# Do socially responsible firms demand high-quality audits? An international evidence

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#### Abstract

This paper investigates whether corporate social responsibility (CSR) performance influences the demand for high-quality audits in terms of audit effort measured by audit fee. Using a sample of listed firms from 20 developed countries across three regions, namely United States (US), United Kingdom (UK) and Europe (EU) over the period 2002-2016 and different measures of CSR performance (environmental and social), we find that socially responsible firms demand high-quality audits from external auditors. Further analysis shows that this result is robust to the use of alternate samples, country and firm-level governance systems, and endogeneity concerns. Taken together, these findings suggest that socially responsible attributes of being ethical, honest, trustworthy, and transparent while reporting financial results motivate firms to demand high-quality audits in order to preserve their reputation or socially responsible image. The main implication of our findings is that the stakeholders may place greater confidence in the financial reports of socially responsible firms as they are likely to demand high-quality audits.

**Keywords:** Corporate Social Responsibility (CSR) Performance, Financial Reporting Quality, Ethical Concerns/Behavior, Reputation Concerns, High-Quality Audits

#### **1.** Introduction

Leaders, researchers, investors and customers advocate that the prime focus of corporations should not merely be generating higher profits at the cost of fulfilling their duties towards environment and the society. Consequently, corporate social responsibility (CSR) has emerged as a popular and widespread theme among businesses, media and governments (Ditlev-Simonsen & Midttun, 2011). The last two decades have witnessed significant increase in CSR engagement, with the prime motive to address the expectations of stakeholders (Campbell, 2007). Stakeholder theory argues that the organizational success depends on the way it manages its relationship not only with financers and shareholders, but also with employees, customers, and even with the society in which it operates (Freeman, 1994). On the other hand, agency theory considers CSR as a misallocation of resources. According to this theory, managers may overinvest in CSR to extract their own private benefits, rather than maximizing firm performance and value (Barnea & Rubin, 2010). In nutshell, the literature finds arguments for both positive and negative impact of CSR on firm performance, with the positive relation outweighing the other one.<sup>1</sup>

Irrespective of the impact of CSR on firm performance, the question that is still under investigated, is whether being socially responsible to the society is enough or should the social responsibility also be reflected in all the internal decisions of organization? Do managers really behave ethically responsible when dealing internal matters of the company? Specifically, do they follow the ethical standards in reporting their financial performance? This must be the case to claim CSR in true sense as corporate managers are representatives of the firm and their actions must reflect the sense of social responsibility (Carroll, 1979). According to Wood (1991, p. 696) "Managers are moral actors. Within every domain of corporate social responsibility, they are obliged to exercise such discretion as is available to them, toward

<sup>&</sup>lt;sup>1</sup> See Van Beurden and Gössling (2008) and Peloza (2009) for complete literature on CSR and firm performance.

socially responsible outcomes". With regard to financial reporting quality and CSR, previous research has shown mixed results with some scholars reporting positive (Carey, Liu, & Qu, 2017; Petrovits, 2006; Prior, Surroca, & Tribó, 2008) while others finding negative relation (Hong & Andersen, 2011; Kim, Park, & Wier, 2012). Wang, Cao, and Ye (2018) argue that employees of socially responsible firms exhibit higher ethical standards which induces them to produce high quality financial statements by mitigating the probability of earnings management. Since, audit quality is one of the most important aspect of the financial reporting quality, it is presumed that socially responsible managers will demand high-quality audits<sup>2</sup> from external auditors to ensure the quality of financial statements. If this is not the case, then the managers may be using CSR as a cover to hide their financial misconduct.

To validate these arguments, we examine the relationship between CSR and the demand for high-quality audits. Aligned with the transparent financial reporting hypothesis, we find a positive and statistically significant relation between CSR and the demand for high-quality audits in a sample of listed firms from the United States (US), the United Kingdom (UK) and Europe (EU) over the period 2002 to 2016. While looking at regions, we observe that firms operating in Europe demand more intensive audits than the firms in US and UK. Further, we divided CSR in dimensions of environmental and social performance and find that both the measures of CSR performance are positively linked with the demand for high-quality audits.

To check the robustness of our results, we divide our main sample into two subsamples of Anglo-Saxon (US and UK) and Continental systems (EU). However, we find that CSR is still positively related with the demand for high-quality audits in both subsamples. Further, in Continental system, we divide our sample in Germanic (Austria, Denmark, Finland, Germany, Netherlands, Norway, Sweden, and Switzerland) and Latin (Belgium, France, Italy, and Spain)

<sup>&</sup>lt;sup>2</sup> The term "demand for high-quality audits" refers to the demand for comprehensive audits of financial statements from external auditors in terms of audit effort measured by audit fee.

systems and find similar results. To further validate our initial findings, we run quantile regressions by dividing dependent variable in five subsamples based on percentiles and apply quantile regressions on each separately, however, our results remained significantly positive. Irrespective of the sample composition or conditional distribution of dependent variable, the results indicate that the association between CSR and the demand for high-quality audits is positively significant and robust.

Since CSR and the demand for high-quality audits may be simultaneously determined, we perform a two stage least square regression to address the potential issue of endogeneity. Using lagged CSR and industry average CSR as instrumental variables, we continue to find positive significant association between CSR and the demand for high-quality audits, concluding that our results are not driven by endogeneity concerns. Lastly, we examine the role of firm level corporate governance strength in moderating the relation between CSR and the demand for high-quality audits. Irrespective of the firm level corporate governance strength, we continue to find significant positive impact of CSR on the demand for high-quality audits.

Our paper makes several contributions by extending the existing literature (Carey et al., 2017; LópezPuertas-Lamy, Desender, & Epure, 2017) and provide new evidence on the association between CSR and financial statements auditing. Carey et al. (2017) show that Chinese firms that make voluntary CSR disclosures are associated with higher earnings management. Further, they argue that auditors perceive such firms having greater audit risk and charge them higher audit fee. These findings provide evidence on the prevalence of opportunistic use of CSR practices by Chinese firms to hide their misconduct such as earnings management and are aligned with the opportunistic financial reporting hypothesis. These findings may only be applicable to the Chinese context where ownership is concentrated and firms commonly use earnings management and tunneling to expropriate resources from minority shareholders to safeguard the interests of controlling owners (Jian & Wong, 2010).

Finally, Carey et al. (2017) also acknowledge that their findings cannot be generalized to other countries such as the US, UK and Europe who have different governance structures, institutional settings and where the concept of CSR has a long history. In comparison to Carey et al. (2017), our sample is more conclusive, and findings can also be generalized.<sup>3</sup>

In another study, LópezPuertas-Lamy et al. (2017) explores the association between CSR and the assessment by auditors of the risk of material misstatement.<sup>4</sup> They find a U-shaped relation between CSR performance and the assessment by auditors of the risk of material misstatement, suggesting that there exists an optimal level of CSR performance that minimizes the auditors assessment of the risk of material misstatement, and variation in CSR performance above (below) the optimal level increases (decreases) the auditors assessment of the risk of material misstatement. In contrast to LópezPuertas-Lamy et al. (2017), we find a positive relation between CSR performance and the demand for high-quality audits. The difference in findings may be explained in two possible ways. First, their sample is composed of only firms audited by the Big-4 auditors and we include all firms in our sample irrespective of audit firm. Second, the sample period (i.e. 2003-2012) used by them revolves around crisis period of 2007-2009 that may be a potential cause of the U-shaped relation between CSR performance and audit fee because it is logical to assume that CSR expenditures vary with the level of earnings that are largely affected by the financial crisis of 2007-2009 (Lins, Servaes, & Tamayo, 2017; Wu, Shen, & Chen, 2017). In this regard, we argue that firms strategically reduced their CSR spending during or post-crises period than pre-crisis period based on their earnings. This argument is clearly visible in LópezPuertas-Lamy et al. (2017) as they show the existence of U-shaped relation between CSR and audit fee. In contrast to their paper, we study a larger

<sup>&</sup>lt;sup>3</sup> Because, our study is based on a global data set of 20 countries from three different regions and covers higher time period too (2002-2016 vs 2008-2013).

<sup>&</sup>lt;sup>4</sup> In LópezPuertas-Lamy et al. (2017), the assessment by auditors of the risk of material misstatement is proxied by audit fee.

sample period (2002-2016) that minimizes the impact of financial crisis on the relation between CSR performance and audit fee our proxy for the demand of high-quality audits.

We extend the work of LópezPuertas-Lamy et al. (2017) by capturing the effect of contingency factors, at country and firm level that may influence the relation of CSR performance and audit fee. We try to address this shortcoming of LópezPuertas-Lamy et al. (2017) in five different ways. First, we use a more recent sample (2002-2016) than the samples examined in existing studies (Carey et al., 2017; LópezPuertas-Lamy et al., 2017) and provide an international evidence. These additions are aligned with the recent literature that emphasize the importance of country orientation and sample period (Al-Shaer, 2020; LópezPuertas-Lamy et al., 2017), as the firms' CSR practices have changed significantly in recent years (Cini & Ricci, 2018). Second, we split our sample in three different regions, namely US, UK, and EU to study the impact of country level differences. Third, we divide our sample in Anglo-Saxon and Continental systems to study the impact of regional differences. Fourth, we further subdivided Continental system in Germanic and Latin systems to capture the impact of different sub-systems within Continental system. Fifth, we study the impact of firm level governance strength by dividing our sample in firms with strong and week governance mechanisms. Finally, we apply quantile regression approach on our sample to study the relation between CSR and demand for high-quality audits at different levels of audit fee. In short, our work extends the existing studies and provide empirical evidence by analyzing the data from 20 countries covering three different regions (EU, UK, and US) to suggest that socially responsible firms demand high-quality audits from external auditors. Further, this finding is robust to the use of different measures of CSR performance (e.g. environmental and social), alternate sample composition, under different governance systems as well as with varying firm level corporate governance strength, and also free from endogeneity concerns.

The rest of the paper is organized as follows: Section 2 discuss the critical literature and develop the testable hypothesis. Section 3 describes the research design, sample, methodology and descriptive statistics. Section 4 discusses the initial results. Section 5 is dedicated to the robustness analysis and section 6 concludes the paper.

#### 2. Review of related literature

Though the literature exploring the relation between CSR and financial performance is abundant, studies that examine the nexus of CSR and financial reporting quality are few. Studies that investigate the relation between CSR and financial reporting quality predominantly use earnings management as a sole measure of financial reporting quality. Earnings quality alone is not enough to predict the quality of financial reporting process. The quality of financial reporting process is largely dependent on the quality of statutory audit performed by independent external auditor (Nekhili, Gull, Chtioui, & Radhouane, 2020). In light of this argument, the main purpose of this study is to investigate whether or not socially responsible firms demand high-quality audits from external auditors to ensure the quality of financial statements.

#### 2.1. Ethics, CSR and financial reporting quality

Ethical theories developed by Carroll (1979) and Jones (1995) advocate that firms should consider CSR as an ethical obligation. These theories adhere to beliefs such as "the right thing to do" or "necessity to contribute to the good of society by doing what is ethically correct". This requires socially responsible firms to pay equal attention to the lawful interests of all stakeholders by adhering to several ethical codes or principles (Kim et al., 2012). Hemingway and Maclagan (2004) argue that CSR activities of a firm send signals about ethical values of corporate managers to stakeholders because managers have the authority to execute corporate plans consistent with their personal beliefs and values. Along similar lines, Kim et al. (2012) and Wang et al. (2018) suggest that CSR activities are motivated by managers' incentives to be honest, trustworthy, and ethical. Bereskin, Campbell, and Kedia (2020) find that employees of firms with higher ethical standards exhibit greater tendency to act as whistle blowers when they witness acts of wrongdoing. Hoi, Wu, and Zhang (2013) find a positive association between socially irresponsible firms and unethical behavior proxied by tax avoidance. Finally, firms with higher ethical culture are less likely to be involved in corporate frauds (Harjoto, 2017). Based on these empirical studies, it is reasonable to assume that socially responsible firms/managers have higher ethical standards.

On the other hand, financial reporting quality is also an ethical issue (Krishnan & Parsons, 2008) and higher level of corporate moral development is associated with higher quality financial reporting (Labelle, Gargouri, & Francoeur, 2010). Kim et al. (2012) and Al-Shaer (2020) suggest that ethical concerns of managers may induce them to enhance the quality of financial reporting. Subsequently, they find that socially responsible firms are more likely to produce superior quality financial reports by mitigating the probability of earnings management. Similar findings were reported by others regarding the relation between CSR and financial reporting quality (Chih, Shen, & Kang, 2008; Hong & Andersen, 2011; Pérez-Cornejo, de Quevedo-Puente, & Delgado-García, 2020; Wang et al., 2018). Based on these studies, we argue that ethical behavior drives the relation between CSR and financial reporting quality. If socially responsible firms/managers behave ethically to enhance the quality of financial reports by not managing earnings, then, they are more likely to demand high-quality audits from external auditors to improve the quality of financial reports.

## 2.2. Reputation concerns, CSR and financial reporting quality

Another motivation for CSR that may explain a positive association between socially responsible firms and the demand for high-quality audit is higher reputational concerns of such firms. The reputation effect refers to the idea that reputation concerns affect firm's actions (Weigelt & Camerer, 1988). Existing CSR literature demonstrate that firms engage in socially

responsible activities for the sake of maintaining or building reputation (Linthicum, Reitenga, & Sanchez, 2010; Porter & Kramer, 2006). Further, CSR firms use their socially responsible image/reputation in order to influence external stakeholders to view their financial reports favorably (Hong & Andersen, 2011). This suggests that involvement in CSR activities has a positive effect on stakeholder satisfaction (Prior et al., 2008) and enhance firm's reputation (Porter & Kramer, 2006). With regard to financial reporting quality, Cao, Myers, and Omer (2012) argue that reputational concerns motivate firms to maintain higher financial reporting quality. According to them, financial reporting quality, as measured by the earning management and the likelihood of the financial misstatement, is negatively related to firm's reputation. Along similar lines, Lai, Srinidhi, Gul, and Tsui (2017) propose that board of directors with higher reputation concerns demand high-quality audits to ensure the quality of financial statements as well as to protect their reputation capital. Similarly, Cao et al. (2012) argue that higher reputation concerns will deter socially responsible firms and managers from engaging in socially unacceptable activities. In addition, they find that socially responsible firms are less likely to be involved in earnings management due to their desire of maintaining higher corporate reputation. If higher reputation concerns deter firms from misstatements of financial reports and earnings management, we then expect socially responsible firms to demand high-quality audits from external auditors to protect their reputation as well as to ensure the quality of financial reports.

#### 2.3. Level of disclosure, CSR and financial reporting quality

Prior studies also indicate that socially responsible firms provide extensive disclosures and are more transparent in their financial reporting than socially irresponsible firms. Financial transparency and accountability are equally important for shareholders as well as for other stakeholders at all levels of society. These attributes are emerging as doctrines of CSR that may decrease the level of insiders' discretion over financial reporting process to exploit outsiders

(Chih et al., 2008). Eccles, Ioannou, and Serafeim (2014) find that highly sustainable firms have more established processes for stakeholder engagement, tend to focus on long term goals and provide comprehensive nonfinancial disclosures. Along similar lines, Atkins (2006) argue that for investors the meaning of "CSR" is to be transparent in firms' financial reporting. In a recent study, Kim, Li, and Li (2014) find that socially responsible firms adhere to higher standards of financial transparency and prefer to build long term relationships with stakeholders by providing detailed disclosures.

With regard to financial disclosures, Dhaliwal, Radhakrishnan, Tsang, and Yang (2012) argue that CSR stand-alone reports play a complementary role in firm's financial disclosures. In a similar vein, Gelb and Strawser (2001) contend that increased disclosure is a form of socially responsible behavior. By using the ratings provided by the Council on Economic Priorities (CEP) as a measure of CSR and disclosure rankings provided by the Association for Investment Management and Research Corporate Information Committee Reports (AIMR Reports), they find that firms with higher CSR ratings provide more extensive financial disclosures than those provided by other firms. Their findings indicate that socially responsible firms provide extensive disclosures with an objective of developing long term relationship with stakeholders. If firms with strong CSR culture provide extensive financial disclosures and commit to a high level of financial reporting transparency for developing long term relationship with stakeholders, they are also likely to demand high-quality audits to provide extensive financial reporting process.

#### 2.4. Corporate misconduct, CSR and financial reporting quality

While higher reliance on ethics, reputational concerns and detailed disclosures provided by socially responsible firms may result in a positive relation between CSR and demand for highquality audits, CSR can also be used in an opportunistic way, which may result in negative relationship between CSR and demand for high-quality audits. From agency cost perspective, managers may pursue CSR activities for their career advancement rather than maximizing shareholders wealth (Jensen & Meckling, 1976; McWilliams, Siegel, & Wright, 2006), since active investments in CSR not only improve corporate image (Al-Shaer, 2020; Wang et al., 2018) however, also reduce activism and vigilance by different stakeholder groups including auditors (Guiral, 2012; Zahra, Priem, & Rasheed, 2005). Further, firms can avoid lengthy and expensive litigations by proactively engaging in CSR activities (Webb, 2011). In a similar vein, Hemingway and Maclagan (2004) contend that firms may use their socially responsible image to cover up the impact of corporate misbehavior. A practical example of such a behavior is demonstrated by Enron corporation, which won many awards for actively engaging in CSR activities, namely 'Climate Protection Award' from the EPA, and 'Corporate Conscience Award' from the Council on Economic Priorities before the historic collapse due to lapses in audited financial statements. By referring to example of Enron, Kim et al. (2012) argue that socially responsible firms may provide less transparent and reliable accounting information. This argument is supported by the findings of Petrovits (2006), who shows that firms cleverly time their charities to achieve earnings targets. Finally, Prior et al. (2008) and Carey et al. (2017) documented a positive association between socially responsible firms and earnings management, suggesting that socially responsible firms may behave irresponsibly with regard to financial reporting quality. If socially responsible firms/managers intentionally use CSR activities as a mean to gain support of different stakeholders and to cover up the negative effects of corporate misconducts (e.g. earnings management), then socially responsible firms are not likely to demand high-quality audits from external auditors with an intention to hide their wrongdoings. Thus, supporting an opportunistic view where managers use CSR to pursue their private motives.

#### 2.5 Hypothesis development

Based on the above conjectures, there may be a positive or negative relation between CSR and the demand for high-quality audits. In line with transparent financial reporting hypothesis, we expect socially responsible firms to demand high-quality audits from external auditors, because these firms exhibit higher ethical standards, are more concerned about their reputation, and provide detailed disclosures which are characteristics that enhance the transparency of financial reporting practices (Al-Shaer, 2020; Kim et al., 2012; Pérez-Cornejo et al., 2020; Wang et al., 2018). On the other hand, opportunistic financial reporting hypothesis predict a negative association between CSR and the demand for high-quality audits. Firms may use CSR activities to gain reputation insurance, which gives them "license to operate" with respect to some socially irresponsible activities like opportunistic financial reporting (Petrovits, 2006). Firm's engagement in CSR activities will send positive signals about transparency of financial operations to the stakeholders and in response to active engagement in socially responsible activities, external stakeholders may view financial reports of such firms favorably (Hong & Andersen, 2011). However, contrary to the expectations of stakeholders these firms may hide behind socially responsible image to pursue unethical practices such as opportunistic financial reporting (Prior et al., 2008). If firms intentionally use socially responsible image to cover up the impact of socially unacceptable practices such as earnings management, then socially responsible firms are less likely to demand high-quality audits from external auditor. Therefore, we propose two alternative hypotheses.

H1a: There is a positive association between CSR and demand for high-quality audits.H1b: There is a negative association between CSR and demand for high-quality audits.

#### 3. Research design

#### *3.1. Data and sample*

We started our sample with all listed firms belonging to three different regions<sup>5</sup>, namely United States (US), United Kingdom (UK) and Europe (EU)<sup>6</sup>. Using ASSET4 ESG data to measure CSR, our initial sample consists of 42,231 firm-year observations extracted from twenty-nine countries belonging to these three regions. Next, we fetch the data about audit fee, our proxy for the demand for high-quality audits, and control variables from Datastream and Worldscope databases. After matching data from all sources, we exclude 21,346 firm-year observations with missing data. Lastly, we exclude the countries with less than 10 firm-year observations to come up with the final sample of 20,891 firm-year observations from 20 countries for the period of 2002-2016.

Table 1 shows the sample distribution by country and year. Our final sample comprises of twenty developed<sup>7</sup> countries (UN country classification). United Nations (UN) prepares this country classification using information from different world and national-level institutions<sup>8</sup>. Panel A of Table 1 demonstrate that, 54% of our sample firms are from United States (US), 18% are from United Kingdom (UK) and 28% are from Europe (EU). This may be due to the reason that in US and UK majority of firms (i.e. small and big) provide CSR reports while in Europe only large firms report CSR performance. Further, in Europe most of the sample firms belong to Germany, France, Sweden, Switzerland and Spain. If we look at Panel B of Table 1,

<sup>&</sup>lt;sup>5</sup> In this study, we report findings in four different ways by using a global dataset of three different regions, namely US, UK, and EU. First, we show our results based on data of all regions. Then, we show our findings separately by analyzing the data of each region.

<sup>&</sup>lt;sup>6</sup> For the purpose of this study, EU region consist of 18 countries, namely Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Netherland, Norway, Poland, Portugal, Slovenia, Spain, Sweden, and Switzerland.

<sup>&</sup>lt;sup>7</sup> http://www.un.org/en/development/desa/policy/wesp/wesp\_current/2014wesp\_country\_classification.pdf

<sup>&</sup>lt;sup>8</sup> The United Nations Conference on Trade and Development (UNCTAD), Statistics Division and the Population Division of UN/DESA, as well as from the five United Nations regional commissions, the World Bank, the United Nations World Tourism Organization (UNWTO), the International Monetary Fund (IMF), the Organization for Economic Cooperation and Development (OECD), and national and private sources.

increasing trend in sample year distribution demonstrate the coverage expansion of Asset4 ESG.

## [Please insert Table 1 here]

## 3.2 Model and variables

We use Thomson Reuters' ASSET4 ESG rating as a proxy of CSR measure which is widely used in recent studies conducted on both US and non-US markets (Baboukardos, 2017; El Ghoul, Guedhami, & Kim, 2017; Kölbel, Busch, & Jancso, 2017; Liang & Renneboog, 2017). ASSET4 ESG data consist of three dimensions: environmental, governance and social. The measurement of these dimensions is based on more than 250 objective indicators. Following prior studies (El Ghoul et al., 2017; Luo, Wang, Raithel, & Zheng, 2015), we use the average of environmental score (*CSR\_EP*) and social score (*CSR\_SP*) to calculate the overall CSR performance (*CSR\_P*).<sup>9</sup> Environmental score (*CSR\_EP*) is based on factors such as the impact of firm's business practices on land, air, and water including living and non-living natural systems as well as ecosystem (e.g., emission reduction, resources reduction and product innovation benefiting the environment). Social score (*CSR\_SP*) is based on factors such as the loyalty and trust of customers, employees and society on firm (e.g. community, diversity, human rights, employment quality, health & safety, and training & development).

In accordance with previous studies (Carcello, Hermanson, Neal, & Riley, 2002; Lai et al., 2017; Nekhili et al., 2020; Persakis & Iatridis, 2016), we use the natural logarithm of audit fees to measure the demand for high-quality audits. To examine the relationship between CSR and demand for high-quality audits, we employ the following regression model.

<sup>&</sup>lt;sup>9</sup> We do not consider the corporate governance (CG) component while calculating CSR performance score because, the CG component mirrors the extent of the conflicts between insiders and external shareholders. However, the widely adopted definition of CSR does not cover this point. As a result, the CG component does not behave as other CSR components. This practice is widespread in the literature. Almost, all papers exclude this component from the score. For instance, El Ghoul, Guedhami, Kwok, and Mishra (2011) and Boubaker, Cellier, Manita, and Saeed (2020) argue that "in estimating CSR score, we exclude corporate governance as our definition of CSR does not include conflicts of interest between insiders and shareholders".

$$\begin{aligned} AQ_{i,t} &= \beta_0 + \beta_1 CSR\_P_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 ROA_{i,t} + \beta_4 B/MV_{i,t} + \beta_5 FCF_{i,t} + \beta_6 LOSS_{i,t} \\ &+ \beta_7 LEV_{i,t} + \beta_8 COMPLEX_{i,t} + \beta_9 INV/TA_{i,t} + \beta_{10} NAF_{i,t} + \delta YearDum_{i,t} \\ &+ \delta CountDum_{i,t} + \varepsilon_{i,y} \end{aligned}$$
(1)

Where AQ is the demand for high-quality audits used as dependent variable.  $CSR_P$  is firm CSR performance our main independent variable. Further, following recent literature on audit quality (Aldamen, Hollindale, & Ziegelmayer, 2018; Asthana, Khurana, & Raman, 2019; Nekhili et al., 2020; Sarhan, Ntim, & Al-Najjar, 2019), we also control for variables that may influence the demand for high-quality audits. These variables are Firm size (*SIZE*), return on assets (*ROA*), book to market value (*B/MV*), free cash flow (*FCF*), financial loss (*LOSS*), financial leverage (*LEV*), corporate complexity (*COMPLEX*), inventory to total assets ratio (*INV/TA*) and non-audit fees (*NAF*). *YearDum* and *CountDum* indicate the year and country fixed effect, respectively and  $\varepsilon$  is an error term. The definitions of variables are given in Appendix-A.

#### 3.3 Descriptive statistics

The descriptive statistics of variables used in this study are given in Table 2. Panel A, B, C, and D of Table 2 shows the descriptive statistics of entire sample, US, UK and EU firms, respectively. The statistics for dependent variable (AQ) suggest that average demand of audit quality for entire sample is 14.746 (audit fee \$2.5 million). While looking at regions, we observe that average demand of audit quality in US, UK and EU firms is 15.03 (audit fee \$3.4 million), 13.66 (audit fee \$0.85 million) and 14.892 (audit fee \$2.7 million), respectively. This suggests that on average US firms demand higher quality-audits from external auditors than UK and EU firms. Turning to the independent variable, we find that average CSR score ( $CSR_P$ ) for entire sample, US, UK and EU region is 57.6, 51.5, 65.7 and 64.4, respectively on a scale of 100. The region with highest CSR performance score (65.7) is UK while the lowest CSR score (51.5) is observed for US firms.

Table 2 also presents the mean values of control variables for entire sample, US, UK and Europe region, respectively. First, it appears that EU firms included in our sample have larger assets than the firms of other regions. Second, the mean value of return on assets (ROA) for entire sample is 5.9%. Third, with regard to the average of book to market value ratio (B/MV), Europe is the region with highest average value (0.686) and region with lowest average value is US. Fourth, the mean value of financial loss (LOSS) for entire sample is 13.6%. Further, we observe the highest mean value (14.1%) for variable financial loss (LOSS) in US region and lowest (12.9%) in UK which is not far below than 13% observed for EU region. Fifth, on the question of the mean score of financial leverage (LEV), US firms' exhibit highest score of 26.3% and the firms belonging to UK region are with lowest score of 23.4%. This suggests that firms belonging to US region are comparatively more leveraged. Sixth, the mean value of corporate complexity (COMPLEX) for the entire sample is 0.2. Regarding regions, our results demonstrate that firms belonging to UK and Europe experience similar level (0.224) of corporate complexity while the level of corporate complexity is less (0.179) for US sample. Seventh, for the mean value of inventory to total assets ratio (INV/TA), maximum (0.086) and minimum (0.076) value is reported for firms belonging to Europe and US regions, respectively. These statistics indicate that US firms have relatively lower level of inventory than the firms belonging to EU and UK regions. Finally, the mean value of natural log of non-audit fee (NAF) for entire sample is 12.914 (non-audit fee \$0.4 million). Further for regions, we observe that mean values of natural log of non-audit fee for US, UK and EU firms are 12.65 (non-audit fee \$0.3 million), 13 (non-audit fee \$0.5 million), and 13.37 (non-audit fee \$0.6 million), respectively. Finally, these statistics suggest that UK firms tend to pay more in terms of nonaudit fee (NAF) as a percentage of total audit fees, as compare to the US and EU firms.

#### [Please insert Table 2 here]

Table 3 presents Pearson correlation coefficients and variance inflation factors (VIF) for independent and control variables. The correlation coefficients of most variables are less than 0.5 which shows that multicollinearity is not a concern of our data set. CSR performance (*CSR-P*) has a significant (at 1% level) and positive correlation with firm size (*SIZE*), return on assets (*ROA*), free cash flow (*FCF*), corporate complexity (*COMPLEX*), inventory to total assets ratio (*INV/TA*) and non-audit fee (*NAF*); and negative correlation with book to market value (*B/MV*), financial loss (*LOSS*) and financial leverage (*LEV*). We observe the highest value of correlation (54.5%) between corporate complexity (*COPMLEX*) and inventory to total assets ratio (*INV/TA*). It may be due to the use of inventory in calculation of both variables. Further, we check the variance inflating factors (VIF) of all variables. The VIF for all the variables are far below the critical value of 10 suggesting that multicollinearity is not an issue in our data sample.

#### [Please insert Table 3 here]

Before moving to our main analysis, we analyze the demand for high-quality audits (natural log of audit fee) for each CSR decile in figure 1. The average audit fees for firms in the lowest CSR decile is almost \$1.2 million, however, in comparison to this, the audit fees for the top decile of CSR firms is almost six times higher (5.747 times). Further, the audit fees for the median CSR decile is almost \$1.9 million, suggesting that firms falling in median CSR decile pay around 1.6 times higher audit fees in comparison to firms in lowest decile. This evidence provides preliminary assurance that high CSR firms pay high audit fees, thus suggesting a positive association between CSR and demand for high-quality audits as proxied by audit fees.

## [Please insert Figure 1 here]

#### 4. Main empirical results

Table 4 reports the results of regression analysis where the main variable of interest is firm's CSR performance ( $CSR_P$ ) and main dependent variable is the demand for high-quality

audits (*AQ*). Aligned with the transparent financial reporting hypothesis, we find a positive and statistically significant relation between socially responsible firms and the demand for highquality audits for entire sample as well as for all regions, namely US, UK, and EU. The coefficient of CSR is positive and economically significant. Everything else being equal, a one standard deviation increase in CSR performance induces 2.263% increase in demand for highquality audit. While looking at regions, we observe that firms operating in Europe demand more intensive audits than the firms belonging to US and UK regions. Overall, our results highlight that irrespective of region socially responsible firms are likely to demand high-quality audits from external auditors to enhance the transparency of financial reports. These results consolidate the findings of existing studies that higher reliance of socially responsible firms on ethics and greater reputation concerns induce them to ensure the transparency of financial reporting process (Chih et al., 2008; Gelb & Strawser, 2001; Hong & Andersen, 2011; Kim et al., 2012) by demanding high quality-audit services from external auditors.

The results of the control variables are also interesting. In accordance with our expectations, we find that firm size (*SIZE*) and corporate complexity (*COMPLEX*) is positively associated with our dependent variable, suggesting that larger and complex firms have more assets and conduct more transactions than smaller firms; therefore, such firms require intensive audits in terms of time and effort (Carcello et al., 2002; Lai et al., 2017). We consider return on assets (*ROA*), book to market value (*B/MV*) and free cash flow (*FCF*) as measures of financial performance. For *ROA* and *B/MV*, we observe an overwhelmingly negative and significant relation with dependent variable. It is clearly apparent that financially sound firms are less risky and require less time and audit effort from external auditor which results in less audit fee for financially sound firms (Lai et al., 2017). Surprisingly, in contrast with existing literature, the variable free cash flow (*FCF*) is positively associated with the level of audit effort. As expected, the coefficient of financial loss (*LOSS*) is positive and significant in all regressions

except UK, suggesting that loss-making firms are risky and require intensive audits (Carcello et al., 2002; Lai et al., 2017). For financial leverage (*LEV*), we fail to find any significant relation with demand for audit services. Contrary to our expectations, inventory to total assets ratio (*INV/TA*) is found to be significantly negative, which implies that firms having higher levels of inventory do not demand for intensive auditing. This result opposes the findings of Lai et al. (2017) who report a positive relation between inventory to total assets ratio (*INV/TA*) and the demand for audit services. Finally, non-audit fee (*NAF*) is positively associated with dependent variable.

## [Please insert Table 4 here]

Table 5 presents the results of regression analysis where the dependent variable is demand for high-quality audits (AQ) and independent variables are two dimensions of CSR, namely CSR social score ( $CSR\_SP$ ) and CSR environmental score ( $CSR\_EP$ ). Our results (column 1-4) show that the coefficients of CSR social score ( $CSR\_SP$ ) are positive and statistically significant at the level of 1% for entire sample and all regions. We observe similar results (column 5-8) for the relation between CSR environmental score ( $CSR\_EP$ ) and the demand for high-quality audits. However, firms belonging to EU region demand relatively intensive audits from external auditors than firms operating in US and UK. Hence, suggesting that irrespective of the region, firms with higher social ( $CSR\_SP$ ) and environmental score ( $CSR\_EP$ ) are likely to demand high-quality audits from external auditors, which strongly support the transparent financial reporting hypothesis. Regarding control variables, we find similar results for CSR social ( $CSR\_SP$ ) and environmental score ( $CSR\_EP$ ) as reported in baseline regressions.

#### [Please insert Table 5 here]

#### 5. Robustness Analysis

#### 5.1 Alternate sample composition

To check the robustness of our results to alternate sample compositions, we follow García-Sánchez, Rodríguez-Domínguez, and Frías-Aceituno (2015) and divide our sample in two main governance systems that have been originated in the developed world: (i) Anglo-Saxon system containing the countries of US and UK,<sup>10</sup> (ii) Continental system that is further divided into Germanic system (Austria, Denmark, Finland, Germany, Netherlands, Norway, Sweden, and Switzerland) and Latin system (Belgium, France, Italy, and Spain).

Table 6 reports the results of regressions using alternate sample composition based on Anglo-Saxon and Continental system. Column (1-2) show the results for both systems, wherein we observe that our results are unchanged irrespective of the sample composition. In column (3-4) we divide the Continental system in two sub-categories of Germanic and Latin systems to see if our results differ across these two subsamples. As expected, we observe positive relation between CSR performance and the demand for high-quality audits at 1% significance level in all model specifications irrespective of the sample composition. These results also highlight an important implication that the regional corporate governance systems do not drive the relation of CSR and the demand for high-quality audits.

#### [Please insert Table 6 here]

## 5.2 Quantile regression approach

Further, we extend our analysis by using quantile regression (QR) approach. Koenker and Bassett (1978) were pioneers to introduce QR that has more comprehensive characterization than OLS regression. The classical OLS method only gives us estimations on conditional mean and median (central distribution). However, QR enables us to estimate results on various levels in the conditional distribution. Bao, Lee, and Saltoglu (2006) argue that the plus point of QR

<sup>&</sup>lt;sup>10</sup> Anglo-Saxon countries include Unites States of America, United Kingdom, Canada, and Australia.

is that it allows to analyze the whole distribution. Another comparative advantage of QR is that it is relatively more intense toward outliers and help to prevent censoring problems (Conley & Galenson, 1998).

To present more comprehensive results and see whether our results remain persistent across different levels of the demand for high-quality audits, we follow Peel and Makepeace (2012) and divide dependent variable in five sub-samples based on percentiles and apply quantile regressions on each separately. Table 7 reports the results of QR estimates. Column (1 to 5) presents the results of QR estimations at 10%, 25%, 50%, 75%, and 90% of the sample distribution of dependent variable. In Panel A, we run the QR regression on the whole sample. Then, we split the main sample in three regional sub-samples of US, UK, and EU. Panel B, C and D reports the QR estimates on three regional sub-samples, respectively. Irrespective of the percentile and regional sub-samples, our results remain positive and significant at 1% level in all the specifications. These results indicate that the relation between CSR and the demand for high-quality audits is robust across the conditional distribution of dependent variable.

## [Please insert Table 7 here]

## 5.3 Addressing endogeneity

Our results may be biased because of endogeneity concerns arising because of reverse causality, moreover, it is also possible that both the demand for high-quality audits and CSR practices are simultaneously determined. For example, firm's demand for certain level of financial reporting and audit quality may also motivate it to perform CSR practices because of ethical and reputational concerns. On the other hand, it is also possible that firms invest in CSR practices to hide their misstatements and earning management practices. In any of the cases, there is a possibility that our CSR measure is endogenously determined. To address potential endogeneity concerns, we use two-stage instrumental variable (IV) regressions. Our first instrument is one year lagged CSR score of the firm. Goss and Roberts (2011) used this variable

as an instrument for firm's CSR practices in their work on CSR and cost of bank loans. We can address the potential reverse causality using this instrument, as one-year lagged CSR score cannot influence the demand for high quality-audit in current year. Finally, similar to Jiraporn, Jiraporn, Boeprasert, and Chang (2014) we also use the average level of CSR practices in the industry based on general industry classification (GIC) as a second instrumental variable in our analysis.

Table 8 reports the results of two-stage least square regressions using both the lagged CSR and average industry CSR score as instrumental variables. The results of first-stage regressions are reported in column (1, 3, 5 & 7). These results show that both instruments are positively related to our main endogenous variable at 1% significance for overall sample and all the sub-samples. Also, first stage, *F-statistic* validates the relevance of our instruments at 1% significance level in all models. Column (2, 4, 6 & 8) reports the second-stage regressions, wherein our results remain positive and significant at 1% level in all the columns, showing that firms with high CSR performance demand high-quality audits from external auditors, and vice versa. The overidentification test (*Hansen-J statistic*) suggests that our instruments are not correlated with the error term and only influence the demand for high-quality audits through their effect on CSR performance, thus concluding that endogeneity does not drive our results.

#### [Please insert Table 8 here]

#### 5.4 The role of firm level corporate governance

Next, we examine whether the firm level of corporate governance strength has any impact or not on the relation between CSR and the demand for high-quality audits. We start by dividing the firm's corporate governance scores from ASSET4 ESG ratings in strong and weak governance based on the mean values of corporate governance score. Our empirical analysis finds a positive association between CSR and the demand for high-quality audits in strong and weak corporate governance samples at 1% significance in all regression estimates reported in Table 9. However, the coefficients are comparatively higher for firms with higher corporate governance scores than firms with lower corporate governance scores. Suggesting that the existence of strong governance structure at firm level amplifies the relation between CSR and the demand for high-quality audits.

#### [Please insert Table 9 here]

#### 6. Conclusions

This article examines the relation between CSR and the demand for high-quality audits. One argument is that higher ethical and reputational concerns of socially responsible firms/managers motivate them to demand high quality-audit services from external auditors with an intention of providing transparent financial information to the stakeholders. A competing argument may be that firms engage in socially responsible activities to cover up the impact of corporate misbehavior. Thus, the real intention of socially responsible firms/managers may be to mislead stakeholders with opportunistic financial reporting. In that case, socially responsible firms are not likely to demand high quality-audit services from external auditors. In addition to the overall CSR performance, we test the relation between dimensions of CSR, namely CSR social performance and CSR environmental performance, and the demand for high-quality audits.

To investigate the nexus of CSR and the demand for high-quality audits, we analyze the data of listed firms from twenty developed countries across three different regions, namely United States (US), United Kingdom (UK) and Europe (EU) over the period of 2002-2016. Initial findings reveal that irrespective of geographical location (US, UK or EU) and the dimensions of CSR (CSR-SP or CSR-EP), socially responsible firms are likely to demand high-quality audits, which supports the transparent financial reporting hypothesis. In addition to these results, robustness analysis provide evidence that this relation is not biased to the use of alternate samples as well as differences in firm level corporate governance structure, or not

driven due to the endogeneity. The findings of study suggest that managers who are socially responsible to the society also follow highest ethical standards in their financial reporting and thus, demand superior quality-audits from external auditors. Hence, CSR acts as a proxy for ethical management that promote higher ethical standards in financial reporting by inducing managers to demand high quality-audit services from external auditors.

Our study makes several contributions to the existing literature. First, we add to the literature on ethics in financial reporting quality. Aligned with the transparent financial reporting hypothesis, we suggest that ethical concerns may motivate managers to produce high quality financial reports by demanding high-quality audits from external auditors. This is a novel contribution to financial reporting literature that is primarily dominated by managerial opportunism. Second, our study also complements existing literature on CSR in financial reporting context (Carey et al., 2017; Chih et al., 2008; Kim et al., 2012; LópezPuertas-Lamy et al., 2017; Prior et al., 2008). Much of work on CSR and financial reporting quality has focused on its relationship with earnings management (Chih et al., 2008; Prior et al., 2008), only few scholars study the association of CSR with audit practices (Carey et al., 2017; LópezPuertas-Lamy et al., 2017). We depart from such studies and focus on the unique role of CSR in improving financial reporting quality by demanding high-quality audits from external auditors. Third, we extend the wok of LópezPuertas-Lamy et al. (2017) by investigating the impact of contingency factors such as country and firm level difference on the relation of CSR and audit fee. Finally, our results have important implications for the investors, regulators and practitioners because our findings provide an opportunity to see the quality of financial reporting through the lens of CSR performance.

Our analysis yield following three managerial implications. Positive association between CSR and demand for high quality-audit suggest that the investors can expect high-quality audits from the firms that perform well in CSR because of their code of ethics and reputation. Since,

higher audit effort and fees is associated with higher investor protection (Jaggi & Low, 2011), having high CSR can provide relative assurance to investors about the ethical standards, reputation, and quality of the disclosures which are characteristics that enhance the transparency of financial reporting. Second, the results highlight the importance of the managerial reputation and ethical standards while reporting financial disclosures. By showing that firms who invest in CSR also demand high-quality audits, we argue that the stakeholders may place greater confidence in the financial reports of socially responsible firms as CSR is positively related to trust (Lins et al., 2017). This can further reduce the agency conflict since higher level of trust is negatively associated with agency problems (Ring and Van den Ven, 1992; Wicks et al., 1999). Third, the results are also useful for the monitoring bodies like Securities Exchange Commission (SEC) as they can divert more (less) resources to the firms performing low (high) CSR since these firms tend to have low (high) quality financial reports because of (low) high-quality audits. Indeed Harjoto (2017) shows that higher managers' ethical values reflected in higher CSR activities force these firms to adopt high quality standards resulting in low probability of misconduct. Demanding high audit quality is one of these standards of higher managerial ethics reflected in firms with higher CSR, hence, Securities Exchange Commission and other regularity authorities can filter out firms for investigations based on their CSR performance as it is positively related to the quality of firm's audit and managerial ethical standards. Lastly, our paper implies that country and firm level corporate governance do not influence the relationship between CSR and demand for highquality audits.

Despite of its incremental contributions, our study has few limitations that in turn can serve as directions for future research too. First, we conclude that higher audit fee for socially responsible firms is due to their higher reliance on ethical standards, reputational concerns and the tendency to produce high quality financial reports. This conclusion rules out other possible interpretations, for example the higher audit fees may result from the limited ability of socially responsible firms to negotiate with external auditors. Second, we do not capture the impact of CSR performance on auditor's engagement strategies, such as assigning industry expert or more experienced auditors due to non-availability of data. Third, we use ASSET4 ESG ratings to study the relation between CSR performance and the demand for high-quality audits. In this regard, future research could also use a more realistic proxy of CSR performance such as CSR expenditures rather than ratings to investigate the impact of CSR on the demand for high-quality audits.

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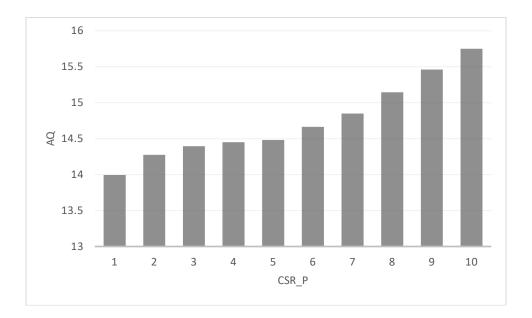
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## Appendix A: Variables symbols and definitions

Variable Name	Symbol	Definition
<u>Dependent</u>		
Demand for high-quality audits	AQ	Natural logarithm of firm current year annual audit fee.
<u>Independent</u>		
CSR Performance	CSR_P	Mean scores of firm Social plus Environmental dimensions from Asset4 ESG.
Social Performance	CSR_SP	Firm Social performance score from Asset4 ESG.
Environmental Performance	CSR_EP	Firm Environmental performance score from Asset4 ESG.
<u>Control</u>		
Firm Size	SIZE	Natural logarithm of firm current year total assets.
ROA	ROA	Net income divided by total assets.
Book to Market Ratio	B/MV	Book value of equity divided by market value of equity.
Free Cash Flows Financial Loss	FCF LOSS	Net income minus accruals divided by total assets. Dummy variable that takes value one if firm had negative earnings in two preceding years.
Financial Leverage	LEV	Total debt divided by total assets.
Corporate Complexity	COMPLEX	Sum of total inventory and accounts receivables scaled by total assets.
Inventory Ratio	INV/TA	Firm current year total inventory divided by total assets.
Non-Audit Fee	NAF	Natural logarithm of firm current year non-audit fee.



## Figure 1: Demand for high-quality audits by deciles of CSR

This figure shows the average demand for high-quality audits (AQ) depending on the CSR deciles. The X-axis shows the CSR deciles and the Y-axis shows the demand for high-quality audits (natural log of average audit fees).

	Panel A	: Sample	e distribution by country		
Country	Ν	%	Country	Ν	%
Austria	123	0.59	Norway	248	1.19
Belgium	236	1.13	Poland	141	0.68
Czech Republic	12	0.06	Portugal	100	0.48
Denmark	309	1.48	Slovenia	399	1.92
Finland	264	1.27	Spain	439	2.11
France	766	3.68	Sweden	590	2.83
Germany	866	4.16	Switzerland	542	2.60
Greece	32	0.15	United Kingdom	3761	18.07
Hungary	13	0.06	United States	11316	54.35
Italy	337	1.62	All Countries	20819	100
Netherland	325	1.56			

## Table 1: Sample distribution by country and year Panel A · Sample distribution by

Panel B: Sample distribution by year									
Year	Ν	%	Year	Ν	%				
2002	549	2.63	2010	1710	8.19				
2003	587	2.81	2011	1721	8.24				
2004	895	4.28	2012	1687	8.08				
2005	1076	5.15	2013	1669	7.99				
2006	1111	5.32	2014	1662	7.96				
2007	1256	6.01	2015	2126	10.18				
2008	1488	7.12	2016	1628	7.79				
2009	1654	7.92	All Years	20819	100				
			ntry and year. The final sample d twenty countries between 2002		9 firm-year				

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		Panel A: All	Firms					Panel C: UK	Firms		
Variable	Mean	Std.	Min.	Median	Max.	Variable	Mean	Std.	Min.	Median	Max.
AQ	14.746	1.343	11.225	14.787	21.020	AQ	13.658	1.371	11.225	13.459	20.890
CSR_P	0.576	0.298	0.025	0.613	0.986	CSR_P	0.657	0.274	0.030	0.746	0.983
SIZE (in millions)	7,385.285	2,1503.750	165.545	6,101.224	640,279.211	SIZE (in millions)	2,354.879	7,086.341	165.545	1,699.764	209,957.336
ROA	0.059	0.131	-0.368	0.039	0.692	ROA	0.071	0.138	-0.368	0.050	0.692
B/MV	0.548	0.433	-0.120	0.444	2.703	B/MV	0.560	0.465	-0.120	0.437	2.703
FCF	0.032	0.151	-0.316	0.023	0.587	FCF	0.040	0.159	-0.316	0.026	0.587
LOSS	0.136	0.342	0.000	0.000	1.000	LOSS	0.129	0.335	0.000	0.000	1.000
LEV	0.257	0.184	0.000	0.238	0.810	LEV	0.234	0.183	0.000	0.217	0.810
COMPLEX	0.199	0.169	0.000	0.169	0.723	COMPLEX	0.224	0.192	0.000	0.187	0.723
INV/TA	0.080	0.105	0.000	0.034	0.528	INV/TA	0.082	0.119	0.000	0.025	0.528
NAF	12.914	1.797	7.601	13.035	16.860	NAF	12.992	1.569	7.601	12.899	16.860
		Panel B: US	Firms					Panel D: EU	Firms		
Variable	Mean	Std.	Min.	Median	Max.	Variable	Mean	Std.	Min.	Median	Max.
AQ	15.033	0.984	11.225	14.993	21.020	AQ	14.892	1.562	11.225	14.914	20.406
CSR_P	0.515	0.292	0.033	0.480	0.986	CSR_P	0.644	0.299	0.025	0.767	0.983
SIZE (in millions)	7,534.477	1,6838.031	165.545	6,401.225	260,057.913	SIZE (in millions)	15,021.604	48,117.653	165.545	12,994.022	640,279.211
ROA	0.055	0.123	-0.368	0.039	0.692	ROA	0.060	0.141	-0.368	0.033	0.692
B/MV	0.475	0.361	-0.120	0.400	2.703	B/MV	0.686	0.502	-0.120	0.562	2.703
FCF	0.027	0.147	-0.316	0.023	0.587	FCF	0.037	0.155	-0.316	0.020	0.587
LOSS	0.141	0.348	0.000	0.000	1.000	LOSS	0.130	0.336	0.000	0.000	1.000
LEV	0.263	0.192	0.000	0.240	0.810	LEV	0.260	0.166	0.000	0.248	0.810
COMPLEX	0.179	0.155	0.000	0.145	0.723	COMPLEX	0.224	0.174	0.000	0.210	0.723
INV/TA	0.076	0.105	0.000	0.030	0.528	INV/TA	0.086	0.097	0.000	0.054	0.528
NAF	12.655	1.813	7.601	12.855	16.860	NAF	13.374	1.810	7.601	13.452	16.860

## Table 2: Descriptive statistics

Table 2 presents the descriptive statistics of our main sample. The final sample consists of 20,819 firm-year observations from three regions (US, UK & EU) and twenty different countries between 2002 and 2016.

All variables are as defined in 'Appendix A'. All financial variables are winsorized at bottom 1% and top 99% levels.

Variable	CSR_P	SIZE	ROA	B/MV	FCF	LOSS	LEV	COMPLEX	INV/TA	NAF	VIF
CSR_P	1										1.56
SIZE	0.3607*	1									2.31
ROA	0.0230*	-0.1495*	1								2.28
B/MV	-0.0222*	0.2748*	-0.1735*	1							1.37
FCF	0.0640*	-0.1092*	0.4715*	-0.0972*	1						1.91
LOSS	-0.1256*	-0.0550*	-0.4216*	0.1486*	-0.1845*	1					1.32
LEV	-0.0506*	0.0591*	-0.1123*	-0.0645*	-0.1033*	0.1062*	1				1.08
COMPLEX	0.1190*	-0.3100*	0.1258*	-0.2103*	0.1114*	-0.0584*	-0.1463*	1			3.10
INV/TA	0.0877*	-0.2026*	0.0865*	-0.0985*	0.0779*	-0.0407*	-0.1067*	0.5450*	1		2.63
NAF	0.3126*	0.4284*	-0.0407*	0.0128	-0.0070	-0.0424*	0.0122	0.0304*	-0.0245*	1	1.47

**Table 3: Pairwise correlation matrix** 

Table 3 reports the pairwise correlation matrix of our main sample for all independent and control variables. The last column shows the VIF (variance inflation factor) results by using our main model. The final sample consists of 20,819 firm-year observations from three regions (US, UK & EU) and twenty different countries between 2002 and 2016.

All variables are as defined in 'Appendix A' and financial variables are winsorized at bottom 1% and top 99% levels.

\* symbolizes significance at 1% level.

VARIABLES	(1)	(2)	(3)	(4)
VARIADLES	ALL	US	UK	EU
CSR_P	0.516***	0.499***	0.529***	0.812***
	(11.49)	(9.49)	(4.77)	(7.68)
SIZE	0.420***	0.397***	0.382***	0.459***
	(34.08)	(28.55)	(11.59)	(17.22)
ROA	-0.509***	-0.369***	-0.784***	-0.585***
	(-5.40)	(-3.79)	(-4.07)	(-2.78)
B/MV	-0.175***	-0.054	-0.325***	-0.188***
	(-5.85)	(-1.51)	(-4.76)	(-3.56)
FCF	0.364***	0.373***	0.212*	0.297**
	(7.24)	(6.33)	(1.85)	(2.34)
LOSS	0.137***	0.164***	-0.000	0.122*
	(5.16)	(5.29)	(-0.00)	(1.95)
LEV	-0.065	0.016	-0.352**	-0.184
	(-1.00)	(0.22)	(-2.01)	(-1.06)
COMPLEX	1.872***	2.143***	1.074***	2.694***
	(11.97)	(9.36)	(3.96)	(8.14)
INV/TA	-1.775***	-2.035***	-1.526***	-2.130***
	(-7.78)	(-6.52)	(-3.91)	(-4.15)
NAF	0.211***	0.149***	0.322***	0.303***
	(25.81)	(18.33)	(14.06)	(14.83)
Constant	3.510***	5.607***	3.370***	2.399***
	(14.37)	(27.28)	(7.76)	(6.46)
Observations	20,819	11,316	3,761	5,742
Country Fixed	Yes	No	No	No
Year Fixed	Yes	Yes	Yes	Yes
Firm Cluster	Yes	Yes	Yes	Yes
Adj R <sup>2</sup>	0.722	0.650	0.672	0.673
F-stat	279.4	218.7	51.73	88.13

Table 4: CSR association with the demand for high-quality audits

Table 4 shows the main regression results by using the demand for high-quality audits as dependent variable. Model 1 shows the results of whole sample and Model 2, 3 & 4 shows the results of US, UK and EU sample, respectively. The final sample consists of 20,819 firm-year observations from three regions (US, UK & EU) and twenty different countries between 2002 and 2016.

All variables are as defined in 'Appendix A' and financial variables are winsorized at bottom 1% and top 99% levels. T-statistics are given in parenthesis. \*, \*\* and \*\*\* symbolizes significance at 10%, 5% and 1% level, respectively.

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIADLES	ALL	US	UK	EU	ALL	US	UK	EU
CSR_SP	0.485***	0.496***	0.502***	0.698***				
_	(10.46)	(9.41)	(4.25)	(6.39)				
CSR_EP					0.434***	0.502***	0.327***	0.703***
					(10.14)	(10.38)	(2.88)	(6.81)
SIZE	0.425***	0.398***	0.388***	0.468***	0.430***	0.397***	0.398***	0.473***
	(34.16)	(28.94)	(11.62)	(17.33)	(35.61)	(29.39)	(12.23)	(18.08)
ROA	-0.504***	-0.372***	-0.771***	-0.592***	-0.499***	-0.334***	-0.808***	-0.579***
	(-5.41)	(-3.85)	(-3.98)	(-2.82)	(-5.26)	(-3.38)	(-4.15)	(-2.78)
B/MV	-0.177***	-0.053	-0.330***	-0.194***	-0.197***	-0.057	-0.360***	-0.227***
	(-5.91)	(-1.48)	(-4.82)	(-3.62)	(-6.54)	(-1.59)	(-5.32)	(-4.19)
FCF	0.369***	0.368***	0.215*	0.347***	0.375***	0.357***	0.246**	0.339***
	(7.37)	(6.28)	(1.86)	(2.72)	(7.43)	(6.10)	(2.09)	(2.66)
LOSS	0.119***	0.140***	-0.013	0.098	0.115***	0.141***	-0.034	0.097
	(4.48)	(4.54)	(-0.22)	(1.55)	(4.35)	(4.64)	(-0.57)	(1.56)
LEV	-0.084	0.002	-0.373**	-0.202	-0.105	-0.028	-0.347*	-0.211
	(-1.30)	(0.03)	(-2.14)	(-1.14)	(-1.63)	(-0.39)	(-1.96)	(-1.22)
COMPLEX	1.869***	2.125***	1.054***	2.759***	1.902***	2.121***	1.115***	2.783***
	(11.84)	(9.21)	(3.85)	(8.27)	(12.15)	(9.41)	(4.02)	(8.44)
INV/TA	-1.748***	-2.014***	-1.450***	-2.157***	-1.819***	-2.020***	-1.530***	-2.402***
	(-7.62)	(-6.40)	(-3.71)	(-4.17)	(-7.96)	(-6.53)	(-3.89)	(-4.71)
NAF	0.212***	0.150***	0.319***	0.309***	0.210***	0.146***	0.326***	0.302***
	(25.94)	(18.52)	(13.90)	(15.08)	(25.65)	(18.09)	(14.11)	(14.68)
Constant	3.458***	5.610***	3.345***	2.208***	3.423***	5.691***	3.272***	2.266***
	(14.17)	(27.53)	(7.66)	(6.02)	(14.11)	(27.99)	(7.41)	(6.21)
Observations	20,819	11,316	3,761	5,742	20,819	11,316	3,761	5,742
Country Fixed	Yes	No	No	No	Yes	No	No	No
Year Fixed	Yes							
Firm Cluster	Yes							
Adj R <sup>2</sup>	0.721	0.650	0.671	0.668	0.721	0.653	0.668	0.669
F-stat	272.4	214.8	53.87	86.94	265.6	231	51.97	84.45

Table 5: Social and environment	al responsibility associati	ion with the deman	d for high-quality audits
	ai i copulisionity appulat	on which the utilian	a for men-quanty audits

Table 5 presents the regression results by using the demand for high-quality audits as dependent variable. Model 1 to 4 shows the results with firms' social performance as independent variables. Model 1 shows results for whole sample and Model 2, 3 & 4 shows the results with US, UK and EU sample, respectively. Model 5 to 8 shows the results with firms' environmental performance as independent variables. Model 5 shows the results for whole sample and Model 6, 7 & 8 shows the results with US, UK and EU sample, respectively. The final sample consists of 20,819 firm-year observations from three regions (US, UK & EU) and twenty different countries between 2002 and 2016.

All variables are as defined in 'Appendix A' and financial variables are winsorized at bottom 1% and top 99% levels. T-statistics are given in parenthesis. \*, \*\* and \*\*\* symbolizes significance at 10%, 5% and 1% level respectively.

	(1)	(2)	(3)	(4)
VARIABLES	Anglo Saxon	Continental	Latin	Germanic
CSR_P	0.502***	0.594***	0.756***	0.547***
	(10.26)	(6.08)	(4.55)	(4.19)
SIZE	0.414***	0.420***	0.440***	0.384***
	(29.57)	(16.87)	(11.14)	(10.86)
ROA	-0.513***	-0.491***	-0.219	-0.650***
	(-4.67)	(-2.90)	(-0.63)	(-2.90)
B/MV	-0.185***	-0.146***	-0.218***	-0.191**
	(-5.06)	(-2.99)	(-2.93)	(-2.52)
FCF	0.324***	0.407***	0.249	0.443***
	(5.92)	(3.65)	(1.15)	(3.03)
LOSS	0.135***	0.121**	0.234***	0.068
	(4.53)	(2.30)	(2.79)	(1.05)
LEV	-0.069	-0.042	-0.432	0.185
	(-0.98)	(-0.27)	(-1.58)	(0.95)
COMPLEX	1.727***	2.256***	1.650***	2.338***
	(9.42)	(8.43)	(3.47)	(7.25)
INV/TA	-1.800***	-1.588***	-0.570	-1.798***
	(-6.95)	(-3.71)	(-0.75)	(-3.47)
NAF	0.177***	0.320***	0.230***	0.410***
	(22.02)	(15.87)	(8.15)	(14.52)
Constant	4.093***	2.353***	3.092***	1.644***
	(21.44)	(6.24)	(5.04)	(3.22)
Observations	15,077	5,742	1,778	3,267
Country Fixed	Yes	Yes	Yes	Yes
Year Fixed	Yes	Yes	Yes	Yes
Firm Cluster	Yes	Yes	Yes	Yes
$Adj R^2$	0.721	0.746	0.725	0.756
F-stat	305	91.23	43.88	69.58

## **Table 6: Alternate sample composition**

Table 6 reports the regression results by using the demand for high-quality audits as dependent variable. Model 1, 2, 3 & 4 show the results with Anglo Saxon, Continental, Latin and Germanic countries sample, respectively. The final sample consists of 20,819 firm-year observations from three regions (US, UK & EU) and twenty different countries between 2002 and 2016.

All variables are as defined in 'Appendix A' and financial variables are winsorized at bottom 1% and top 99% levels. T-statistics are showed in parenthesis. \*, \*\* and \*\*\* symbolizes significance at 10%, 5% and 1% level respectively.

VARIABLES	(1)	(2)	(3)	(4) 759/	(5)
	10%	25%	50%	75%	90%
Panel A: All Firms		0.624.4444			0.104
CSR_P	0.768***	0.634***	0.497***	0.285***	0.134***
_	(20.76)	(31.75)	(20.81)	(16.11)	(5.89)
Constant	2.569***	2.830***	3.454***	3.968***	4.340***
	(17.05)	(16.10)	(33.54)	(59.40)	(37.69)
Observations	20,819	20,819	20,819	20,819	20,819
Control Variables	Yes	Yes	Yes	Yes	Yes
Year & Country Fixed	Yes	Yes	Yes	Yes	Yes
Pseudo R <sup>2</sup>	0.487	0.488	0.497	0.516	0.539
Panel B: US Firms					
CSR_P	0.827***	0.708***	0.494***	0.248***	0.075**
	(20.46)	(23.48)	(20.28)	(11.52)	(2.11)
Constant	5.132***	5.263***	5.317***	5.713***	5.765***
	(30.46)	(41.61)	(60.07)	(42.47)	(48.52)
Observations	11,316	11,316	11,316	11,316	11,316
Control Variables	Yes	Yes	Yes	Yes	Yes
Year Fixed	Yes	Yes	Yes	Yes	Yes
Pseudo R <sup>2</sup>	0.351	0.387	0.428	0.464	0.502
Panel C: UK Firms					
CSR_P	0.654***	0.497***	0.512***	0.417***	0.310***
	(6.98)	(6.80)	(8.32)	(6.07)	(3.11)
Constant	4.362***	3.063***	2.672***	2.867***	3.292***
	(8.14)	(11.06)	(13.12)	(11.11)	(12.16)
Observations	3,761	3,761	3,761	3,761	3,761
Control Variables	Yes	Yes	Yes	Yes	Yes
Year Fixed	Yes	Yes	Yes	Yes	Yes
Pseudo R <sup>2</sup>	0.324	0.389	0.456	0.520	0.537
Panel D: EU Firms					
CSR_P	0.632***	0.513***	0.524***	0.490***	0.321***
	(7.16)	(7.12)	(10.38)	(8.65)	(5.40)
Constant	0.800**	0.938***	2.028***	3.247***	3.792***
	(2.05)	(4.32)	(11.38)	(24.19)	(23.23)
Observations	5,742	5,742	5,742	5,742	5,742
Control Variables	Yes	Yes	Yes	Yes	Yes
Year & Country Fixed	Yes	Yes	Yes	Yes	Yes
Pseudo $\mathbb{R}^2$	0.461	0.501	0.535	0.565	0.575

## **Table 7: Quantile Regressions**

Table 7 shows the quantile regression results by using the demand for high-quality audits as dependent variable. Model 1-5 show the results at 10th, 25th, 50th, 75th, and 90th quantiles, respectively. The final sample consists of 20,819 firm-year observations from three regions (US, UK & EU) and twenty different countries between 2002 and 2016.

All variables are as defined in 'Appendix A' and financial variables are winsorized at bottom 1% and top 99% levels. T-statistics are given in parenthesis. \*, \*\* and \*\*\* symbolizes significance at 10%, 5% and 1% level respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	A	LL	τ	JS	τ	JK	E	U
	1st Stage	2nd Stage	1st Stage	2nd Stage	1st Stage	2nd Stage	1st Stage	2nd Stage
CSR_P		0.631***		0.603***		0.626***		0.986***
		(10.93)		(9.03)		(4.15)		(7.72)
Lag (CSR_P)	0.830***		0.851***		0.798***		0.793***	
	(178.57)		(152.18)		(66.37)		(68.90)	
Avg (CSR_P)	0.146***		0.169***		0.099***		0.207***	
	(12.60)		(7.70)		(3.11)		(13.23)	
SIZE	0.008***	0.417***	0.011***	0.396***	0.009***	0.370***	0.007***	0.454***
	(10.30)	(31.39)	(9.64)	(26.13)	(4.55)	(10.59)	(4.83)	(15.89)
ROA	0.007	-0.513***	0.001	-0.377***	0.012	-0.770***	0.006	-0.609***
	(0.60)	(-4.90)	(0.06)	(-3.39)	(0.53)	(-3.59)	(0.27)	(-2.70)
B/MV	-0.008***	-0.179***	-0.010***	-0.042	- 0.014***	-0.316***	-0.002	-0.202***
	(-3.73)	(-5.44)	(-2.80)	(-1.05)	(-2.96)	(-4.35)	(-0.64)	(-3.61)
FCF	0.005	0.335***	-0.002	0.364***	0.001	0.219*	0.017	0.250*
	(0.56)	(6.11)	(-0.17)	(5.72)	(0.05)	(1.75)	(0.82)	(1.82)
LOSS	-0.029***	0.123***	-0.029***	0.142***	- 0.031***	0.002	-0.026***	0.131**
	(-9.56)	(4.26)	(-7.00)	(4.22)	(-4.23)	(0.03)	(-4.63)	(2.00)
LEV	-0.009*	-0.084	-0.012**	-0.002	-0.014	-0.364**	-0.002	-0.173
	(-1.73)	(-1.18)	(-2.03)	(-0.03)	(-1.08)	(-1.97)	(-0.20)	(-0.93)
COMPLEX	0.055***	1.865***	0.069***	2.136***	0.019	1.026***	0.045**	2.804***
	(5.19)	(11.18)	(4.77)	(8.51)	(0.85)	(3.70)	(2.36)	(8.11)
INV/TA	-0.019	-1.836***	-0.045**	-2.061***	0.028	-1.619***	0.004	-2.449***
	(-1.28)	(-7.61)	(-2.27)	(-6.23)	(0.95)	(-4.01)	(0.11)	(-4.50)
NAF	0.002***	0.213***	0.002***	0.150***	0.001	0.325***	-0.000	0.298***
	(3.28)	(23.97)	(2.67)	(17.24)	(0.52)	(13.39)	(-0.31)	(13.16)
Constant	-0.154***	3.718***	-0.201***	5.805***	-0.091**	3.598***	-0.124***	2.556***
	(-8.53)	(14.15)	(-9.24)	(25.51)	(-2.57)	(7.62)	(-4.19)	(6.42)
Observations	17,311	17,311	9,235	9,235	3,235	3,235	4,841	4,841
Country Fixed	Yes	Yes	No	No	No	No	No	No
Year Fixed	Yes	Yes	No	No	No	No	No	No
Firm Cluster	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj R <sup>2</sup>	0.839	0.733	0.831	0.655	0.805	0.672	0.855	0.682
F-stat	2650		3194		472.7		905.6	
Hansen J (p-value)		0. 229		0.153		0.390		0.312

## **Table 8: Instrumental Variable Analysis**

Table 8 presents the results of two-stage least square (2SLS) regressions by using the demand for high-quality audits as dependent variable. Model 1, 3, 5 & 7 show the results of first stage by using lagged CSR performance and industry average CSR scores as instruments. Model 2, 4, 6 & 8 show the results of second stage by using CSR instrumented values. The final sample consists of 20,819 firm-year observations from three regions (US, UK & EU) and twenty different countries between 2002 and 2016. All variables are as defined in 'Appendix A' and financial variables are winsorized at bottom 1% and top 99% levels. T-statistics are showed in parenthesis. \*, \*\* and \*\*\* symbolizes significance at 10%, 5% and 1% level respectively.

		Strong Go	overnance			Week Go	vernance	
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	ALL	US	UK	EU	ALL	US	UK	EU
CSR_P	0.806***	0.798***	1.117***	1.380***	0.506***	0.466***	0.467***	0.744***
	(8.29)	(7.98)	(3.04)	(3.95)	(5.44)	(4.12)	(2.92)	(3.82)
SIZE	0.453***	0.438***	0.385***	0.522***	0.352***	0.344***	0.338***	0.338***
	(29.34)	(29.55)	(9.75)	(15.05)	(22.22)	(16.85)	(7.19)	(10.36)
ROA	-0.621***	-0.558***	-0.638**	-0.663**	-0.447***	-0.286**	-0.825***	-0.563**
	(-3.75)	(-3.91)	(-2.04)	(-2.07)	(-4.59)	(-2.47)	(-4.21)	(-2.35)
B/MV	-0.173***	-0.037	-0.368***	-0.180***	-0.124***	-0.013	-0.230***	-0.193**
	(-4.42)	(-0.87)	(-4.46)	(-2.76)	(-3.26)	(-0.26)	(-2.60)	(-2.53)
FCF	0.458***	0.482***	0.301*	0.409**	0.288***	0.310***	0.068	0.159
	(6.39)	(6.12)	(1.74)	(2.18)	(4.34)	(3.93)	(0.46)	(0.92)
LOSS	0.119***	0.104**	-0.011	0.207***	0.132***	0.178***	0.036	-0.026
	(3.35)	(2.56)	(-0.14)	(2.66)	(3.84)	(4.69)	(0.46)	(-0.26)
LEV	-0.104	0.068	-0.424	-0.547**	-0.019	0.026	-0.292	0.196
	(-1.12)	(0.80)	(-1.64)	(-2.39)	(-0.26)	(0.30)	(-1.58)	(0.94)
COMPLEX	2.317***	2.451***	1.732***	3.115***	1.579***	1.949***	0.687**	2.073***
	(11.27)	(8.83)	(4.16)	(7.35)	(9.00)	(7.25)	(2.53)	(4.81)
INV/TA	-2.370***	-2.401***	-2.354***	-2.592***	-1.333***	-1.753***	-0.969***	-1.528**
	(-7.38)	(-6.23)	(-3.90)	(-3.74)	(-5.49)	(-4.76)	(-2.72)	(-2.48)
NAF	0.214***	0.144***	0.356***	0.266***	0.200***	0.147***	0.277***	0.347***
	(20.16)	(15.54)	(12.02)	(10.06)	(19.16)	(13.13)	(9.09)	(13.37)
Constant	2.856***	4.713***	2.276***	1.235**	4.493***	6.444***	4.633***	4.016***
	(9.76)	(21.69)	(3.90)	(2.52)	(14.63)	(20.65)	(7.65)	(7.96)
Observations	10,945	5,268	2,194	3,483	9,874	6,048	1,567	2,259
Country Fixed	Yes	No	No	No	Yes	No	No	No
Year Fixed	Yes	Yes						
Firm Cluster	Yes	Yes						
Adj R <sup>2</sup>	0.745	0.711	0.671	0.659	0.618	0.447	0.477	0.541

## Table 9: Role of firm level governance

Table 9 reports the regression results by using the demand for high-quality audits as dependent variable. Model 1 to 4 show the results for firms with strong corporate governance structure. Model 1 show the results for whole sample and Model 2, 3 & 4 show the results with US, UK and EU sample, respectively. Model 5 to 8 show the results for firms with week governance structure. Model 5 show the results for whole sample and Model 6, 7 & 8 show the results with US, UK and EU sample, respectively. The final sample consists of 20,819 firm-year observations from three regions (US, UK & EU) and twenty different countries between 2002 and 2016.

All variables are as defined in 'Appendix A' and financial variables are winsorized at bottom 1% and top 99% levels. T-statistics are showed in parenthesis. \*, \*\* and \*\*\* symbolizes significance at 10%, 5% and 1% level respectively.