's lack of knowledge or people to maintain its corporate functions. This is already a problem in current public listed companies where it is difficult to find good internal auditors, and this problem is more prevalent in SMEs, which are generally reluctant to spend too much to hire high-quality internal auditors (NST, 2012). More SMEs audit committees recognize that outsourcing can improve the quality of internal auditing. This may be because the committee recognizes that the required skills of staff are insufficient [16]. Active communication and collaboration between internal auditors and external auditors on some of an organization's internal audit activities may significantly affect the quality of risk management procedures and the operational efficiency of internal controls, ultimately improving the organization's operations. This shows that in order to improve the effectiveness of internal audit, enterprises are more inclined to strengthen communication and collaboration with external auditors, rather than improving the ability of internal auditors.

Both Independence and Management Support average around 3.80. This shows that SMEs pay attention to the support of management and the independence of internal audit. This may be attributed to the fact that top management support for internal audit is critical to the effectiveness of internal audit. International standards emphasize the importance of independence in the conduct of effective internal auditing activities. Independence is central to the accounting profession and is most important to auditors. Alzeban & Gwilliam (2014) [15] pointed out that standard setters and professional bodies place more emphasis on the independence of the internal audit function.

4.2 Testing Hypotheses

The hypotheses developed in the previous section were tested with the following regression model:

$$IAE = b_0 + b_1SIZE + b_2IND + b_3COI + b_4MS + b_5CE + e_i$$

Table 3: Correlation coefficients for the variables in the model

| | IAE | COI | MS | CE | IND | Size |
|------|--------|--------|--------|--------|--------|------|
| IAE | 1 | | | | | |
| COI | .661** | 1 | | | | |
| MS | .748** | .667** | 1 | | | |
| CE | .683** | .774** | .546** | 1 | | |
| IND | .730** | .606** | .655** | .756** | 1 | |
| Size | .641** | .459** | .723** | .637** | .756** | 1 |

N=26, ** Correlation is significant at the 0.001 level.

The correlation between variables is shown in Table 3, and there is no problem of multicollinearity. As can be seen from Table 3, the two variables most positively supporting IAE are MS and IND. This is consistent with most previous studies: the most influential variable was managerial support or independence. The ISPPIA and IIA reports determined that internal audit independence and management support are integral to conducting the internal audit activity as intended. Internal audit shall have the status of the organization to be able to carry out its activities objectively and shall be able

to make its decisions independently of influence, including from management, and shall have the support of management to obtain the resources and Avoid audit restrictions. COI and CE have a positive effect on IAE, which is consistent with some previous findings [18]. In general, the independent variable has a significant linear effect on the dependent variable.

Table 4: Results of regression analysis

| Variable | B | Std. Error | β | t | P | Tolerance | VIF |
|----------|-------|------------|---------|--------|------|-----------|-------|
| Constant | 1.932 | .611 | | 3.165 | .005 | | |
| COI | -.341 | .172 | -.296 | -1.978 | .032 | .527 | 7.880 |
| MS | .150 | .325 | .137 | .462 | .039 | .322 | 5.101 |
| CE | -.017 | .217 | -.016 | -.077 | .043 | .684 | 4.642 |
| IND | .537 | .268 | .509 | 2.008 | .048 | .446 | 4.638 |
| Size | .076 | .020 | .646 | 3.750 | .001 | .896 | 1.461 |

$R^2=0.695$; Adjusted $R^2=0.691$; $F=66.500$; $P<0.01$

Dependent Variables: size of the IAD, independence of IA, competence of IA, management support for IA, cooperation between IA and external auditors.

As can be seen from the multicollinearity diagnostic output, the tolerance and VIF values are within the acceptable limits given in Table 4, so there is no strong collinearity among the independent variables of the model. The value of the F statistic in Table 4 is 66.50, and the corresponding P value is below 0.01, which is smaller than 0.05, indicating that the regression equation is significant, indicating that the independent variable has highly significant linear effect on the dependent variable. 69.1% of the total variance related to IAE dependent variable was explained by the independent variables. Variance explanation rate corrected according to degree of freedom was measured as 69.1%. It is determined that rate of dependent variable is explained by independent variables at a high level. Through the linear regression model equation finally established, there is a positive relationship between IAE and Size, COI, MS, CE, and IND. When Size, COI, MS, CE, IND increase, IAE will increase.

5. Conclusion

This paper aims to study the influencing factors of internal audit effectiveness of SMEs in my country. Correlation and regression analyze were performed based on the quantitative data from the questionnaire survey. Based on the findings, we conclude that Size, MS, COI, CE, INT have a positive and significant impact on IAE.

Among them, MS and INT have relatively the greatest impact on IAE. This is consistent with the conclusions of previous literature research. This is of positive significance to the decision-making of the managers of the enterprise. It should enable the internal audit to get the support of the management, obtain the resources needed to carry out its activities, and avoid audit restrictions within the organization and maintain independence. This maximizes the effectiveness of internal audit. COI and CE have a positive impact on IAE, indicating that small and medium-sized enterprises should enhance the ability of internal auditors, and at the same time strengthen communication and collaboration with external auditors to improve the effectiveness of internal audit. It can also be seen from the descriptive analysis that when the internal audit of SMEs is effective, the ability of internal auditors is relatively poor, while the communication and cooperation with external auditors is relatively good. This shows that in order to improve the effectiveness of internal audit, enterprises are more inclined to strengthen communication and collaboration with external auditors rather than to improve the ability of internal auditors. This provides a new way of thinking for corporate decision-making to improve the effectiveness of internal auditing—implementing outsourcing of internal auditing. Finally, the effectiveness of internal audit is not only related to the quality of internal audit, but also related to the size of the internal audit department. This is consistent with the conclusions of some previous literatures, but also contradicts some literatures. This suggests that further research is needed on this in the future.

This study has its limitations. First, this study uses a questionnaire. Respondents can be biased or misjudge. Secondly, only questionnaires are used as a research tool, and future research can also use interviews to obtain more general results. Third, the sample size was small (26 respondents), and future studies could increase the sample size to construct reliable results. On the other hand, the research

background of this study is based on China. Future research could draw research samples from other countries to understand the impact of cultural differences on the research context.

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