

Review of Empirical Literature on Audit Quality and Cost of Debt Capital

Alireza Eskandari¹ Assoc. Prof. Dr.Siti Zaleha Abdul Rasid² Dr. Rohaida Basiruddin³ & Mohammad Reza Hosseini⁴

Abstract

This paper reviews empirical studies over the past decades in order to assess what researchers have done about the impact of audit quality on the cost of debt capital. Audit quality encompasses of an external mechanism intended to mitigate information asymmetry by increasing the monitoring of management's actions, limiting managers' opportunistic behavior, and improving the quality of firms' information flows. A stream of literature explains that audit quality of external auditor mechanisms such as auditor size, audit fees, non-audit services and auditor industry specialization are able to contribute towards improving the firm's performance and reducing information asymmetry. The other dimension of value creation is the reduction in the cost of debt capital raised by firms. Theoretically and empirically to some extent, high audit quality of external auditors will lead to lower firm risk, information asymmetry and subsequently, a lower cost of debt capital. This paper aims to provide a critical review of the empirical literature on the effect of audit quality on the cost of debt capital.

Keywords: Audit Quality, Cost of Debt Capital and Information Asymmetry

1. Introduction

Audit is a key contributor to financial stability and to re-establish trust and market confidence. Auditors are entrusted by law with conducting statutory audits and fulfill an important role in offering an opinion on whether the financial statements are stated truly and fairly (Quick, 2012). This assurance should reduce the risk of misstatement, subsequently, reduce the costs of business failures.

¹Phd candidate of International Business School (IBS),UniversitiTeknologi Malaysia (UTM), 54100 Kuala Lumpur, Malaysia. Phone: +60173055092, Email: aeskandari1354@yahoo.com

²International Business School (IBS), UniversitiTeknologi Malaysia (UTM)

³International Business School (IBS), UniversitiTeknologi Malaysia (UTM)

⁴Malaysia – Japan International Institute of Technology (MJIIIT),UniversitiTeknologi Malaysia (UTM)

The external audit exercise is a governance procedure that reviews and analyses a company's internal audits and control the fiscal reports to avoid material misstatements. According to Wallace (1980), claims that shareholders demand audited fiscal reports as these reports offer details that are beneficial for their decisions on investments; hence, the external audit would act as a tracking device that decreases managers' interests in misstating the earnings. Thus, the audit is used as a method of enhancing the top quality of the fiscal information; hence, it is expected that a better audit quality will be linked with reduced cost of capital by companies. Shareholders depend on the external auditor to offer some guarantee that the fiscal reports of a company are not deceiving. It is critical that the tracking mechanism offered by the external auditors is not affected and becomes the most essential aspect for the proper delivery of an independent auditing function.

The value of auditing is both internal and external. To the auditee, defined as the organization to be audited, audit assurance is supposed to decrease the risk of internal controls, misstatement and hence, decrease the possibility of business failure. For the information users outside the organization, the assurance will reduce the risk of information asymmetry; optimize the allocation of resources, thus, improving the efficiency of capital markets.

The accounting role has to face a growing pressure from external elements to observe and enhance the high audit process of company (Sutton, 1993). To contend efficiently in this setting, audit companies must continuously endeavor to enhance the audit quality and increase customer satisfaction. Firstly, the auditor's capability is to analyse the records and recognize mistakes or flaws, i.e. their technical proficiency, and secondly, their objectivity or detachment, i.e. their independence. The auditing quality is the unique blend of the auditor's ability to recognize and report issues found in the records (R. Watts & Zimmerman, 1986). According to DeAngelo (1981), defining audit quality is beneficial for research as proficiency and independence to carry out their jobs are quite unique constructs. Nevertheless, these two measurements are not very different nor separate: for instance, the audit company could determine not trying to locate the problematic areas (competence) which they do not wish to report (independence).

Technical proficiency is comparatively simple to contemplate. Nevertheless, independence is more difficult in proving and simpler to go against (Mednick, 1990).

According to Duff (2004), audit quality consists of technical and service quality (the degree of customers' satisfaction and meeting their requirements). Technical quality involves capability, reputation capital, expertise, scales of independence and experience, while quality of service is defined by empathy responsiveness, and the supply of client services and non-audit services.

The agency theory suggests that the principals' interests and the agents may not be the same and that tracking of the management is a technique of decreasing agency cost (M. C. Jensen & Meckling, 1976). Information systems on corporate governance is used for monitoring (Eisenhardt, 1989); one such tool being the external audit (R. L. Watts & Zimmerman, 1983). The stakeholders and managers have rewards for motivating such (Fama & Jensen, 1983a, 1983b).

One of the key elements that affect the reliability of fiscal reports are said to be the audit quality (Arruñada, 2004). The stakeholders would show more confidence on the information revealed in the fiscal reports if the audit of the fiscal reports is recognized to be of top great quality. The auditing quality is based on the likelihood of the auditor being able to find and report any misappropriation in the financial reports (R. Watts & Zimmerman, 1986). DeAngelo (1981) study on the audit quality pointed out two important aspects that it is dependent on.

In considering the cost of capital, this review of empirical literature focuses on the public debt market for several reasons. First, Modigliani and Miller (1958, 1963) show that managers seek to maximize shareholder wealth to invest in positive net present value projects by minimizing the cost of financing. Debt financing is generally preferable when the tax shield and the leverage effect are to the debtor's advantage. Mackie-Mason (1990) and Ely et al. (2002) show that firms with higher marginal tax rates prefer debt since they can enjoy the interest tax shield. Scholes et al. (1992) and Carter and Manzon Jr (1995) find that firms that cannot make efficient use of tax shields prefer to issue a security that is tax-favoured in the hands of the holder. Secondly, the public debt market is a significantly larger market than the equity market. The Federal Reserve System's flow of funds data shows that over the past decade, there have been \$780 billion in net debt security issuances but only \$2 billion of equity issuances (Graham et al., 2008). Third, compared to the pricing of equity, which might be affected by the misspecification of the equilibrium pricing model, bond pricing is relatively well defined (Mansi, Maxwell, & Miller, 2004).

The information asymmetry not only exists in the equity capital market, but also causes big problems in debt capital markets. That explains the reason why researchers continue searching for relations between information quality and cost of debt capital to find a way to reduce interest expense for companies. Audit contributes to investor protection (Newman, Patterson, & Smith, 2005), reduces perceived investment risk and thus, cost of capital. Theory posits that an audit by an independent party reduces the information asymmetries; subsequently, reduce the possibility of moral hazard and adverse selection problem between information providers and information users.

The objective of this paper is to review the limited but expanding body of literature on the effect of audit quality on the cost of debt capital. The remaining of this paper is organized as follows. The next section looks at the measurement of audit quality and empirical evidence of audit quality on the cost of debt capital. The final section concludes this paper and provides suggestions for future research.

2. Measuring Audit Quality

It is challenging and complicated to measure audit quality (K. L. Jensen & Payne, 2005; Niemi, 2004; Wooten, 2003). Nevertheless, according to Bailey and Grambling (2005), Francis (2004) and PCAOB (2008); there are several possible measurements of audit quality available in practice and in the literature. This set of researches includes two parts. The first group of researches using direct measures like: financial reporting compliance with GAAP, bankruptcy, quality control review, desk review and SEC performance are used as a measure of audit quality (Chadegani, 2011). In the second studies, indirect measures like: auditor tenure, industry expertise, audit fees, economic dependence, audit size, reputation and cost of capital are used as a measure for audit quality (Chadegani, 2011). The impact of indirect measures of audit quality will be reviewed in this study on the cost of debt capital and they will be reviewed in detail in the following sections

3. Literature reviews of Audit Quality and cost of Debt Capital

From a theoretical viewpoint, empirical investigation proposes that low audit quality will lead to amplified information asymmetry, which may increase the uncertainty of investment or future cash flows.

Summing up the prior empirical studies, audit quality has been found to have a linkage with the cost of debt capital, with higher audit quality leads to a lower cost of debt capital. The following section reviews the findings of prior research with regard to the relationship between audit quality and cost of debt capital. Compare to the mentioned proxies for audit quality; the size, auditor choice, reputation, brand name, audit fees and industrial-expertise of audit firms have influences on audit quality. Especially, the two-tier auditing industry provides chances to analyze the differences between the services provided by Big N and non-Big N firms.

3.1 Auditor Industry Specialization

Prior research documents that auditor industry specialization enhances financial reporting quality and mitigates fraudulent financial reporting (Carcello & Nagy, 2004; Krishnan, Sami, & Zhang, 2005). Lou and Vasvari(2009) examined whether companies' selection of an audit specialist could reduce the cost of debt faced when having access to the public debt market. They used bond issues in the U.S. as a large sample for their study. It was found that bond investors and credit agencies appreciate the benefits of industry audit specialists. Companies that engage industry audit specialists get higher credit ratings and offer prominently reduced yields when bond securities are issued. Chu et al (2009) findings show that depending on the likelihood of bankruptcy, banks depend on various monitoring tools. For companies with a lesser likelihood of bankruptcy, banks are not dependent on the corporate governance quality or the auditor's specialization of an industry. Nevertheless, the auditor's tenure and a shift of the auditor have an effect on the spread. For companies with a high chance of bankruptcy, the spread is moved to view the corporate governance quality and the specialization of the auditor. These findings are contingent on alternative measures and specifications.

Li et al (2010) investigated the link between specialist auditors in the industry and the cost of debt financing by utilizing a city and national level industry specialist guideline. In line with the assumption that higher audit quality is linked to a reduced information risk, which is good for clients in getting debt capital, it was found that companies audited by the auditors from the city level industry specialist, either jointly or individually with auditors from the national level industry specialist, experienced a major reduction in the cost of debt financing as calculated by bond spread and credit rating.

Furthermore, the findings revealed that for joint city and national level industry specialists, both insurance and information functions are important in lowering the cost of debt financing.

In a study by Wahyuni(2013), the data used are 789 firms of observation years during 2000-2010 in Indonesia. From this amount, 291 samples are high profile industry. Consistent with expectation, the results of this study find that (1) auditor specializations are factored into the firm's bond rating by credit rating agencies; (2) auditor specialization is negatively and significantly related to the cost of debt financing; (3) the relation between auditor specialization and the cost of debt financing is most pronounced in a high profile industry. Overall, their result suggests that auditor specialization matters to bond market investor in Indonesia.

3.2 Audit Fees and Non-Audit Services

Most of the literature on auditor independence focused on the external auditor's provision of non-audit services. Another issue emphasized in this study is whether the provision of non-audit fees and audit fees as measures of auditor independence and audit quality influences the cost of debt capital.

A study conducted by Dhaliwal et al. (2008) investigated the link between the fees of auditors and the cost of debt, and the impact of the fees on the association between information on the financial statements and the cost of debt. It was found that non-audit fees are related directly to the cost of debt for issuers of investment grade. The findings are dynamic in controlling the tenure of the auditor and corporate governance, and evidence was found that the relation between earnings and the cost of debt declined as audit fees went up. No evidence was found that auditor fees have a direct effect on the cost of debt for the noninvestment-grade companies, but it was discovered that the relation between earnings and the cost of debt declined as non-audit fees went up.

3.3 Auditor Size and Reputation

The study of Fortin and Pittman (2004) investigated the effect of auditor selection on debt pricing in companies' early years of going public when they specifically depend on getting external financing in spite of facing serious information issues.

The cross-sectional study claimed to have a Big Six auditor, could decrease debt-related monitoring expenses by improving the credibility of financial reports, which allows young companies to reduce their borrowing expenses. Karjalainen(2008) studied the link between the choice of auditor and the cost of debt financing for small and medium-sized private enterprises (SMEs). Time series of cross-sectional data of 832 private and limited SMEs in Finland was used. The findings showed that the selection of an internationally famous audit company is negatively related to the predicted cost of debt financing for SMEs.

Research of Lai (2011)revealed that interest charge is related positively to investment opportunities for all-equity companies. This link is weaker when the companies hire the Big 4 auditors or have a higher share of debt chargeable in the following year over the whole debt. Furthermore, the findings above are not applicable for highly leveraged companies as the lenders are always monitoring their borrowers' financial condition.

3.4 Different Approach of Audit Quality and Cost of Debt

Previous studies on the link between audit quality and cost of debt have been investigated from various approaches namely voluntary audits, auditor's choice, audited SMEs firms and younger technology companies and older non-technology companies. Hwang et al. (2008) investigated the link between switching auditors and the response of the bond market among listed companies in Korea. They examined the direct link between switching auditors and the response of the bond market, as well as the impact of switching auditors on the response of the bond market to the quality of earnings. The findings show that external investors both respond to the switching of auditors and also take into consideration the switching behavior when assessing the quality of earnings. The growth in impacts is prominent for companies whose audit quality has improved, which relates to the fact that the investors' concern regarding switching of auditors reduces when switching of auditor causes an improvement in the auditing quality.

Kim et al. (2011) studied private Korean firms as their sample for a duration of 16 years from 1987 to 2002 including 1997 which was the year of the Asian financial crisis.

It was found that private firms that had carried out voluntary audits paid comparatively reduced interest rates for their debt compared to private firms that had not carried out audits. It was revealed that the hiring of Big 4 auditors does not cause more decrease in the interest cost of borrowing, in comparison with the hiring of non-Big 4 auditors.

Causholli and Knechel(2012) investigated the setting where a high audit quality lowers a company's cost of debt. It was discovered that young companies at the IPO time paid higher interest rates and auditor quality played a huge difference in reducing the financing's cost of debt. In line with the hypothesis that was proposed, the researchers also found that the impact of auditor quality is bigger for companies in the high technology industry sector. Additionally, the link between auditor quality and age was reliant upon the industry, with the advantages of employing auditors of high quality mainly accrued to younger technology companies and older non-technology companies.

Huguet and Gandía(2012) investigated the link between the costs of debt capital and auditing within the SME framework, a subject not studied much in previous literature and that yielded contradictory results. They used Spanish SMEs as the sample for the study, which contained audited firms, with voluntary and mandatory audits, and non-audited firms. It was discovered that auditing assisted in lowering the cost of debt for SMEs, but only for firms that were more than a particular size. In addition, it was discovered that for bigger SMEs, the auditing had a lesser effect on the cost of debt as the size increased. SMEs audited by the Big 4 auditors were not found to have a reduced cost of debt compared to those audited by non-Big 4 auditors.

Using a sample of 823 firms from 35 countries, Ben-Nasr et al. (2014) examined the impact of auditor's choice on bond ratings. They find strong evidence that the auditor's choice significantly affects the bond ratings. The model also shows that the quality of legal and extra-legal institutions plays an important role in improving debt ratings. More specifically, they find that the existence and the enforcement of creditor laws are associated with higher bond rating.

Only in recent years that researchers have begun to investigate the impact of audit quality of external auditor's mechanisms on the other dimension of firms' value that is the cost of debt capital.

It can be argued that if firms are able to enjoy a cheaper cost of raising capital, a value has been created for shareholders. Based on the limited but growing literatures on the relationship between audit quality and the cost of debt capital, stronger external CG mechanisms such as audit quality of external auditor are able to mitigate information asymmetry and the agency problem that highlights the capital markets. In an agency relationship in which information asymmetry problems arise, the suppliers of financial statements are assumed to be dishonest in reporting financial information. As such, the users of financial statements are incapable of distinguishing between honest and dishonest information. In this situation, the demand for independent audits can be seen to result in the financial statement of users receiving honest reports (Wallace, 1980). Thus, audit services inform the market that the financial statements provided by the management are also free from material errors. Prior studies had utilized audit quality measurement variables such as auditor size, audit fees, non-audit services, auditor industry specialization, and remuneration in this strand of research.

4. Conclusion and Future Studies

Theoretically and empirically to some extent, high audit quality of external auditors will lead to lower firm risk and subsequently to a lower cost of debt capital. Firms that are well-managed in terms of the existence of internal and external robust monitoring devices as well as the provision of quality financial reporting and protection of stakeholders' well-being, will be able to limit the exercise of power of corporate managers and carefully allocate resources, which in turn enjoy lower risk than other firms. It follows that these firms should have access to cheaper source of capital, either in the form of equity or debt or both, than other firms. A few areas can be the focus of future research. First, the impact of audit quality on the cost of debt capital in emerging markets such as the East Asia, Eastern Europe and Russia should be undertaken so as to enable generalization of research findings. Lastly, future research could also draw on cross-countries comparisons by examining the influence of different level of accounting principles and their level of implementation on the cost of debt capital.

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