

Auditors' Industry Expertise and Internal Control Deficiency Identification Criteria Industry Similarity

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Abstract: The “similarity” of internal control deficiencies identification criteria is a new research perspective reflecting the quality of internal control identification criteria and the results of criteria identification. Using the data on auditors' industry expertise and hand-curated texts of internal control deficiencies identification standards of A-share listed companies in China from 2013 to 2022, this study explores the impact of auditors' industry expertise on the industry “similarity” of internal control deficiencies identification standards. It is found that there is an “inhibitory effect” of auditor's industry specialization on the phenomenon of “similarity” in the industry of internal control deficiencies identification criteria.

1. Introduction

The phenomenon of industry “similarity” in the identification of internal control deficiencies indicates that the quality of information on internal control deficiencies is not reliable. Admittedly, such low-quality information on internal control deficiencies may exacerbate information asymmetry in the capital market, which in turn may jeopardize the interests of investors. Therefore, companies need to strengthen the supervision of the quality of information on the criteria for identification of internal control deficiencies. External auditing is an important external governance mechanism for companies, and the auditor's industry expertise has an important impact on the process of internal control deficiency identification standards (Guo et al., 2022) [1]. On the one hand, the precise judgment made by auditors with industry expertise based on special industry expertise can effectively play the role of external governance (Solomon et al., 1999) [2], which can help supervise enterprises to improve the objectivity and scientificity of the identification criteria for internal control deficiencies, and thus reduce the degree of “similarity” in the industry of the identification criteria for internal control deficiencies. On the other hand, auditors with industry expertise can help monitor companies to improve the objectivity and science of internal control deficiencies identification criteria, thus reducing the degree of “similarity” in the industry (Hsu and Liao, 2023) [3]. Auditors with industry specialization may also suffer from a lack of independence, as they are affected by the inertia of experience and auditing costs, and will share their industry

knowledge and experience among their clients for the sake of economies of scale, which will exacerbate the phenomenon of “similarity” in the industry of internal control deficiencies identification standards (Petrov and Stocken, 2022) [4]. Therefore, it is of great theoretical and practical significance to study whether and how the auditor's industry expertise affects the “similarity” phenomenon in the industry of internal control deficiencies identification standards.

The possible contributions of this paper are mainly reflected in: (1) adopting textual analysis to measure the phenomenon of “similarity” in the industry of internal control deficiencies identification standards, which provides academics and practitioners with a brand-new measurement tool to reveal the problem of “similarity” in the industry of internal control deficiencies identification standards, and providing a new method of measurement for academics and practitioners to identify internal control deficiencies. "The above measurement method not only helps to promote the scientific and practical development of enterprises. The above measurement method not only helps to promote enterprises to issue internal control deficiencies identification criteria in a scientific and objective manner, but also helps to reveal the unreliability of the current internal control deficiencies identification, and provides empirical evidence to support the strengthening of the supervision on the exercise of enterprises' discretionary power. (2) Studies have not reached a consistent conclusion on whether auditors' industry expertise can play a role in external governance. This paper takes the phenomenon of industry “similarity” in the identification criteria for internal control deficiencies as an entry point to further explore the role of auditors' industry expertise on corporate governance, thus enriching the research on the economic consequences of auditors' industry expertise. (3) The peer effect of internal control deficiencies is a common problem in listed companies, but the literature has not paid enough attention to it. Based on the perspective of auditor's industry expertise, it expands the research on the influencing factors of the industry “similarity” phenomenon of internal control defects identification criteria, and also provides some insights for companies to exercise their discretion in conjunction with third-party supervision in order to formulate objective and fair internal control defects identification criteria.

2. Hypothesis Development

DiMaggio and Powell (1983) [5] argue that organizations such as firms are highly similar in both form and practice, and that when organizational fields are generated, powerful forces of homogeneity are born as a result. New institutionalism focuses on the problem of institutional homomorphism. Mimetic homoplasticity is one of the basic forms of institutional homoplasticity. Against the backdrop of increasing organizational homogeneity, there is still no guidance in China on how to set standards for identifying internal control deficiencies; in other words, there is a high degree of uncertainty about the standards that enterprises will set for identifying internal control deficiencies (Chen, 2023) [6]. In other words, there is a high degree of uncertainty about the criteria for identifying internal control deficiencies set by enterprises. However, this uncertainty gives enterprises “discretionary power” and at the same time provides incentives for the imitation, plagiarism or even direct application of the criteria for identifying internal control deficiencies. It is true that organizations facing similar institutional environments and policies have a higher degree of recognition and trust in each other, and are more likely to generate inter-organizational imitation behavior. In addition, imitators are more likely to choose to imitate objects with similar characteristics, and thus the degree of imitation between imitators and objects with similar characteristics will be higher. The most similar characteristics to individual firms are peer firms. Compared with non-peer enterprises, peer enterprises not only face similar institutional environment and policies, but also have a high degree of similarity in the characteristics of individual enterprises, and thus the phenomenon of “similarity” of internal control deficiencies is

more prominent among listed companies in the same industry, i.e., there is a peer effect of internal control deficiencies identification standards.

Improving the quality of information disclosure of internal control deficiencies can help reduce the information asymmetry between insiders and outsiders, thus promoting the effective allocation of resources. Objective and fair internal control deficiencies identification standards provide a basis for investors and regulators to evaluate and supervise, and are of great significance to the healthy and orderly development of the capital market. Compared with auditors without industry expertise, auditors with industry expertise have unique accumulated professional knowledge and industry experience, which is more helpful to improve the transparency of corporate information, and thus improve the quality of information disclosure (Dunn and Mayhew, 2004) [7]. In addition, auditors with industry expertise have an incentive to provide high-quality services to maintain their reputation. Therefore, based on the influence of auditor's professional competence and reputation, auditors with industry expertise can make more accurate judgments on internal control issues, and thus supervise the enterprises to issue more scientific and objective standards for identifying internal control deficiencies, so as to reduce the degree of industry similarity in the standards for identifying internal control deficiencies.

H1a: Auditors' industry expertise has “inhibitory effect” on industry similarity in the identification of internal control deficiencies.

Auditors with industry expertise work with clients with a high degree of similarity in characteristics, sharing industry-specific knowledge among clients and accumulating audit experience with similarly characterized clients, thereby generating economies of scale to reduce audit costs (Fung et al., 2012) [8]. Peer clients (firms) have more similar characteristics than non-peer clients (firms), and thus the likelihood of an auditor's industry expertise being useful in peer firms is greater. However, auditors with industry expertise suffer from a lack of independence. When auditors are influenced by audit costs and market share, there is a decrease in audit quality, which leads to a decrease in the transparency of firms' information. In other words, auditors with industry expertise may choose to lower the quality of disclosure of their clients (enterprises) to reduce audit costs and increase market share in the industry, thus exacerbating the industry “similarity” of the criteria for identifying internal control deficiencies.

H1b: Auditors' industry expertise has “facilitating effect” on industry similarity in the identification of internal control deficiencies.

3. Data and Methodology

3.1. Data and Sample

Internal control deficiencies are recognized as a “similar” phenomenon in the industry, and the data for 2013 and thereafter are calculated on the basis of 2012 because the Ministry of Finance and the Securities and Futures Commission have issued the Notice on the Implementation of the Standardized System of Internal Control for Listed Companies on the Main Board of the Stock Exchange of Hong Kong (China) Limited in 2012 by Classification and Batches (2012), which requires that state-owned listed companies disclose their internal control evaluation reports from 2012 onwards. 2012 onwards to disclose internal control evaluation reports. Therefore, the initial research sample of this paper is all listed companies in the Shanghai and Shenzhen A-share market from 2013 to 2022. In order to avoid the influence of abnormal samples, this paper sequentially carries out the following screening: (1) excluding financial and insurance listed companies; (2) excluding ST, PT and other companies in special treatment status; (3) excluding samples with missing key variables. Finally, 23,380 observations are obtained. In addition, this paper applies Winsorize shrinkage of top and bottom 1% to all continuous variables. The detailed definitions of

variables are presented in Appendix A.

3.2. Regression Models

Drawing on the existing literature on the factors influencing the identification of internal control deficiencies, this paper constructs the following model to test the relationship between auditor industry specialization and industry “similarity” in the identification of internal control deficiencies:

$$IDS_MED_{it}(IDS_AVG_{it}) = \beta_0 + \beta_1 EXPERT_{it} + \sum \gamma_i Control_{it} + \varepsilon_{it} \quad (1)$$

where subscripts i and t denote firm i and year t, respectively.

3.3. Descriptive Statistics

Table 1 shows the results of descriptive statistics. The mean values of the degree of industry “similarity” of internal control deficiencies identification criteria (IDS_MED and IDS_AVG) are 0.196 and 0.205, respectively, which indicates that the overall industry similarity of the texts of internal control deficiencies identification criteria of listed companies is high. In addition, the mean value of auditor industry expertise (EXPERT) is 0.261, which indicates that only 26.1% of listed companies in the sample employ accounting firms with industry expertise.

Table 1: Descriptive statistics.

Variables	N	Mean	Std	Median	Min	Max
<i>IDS_MED</i>	23380	0.196	0.071	0.178	0.097	0.451
<i>IDS_AVG</i>	23380	0.205	0.069	0.185	0.110	0.447
<i>EXPERT</i>	23380	0.261	0.439	0.000	0.000	1.000
<i>NonSOE</i>	23380	0.597	0.491	1.000	0.000	1.000
<i>LEV</i>	23380	0.448	0.216	0.436	0.053	0.936
<i>GROWTH</i>	23380	0.174	0.494	0.082	-0.546	3.273
<i>ROA</i>	23380	0.034	0.050	0.031	-0.165	0.175
<i>DUAL</i>	23380	0.246	0.431	0.000	0.000	1.000
<i>TOP5</i>	23380	0.523	0.154	0.524	0.198	0.896
<i>SIZE</i>	23380	22.310	1.402	22.080	19.720	27.300
<i>AGE</i>	23380	2.739	0.368	2.773	1.609	3.367
<i>OUTDRATE</i>	23380	0.374	0.053	0.357	0.333	0.571
<i>BOARD</i>	23380	2.146	0.204	2.197	1.609	2.708
<i>PAY</i>	23380	14.310	0.691	14.270	12.740	16.370
<i>FCF</i>	23380	0.041	0.070	0.041	-0.173	0.234
<i>HHI</i>	23380	0.161	0.116	0.130	0.014	0.560
<i>ANALYST</i>	23380	1.545	1.096	1.609	0.000	3.584

4. Empirical Results

4.1. Baseline Results

Table 2 reports the results of the benchmark regressions. The results in columns (1) to (2) show that the regression coefficients for auditor expertise (EXPERT) are significantly positive at the 5% and 10% levels, respectively. This suggests that auditor industry expertise reduces the degree of industry “similarity” in the identification of internal control deficiencies, i.e., there is a “dampening

effect” of auditor industry expertise on industry “similarity” in the identification of internal control deficiencies. "This is consistent with the theoretical expectation of H1a. This is consistent with the theoretical expectation of H1a.

Table 2: Baseline regression results.

	(1)	(2)
	<i>IDS_MED</i>	<i>IDS_AVG</i>
<i>EXPERT</i>	0.003**	0.003*
	(1.972)	(1.666)
<i>Controls</i>	Yes	Yes
<i>Constant</i>	0.241***	0.238***
	(10.821)	(11.492)
<i>Year</i>	Yes	Yes
<i>Industry</i>	Yes	Yes
Observations	23380	23380
Adjusted- R^2	0.199	0.240

Note: The t-statistics in the brackets are based on standard errors adjusted for clustering at the industry level. *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

4.2. Robustness Checks

The robustness tests confirm the validity of the study’s conclusions. First, replacing the measure of auditor industry expertise with a continuous variable (IMS) still yields significantly positive results, suggesting that auditor expertise reduces homogeneity in internal control deficiency standards. Second, addressing potential self-selection bias through a Heckman two-stage model shows that although selection bias exists, the effect of auditor expertise remains positive and significant. Third, testing the impact of text length on similarity indicates no significant relationship, ruling out confounding effects. Finally, distinguishing between quantitative and qualitative standards, results reveal that auditor expertise significantly suppresses similarity in quantitative criteria but has no n qualitative criteria, aligning with theoretical expectations.

5. Conclusions

Internal control deficiency identification standards are an important basis for the identification of internal control deficiencies in enterprises. The existence of industry “similarities” in the identification criteria for internal control deficiencies of listed companies indicates that the objectivity and scientific nature of the criteria for identifying internal control deficiencies disclosed by existing enterprises are insufficient. External audit is an important external governance mechanism for companies, and auditors with industry expertise can more effectively play the role of external governance and improve the information quality of internal control deficiency identification criteria by reducing the degree of information asymmetry. Therefore, this paper examines the role of auditors' industry expertise on the “similarity” phenomenon of internal control deficiencies identification criteria by using the data of auditors' industry expertise of Chinese A-share listed companies and the text of internal control deficiencies identification criteria manually collated from 2013 to 2022. The study finds that auditors with industry specialization have an “inhibitory effect” on the phenomenon of “similarity” in the industry of internal control deficiencies identification criteria.

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Appendix

Appendix A. Variable Definition.

Variables	Definition
Panel A: Internal control deficiency identification criteria industry similarity	
<i>IDS_MED</i>	Calculated through the Python processing of internal control deficiencies identified standard industry text differences in the median measure of internal control deficiencies identified standard industry “similarity” degree, the value of the value of the range of 0 to 1, the larger the value, the internal control deficiencies identified standard industry “similarity” degree is lower The larger the value, the lower the degree of “similarity” in the industry of internal control deficiencies identification criteria
<i>IDS_AVG</i>	Calculated through the Python processing of internal control deficiencies identified standard industry text differences in the degree of average measure of internal control deficiencies identified standard industry “similarity” degree, the value of the value of the range of 0 to 1, the greater the value, the internal control deficiencies identified standard industry “similarity” degree is lower The greater the value, the lower the degree of “similarity” in the industry of internal control deficiencies identification criteria
Panel B: Foreign experience variables	
<i>EXPERT</i>	Industry Market Share (IMS) greater than or equal to 10% is 1, otherwise 0
Panel C: Other variables	

<i>NonSOE</i>	Private enterprises are assigned a value of 1, while state-owned enterprises are assigned a value of 0
<i>LEV</i>	Ratio of total liabilities at the end of the period to total assets at the end of the period
<i>GROWTH</i>	Growth rate of main business income
<i>ROA</i>	Ratio of net profit to average total assets
<i>DUAL</i>	Chairman and Managing Director both take the value of 1, otherwise 0
<i>TOP5</i>	Ratio of number of shares held by top five shareholders to total number of shares
<i>SIZE</i>	Natural logarithm of the company's total assets at the end of the period
<i>AGE</i>	Natural logarithm of company age
<i>OUTDRATE</i>	Ratio of the number of independent directors to the total number of board members
<i>BOARD</i>	Natural logarithm of the number of Board members plus one
<i>PAY</i>	Natural logarithm of total compensation of the top three executives
<i>FCF</i>	Ratio of net cash flow from operating activities to total assets of the company
<i>HHI</i>	Industry Competition Herfindahl Index, the sum of the squares of the market shares of all firms in the market of an industry, categorized by secondary codes for manufacturing and primary codes for other industries
<i>ANALYST</i>	Natural logarithm of the sum of the number of analyst trails plus 1