

Auditor's Education Background and Audit Fees Based on Audit Risk Level

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Abstract: To get a good audit report or make the auditing environment more fairly and orderly, we should focus on the auditors' subjective factors like the personal characteristics such as gender, experience, position, educational background, major and so on. The goal of this study is to explore the relationship between auditors' education background and audit fees based on audit risk level. Based on the attribution theory, the two hypotheses development are put forward between audit fees and auditors' educational background based on audit risk level in this study. Collecting secondary data and analyzing it completely, all the data processing and calculation process of the empirical study were completed by excel and stata15. The results are that auditors with greater education tend to charge higher auditing fees. Moreover, highly educated auditors charge substantially higher audit fees when the audit risk is higher, indicating that audit risk level moderates the positive effect between auditors' educational background and audit fees. According to the research, investors and regulators might be able to obtain more information if they can identify certain auditors. This study can provide a positive basis for the training of auditors' talents and the construction of industry team.

Keywords: Educational Background; Audit Fees; Audit Risk Level; Personal Characteristics

1. Introduction

Auditors have two objectives. On one hand, auditors want to maintain their working relationship with the audited company so they may keep charging for their services. On the other hand, audit standards call for auditors to retain a particular level of independence and

control audit risks at a fair level as a third party independent from shareholders and management, based on the requirement to lower the principal-agent cost [1]. Due to the economic system's ongoing innovation in recent years, auditing has become a sophisticated and professional endeavor with rising hazards. According to prior studies, the quality of the organization's accounting information will significantly affect the amount of the audit risk. If the enterprise being audited has poor information quality, the audit risks that auditors must deal with will rise. The frequency of auditors giving unclean audit opinions and auditor changes likewise rises with the continual rise in audit risk level, and audit fees also clearly reflect an upward trend. This emphasized the existence of dispositional attributions, which refer to the external elements, environmental influences such as rules that have an impact on people's conduct. Auditors are to blame for failing to identify these issues in a timely manner, as there has been a substantial rise in the number of investors and lenders who have lost money as a result of business bankruptcies or financial fraud in recent years. Some researchers showed evidence that auditors responded to such problems by increasing testing beyond what was originally anticipated since audit latency is frequently used as a proxy for problems linked to unexpected audit or inherent risk. They saw this as an indication that auditors may increase the risk premium or alter the audit team's composition from the original plan in response to unanticipated changes [2]. Knowing how auditing works and how to improve audit quality is crucial, particularly when regulators are questioning the audit quality about evidence demonstrating whether auditors alter their efforts or prices in response to unexpected risk. Auditors may broaden the audit's scope, carry out more thorough procedures, like verification and

inspection, and seek more qualified outside counsel, enhancing the description of the answer, to reduce inspection risks. Auditors may utilize significant audit problems as a way to avoid dealing with the practise risk brought on by the policy burden [3]. When auditees are deemed to be at high risk, auditors will increase audit fees [4].

To address perceived risks, auditors are more likely to offer non-standard unqualified audit opinions [5]. Auditors are more inclined to provide non-standard unqualified audit conclusions to address perceived concerns [6]. When auditors view the audit to be high risk, they will modify the audit strategy and spend additional audit time [7]. When the risk level of listed companies increases, auditors are more likely to issue non-standard audit opinions, and audit fees are higher than those of companies with low audit risk level. Lennox and Kausar discovered that an auditor's propensity to adopt non-standard audit views and other behaviors increased with the client's pre-bankruptcy risk [5]. The audit fee is predetermined at the start of the audit but may be changed later if certain conditions lead to an unanticipated rise in the audit effort [2].

1.1 Problem Statement

According to the current audit environment, the audit business is becoming more and more complex, and the audit risk is rising daily. Businesses in China are under increased operating pressure as the country's economy transitions into a new normal phase of slower development. At the same time, the public expects a free, unbiased evaluation of the data presented by the firm's financial statements' management from the profession of a public accountant. A person performs the actual audit. Robots or even computers can aid in the auditing process, but human beings are still in charge of deliberation and decision-making [8]. Audit risk levels will have varying effects on the conduct of auditors with different genders, different educational backgrounds and different positions based on the variances in personal characteristics of auditors in response to risks. As a result, the decisions that auditors make about the audit task are significantly influenced by their personal characteristics. Numerous experimental investigations have looked at the variety of personal traits that auditors possess that relate to their propensity

to take risks and how these traits impact the audit work in various situations. Yet, there are few literatures that link the three variables of personal characteristics, audit risk level and auditor risk response together. In order to obtain the audit evidence that is relevant to the audit outcome, engagement auditors put in their labour during the audit process. Their effort, audit expertise, risk choices, and incentives, among other factors, may significantly affect the quality of the audit [9]. What's more, Li et al. see significant variability in the degree of self-contagion among auditors with various personal traits [4]. In particular, male auditors, auditors without an accounting degree, auditors with less experience, and auditors without industry expertise are more likely to self-contagion low quality audits.

1.2 Research Questions & Research Objectives

The following research questions are put forward according to the above research background existed in the current studies.

RQ1: How do the auditors' educational background affect audit fees?

RQ2: How do the auditors' educational background affect audit fees under specific audit risk level?

The objectives of this study are as follows:

RO1: To further enrich the research literature on individual characteristics of auditors, by grouping the data according to the unique traits of each person of auditors, namely educational background.

RO2: To further analyze this study and to confirm the measures used by auditors with various educational background to respond to audit risks

1.3 Significance of Study

This study aims to explore the relationship between audit fees and auditors' educational background based on audit risk level, finding out how the auditors react to risk is influenced by their individual characteristics. This paper outlines the important concepts of auditor risk response behaviour and explores the behaviour changes that auditors may make when faced with various personalities. the findings suggest that identifying specific auditors may give investors and regulators access to additional information. It's like some research says that

in terms of their potential for influencing policy, their findings imply that regulators who are worried about auditors' inclination to assume audit risk ought to pay more attention to each auditor's individual background.

2. Definition of Terms

2.1 Auditing Fees

Audit fees are the fees when the audit is completed. Accounting firms with a good reputation and competence will charge high fees because they are able to provide quality information [10].

2.2 Auditors' Education Background

Because they are more capable and competent than their counterparts, sophisticated auditors in Turkey more inclined to provide an amended audit opinion, which makes them more cautious [11].

2.3 Audit Risk Level

Audit Risk Level is the level of the probability of a major mistake or omission in the client's financial report, as well as an inappropriate audit opinion from the auditor following an audit.

2.4 Previous Related Studies

Utary demonstrated the unfavourable and significant impact that the high degree of auditor personal characteristics had on the reduced audit quality behaviour. Academic credentials can be a significant indicator of the overall calibre of auditors because they serve as proof of formal schooling. Higher educated individuals are more likely to accept new circumstances and adjustments. Their educational background can be further broken down into their academic degree, which indicates their length of study, and their professional subject, which indicates their level of depth of study [12]. Educated auditors are more cautious when carrying out audit activities, and they can also help them make better use of their time and avoid issues that may arise from a lack of it. Because they have more tools to deal with stressful situations and more control over the work process, educated persons are more likely to reduce the detrimental effects of stress. When conducting an audit task, more knowledgeable auditors are more critical in their questioning, gather more

evidence, and are more adept at spotting errors. Master's degree-holding auditors are less likely to experience audit failure because a higher education level improves their professional competencies and advances their audit expertise. An auditor's educational background reflects their level of professionalism and moral character. In contrast to popular belief, some researchers asserted that postgraduate degree auditors are more aggressive since they earn more money and have more work opportunities available to them. Higher levels of education, enhanced the effectiveness of self-assistance techniques for reducing stress. The auditor's political background, Big-N firm experience, and educational background all contribute to the audit quality.

2.5 The Attribution Theory

Attribute theory, focuses on how someone determined "what is the cause" before acting or making decisions. The attribution theory is an important theory since it will look at the variables that affect audit quality, particularly the auditors' personal traits. According to attribution theory, a person's internal factors for some parts of their particular behavior are explained. The attribution theory investigates how an individual perceives an occasion, a cause, or their causative activity. Whether the conduct is brought on by dispositional or internal causes or by environmental variables Internal causes frequently refer to features of person behavior. The goal of attribution theory is to offer a description of how we judge people differently depending on the meaning we assign to a particular behavior. It explains the process of how to discern the reason or motive behind a person's behavior.

2.6 Hypothesis Development

All of the auditors on the audit team will be more cautious in their behavior choices and are more likely to issue non-standard audit conclusions if they all have bachelor's degrees or higher. The results of an audit engagement can be significantly impacted by the educational backgrounds, areas of specialization, risk preferences, and other personal characteristics of auditors, according to a number of recent studies. Highly educated auditors will be very knowledgeable in the field they work in, allowing them to

understand the numerous issues more thoroughly. Furthermore, auditors will find it simpler to stay up with evolving technologies because of extensive science. The more educated the auditor is, the better and deeper they will understand their major, the more they will be able to consider the pertinent data of audit decisions in various aspects of the audit practice, and the better and more accurately they will understand the particular audit work. Due to their greater understanding, postgraduate auditors provide audit work that is more competent than that of auditors with bachelor's degrees. They tend to putting in more effort and being more capable and competent. According to both domestic and international studies, auditors who have a higher level of education, more experience in their field, and a greater understanding of auditing are more likely than other auditors to have stronger professional abilities. This allows them to employ more auditing procedures and gives them the ability to judge the quality of the auditing work. The educational history of an auditor may have an impact on his level of expertise and risk-taking. Hence, the second two hypothesis are put forward:

H₁: More educated auditors charge more auditing fees significantly.

H₂: More educated auditors charge more auditing fees significantly under bigger audit risk level.

3. Methodology

In this study, the researcher uses Stata version 15 to process the data and save the organized data. By analyzing the data, the results can have a better understanding of the relationships between the variables. As illustrated above, the data were analyzed using a quantitative approach. The research methods mainly use empirical research, correlation analysis, regression analysis and other data analysis methods for analysis. The major methods utilized to evaluate the hypothesis are logistic regression and ordinary least square as hypothesis testing techniques.

3.1 Data Collection Procedures

In the CSMAR database we use two main databases. One is China Stock Market Financial Database – Audit Opinion. The other one is China Listed Firm's Audit Research

Database. the researcher deleted 1221 ST companies. ST stands for Special Treatment. Meanwhile, samples of financial industry are eliminated because their business practices and regulatory structures are distinctive. The CPA from China is the study's target demographic. It is impractical to survey the entire population for a PhD study due to time and financial constraints as well as the magnitude of the population. Therefore, the study was based on 10 years of financial report data from 2,098 listed companies, ranging from Year 2013 to Year 2022. The research samples consist of 2,098 China-listed companies with an accounting deadline between 2013 and 2022 that are listed on the Shenzhen and Shanghai Stock Exchanges.

3.2 Measurement

3.2.1 Audit fees

According to Hu et al., the natural logarithm of audit fees serves as an indicator of the risk response behavior of auditors in this study [13]. Both local and foreign audit fees are included in the audit fees in our samples. The overall audit fees are where the data is gathered. In this study, the natural logarithm of audit fees is utilized to increase the stability of the data. Research to date has nearly exclusively utilized audit fees to measure auditor risk response. It is computed using the audit charge's natural logarithm [14]. This is how audit fees are calculated in this study.

3.2.2 Education background

Educational background indicates the education level of a CPA. If at least one signing auditor holds a master's degree or higher, the variable educational background is equal to 1, otherwise it is equal to 0. In the CSMAR database, Educational Background is given 5 values. If CPA has junior college degree, it is 1; if CPA has undergraduate school degree, it is 2; if CPA has master degree, it is 3; if CPA has doctor degree, it is 4; if CPA has others' degree, it is 5. Educational background in this study is the total number of the values of CPAs.

3.2.3 The moderate variable: audit risk level

The amount of general audit risk will be described qualitatively, such as whether it is high or low. It will be easier for auditors to understand audit risks, adopt appropriate audit procedures, and produce audit reports with more reasonable assurance if specific risk

levels can be quantitatively measured and the impact of audit risk levels on auditors' risk response measures under different values. Contrary to the typical research literature, this study will consider personality qualities as a subjective element to analyze how auditors' risk reactions flexibly adapt to various audit risk levels. By talking about the relationships between the three variables, the results can show a deeper understanding of the features of the audit team in China as well as more precisely comprehending the role and function of auditors in selecting various audit techniques depending on the situation.

Auditor risk perception is used to measure audit risk level, that is, audit delay, that is, the number of days between the balance sheet date and the audit report date [15]. Audit delay is the audit input. The number of days between the date of the asset and liability statement and the date of the audit report is used to calculate the audit input [14]. Audit input, known as audit invest, is calculated using the natural logarithm of the number of days between the end of the accounting year and the publication date of the audit report for the following year. Audit Input is the explained variable, represents audit input and draws on the practice of existing research, and the researchers measure the audit delay as the time interval days between the end of the accounting period, December 31 and the end of the audit period of the following year, taking the natural logarithm. This is the same way in this study.

3.2.4 The control variables

Accounts receivable balance/ending total assets is equal to Rec, and inventory balance/ending total assets is equal to Inv. Lev is the sum of all obligations and all assets. Liq is the product of current liabilities and assets; The ratio of average balance of total assets to total profit plus financing charges is known as ROA. All information comes from CSMAR.

4. Data Analysis

4.1 Variables and Model Design

In this study, the dependent variable is the audit fees. The independent variables are the auditors' gender. The moderator variable is audit risk level. To put it another way, AF stands for audit fees. Auditors' educational background are referred to as EB. The control

variables include Inv, Rec, Lev, Liq and Roa. In this study, the following model is built to evaluate each hypothesis:

$$AF = \beta_0 + \beta_1 EB + \beta_2 Inv + \beta_3 Rec + \beta_4 Lev + \beta_5 Liq + \beta_6 Roa + \varepsilon$$

4.2 Descriptive Analysis

Table 1 presents the results of the descriptive statistics used in this research.

Table 1. Descriptive Statistics of Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
AF	20,980	13.91	0.75	11.85	21.42
EB	20,980	3.97	1.37	1	10
ARL	20,980	4.55	0.23	2.56	5.9
Lnv	20,980	0.15	0.14	0	0.94
Rec	20,980	0.11	0.10	0	0.81
Lev	20,980	0.37	1.07	-0.19	148.63
Liq	20,980	2.34	3.47	-5.13	144
Roa	20,980	0.04	0.84	-29.02	108.35

Table 1 provides the information that there are 20,980 observations for every variable. The lowest value for audit fees is 11.85, while the highest value is 21.42. Currently, listed corporations in China typically charge different cheap audit costs, albeit there are notable variances within companies. The lower audit fees companies are more.

For educational background, its maximum value is 10 while its minimum value is 1. Its mean value is 3.97, showing that it is very unlikely that the value is 1 or 2, showing that most auditors have higher educational background than junior college degree and undergraduate school degree.

4.3 Multiple Linear Regression Analysis

The multiple regression analysis using fixed effect model is also shown in the Table 2.

Table 2. Analysis of Regression

Variables	EB	Lnv	Rec
AF	0.0261*** (7.78)	-0.4740*** (-5.25)	0.0291 (0.26)
	0.0036 (1.39)	-0.0182*** (-5.91)	-0.0131*** (-9.43)

Note: * * * is significant at 1% levels.

From the table 2, the coefficient of association between educational background and audit fees is 0.0261, which is greater than 0. At the same time, the relationship is significant at 1% level. Therefore, more educated auditors charge more auditing fees significantly so that

hypothesis H_1 is correct.

4.4 Moderate Effect for the Variables

When an auditor believes there is a greater degree of risk, more audit procedures are conducted and there is a greater chance that the audit findings will be withheld. Thus, the hypothesis H_2 was put forward. First, the researcher checks to see if, after adjusting for audit risk level, educational background has a more substantial link with audit fees. Then, an interaction item new is created following the decentralization of audit risk level and educational background. The moderate effect is shown in table 3

Table 3. Analysis of Regression

Variables	EB	new	Lnv	Rec
AF	0.0398 *** (18.35)	0.0274 *** (3.46)	-0.5443 *** (-14.46)	0.0348 (0.69)
	Lev	Liq	Roa	
	0.0030 (1.23)	-0.0201 *** (-20.9)	-0.0157 *** (-5.13)	

Note: * * * is significant at 1% levels.

From the table 3, the P value for the new2 is 0.001, which is less than 0.01, so that after adjusting for the level of risk, the greater the risk, the audit cost of educational background requirements was higher. Therefore, the researcher can conclude the hypotheses H_2 which is put forward is correct. Exactly, more educated auditors charge more auditing fees significantly under bigger audit risk level.

5. Conclusion and Recommendations

5.1 Conclusion

In conclusion, how the auditors react to risk is influenced by their individual characteristics. Each characteristic has a different influence on the risk response. The same situation is all the independent variables, in other words, all the characteristics have a significant relationship with the dependent variable, the auditor's risk response whether it is audit fees or key audit matters when not considering the moderator variable, the audit risk level. And how auditors' particular characteristics affect how they respond to risk. It is up to each independent variable. The greater the auditor education level within the audit team, the higher the audit fee to lower the audit risk. Firms demand higher fees from highly

educated auditors as audit risk response. There is no need to control any variables in the link between audit fees and educational background under the adjustment of audit risk level. Higher level educated auditors substantially increase auditing fees when the audit risk is higher. With the increase of risk level, if there are more highly educated auditors, it is easier for accounting firms to increase audit fees to cope with audit risks.

5.2 Theoretical and Practical Implications

Many implications arise from this study. First of all, this paper discusses the key ideas behind auditor risk response behavior and looks at the behavioral adjustments auditors might make in response to different types of personalities. Due to the fact that different accounting firms provide services of differing caliber, there are some variances in the audit fee cost.

Second, according to the research, investors and regulators might be able to obtain more information if they can identify certain auditors. Accounting firms should be aware of the positive role of auditors' personal experience and allocate more experienced auditors to clients with high audit risk based on the principle of quality control. Small scale firms should pay special attention to the proper allocation of auditors. Related to this, firms should pay more attention to the cultivation of auditors' experience.

5.3 Limitations

Of course, this study has different limitations. The first barrier preventing the conclusions from being broadly applied is the use of data from the Chinese stock market in the investigation, whose capital market regulations and audit procedures are different from those of more developed markets like the US, UK, etc. Although our analysis provides informative data from the Chinese market, the applicability of the findings remains largely open due to the distinct idiosyncrasies of the Chinese auditing industry. It will be helpful to conduct additional research using data from other economies, especially those with distinct market situations.

The second limitation of this study is that, like other pertinent studies before it, it only included a small number of organizations and auditors, making the conclusions vulnerable to the unique characteristics of the auditors in

comparison. The primary authors of this paper are the auditors of the selected listed company; they have not contributed to the other sections. And the finance firms are the enterprise's focus, aside from the ST companies, and the listed enterprises in Shenzhen and Shanghai. Furthermore, the duration is ten years, from 2013 to 2022, which is a rather short period of time.

5.4 Recommendation for Future Research

Although the regulatory rules and relevant standards provide institutional guarantee for the quality of audit business at the institutional level, the audit process involves a lot of professional judgment, which is inevitably affected by the psychological characteristics of auditors. Therefore, accounting firms should take the psychological characteristics of auditors into account when designing the quality of the quantity control mechanism and carrying out human resource management.

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