CORPORATE REPUTATION AS A CONSEQUENCE OF FINANCIAL REPORTING QUALITY

Isabel M. GARCÍA-SÁNCHEZ, Jennifer MARTÍNEZ-FERRERO
University of Salamanca, Spain
Isabel.Garcia.lajefa@usal.es, jenny_marfe@usal.es

Abstract - This paper aims to examine the impact of Financial Reporting Quality (FRQ) on corporate reputation, using three proxies of FRQ: (i) earnings quality; (ii) accounting conservatism; and (iii) accruals quality. Thus, the main purpose of this research is to analyze the effect of a good FRQ on corporate reputation measured from Fortune’s annual magazine. The sample of analysis consists on an unbalanced panel data of 186 international non-financial listed companies from 930 observations from United Kingdom, United States and Canada for the period 2006-2010. The hypothesis is tested by using the Generalized Method of Moments (GMM) estimator proposed by Arellano and Bond (1991), which allows to correct endogeneity problem between dependent and independent variable and to control the unobservable heterogeneity. Empirically, the evidence obtained highlights the positive effect of FRQ (earnings quality, conservatism and accruals quality) on corporate reputation; that is, shareholders, market, investors, society and other stakeholders positively assess those companies that report financial information of better quality.

Key-Words- Financial Reporting Quality (FRQ), Earnings Management (EM), Accruals quality (AQ), Accounting Conservatism, Corporate Reputation.

JEL Classification- M41, M14.

Research Highlights - There is a positive association between financial reporting quality (FRQ) and subsequent corporate reputation. - Results are robust from different measurements of FRQ. - International sample of 186 companies from the period 2006-2010 is used. - Simultaneous equations for panel data, via the GMM estimator proposed by Arellano and Bond (1991) are used for examining the proposed hypothesis.

1 INTRODUCTION

Knowing the level of quality of the financial information that companies broadcast has become a topic of greatest interest not only to investors or lenders, but also to every market participant. The very same information broadcast quality makes the reduction of information asymmetries between different participants possible (Chen et al., 2011). For instance, it avoids information divergence between managers and shareholders, between managers and stakeholders, etc. and moreover, impacts on the corporate reputation of any company. Such reputation is a consequence of information received by publics about its behavior, either via the press, the market or the company itself (Brammer and Pavelin, 2004). In this sense, as Cao et al. (2010) state, corporate reputation is an important effect of financial reporting quality.

Focusing on the impact of the quality of financial reporting, evidence about the topic is quite scarce. Few are the studies that examine how FRQ impact on market valuation and thereon, on reputation. Some authors have observed the positive impact that a better Financial Reporting Quality has on the value, assets, transactions, reputation and corporate image of companies (Fombrun et al., 2000; Roychowdhury,
2006). Similarly, other studies have reported the loss of support among shareholders, investors and other stakeholders, and the increasing activism and surveillance by interest groups and regulatory authorities (Zahra et al., 2005) as result of discretionary practices. When stakeholders do not receive valuable outcomes from their managers (for example, with the Earnings Management practices), corporate reputation is damaged. This decreases the attraction of external financial capital and of revenues (Frombun et al., 2000). Market penalizes these practices with loss of reputation for directors of companies associated with accounting fraud (Fich and Shivdasani, 2007). These practices reflect managerial short-sightedness or desperation and influence the concerned parties’ opinion about the credibility of the management and the prospects of the company. Empirically, the effect of earnings management on corporate reputation has not been studied in depth but there is evidence of loss of reputation when small cases of fraud come to light (Francis et al. 2008).

Despite of these papers, the FRQ consequences on Corporate Reputation have not been studied in depth. Although there is very few research on this topic, there is evidence about the loss of reputation of the management when cases of fraud or of accounting manipulation come to light (Kasznik, 1998; Francis et al., 2008). In view of the concern for society of FRQ and the lack of literature about the link between FRQ and Reputation, the aim of this paper is to highlight the existing positive association between FRQ and Reputation using three proxies of FRQ: (i) earnings quality; (ii) accounting conservatism; and (iii) accruals quality. To measure Corporate Reputation, a methodology based on the Fortune Index is used. This methodology utilizes a specific measure of corporate reputation that is commonly used in several researches (Melo and Garrido-Morgado, 2012; Frombun and Shanley, 1990). In particular, the ranking of the world’s most admired companies ranking for the period 2006-2010 is used. It is an alphabetical index of the most admired companies listed in the top 50 surveys and industry rankings of each year.

The empirical analysis is based on a sample comprising 186 international listed non-financial companies, and constituting 930 observations from United Kingdom, United States and Canada for the period 2006-2010. The proposed model is regressed by using simultaneous equations for panel data, based on the Generalised Method of Moments (GMM) estimator propounded by Arellano and Bond (1991) to correct for problems of endogeneity.

The results are confirmed for each measure of FRQ (EM, Accounting Conservatism and AQ). The companies that carry out Earnings Management practices - inversely related with Earnings Quality and FRQ -, tend to be less admirable, i.e., their reputation is worse. Therefore EM generates loss of reputation, supporting that FRQ is positively associated with reputation. The same result is obtained for accruals quality and for conservative companies. Thereon, companies with high accruals quality and accounting conservatism have a better corporate reputation. In short, there is a positive association between FRQ and a subsequent corporate reputation.

This article is structured in four sections in addition to this Introduction. Section two provides the theoretical framework and previous empirical research for establishing the proposed hypothesis. Section three describes the methodology used: the sample analysed, the variables included and the empirical models proposed to test the hypothesis. Section four presents the results of the empirical analysis, and their discussion. Finally, section five presents the main conclusions and limitations to this study, and suggests lines for possible future research.

2 THEORETICAL FRAMEWORK: Financial Reporting Quality and Corporate Reputation

For years, continuous accounting scandals such as Enron or WorldCom have generated growth distrust among market participants. For this reason, society has

---

¹ It is necessary to take into account that Earnings Management practices are considered as the inverse of FRQ (Dechow et al., 2010), thus, the more EM practices are exercised, the lower will be the quality of financial information because of these manipulative practices.
become aware of the need to know the quality of the information broadcast by companies and whether they keep their commitment for an ethical management. Companies commit more and more to a high-quality financial information, which will be relevant, reliable, comparable, unbiased... In short, it will fulfill the public’s demands and will prevent discretionary behaviors by the managers of the company. In this way, Jonas and Blanchet (2000) considered that financial reporting is not only a final output; the quality of this process depends on each of its parts, including disclosure of the company’s transactions, information about the selection and application of accounting policies and knowledge of the judgments made.

According to the leading authorities on the evaluation of financial reporting (such as the FASB, the SEC or the Jenkins committee), the main characteristics required are relevance, reliability, transparency and clarity (Jonas and Blanchet, 2000; Lu et al., 2011). It has been asserted that high quality accounting information is a valuable means of counteracting information asymmetry (Chen et al., 2011).

FRQ requires companies to voluntarily expand the scope and quality of the information they report, to ensure that market participants are fully informed in order to make well-grounded decisions on investment, credit, etc. This high quality information facilitates greater transparency; this greater transparency reduces the information asymmetries and satisfies investors and stakeholders’ needs. Moreover, companies with better quality of financial information are associated with subsequent higher performance, due to the fact that the market positively assesses those companies which are more committed to the issuance of good information for shareholders and other stakeholders, aiming to reduce or avoid information asymmetries between market participants (García-Lara et al., 2009; Bushman and Smith, 2001; Gunny, 2005).

Considering Earnings Management (EM) practices are one of the elements that are used the most to measure FRQ. They are defined by García-Osm et al. (2005) as “any practice carried out intentionally by company managers, for opportunistic and/or information purposes, to report accounting results that do not correspond to those really achieved”. At this respect, according to Zahra et al. (2005), the consequences of discretionary behavior are very different between each other and could affect several market agents - not only investors, but also employees, local communities, society or even corporate reputation itself and hence, the market value of these companies. As Cao et al. (2010) point out, corporate reputation has an important effect on FRQ, suggesting that companies that have a better reputation have more incentives to maintain a better FRQ. Specifically, they find that companies with higher reputation scores are less likely to misstate their financial statements.

Under a growing concern about FRQ, this paper focuses on the consequences of it on corporate reputation, and, concretely, on the consequences of EM on corporate reputation. Among the numerous definitions of Reputation, Frombun (1996) defined it as “a perceptual representation of a company’s past actions and future prospects that describe the firm’s overall appeal to all its key constituents when compared to other leading rivals”. Corporate Reputation is considered as one of the critical factors to achieve a competitive advantage that meets the requirements of being inimitable and long lasting (Dowling, 2004; Choi and Wang, 2009). Furthermore, it has always been conceived as an intangible asset that allows firms to achieve a competitive advantage and to expect getting more returns; it is associated with value creation (Roberts and Dowling, 2002).

Any company’s reputation is the consequence of information received by the public about their behavior, either via the press, the market or the company itself (Brammer and Pavelin, 2004). Although evidence is so scarce, some authors have observed the negative impact that unethical accounting practices have on the company’s value, assets, transactions, reputation and corporate image (Fombrun et al., 2000; Roychowdhury, 2006). Moreover, other studies have reported the loss of support among shareholders, investors and other stakeholders, and the increasing activism and surveillance by interest groups and regulatory authorities (Zahra et al., 2005). If stakeholders do not receive valuable outcomes from their managers, Corporate Reputation gets damaged. This decreases the attraction of external financial capital and of revenues (Frombun et al., 2000).
Some are the arguments that can allow to understand the impact of FRQ on market valuation and corporate reputation. One of the main benefits of better FRQ is based on the minimization of asymmetric information problems that arise from conflicting agency (Rajgopal and Venkatachalam, 2011). Companies that report higher quality financial information give to the various markets ‘agents’ better information on it, allowing them to act in the market with better conditions and a higher level of information (Jo and Kim, 2007). It is expected that under greater availability of information, more precise will be the market valuation.

Some studies can be examined to theoretically support the relation between FRQ and reputation. For instance and despite of they are not focused on reputation, Lambert et al. (2007) obtained empirical evidence that the quality of accounting information can influence the cost of capital, both directly, by affecting market participants’ perceptions about the distribution of future cash flows, and indirectly, by affecting real decisions that alter the distribution of future cash flows. Beyond financial information and focused on environmental reporting, Toms (2002) shows that the implementation, monitoring and disclosure of environmental policies and their disclosure in annual reports contribute significantly to the creation of environmental reputation. In line with the topic in question, Martínez-Ferrero et al. (2016) report the negative impact of earnings management practices on corporate reputation for an international sample of analysis, supporting that a company’s chances of being listed among the world’s most admired companies decrease when they carry out discretionary actions. Market and investors heavily penalize companies that practice Earnings Management strategies or management entrenchment losing their confidence in them as per the relevance and reliability of accounting information that is published (Martínez-Ferrero et al., 2016).

Although there is little empirical evidence supporting the following, in accordance with the detrimental effect of EM practices, the main objective is to highlight the effect of FRQ on company reputation. Scarce researches have considered the association between FRQ and the decrease of information asymmetries, which affect the corporate reputation. In this sense, companies with a better financial information quality reduce their asymmetry issue as investors and market have more information available. Thus, those companies are associated with a higher corporate reputation. Furthermore, in view of the previous literature, the existence of a negative link between EM and Reputation is expected. Companies that carry out manipulative practices generate a detrimental effect on their Corporate Reputation and the loss of support among shareholders, investors and other stakeholders. Therefore, the next hypothesis is formulated:

$$H1: \text{The increase in Corporate Reputation is a consequence of a higher Financial Reporting Quality (less Earnings Management practices).}$$

3 METHODOLOGY

3.1 Sample

The sample used to test the propounded hypothesis is constituted of 186 international listed non-financial companies for the period 2006-2010. The sample is unbalanced, consisting of a total of 930 observations obtained from USA, United Kingdom and Canada. This sample was obtained from the information available in Thomson One Analytic database, for accounting and financial data. The financial information is the corresponding to the consolidated data of the companies analyzed. Corporate Reputation is obtained from Fortune’s annual magazine. Specifically, this paper makes use of the “World’s most admired companies ranking”, an alphabetical index of all Most Admired companies from the top 50 surveys and industry rankings for each year.

3.2 Corporate Reputation

Data for Corporate Reputation has been gathered from Fortune magazine. A methodology based in the Fortune Index has been employed. This methodology
utilizes a specific measure of corporate reputation that is commonly used in several researches (Melo and Garrido-Morgado, 2012; Frombun and Shanley, 1990; Martínez-Ferrero et al., 2016). In particular, the ranking of the world’s most admired companies ranking for the period 2006-2010 is used. It is an alphabetical index of the most admired companies listed in the top 50 surveys and industry rankings of each year. This index is based on responses to questionnaires sent to executives, outside directors and securities analysts. However, not all of them respond to these surveys - only to those dealing with their own sector or economic activity. Taking into account these results, companies are classified with their competitors according to eight attributes of reputation.

3.3 Financial Reporting Quality

Taking previous literature into account, various measurements of FRQ are used (Choi and Pae, 2011; Hong and Andersen, 2011; Lu et al, 2011), because of there is no universally accepted way of measurement (Dechow et al., 2010). The first measurement used is the degree of earnings management using accruals, while the second is the degree of accounting conservatism and the third, accruals quality.

Earnings Management (EM) through accruals (Earnings Quality)

Earnings Quality has been widely used without a uniform definition (Bao and Bao, 2004). In this way, EM is considered to be the inverse of Earnings Quality and thus, of FRQ (Dechow and Dichev, 2002); a higher degree of EM is associated with lower quality of information and lower earnings quality (Raman et al., 2012). Thus, the first measurement of FRQ is management discretion over accruals. The discretionary component of accruals adjustment could be used as a measurement of discretionary management, and therefore of accounting manipulation. As observed by Garcia-Osma et al. (2005), accruals are not all discretionary; hence it is necessary to separate the discretionary component from the non-discretionary one in order to determine the presence and extent of EM. The discretionary accruals adjustment (DAA) is obtained by subtracting the non-discretionary accruals adjustment (NDAA) from the total accruals adjustment (TAA). The DAA represents the abnormal accruals that constitute the variable taken as a measure of EM.

In this study, the Dechow et al. (1995) model is used. With the aim to achieve robust results, the Kothari model (Kothari et al., 2005) is also used to separate the non-discretionary component of accruals from the discretionary one. These models are explained in Appendix 1. To obtain a proxy of FRQ, this paper employs the absolute value of the DAA estimated by these models because EM may involve either income-increasing or income-decreasing accruals (Warfield et al., 1995; Klein, 2002):

\[
\text{FRQ}_{\text{DECHOW}} = \text{ABS}_{\text{DAA}}_{\text{DECHOW}} \quad (\text{Equation 1})
\]
\[
\text{FRQ}_{\text{KOTHARI}} = \text{ABS}_{\text{DAA}}_{\text{KOTHARI}} \quad (\text{Equation 2})
\]

Here, ABS_{DAA}_DECHOW and ABS_{DAA}_KOTHARI are the absolute value of the DAA calculated by the Dechow et al. (1995) and the Kothari et al. (2005) model. Thus, the lowest values of FRQ_{DECHOW} and FRQ_{KOTHARI} represent the lowest level of earning management practices that are associated with the highest FRQ.

Accounting conservatism

The second measure of FRQ is the degree of accounting conservatism, which implies a more timely incorporation of economic losses into accounting earnings than of economic gains (Ball et al., 2000). According to Basu (1997), conservative accounting reflects bad news for the company more rapidly than good news because this approach tends to reduce litigation risks (Kothari et al., 1989; Skinner, 1994; Ball et al., 2008). Following Choi and Pae (2011) and Garcia-Lara et al. (2009), it is used a variation of the Basu (1997) model proposed by Khan and Watts (2009). These authors employ a two-step procedure. First, it is estimated the following cross-sectional regression for each year:
where $\frac{E_{it}}{P_{it-1}}$ is the annual stock return for the 12 months ending 3 months after the balance sheet date; $DR_{it}$ is a dummy variable that takes the value 1 when $R_{it} < 0$ and 0 otherwise; $Size_{MVE_{it}}$ is the natural logarithm of the market value of equity; $MTB_{it}$ is the market to book ratio; $LEV_{it}$ is the leverage measured by dividing the sum of long term and short term debts by the market value of equity; i represents the companies and t the years.

In the second step, it is used a firm-year specific measure of timelines of earnings (C_SCORE), with the coefficient estimates from Equation 3.

$$C_{Score} = \gamma_0 + \gamma_{1t}Size_{MVE_{it}} + \gamma_{2t}MTB_{it} + \gamma_{3t}LEV_{it} (Equation \ 4)$$

An alternative measure has been proposed taking into account the timelines of reported earnings with respect to bad news because of stakeholders are more influenced by bad news rather than good news. This measure is called B_SCORE and is calculated as follows:

$$B_{Score} = \gamma_{0t} + \gamma_{1t}Size_{MVE_{it}} + \gamma_{2t}MTB_{it} + \gamma_{3t}LEV_{it} + \mu_0 + \mu_{1t}Size_{MVE_{it}} + \mu_{2t}MTB_{it} + \mu_{3t}LEV_{it} (Equation \ 5)$$

### Accruals Quality

Another measurement of FRQ that has been used in several papers (Choi and Pae, 2011; Hong and Andersen, 2011; Francis et al., 2005; Gray et al., 2009) is the accruals quality (AQ). In this paper, AQ is measured through the Ball and Shivakumar model (2006). The model proposed by Ball and Shivakumar (2006) suggests that nonlinear accrual models that incorporate the timely recognition of losses perform better than linear models. Hence, it is added a current-year cash flow dummy and its interaction with cash flow levels into the previous Dechow and Dichev model (2002).

$$\Delta W_{C_{it}} = \beta_{0} + \beta_{1}OCF_{it} + \beta_{2}OCF_{it-1} + \beta_{3}REV_{it} + \beta_{4}D_{it} + \beta_{5}PPE_{it} + \beta_{6}O_{C_{it}} + \beta_{7}DO_{C_{it}} + \epsilon_{7t} (Equation \ 6)$$

where the change in working capital accruals from year t-1 to t is: $\Delta W_{C} = \Delta Accounts Receivable + \Delta Inventory - \Delta Accounts Payable - \Delta Taxes Payable + \Delta Other Assets; OCF$ is the operating cash flow; $\Delta Revenues$ is the change in revenues; $DOCF$ is an variable indicator for the negative cash flows. It takes the value 1 if there are negative $OCF$ and 0 otherwise i indicates the company and t refers to the time period. All the variables (excepted $DOCF$) are scaled by the total assets.

It is used the absolute value of the residuals from this model as a proxy for AQ; that is, the lower the degree of this proxy, the higher the degree of AQ.

### 3.4 Control Variables

To avoid biased results, several control variables are included, whose effect on FRQ EM and reputation are well established by previous studies. Concretely, in this analysis it is included firm size, leverage, operating liquidity, industry and R&D intensity. Company size ($SIZE$) is measured by the logarithm of the total assets. It is common practice to use firm size as a determinant variable of economic, social and environmental practices. In general, larger companies have a greater reputation, which is closer to social responsiveness (Brammer and Pavelin, 2004). Another variable that has been widely used in previous studies is the level of firm leverage ($DEBT$). It represents the debt or non-compliance risk (Prior et al., 2008; Surroca et al., 2010;
Lourenço et al., 2012; Mahoney et al., 2008). WORKING CAPITAL is defined as the difference between current assets and current liabilities. It reflects liquidity, i.e. a company’s ability to continue the normal development of its activities in the short term. As with the variable DEBT, companies with financial problems do not wish to attract the attention of stakeholders, and so they tend to manipulate accounting results when faced with problems in their capital structure (negative working capital) (Park and Shin, 2004). To represent the sector in which the company operates, a dummy variable (INDUSTRY) is created in function of the Compustat economic sector code (Business materials, Consumer Discretionary, Consumer Staples products, Health Care, Industrial Field, Information Technology and, finally, Utilities). According to Melo and Garrido-Morgado (2012), the impact on Corporate Reputation is moderated by the industry of the firm. Finally, R&DINTENSITY is measured by the ratio of R&D expenditure to total revenue. Some studies, like Baber et al. (1991) and Dechow and Sloan (1991) have found that the companies that invest the most in R&D have greater incentives toward EM, in order to achieve the goals established or the target of their projects, and therefore have lower levels of FRQ. On the other hand, firms that invest in R&D create intangible assets which promote higher corporate reputation (Torres et al., 2012).

3.5 Empirical model

The aim of this paper is to highlight the impact of FRQ on corporate reputation. To test the hypothesis proposed, simultaneous equations for panel data using the estimator proposed by Arellano and Bond (1991) are estimated. Using panel data enables companies’ performance in the sample to be assessed over time, by analysing observations from several consecutive years for the same companies. In contrast to using time series or cross-sectional data, this methodology makes it possible to detect unobserved heterogeneity or the differences between individuals that are potentially correlated with the explanatory variables (also called individual specific effects, which are invariant over time and directly influence corporate decisions (entrepreneurial capacity, favourable managerial attitude toward corporate transparency, etc.). Moreover, the study is enriched by considering the temporal dimension of data, particularly in periods of great change. Thus, the panel data enables to control the effects that may affect sustainable practices each year.

Moreover, by using the GMM estimator it is possible to control problems of endogeneity between the independent and dependent variables by means of lags and thus control unobserved effects in each country. This methodology has been used in several studies, such as De Miguel et al. (2005), to determine the relationships among different control mechanisms in the Spanish corporate governance system. This estimator helps to address endogeneity problems that persist in least squares estimators. Following the argument of Wooldridge (2010), our tests could be biased due to endogeneity because, while FRQ could partially explain corporate reputation, expected reputation can influence the choice better or worse financial information. Estimation using instrumental variables models like the GMM can address this problem (Ogaki 1993). Endogeneity problem can also be controlled using a simultaneous equations estimator, such as maximum likelihood or two or three-stage least squares estimators, but the choice should be based on consistency (De Miguel et al. 2005). These methods are more efficient than GMM, but they are not consistent and generate biased results as they do not eliminate unobservable heterogeneity: firms’ own specificity that gives rise to a particular behavior. These differences between individuals are potentially correlated with the explanatory variables (also called individual specific effects like entrepreneurial skills, corporate culture, etc.), which are invariant over time and directly influence corporate decisions. In order to control unobservable heterogeneity, GMM decomposes the random error term (ei) into two parts: the combined effect (ηi), which varies depending on individuals and on time periods; and the individual effect (μit), which is characteristic of the company.

Corporate Reputation is the dependent variable and FRQ is an independent one to determine the effect of good quality information on reputation. It is estimated four regressions with the different measures of financial reporting quality as explanatory variables (EQ, C_Score, B_Score and AQ):
\text{REPUTATION}_{it} = \theta + \theta_1\text{FRQ}_{it} + \theta_2\text{Size}_{it} + \theta_3\text{Debt}_{it} + \theta_4\text{Working}_\text{capital}_{it} + \theta_5\text{Industry}_{it} + \theta_6\text{R&DIntensity}_{it} + \eta_i + \mu_{it} \\

Where \(i\) indicates the municipality and \(t\) refers to the time period, \(\theta\) are the parameters to be estimated, \(\eta_i\) represents the persistent unobserved heterogeneity; \(\mu_{it}\) represents the classical disturbance term; \(\text{REPUTATION}_{it}\) is a numerical variable that represent the company’s reputation; \(\text{FRQ}_{it}\) is a numerical variable that represents the quality of financial reporting. This variable is measured by Earnings quality (\(\text{FRQDECHOW}\) and \(\text{FRQKOTHARI}\)), conservatism (\(\text{C\_SCORE}\) and \(\text{B\_SCORE}\)) and accruals quality (\(\text{BALL\_SHIVAKUMAR}\)); \(\text{Size}_{it}\) is a numerical variable that represents the size of company \(i\) for period \(t\) as the logarithm of total assets; \(\text{Debt}_{it}\) is a numerical variable that reflects the debt of company \(i\) for period \(t\); \(\text{Working\_Capital}_{it}\) is a numerical variable that represents liquidity, i.e. the company’s capacity to continue the normal development of its activities in the short term, measured as the difference between current assets and current liabilities; \(\text{Industry}_{it}\) is a multinomial variable that represents the activity sector; \(\text{R&DIntensity}_{it}\) is a numerical variable that represents the ratio of R&D expenditure to total sales by company \(i\) for period \(t\).

4 EMPIRICAL RESULTS

4.1 Statistical Descriptive

Table 1 shows the descriptive statistics of the variables used in this study. The mean value of \(\text{REPUTATION}\) is 6.92682 and its deviation \(\pm 0.6093721\), meaning that, in general, the companies examined are positively assessed for the market. Regarding the \(\text{FRQ}\) measures, the mean value of \(\text{FRQDECHOW}\) and \(\text{FRQKOTHARI}\) are 36.62328 and 49.33612 with a standard deviation of \(\pm 1027.772\) and \(\pm 1449.245\), respectively; the mean value of \(\text{C\_SCORE}\) and \(\text{B\_SCORE}\) are 1.758795 and \(-222.152\), respectively. Finally, \(\text{BALL\_SHIVAKUMAR}\) that represents the accruals quality has a mean value of 305.2815 and a standard deviation of \(\pm 10477.9\). Furthermore, Table 1 summarises the descriptive statistics for the control variables, expressed in millions of Euros. For example, the average size of the companies analysed is 7.8744 with a standard deviation of \(\pm 1.97945\) and the average debt stands at 0.6758 with a standard deviation of \(\pm 110.19017\).

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>DESCRIPTIVE STATISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td><strong>Std. Dev.</strong></td>
</tr>
<tr>
<td>(\text{REPUTATION})</td>
<td>6.92682</td>
</tr>
<tr>
<td>(\text{FRQDECHOW})</td>
<td>36.62328</td>
</tr>
<tr>
<td>(\text{FRQKOTHARI})</td>
<td>49.33612</td>
</tr>
<tr>
<td>(\text{C_SCORE})</td>
<td>1.758795</td>
</tr>
<tr>
<td>(\text{B_SCORE})</td>
<td>-222.152</td>
</tr>
<tr>
<td>(\text{BALL_SHIVAKUMAR})</td>
<td>305.2815</td>
</tr>
<tr>
<td>(\text{SIZE})</td>
<td>7.874393</td>
</tr>
<tr>
<td>(\text{DEBT})</td>
<td>0.6757981</td>
</tr>
<tr>
<td>(\text{WORKING_CAPITAL})</td>
<td>627.4492</td>
</tr>
<tr>
<td>(\text{INDUSTRY})</td>
<td>2.919092</td>
</tr>
<tr>
<td>(\text{R&amp;DINTENSITY})</td>
<td>0.1788567</td>
</tr>
</tbody>
</table>
Table 2 shows the bivariate correlations. Neither the coefficients between the dependent and independent variables nor those between the different independent variables are very high.
### Table 2
Bivariate Correlations between Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REPUTATION</strong></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FRQDECHOW</strong></td>
<td>-0.0492</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FRKOTHARI</strong></td>
<td>-0.0755</td>
<td>-0.0459</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C_Score</strong></td>
<td>0.1515</td>
<td>0.0889</td>
<td>0.0987</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B_Score</strong></td>
<td>-0.1348</td>
<td>-0.1028</td>
<td>-0.0438</td>
<td>-0.9086</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ball-Shivakumar</strong></td>
<td>-0.0842</td>
<td>0.128</td>
<td>-0.0652</td>
<td>-0.158</td>
<td>0.0866</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>0.2879</td>
<td>-0.0993</td>
<td>-0.063</td>
<td>-0.1195</td>
<td>0.171</td>
<td>-0.1146</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Debt</strong></td>
<td>0.1308</td>
<td>0.0479</td>
<td>0.0226</td>
<td>-0.1139</td>
<td>0.1739</td>
<td>-0.2097</td>
<td>0.0255</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Working_capital</strong></td>
<td>0.1586</td>
<td>-0.05</td>
<td>-0.1435</td>
<td>-0.296</td>
<td>0.2372</td>
<td>0.1053</td>
<td>0.2048</td>
<td>0.0508</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td>0.0713</td>
<td>0.0432</td>
<td>-0.0488</td>
<td>-0.0328</td>
<td>0.0426</td>
<td>0.0043</td>
<td>-0.2786</td>
<td>0.0425</td>
<td>-0.0561</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>R&amp;DIntensty</strong></td>
<td>0.0089</td>
<td>-0.0149</td>
<td>-0.1755</td>
<td>-0.1934</td>
<td>0.16</td>
<td>0.0707</td>
<td>0.0945</td>
<td>0.0539</td>
<td>0.0738</td>
<td>0.1602</td>
<td>1</td>
</tr>
</tbody>
</table>

**REPUTATION** is a numerical variable that represents the company’s reputation. **FRQDECHOW** represents the earning management measure with the Dechow et al. (1995) model; **FRKOTHARI** represents an earnings management measure with the Kothari et al. (2005) model; **C_SCORE** and **B.Score** are measures for accounting conservatism proposed by Khan and Watts (2009); **D-D** and **B-S** are measures for accruals quality with the Dechow-Dichev (2002) model and the Ball and Shivakumar (2006) model, respectively; **SIZE** is the logarithm of total assets; **DEBT** is the ratio of debt to equity; **WORKING CAPITAL** represents liquidity, measured as the difference between current assets and current liabilities.; **INDUSTRY** represents the different activity sectors; **R&DINTENSITY** represents the ratio of R&D expenditure to total sales.
4.2 Results of dependency models

Focusing on the main object of analysis in this study, Table 3 highlights the effect of FRQ on Corporate Reputation. FRQ is measured using the (i) Dechow et al. (1995) and the Kothari et al. (2005) models for earnings quality; (ii) variation of the Basu (1997) model proposed by Khan and Watts (2009) for accounting conservatism and, (iii) the Ball-Shivakumar (2006) model for accruals quality.

In the first model, earnings quality is used as a proxy of FRQ. FRQDECHOW is statistically significant at 95% confidence level and it has a negative effect on Corporate Reputation (coef. -0.0009291). In the same way, FRQKOTHARI is also statistically significant at a 99% confidence level and it has a negative effect on FP (coef. -0.0003151). This means that a higher level of earnings management practices (a higher level of FRQDECHOW and FRQKOTHARI) is associated with a lower FRQ, and thus, with lower level of reputation. These empirical results are in accordance with the proposed hypothesis that supports a positive relationship between FRQ and REPUTATION. In other words, companies with a high quality level of financial information tend to have higher reputation, and specifically, this result supports a negative association between EM and REPUTATION. These unethical practices damage the corporate reputation of a company because of market assess negatively this manipulative behaviour.

The results of this research supports the previous evidence by Frombun et al. (2000) and Roychowdhury (2006), who obtained empirical evidence on the positive association between FRQ and Corporate Reputation, and specifically, on the negative association between EM practices and reputation. The main conclusion is that Corporate Reputation is a consequence of a better quality of the financial reporting. According to the previous authors and to Zahra et al. (2005), EM practices have a negative impact on the company’s value, assets, transactions, reputation and corporate image, as well as causing the loss of support among shareholders, investors and other stakeholders, and the increasing activism and surveillance by interest groups and regulatory authorities.

The second measure of FRQ used in this study is related to the level of accounting conservatism. For this, the C_Score and B_Score parameters shown in the third and fourth models respectively are created. In the first model, the effect of C_Score on the dependent variable is positive (coef. 4.04e-06) and significant at a 99% confidence level. This means that the more conservative companies, in relation to the difference in the timelines of disclosing positive and negative news on earnings, have a better reputation and are the most admired companies. This shows that FRQ has a positive effect on corporate reputation (hypothesis H1). However, if it is considered the second measure of accounting conservatism (B_Score), these results are not in accordance with the previous models, showing a negative relationship. This variable shows a negative effect on the dependent variable (coef. -0.0000167) being significant at 99% confidence level. It considers the earnings disclosure timelines with respect to bad news and it also includes the definition of C_Score (see equations 3 and 4). Therefore, it represents accounting conservatism in a broader way. In consequence, conservative companies, i.e. those recognizing bad economic news more promptly, tend to present a higher level of financial information quality and have a better reputation.

Therefore, this result supports the previous evidence of Chen et al. (2011) who suggested that high quality accounting information is a valuable means of countering information asymmetry. Thanks to informative asymmetry reduction, companies are highly valued by the market and this have a better reputation.

The last measure of FRQ, associated with the level of accruals quality, is measured following the model proposed by Ball and Shivakumar (2006). The results show that the BALLASHIVAKUMAR variable has a negative effect on REPUTATION (coef. -0.0161861) at 99% of confidence level. This result is in accordance with the proposed hypothesis that supports a positive relationship; that is, a higher level of BALL-SHIVAKUMAR represents a lower level of accruals quality and consequently, a lower level of corporate reputation. Thus, the quality of accruals impacts positively on the reputation. Thereby companies that report poor quality financial information are among the most admirable companies.
Similar to the other alternative measures of FRQ, companies reporting more credible, error-free and unbiased information enjoy a better corporate reputation, because the market identifies these companies and assesses these ethical practices positively (Lu et al., 2012; Hope et al., 2012).
<table>
<thead>
<tr>
<th>GRI</th>
<th>EARNINGS QUALITY</th>
<th>ACCOUNTING CONSERVATISM</th>
<th>ACCRUALS QUALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRQDECHOW</td>
<td>-0.0009291**</td>
<td>0.000463</td>
<td>-0.0003151*</td>
</tr>
<tr>
<td>FRQKOTHARI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C_SCORE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B_SCORE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B-S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>-0.0809395*</td>
<td>0.014738</td>
<td>-0.0907259*</td>
</tr>
<tr>
<td>DEBT</td>
<td>0.0031272**</td>
<td>0.001507</td>
<td>0.0028199**</td>
</tr>
<tr>
<td>WORKING_CAPITA</td>
<td>-0.0000499*</td>
<td>0.000012</td>
<td>-0.0000047*</td>
</tr>
<tr>
<td>INDUSTRY</td>
<td>-0.0304547</td>
<td>0.461087</td>
<td>0.170707</td>
</tr>
<tr>
<td>R&amp;DINTENSITY</td>
<td>-0.0293063</td>
<td>0.105217</td>
<td>-0.1049584</td>
</tr>
<tr>
<td>Z</td>
<td>131.50</td>
<td>43.95</td>
<td>39441.36</td>
</tr>
<tr>
<td>m1</td>
<td>-2.74</td>
<td></td>
<td>-1.79</td>
</tr>
<tr>
<td>m2</td>
<td>-0.49</td>
<td>0.54</td>
<td>-1.51</td>
</tr>
<tr>
<td>Hansen</td>
<td>70.44</td>
<td>74.83</td>
<td>54.05</td>
</tr>
</tbody>
</table>

FRQDECHOW represents the earning management measure with the Dechow et al. (1995) model; FRQKOTHARI represents an earnings management measure with the Kothari et al. (2005) model; C_SCORE and B_SCORE are measures for accounting conservatism proposed by Khan and Watts (2009); D-D and B-S are measures for accruals quality with the Dechow-Dichev (2002) model and the Ball and Shivakumar (2006) model, respectively; SIZE is the logarithm of total assets; DEBT is the ratio of debt to equity; WORKING_CAPITAL represents liquidity, measured as the difference between current assets and current liabilities; INDUSTRY represents the different activity sectors; R&DINTENSITY represents the ratio of R&D expenditure to total sales.
In regard to the control variables, the results are very similar in all the models. Firm size and operating liquidity negatively affect corporate reputation, and they are statistically significant at 99% confidence level. The negative effect of size on reputation is not in accordance with the previous result of Brammen and Pavelin (2004), who show a positive effect of this variable. Therefore, larger companies with a higher operating liquidity have a lower Corporate Reputation. Meanwhile, the effect and significance of DEBT on Reputation varies in relation to the FRQ measure considered in the model, but in general this effect is positive (indebted companies tend to be more reputable). In the case of INDUSTRY and R&DINTENSITY, the general effect is not significant.

In conclusion, the results obtained support a positive relationship between the FRQ and Corporate Reputation, as was proposed in the abovementioned research hypothesis. Companies that are characterized by greater earnings quality, accounting conservatism and accruals quality are associated with a higher Corporate Reputation. The market positively assess to those companies with a better FRQ supporting the previous evidence of Frombun et al. (2002) who stated that when stakeholders do not receive valuable outcomes from their managers, Corporate Reputation is damaged. This decreases the attraction of external financial capital and of revenues (Frombun et al., 2002). Along the same lines, the empirical evidence supports previous results by Roychowdhury (2006), Cao et al. (2010) and Zahra et al. (2005), who proved the existence of a positive link between FRQ and Corporate Reputation, and took into account the role that FRQ plays in influencing Corporate Reputation.

5 CONCLUDING REMARKS

As result of market and business globalization, geographical expansion and the greater demand for information and transparency among investors, stakeholders and society in general, market agents find their toehold in the quality of their financial reporting (FRQ) and their main source of knowledge on company strategy. Knowing the level of quality of the financial information that companies broadcast has become a topic of greatest interest not only to investors or lenders, but also to every market participant. Concretely, the very same information broadcast quality makes the reduction of information asymmetries between different participants possible. For instance, it avoids information divergence between managers and shareholders, between managers and stakeholders, etc.

Despite the importance and growing concern about the quality of financial information, very few research has been done focusing on the consequences of that quality. For instance, consequences on the capital cost, on how the market values the company, on its stakeholders’ activism or on reputation, which is the objective of this paper.

At this respect, this study focuses in analyzing the impact of a good financial information quality on corporate reputation. Concretely, the objective is subdivided with another one in order to determine and classify the effect of result-based management practices on reputation.

To achieve this goal, the empirical analysis is based on a sample comprising 186 international listed non-financial companies, and constituting 930 observations from United Kingdom, United States and Canada for the period 2006-2010. The proposed hypothesis is tested by using simultaneous equations for panel data, based on the Generalised Method of Moments (GMM) estimator proposed by Arellano and Bond (1991) to correct for problems of endogeneity.

These results are confirmed for each measure of FRQ (EM, Accounting Conservatism and AQ). In the case of earnings management practices, companies that do not carry out these practices tend to be most admirable, i.e. to have a better reputation. The same result is obtained for accruals quality and for conservative companies. That is, companies with higher accruals quality and accounting conservatism enjoy of higher Corporate Reputation. In short, there is a positive association between FRQ and subsequent corporate reputation. Furthermore, this
result is robust according to the different measurements of FRQ. The results support the role that FRQ plays in influencing corporate reputation.

This research makes several contributions. Firstly, it support previous literature on FRQ and EM, and it concretely helps showing the effect this has on corporate reputation. There is very few input on literature about the consequences of a good financial information quality on different measures: earnings quality, accounting conservatism and quality of accruals. Furthermore, this paper presents evidence of the relationship between FRQ and reputation, using the GMM estimator of Arellano and Bond (1991) for panel data that permits solving the endogeneity problem between both variables.

These findings mean practical implications for managers, investors and stakeholders in general. These results may be of interest to managers, enabling them to assess the impact their quality of information has on the outcome and practices that improve corporate reputation. Moreover, investors have a greater volume of information at their disposal and thereby, a decreasing amount of information asymmetry. Because of this, investors and stakeholders value these companies in a positive way. However, this paper has certain limitations, such as the use of an international database, with the consequent heterogeneity of information on accounting issues. Nevertheless, only the United States of America, the United Kingdom and Canada are included in the sample - countries with similar institutional and corporate systems. Thus, future lines of investigation should be bent on establishing if the result obtained in this paper is the same for countries with different institutional environments, with corporate governances or with a similar cultural and financial level.

REFERENCES


APPENDIX 1: Measure of Earnings Management through Discretionary Accruals

Jones’ standard model

Following Jones (1991) and Dechow et al. (1995), total accrual adjustments (TAA) are defined as:

\[
TAA_{it} = [(\Delta CA_{it}) - (\Delta CASH_{it})] - [(\Delta CL_{it}) - (\Delta RLTP_{it})] - DA_{it}
\]  
(a.1)

where \(\Delta CA_{it}\) represents the change in current assets; \(\Delta CASH_{it}\) reflects the change in cash held and short term financial investments; \(\Delta CL_{it}\) is the change in current liabilities; \(\Delta RLTP_{it}\) is the change in reclassified long term obligations; \(DA_{it}\) is the depreciation and amortization; \(i\) represents each company and \(t\) represents the year.

On the basis of equation (a.1), accruals are calculated using an explanatory model. The difference between actual and expected accrual adjustments (taking into account growth, company assets and the accounting result) represents the discretionary or unexplained component of accrual adjustments (DAA) and acts as a measure of management discretion in the reporting of results.

The standard Jones model uses the following procedure to separate the discretionary from the non-discretionary component:

\[
\frac{TAA_{it}}{A_{it-1}} = \alpha_{1,t} \left( \frac{1}{A_{it-1}} \right) + \alpha_{2,t} \left( \frac{\Delta Sales_{it}}{A_{it-1}} \right) + \alpha_{3,t} \left( \frac{PPE_{it}}{A_{it-1}} \right) + \varepsilon_t
\]  
(a.2)

where \(TAA_{it}\) are the total accrual adjustments; \(A_{it-1}\) represents total assets of firm \(i\) in period \(t-1\) and this is used as a deflator to correct possible problems of heteroskedasticity; \(PPE_{it}\) represents the property, plant and equipment of firm \(i\) in period \(t\); \(\Delta Sales_{it}\) is the change in sales for firm \(i\) in period \(t\).

The non-discretionary accrual adjustments (NDAA) are

\[
\alpha_{1,t} \left( \frac{1}{A_{it-1}} \right) + \alpha_{2,t} \left( \frac{\Delta Sales_{it}}{A_{it-1}} \right) + \alpha_{3,t} \left( \frac{PPE_{it}}{A_{it-1}} \right)
\]

and \(DAA_{it}\) represents the discretionary accrual adjustments (DAA) for firm \(i\) in the year \(t\). NDAA are calculated by replacing the coefficients in equation (a.2) with the values obtained by Ordinary Least Squares and DAA are the residuals of this calculation.

Modified Jones model (Dechow et al., 1995)

In the modified Jones model (Dechow et al., 1995, equation a.3), the TAA use the variation in sales less accounts receivable (used to measure the growth of the company, as its working capital is closely linked to sales), and less the item property, plant and equipment, which is used to measure the depreciation costs contained in the discretionary adjustments. It is assumed that not all sales are necessarily non-discretionary and that this will depend on the item to be received.

\[
\frac{TAA_{it}}{A_{it-1}} = \alpha_{1,t} \left( \frac{1}{A_{it-1}} \right) + \alpha_{2,t} \left( \frac{\Delta (Sales - A*R)_{it}}{A_{it-1}} \right) + \alpha_{3,t} \left( \frac{PPE_{it}}{A_{it-1}} \right) + \varepsilon_t
\]  
(a.3)

where \(A*R\) represents accounts receivable, and the other variables are as defined in equation (a.2).

Note that in this model, the coefficients are calculated using the original Jones model (1991) and that the modification is made only for the calculation of the non-discretionary adjustments.

Kothari model (Kothari et al., 2005)

The model proposed by Kothari et al. (2005) is characterised by the incorporation of a non-deflated constant and the return on assets, or financial profitability. All variables
(except the constant) are deflated by the total assets for the previous period and are calculated by cross estimation. This model provides increased reliability and higher quality results, by resolving the question of whether differences in DAA may derive from differences in performance.

\[
\frac{TAA_{it}}{A_{it-1}} = \alpha_{1t} \left( \frac{1}{A_{it-1}} \right) + \alpha_{2t} \left( \frac{\Delta(\text{Sales} - A - R)_{it}}{A_{it-1}} \right) + \alpha_{3t} \left( \frac{\text{PPE}_{it}}{A_{it-1}} \right) + \alpha_{4t} \left( \frac{\text{ROA}_{it}}{A_{it-1}} \right) + \epsilon_{it}
\] (a.4)

where ROA represents the return on assets and the rest of the variables are as explained before. In the same case as the modified Jones model, \( \alpha_3 + \alpha_4 \left( \frac{1}{A_{it-1}} \right) + \alpha_{2t} \left( \frac{\Delta(\text{Sales} - A - R)_{it}}{A_{it-1}} \right) + \alpha_{3t} \left( \frac{\text{PPE}_{it}}{A_{it-1}} \right) + \alpha_{4t} \left( \frac{\text{ROA}_{it}}{A_{it-1}} \right) \) are the non-discretionary accruals (NDAA) and \( \epsilon_{it} \) represents the unexpected component of accruals (DAA).

**Biographical Notes**

Isabel María García-Sánchez is Professor of Accounting at University of Salamanca, where she earned her PhD in business. Her main lines of research are focused on corporate social responsibility, e-government and business ethics. In addition, she is focused on public sector researches.

Jennifer Martínez-Ferrero is Professor at the University of Salamanca, where she earned her PhD in business. Her research interests cover both private and public sectors, in particular the relationship between earnings management and corporate social responsibility and their effects on financial performance, cost of capital and corporate reputation.