



ARTICLE

Social responsibility and financial performance: The role of good corporate governance



Mercedes Rodriguez-Fernandez

University of Malaga, 29071 Málaga, Spain

Received 12 January 2015; accepted 1 August 2015

Available online 4 September 2015

JEL CLASSIFICATION

M14;
G34

KEYWORDS

Corporate social
responsibility;
Financial
performance;
Good corporate
governance;
Spanish listed
companies

Abstract The objective of this theoretical–empirical study is to investigate the bidirectional relationship between Corporate Social Responsibility and Financial Performance in Spanish listed companies. A complete theoretical framework – based on agency, stewardship, dependency resources, and stakeholder theories – provides the basis for the conceptual model. An important contribution is the use of a social behavioral index formed by four components: Global Reporting Initiative participation, Dow Jones Sustainability Index firm inclusion, Good Corporate Governance Recommendations compliance, and Global Compact signee.

The conclusions drawn from the empirical study performed on the companies registered on the Madrid Stock Exchange demonstrate positive relationships in both directions, namely that the social is profitable and that the profitable is social, thereby originating a positive feedback virtuous circle.

The results of this analysis have practical applications in the boardroom; they are proof that all social policies increment financial resources, and vice versa, that increased financial performances lead to greater social benefits. As a consequence, this paper encourages all board members to seriously weigh investing financial resources in developing policies that boost the levels of social behavior components in order to contribute globally to the improvement of society.

© 2015 ACEDE. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Abbreviations: CG, corporate governance; CSP, corporate social performance; CSR, corporate social responsibility; DJSI, Dow Jones Sustainability Index; FP, financial performance; GC, global compact; GRI, global report initiative; R&D, Research and Development; ROA, return on assets; ROE, return on equity; TOBINQ, Tobin's *Q*; UCGG, unified code of good governance.

E-mail address: mmrodriguez@uma.es

Introduction

Company concerns are increasingly focused toward issues of social content, all the while resolving to maximize economic performance in order to satisfy shareholders and act in a socially responsible manner for the benefit of society as a whole. Social, economic and environmental concerns are forcing companies to integrate systems that take into account the observance of the law in all spheres, and also

<http://dx.doi.org/10.1016/j.brq.2015.08.001>

2340-9436/© 2015 ACEDE. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

focus on the common good for society in general and stakeholders in particular.

Shareholders, through the general assemblies, exercise their role in demanding ethical attitudes and behaviors at the corporate level, thereby exercising strong influence on the formulation of strategies by the board of directors. They require transparency, efficiency and efficacy on the part of managers, in order to obtain economic benefits and, thus ensure the continuity of the company over the long term, whilst demanding that socially responsible policies be integrated into the companies themselves (Pava and Krausz, 1996). From an academic point of view, there exists an increasing demand in developing business ethics – by integrating as research objective the detection of illicit businesses contrary to social rights (Byrne, 2011). Business ethics is by no means a recent development, a present-day trendy topic; studies demonstrate that conformation to ethical standards and principles has been an issue persisting through the ages and withstanding the test of time (Michalos, 2008).

Presently CSR and business ethics are intricately related from both an academic and practical perspective. We consider a variety of CSR definitions proposed in the literature and by several institutions that emphasize a voluntary involvement in the solution of certain social issues; social responsiveness is fundamentally multidimensional and embodies a large and varied range of corporate behavior in relation to its resources, processes and outputs (Waddock and Graves, 1997).

A majority of research to date on this theme has focused on the relationship between Corporate Social Responsibility (CSR) and Financial Performance (FP). Generally, these findings show this relationship to be positive, however there exists a lack of homogeneity in the results. The reasons are twofold: (1) the absence of a general method that serves as yardstick for comparative studies, and (2) there exists no rigorous method of measuring return on CSR (Gjølberg, 2009).

Our work strives to fill this existing gap in the literature; and with this aim we set two main objectives: First, to determine if Financial Performance depends on Corporate Social Responsibility, represented as a combined function of four distinct social variables: Global Reporting Initiative (GRI) participation, Dow Jones Sustainability Index (DJSI) firm inclusion, Good Corporate Governance (CG) recommendations compliance, and Global Compact (GC) signee. Second, to test the inverse relationship, social responsibility dependence on financial performance, using a CSR index, or Social Behaviour Index, that includes the previous four social variables as equal weighted components aggregated in a unique value. In both cases financial performance is represented by three financial variables or ratios, namely ROA (return on assets), ROE (return on equity) and Tobin's Q.

A further objective sets to reveal whether firms are interested in developing CSR from an economic standpoint, based on the fact that it represents an important engine of development and contributes toward improving social and environmental protection. As collateral benefit, investors and consumers can better evaluate companies that take into account CSR actions. The projection of an image of social responsibility, by helping to shape customers of the entity, affects the evaluation of the service received. In their role

as social agents, companies are expected to meet commitments that go beyond strictly business matters.

Our study will be centered on Spain, a representative member of the group of developed countries, where such a study has yet to be carried out and where the increasing internationalization of the country's largest firms should clearly illustrate the importance of adopting far reaching corporate social policies.

In shedding light on the key interplay between CSR and its FP, we expect the results of our work to go a long way toward convincing corporate boards that social policies must form an integral part of overall company strategy. Taken from a stakeholders' perspective, the study should also be of value to all interest groups that lay claim, or stake, in a corporation's wellbeing. Finally, both corporations and society at large benefit from increased awareness in company social undertakings, reconciling at times different viewpoints as to whether corporate profits are adequately distributed amongst all stakeholders.

The paper is structured as follows: 'Theoretical framework' section deals with the theoretical framework, presenting the main administrative theories and concepts on which the study is based. We introduce CG, CSR and FP as the three key pillars sustaining our conceptual model. 'Proposed model and formulation of hypotheses' section establishes the two basic hypotheses that address the question as to whether CSR explains FP and vice versa. In 'Empirical study' section, we empirically test our hypotheses using the Social Behaviour Index for measuring CSR and the three financial ratios representing FP. The last section consists of the conclusion and suggests future lines of research.

Theoretical framework

Review of the main theories applicable to the study

The theoretical framework underlying this work includes a number of different theories. Their distinct approaches are all pertinent in some measure. We can distinguish, on the one hand, the set of theories applicable to the relation between CSR, FP, and CG – conforming the conceptual model of our study – and, on the other hand, stakeholder theory – the unique theory – that supports the relation between CSR and FP. The integration of these diverse constructs enriches the literature and strengthens the proposed generic model. Fig. 1 illustrates the theoretical framework used in the study.

Agency theory (Jensen and Meckling, 1976; Fama, 1980; Fama and Jensen, 1983) establishes that the principal (shareholder) and the agent (manager) have opposing interests that may trigger conflicts which will interfere with the smooth running of the company. In contrast, stewardship theory offers an alternative view, which states that there exist ethical and professional motives that will override and prevent conflicts of interest from developing between the principal and agent (Muth and Donaldson, 1998). This latter theory assumes that managers are good resource managers (Donaldson, 1990; Donaldson and Davis, 1991, 1994) who will achieve good business track records thanks to their efforts (Davis et al., 1997); in addition, managers, as honest people (Donaldson and Preston, 1995), endeavor to not hinder the

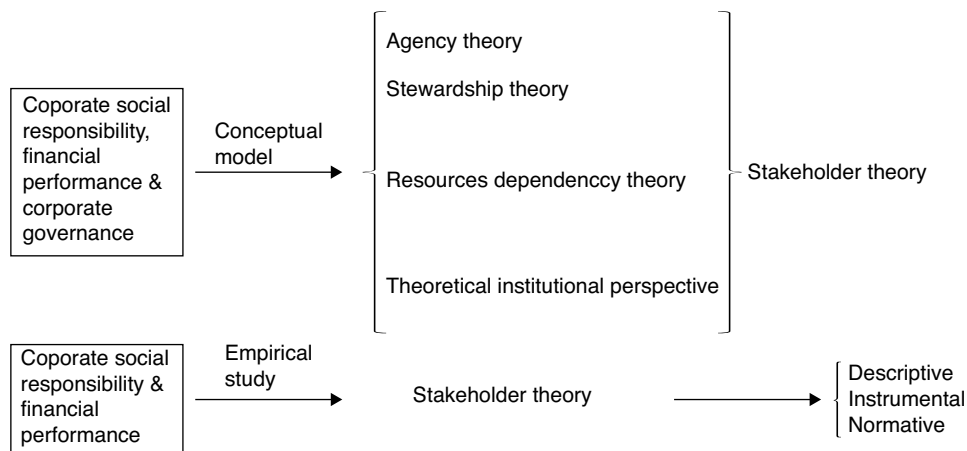


Figure 1 Theoretical framework.

Source: Own elaboration.

objectives of the shareholders (Donaldson and Davis, 1994) in order to preserve their reputation. Both agency and stewardship theories, in taking the board of directors as principal and the executive body as agent, come into conflict with regard to the consideration of who is responsible for the policies of socially responsible investment and the actions of CSR.

Resource dependency theory analyzes the relationships and interactions of the companies with other agents, valuing their contributions on the basis of the extent to which they facilitate the maximization of its performance (Pfeffer, 1973; Pfeffer and Salancik, 1978). The board of directors plays a key role in obtaining important resources for the company, such as financial resources that can later be earmarked for socially responsible investments and actions. Also of interest, the approach offered by the theoretical institutional perspective developed by Scott (2001), which holds that all social participants seek legitimacy and in so doing help develop legitimate rules within the institutional environment (Judge et al., 2010). If companies fix as their objective the quest for legitimacy over economic efficiency (Carver, 2010) and if CG blends in an economic, cultural, and social context, then social welfare and the balance of the interest groups must take center stage (Hess and Warren, 2008; Johanson and Östergren, 2010).

All of the above theories, in considering CG as responsible for the actions of CSR and the policies of socially responsible investments, underlie and support the interrelationship between company CSR and FP. However, stakeholder theory, an integrative and holistic perspective, as it considers society in general, serves as main pillar for our research. Good CSR policy together with the appropriate behavior of the board of directors will improve financial profitability, and favor shareholders, employees, customers, suppliers and all other agents likely to be affected by the decisions taken by the company. The academic debates surrounding this approach (Freeman, 1984; Donaldson and Preston, 1995; Donaldson, 1999; Jones and Wicks, 1999; Preston and Donaldson, 1999; Sternberg, 1999; Pesqueux and Damak-Ayadi, 2005; Kaufman and Englander, 2011) have developed over time. The descriptive, instrumental and normative aspects of the theory are ever present in research. Although

quite different from each other, as pointed out by Donaldson (1999), they are complementary and able to explain the interplay between CSR and FP.

The descriptive aspect provides a notion for the definition of a company; Donaldson and Preston (1995) describe it as a constellation of cooperative and competitive interests with intrinsic value. From an instrumental point of view the theory provides the framework for examining the companies and analyzing the relationship between management and the achievement of performance objectives (Surroca et al., 2010); it advocates that companies establish an order of priority amongst its interest groups and favor those who are best positioned. Thus, the level of effort in CSR exercised by companies depends largely on the relative importance of their interest groups (Choi et al., 2010). This contrasts with the normative aspect of this theory, which focuses on the legitimacy of the company's interest groups and the value of their interests, always worthy of attention regardless of category (Kaufman and Englander, 2011). Consequently, it becomes imperative to introduce good CG recommendations as an important element of CSR.

Corporate governance and its implications

Corporate Governance arises as a result of the separation between ownership of the business and its control in response to a system by which companies are directed and controlled (Cadbury, 2000). Agency theory (Jensen and Meckling, 1976; Fama, 1980; Fama and Jensen, 1983) provides the rationale for the possible conflict that can develop between the principal (shareholders) and the agent (management). As explained by Guerras Martín and Navas López (2004) the problem of owner control on management and the mechanisms available to exercise that control is known as CG; a specific mechanism of governance, such as the board of directors, plays a relevant role in disciplining and advising management on taking the most appropriate decisions at every juncture and for each organization (Cuervo, 2002).

The board of directors must ensure the long-term viability of the company by maximizing profitability for shareholders (Daily and Dalton, 1994) and harmonizing the

interests of the company with those of the interest groups (Coombs and Gilley, 2005). The decisions taken by the board will lead to distinct levels of FP, the possible implementation of CSR policies (Ingleby et al., 2011), and the deployment of a particular strategy of socially responsible investment (Mill, 2006).

As a result of the increasing importance of ethical behavior in business and the demand for transparency and information by shareholders, corporate codes of conduct are emerging in many countries (Amaeshi and Amao, 2009; Stiglbauer, 2010; Mody and Mudoi, 2011). Spain published the directives for CG in listed companies, or Olivencia Code (CNMV, 1998), in response to the social demand for more efficiency, agility and transparency from the companies. The Aldama Report (CNMV, 2003), based on the Olivencia Code was published in 2003; this was followed by the CNMV (2006) approval in 2006 of the Unified Code of Good Government (UCGG), requiring listed companies to submit their annual reports on CG in accordance with the recommendations established in article 116 of the Securities Market Act.

The UCGG (CNMV, 2006) clearly lays out the social aspect the board of directors of listed company must abide by, expressing that all directors must have the common objective of defending the social interest, understanding it to be that which best meets the expectations of investors, although not implying that these interests must be pursued at "any price". Among the core policies and strategies the board of directors takes on as mission, we emphasize that related to the approval of CG policy and CSR (recommendations 8.a.iv and 8.a.v). Company compliance with these and other recommendations (58 in total) is disclosed by the publication of the annual report on CG, specifically in the final section, which deals with compliance, or lack thereof (listing motives). The total number of UCGG recommendations basically constitutes corporate CSR "accountability" before society in general.

CSR is invariably linked to the seminal work of Bowen (1953), which states that a company's social and economic responsibilities are inseparable. The vision that incorporates CSR to the business objective does not refer to what companies are searching for, but rather to how they are going about it. Achievement includes matters related with society and the environment in all dimensions (Davis and Blomstrom, 1975). CSR's five fundamental principles according to the CSR Observatory (2010)¹ are: compliance with legality; universality, that is, coverage of all areas of activity; the obligation to accept objective ethical commitments; its manifestation through generated impacts; and, finally, its orientation toward the satisfaction of interest groups.

CSR has been defined in many ways (Maak, 2008) and its content has evolved over time (Argandoña and Von Weltzien Hoivik, 2009). However, all of them make reference to both the importance of interest groups and the concern for social and environmental matters (Maak and Pless, 2009; Lu and Liu, 2013). The Green Book of the European Communities

Commission (2001) states that CSR consists not only of a company's voluntary compliance with social and environmental issues, but also its respect for existing rules and regulations in those countries where it operates; and, the participation in the development of these where they do not exist.

For McWilliams and Siegel (2000) CSR consists of actions that favor social wellbeing beyond the interests of the company or the stipulations required by law. Hence, companies should direct their efforts toward management models with a greater social content, notwithstanding assuring profitability, the zealous respect for the law, standing on superior moral grounds, and defending collective interests. This concept is embraced by those organizations that believe "something must be given back" to society (Lindgreen et al., 2009).

CG and CSR are two concepts that have been studied separately in previous literature, (Bhimani and Soonawalla, 2005) and the relationships between the two generate beneficial synergies (Jamali et al., 2008; Chan et al., 2013). From a Spanish UCGG perspective, the functions of the board of directors includes defending the interests of all shareholders, albeit always respecting the law, honoring third party agreements, and abiding by all CSR policies. With regard to the relationship between these two ideas, Harjoto and Jo (2011) make an interesting contribution: the authors discovered that in full consistency with the hypothesis of conflict resolution, the choice of CSR strategy is positively associated with the characteristics of CG. But, more importantly, after correcting the CSR measures for endogeneity, the results showed that commitment with CSR leads to improved financial returns.

The existing connection between CG and CSR has contributed to the development of regulations on CG, introduced in some European countries (Spain, UCGG; United Kingdom, "Cadbury Report"; France, "The Viénot"; and, Germany "The Gerhard Cromme"), and which has served to clarify the roles and responsibilities of the companies, the boards of directors, and the shareholders (Rodríguez-Fernández, 2015). In Spain, the publication of codes of conduct for listed companies has provided the opportunity for shareholders to assume their role as owners of the company (Albareda and Balaguer, 2009). Attitudes of full commitment with society and the environment together with ethical codes of conduct have led to business strategies that cover manifold CSR policies, adding yet more responsibilities to the board of directors, ever involved with such issues as human rights, bribery and corruption, and global change (Elkington, 2006). In Asia, Welford (2007) revises these links and expresses that CSR practices are often based on good standards of CG providing a solid CSR foundation – by creating value added relationships with all stakeholders.

Companies must understand CSR management as a way to develop proper CG (Spence and Perrini, 2009). By integrating CSR within the activities of companies, different norms, guidelines, management systems, and other standards have risen to the forefront. The implementation of management systems allows for the development of CSR. The Global Reporting Initiative (GRI) promotes the drafting of CSR reports, so-called sustainability reports, and the Global Compact, are statements of commitments with society, the environment, and development.

¹ The CSR Observatory was created in 2004 by a group of organizations representing Spanish civil society with the objective of favoring knowledge and compliance with CSR.

Albareda (2013) affirms CSR reporting standards are converging toward homogeneous guidelines under the predominance of the GRI model; the consolidation of this standard is demonstrated by Boesso et al. (2013), who collected data – in accordance with the GRI guideline – related to CSR. Wilburn and Wilburn (2013) examined the GRI reporting guidelines and its applicability to CSR principles, detailing its suitability in allowing companies to formulate CSR strategies and helping stakeholders evaluate those same strategies.

With respect to the Global Compact commitments as part of the ongoing CSR drive, Knudsen (2011) finds that firms from countries with international economies are more willing to abide by the Global Compact specifications. Cetindamar (2007), and Ruggie (2004) illustrate how companies that have participated many years in the Global Compact regard their CSR involvement as having had a strong influence on their market performance and creation of value.

Finally, Strand (2013) demonstrates that companies with a stronger focus on CSR are three times more likely to be included in Dow Jones Sustainability Index (DJSI in the New York Stock Exchange). Lopez et al. (2007) in their empirical analysis relate inclusion in the DJSI with active CSR policies.

Corporate social responsibility and financial performance

From a theoretical perspective, stakeholder theory (McGuire et al., 1988) sets the framework for the relationship between CSR and FP; interest groups claim company resources, and in so doing implicitly require proper company behavior, such as consideration for the environment and concern for fair and just labor relations. In those cases in which the company does not act with social responsibility, resultant costs could become significant and represent a financial burden likely to reduce profits, leading to a less socially aware entity. In contrast, if companies that adopt socially responsible policies are more profitable, then socially responsible investments will provide an incentive for businesses to increase investments in CSR programs (Pava, 2008).

Numerous studies (Cochran and Wood, 1984; Aupperle et al., 1985; McGuire et al., 1988; Waddock and Graves, 1997; McWilliams and Siegel, 2000; Orlitzky et al., 2003; Smith, 2003; Ortas et al., 2014) testify to the ever-present dichotomy between CSR and FP; however, there exist no clear-cut conclusions that clarify the positive, negative or in-existent correlation. The reasons lie in the imperfections of the studies (caused by problems in measuring FP and CSR), the omission of significant latent variables in the formulation of the models, the absence of causality analysis, the lack of rigor in the methodology, and by a shortfall in the theory underpinning the study (Margolis and Walsh, 2003). Nonetheless, Stanwick and Stanwick (1998) reviewed studies that examined the effects of CSR on FP and concluded that there exists a positive, albeit weak, relationship.

Moreover, other authors (Wood and Jones, 1995; Akpinar et al., 2008) have argued about the existence of a “misalignment” problem in the interest groups as a cause for the variance in the results; the solution lies in identifying

the major interest groups most important to the company. In this regard, Alniacik et al. (2011) conclude that positive information on company CSR leads to both employment desirability at the firm, and to an improvement in purchase and investment intentions. Akpinar et al.’s (2008) contribution settled the question as to whether all interest groups held the same importance; his study, based on interest group theory, concluded that the relationship was positive if the measurement of CSR took into account the relative importance of each interest group.

Customers, employees, suppliers, shareholders, and society as a whole represent interest groups for the corporations; however, instrumental theory posits that investors lean toward those companies with superior social behavior when all other factors remain constant, and the information on social responsibility is independently available. The theory further postulates (Choi et al., 2010) that the level of effort the companies dedicate to the different areas of CSR depends on the importance given to them by each of the interest groups.

In the same sense, Brammer and Pavelin (2006) introduce the aggregate concept of corporate reputation that reflects the perceptions of a host of individual stakeholders. Demonstrating a high degree of social responsibility may therefore require a diverse range of social activities, each of which may have a separately identifiable impact upon reputation. Furthermore, stakeholder groups have differing expectations regarding firm behavior (Fombrun and Shanley, 1990), and the salience of each stakeholder group varies across industries. Therefore, the impact of CSR activism on reputation is jointly contingent upon which type of CSR activity is undertaken.

Sternberg (1999) points out that the interest group approach presents two major drawbacks: first, the need to resolve the conflict between the values, objectives, and interests of the stakeholders; and second, the need to correctly account for responsibility, stressing that in the traditional corporation the directors are accountable to the shareholders, whereas the employees and other agents are responsible, through the top level executives, to the directors. However, this doctrine explicitly rejects both types of responsibilities. This rejection is one of the distinguishing features of the stakeholder approach, which instead proposes a diffuse and ineffective structure of responsibilities.

McWilliams and Siegel (2000) reach an interesting conclusion: the lack of correlation between financial profitability and CSR is caused by errors in the statistical analyses and the non-inclusion of investment in the Research & Development (R&D) variable; the latter correlates modestly with CSR. They point out that investment in R&D correlates with both FP and CSR; this correlation is due to the relationship between investment in R&D and innovation of products and services.

The reviews of Choi et al. (2010) show the results to be mostly positive, although some are negative, mixed, or uncorrelated. Margolis and Walsh (2003) reached the same conclusion in the reviews of 127 studies, carried out between 1972 and 2002; the results showed a mostly positive correlation independently of whether CSR was the independent (109 studies) or the dependent variable (18 studies).

A positive correlation was observed in those studies in which the instrumental theory of interest groups was

used to solve the problem of misalignment. Based on the work of Akpinar et al. (2008), and taking as reference the KEJI Index,² Choi et al. (2010) analyzed a sample of 1222 Korean companies between the years 2002 and 2008 in order to perform their statistical analysis – using two types of indices to measure the social behavior of corporations: they calculated first, an equal weighted responsibility index (“Equal-weighted CSR Index”), and second, an index weighted according to the importance of the interest groups (“Stakeholder-weighted CSR Index”). The outcome showed a positive relationship between FP and the second index, illustrating that when companies focus their CSR policies toward those interest groups that hold greater importance for the company, financial results improve.

McGuire et al. (1988) introduced a time lag factor to further investigate the relationship between financial profitability, over several years, and social behavior. Using as a measure of CSR a Fortune magazine corporate behavior index, they concluded that CSR showed a higher correlation with financial results of previous years. CSR vs. financial results of subsequent years displayed a lower correlation.

Of note, Schuler and Cording (2006), while recognizing the profound importance of the Corporate Social Performance (CSP) and corporate FP linkage, alert to the unclear nature of the relationship. They suggest that (1) empirical shortcomings may distort the CSP-FP relationship, and (2) large deficiencies exist in the theoretical models used (most assume a direct link between CSP and FP). However, in defining the CSP-FP link and its constructs in greater detail, they advance how CSP leads FP.

Recently, Callan and Thomas (2009) respond to these issues in an updated study of this relationship by examining two different approaches to measuring CSR, controlling for key variables identified in the literature, and testing for the non-linearity of certain variables. Their main conclusion asserts that a positive CSR-FP relationship exists.

The main conclusions drawn after this extensive review of the existing literature supports the selection of the CSR and FP variables used to build the models of the empirical study. In accordance with the exposed studies outlined above, and filling the gap in the existing Spanish literature where the bi-directional CSR-FP relationship has not been previously measured, and taking into account that all companies must satisfy CSR, thereby accounting to society as a whole as suggested by stakeholder theory, we would expect greater CSR to be positively related with higher levels of FP and vice versa.

Therefore, we propose the following hypotheses:

Hypothesis 1. Companies displaying greater CSR behavior achieve higher financial profitability.

Hypothesis 2. The most profitable companies are those that adopt superior CSR behavior.

To test the two hypotheses we propose two complementary models: thus, we test the bi-directional relationships

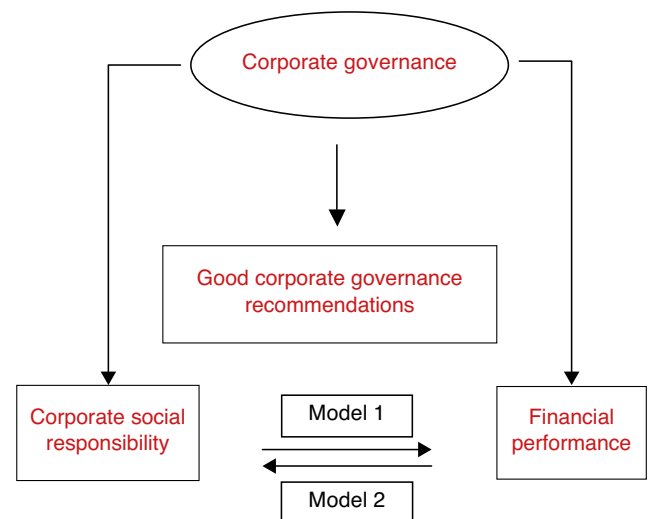


Figure 2 Proposed conceptual model.

Source: Own elaboration.

between CSR and FP; and, seek to clarify the crux of the relationship.

Proposed model and formulation of hypotheses

Following the literature review, we formulate a conceptual base model comprised of the interdependent relationships between the parameters previously outlined: CG, from which concrete actions in CSR are derived and given levels of FP are determined; and the mutual interdependencies between CSR and FP. A further element of our model consists of compliance with the recommendations of Good Corporate Governance, a task of the board of directors. See graphical representation in Fig. 2.

Given this generic conceptual model we will derive subset models 1 and 2, and focus on testing statistically the relationship between CSR and FP. Basing our research, on the one hand on Stakeholder theory, as done by McGuire et al. (1988) and Karagiorgos (2010), and on the other hand on the instrumental approach, following Akpinar et al. (2008), Choi et al. (2010) and Harjoto and Jo (2011), we expect to find a positive relationship between CSR and FP – in agreement with the published studies by Margolis and Walsh (2003), Choi et al. (2010) and Karagiorgos (2010).

The equation for Model 1 is as follows:

$$FP = c + b1.GRI + b2.DJSI + b3.COMPL.RECOM + b4.GC + b5.LNASSET + \epsilon$$

The dependent variable, FP, as used by other authors in their studies (Guest, 2009; Jackling and Johl, 2009; Crespi, 2010), is represented by: ROA (Return on Assets), equal to operating profit before depreciation and provisions divided by total assets; ROE (Return on equity), the operating profit before depreciation and provisions divided by stockholders equity; and Tobin's Q, the market value of the share divided by its book value (Perfect and Wiles, 1994).

² KEJI (Korea Economic Justice Institute Index) refers to a Korean index developed by one of the leading NGO's in the country.

Table 1 Variables used in Model 1 of the study.

Social variables (Corporate Social Responsibility used as independent variables)	Financial variables (Financial Performance used as dependent variables)	Control variable
GRI	ROA	LNASSET
DJSI	ROE	
COMPL.RECOM	QTOBIN	
GC		

Source: Own elaboration.

Independent variables GRI, DJSI, COMPL.RECOM, and GC, define the dimension of CSR. LNASET is used as control variable in agreement with the practice of other authors (McWilliams and Siegel, 2000; Choi et al., 2010; Harjoto and Jo, 2011) which include company size by taking the natural logarithm of the assets (see Table 1).

GRI (Global Report Initiative) indicates the valuation of the sustainability report according to guide G-3. Variable GRI is included because (1) of its universal character, and (2) it allows the classification of companies. Its widespread use in the European Union and in countries of the OECD makes it a rigorous and comprehensive indicator (Hedberg and Von Malmborg, 2003; Frias-Aceituno et al., 2013; Legendre and Coderre, 2013).

DJSI (Dow Jones Sustainability Index) indicates if the company belongs to the DJSI. Its universality and reputation amongst the sustainability indices make it a good variable for measuring CSR.

COMPL.RECOM (Compliance of the Recommendations of Good Corporate Governance) indicates the extent of compliance with the recommendations of the UCGG. It gives an idea of the importance that companies grant to one of their interest groups, the shareholders (58 recommendations in total can be seen in the F section of the reports of Good Corporate Governance of the listed Spanish companies).

GC (Global Compact) indicates if companies have signed the Global Compact. This variable has been selected as one of the CSR measures because the forum of CSR experts of the Ministry of Labor³ has embraced it, together with others such as GRI, as significant.

Consequently, the four selected social variables are representative of the commitment that companies have with society, the environment, and with its interest groups in general. Additionally, by including variable COMPL.RECOM, we have stressed the special importance all stakeholders hold for the companies. Other rules and indices that exist for evaluating CSR have not been considered, either because of the inclusion of a related parameter, its limited acceptance, and/or the difficulty in finding the corresponding data.

From Model 1 we derive the following sub-hypotheses:

H1.1 ((GRI)). Companies obtaining a higher rating in the GRI index achieve better financial results.

H1.2 ((DJSI)). Companies included in the DJSI achieve better financial results.

H1.3 ((COMPL.RECOM)). The greater the compliance with the recommendations of good CG, the better the financial results.

H1.4 ((GC)). Companies that sign the Global Compact achieve better financial results.

Model 2, in agreement with the possible bidirectional nature of the relationship proposed by a number of authors (McGuire et al., 1988; Margolis and Walsh, 2003), questions whether the superior financial returns of Spanish companies have an impact on their social behavior. Under this approach, the reverse model accounts for the inherent difficulty of statistical models that include CG variables; that is, we attempt avoiding the possible endogeneity between the dependent and independent variables (Shleifer and Wolfenzon, 2002; Adams et al., 2010).

The studies carried out in other countries, which have served as a standard for this work, have generally used CSR indices gathered by independent agencies for evaluating the social behavior of the companies. Choi et al. (2010) develop their own CSR index, based on the KEJI financial index. The study of McGuire et al. (1988) is based on the ranking compiled by Fortune magazine (Fortune reputation rating). Other works, such as (Margolis and Walsh, 2003; Gallego, 2006), are based on reports of environmental emissions, environmental practices, or social actions carried out by the companies themselves. Donker et al. (2008) also study the relationship between financial return and corporate ethics in listed Canadian companies. Harjoto and Jo (2011) developed a proprietary index via the assessment of five variables that corresponded to the community, the environment, the products, the diversity, and employment. Hence, we believe that our proposed index is both justified and representative of the social, environmental and ethical components of the Spanish companies.

In our case the index, similar to that used by Hong and Andersen (2011), includes four components: the presentation of company sustainability reports according to the GRI model, company inclusion in the DJSI, company compliance with the recommendations of good CG, and the signing of the GC.

For model 2, we propose the following equation:

$$\text{INDEX} = c + b1.FP + b2.LNASSET + \epsilon$$

We test the following hypothesis:

H2 ((ROE/ROA/QTOBIN)). Better financial results lead to better behavior in CSR.

The independent variable FP, financial performance, takes on the values of the ratios ROA, ROE, and Tobin's Q; and, the dependent variable, INDEX as proposed by the authors, represents a compound value consisting of an equally weighted sum of the values of the four selected variables (GRI, DJSI, COMPL.RECOM and GC). This index measures the firm's CSR behavior, as performed in the work of Belu and Manescu (2013). LNASET, which measures the

³ The forum of CSR experts, founded in 2005, consisted of representatives from the Public Administrations, Civil Society, and Universities.

Table 2 Variables used in Model 2 of the study.

Social variable (Corporate Social Responsibility Index used as dependent variable)	Financial variables (Financial Performance used as independent variables)	Control variable
INDEX	ROA, ROE, QTOBIN	LNASSET

Source: Own elaboration.

size of the companies, has been included as a control variable – similar to Model 1 (see Table 2).

Empirical study

Methodology, sample and data collection

For the empirical analysis we formulate six multivariate regression models: three for Model 1 and another three for model 2. To carry out the statistical analysis we ran the econometric software, Eviews 5.0, widely used in empirical research.

The sample is composed of Spanish companies listed on the Madrid Stock Exchange in the year 2009. The information was obtained from the web pages of The Madrid Stock Exchange (<http://www.bolsamadrid.es>)⁴ and The Securities Market National Commission (<http://www.cnmv.es>).⁵ Data from Banks, Savings Banks and Financial Institutions were excluded because their accounting system differs from that used by the majority of the companies; this would have caused a lack of homogeneity in the calculation of the financial ratios; additionally, other authors (Jackling and Johl, 2009) that have performed previous studies on the corporate-financial link have done likewise. The data of the financial variables were obtained from the SABI⁶ database and checked with the AMADEUS⁷ database. The final sample consists of data from 121 companies (see Annex 1).

To assess a company's social dimension the following aspects have been taken into account:

GRI: In accordance with the GRI index valuation, we propose the following numerical rating: A+: 1; A: 0.9; B+: 0.8; B: 0.7; C+: 0.6; C: 0.5; and, if no GRI Index: 0. The information was gathered from the GRI website: <http://database.globalreporting.org>.

DJSI: Value 1 if the company belongs to the DJSI, and 0 otherwise.

COMPL.RECOM: calculated by dividing the number of satisfied recommendations by the total number of applied

recommendations (58 in 2009). We suggest assigning the value 1 to the recommendations met, 0.5 to the partly met, and 0 points to the explained but unmet. The data have been obtained from paragraph F (degree of follow-up to the recommendations of CG) of The Annual Reports on CG for the companies in the sample (year 2009) in accordance with the UCGG (2006).

GC: Takes value 1 if the company has signed the Global Compact, and 0 otherwise. The data proceed from The Global Compact Network, Spain webpage: <http://www.pactomundial.org>.

The index variable, employed in Model 2, was calculated using the equally weighted sum of the four variables, as performed by Belu and Manescu (2013); all were assigned the same weight (0.25) that was used to assess CSR.

Analysis and results

The statistical analysis performed on the initial sample produced no valid result. The correlations indicated very low values, and none of the model's proposed equations offered an explanation; hence, we decided to reduce the sample size and test with a specific group of companies.

We retested by selecting a sample group of companies meeting specific criteria; we discovered that companies displaying a sustainability report according to GRI did present explanatory models. By filtering those companies that met the criterion, the sample size was reduced to 107 companies.

The descriptive statistics of the selected sample is included in Table 3.

Compliance with the recommendations of CG varies between a maximum value of 100% and a minimum of 73.6%, with a mean of 89.3%. Only 6 companies comply with all the recommendations. 51.6 per cent of the companies are included in the DJSI and 80% have signed the GC. In regards to the GRI report, its mean equals 0.94. Finally, the Index variable has a minimum value of a 35.9% and a maximum value of 99.6%, with the mean at 78.9%. The maximum value, 99.6%, corresponds to a single company that signed the GC, followed the GRI to draft the sustainability report, belonged to the DJSI, and fulfilled 98 per cent of the UCGG recommendations.

As for the financial variables, the maximum and minimum values of ROE are 35.8 and -105.40; for ROA, they are 16.4 and -10.2; and, for Tobin's Q these are 5.89 and 0.69. The respective mean values are: 4.7, 2.04, and 1.85.

In Table 4, correlations between variables, we draw attention to the high correlation values for Global Compact (0.4832), ROE (0.5072), and ROA (0.4170); all in relation to the compliance with Good Corporate Governance variable.

Next, we analyzed whether the equation advanced in Model 1 was explanatory for any of the three proposed financial ratios (see Table 5).

For the variable ROE, the best model included variables GRI and COMPL.RECOM. The model was significant (Prob. $F < 0.05$) and explanatory; and, explained 43% (Adj. R -squared 0.43) of the behavior of the independent variable. Variables GRI and COMPL.RECOM were significant as well (Prob. $t < 0.005$). The model did not present

⁴ The Spanish Markets and Stockmarkets Corp. (BME) integrates the different companies overseeing and managing the Spanish stock exchanges and financial system.

⁵ The Securities Market National Commission (CNMV) is the regulator in charge of supervising and inspecting all activity on the stock exchanges.

⁶ SABI (Iberian Balances Analysis System): database containing general and financial information on Spanish companies.

⁷ Amadeus: database containing financial information on both public and private European companies.

Table 3 Descriptive statistics.

	COMPL.RECOM	DJSI	GRI	GC	INDEX	ROE	ROA	QTOBIN
Mean	0.8934	0.5161	0.9387	0.8065	0.7887	4.7065	2.0419	1.8574
Median	0.8981	1.0000	1.0000	1.0000	0.9049	10.8000	2.2000	1.3000
Maximum	1.0000	1.0000	1.0000	1.0000	0.9955	35.8000	16.4000	5.8900
Minimum	0.7358	0.0000	0.5000	0.0000	0.3590	-105.4000	-10.2000	0.6900
St. deviation	0.6570	0.5080	0.1256	0.4016	0.2182	1.3534	27.4496	5.0058

Source: Own elaboration.

Table 4 Correlations between variables.

	COMPL.RECOM	DJSI	GRI	GC	INDEX	LNASSET	ROE	ROA	QTOBIN
COMPL.RECOM	1.0000								
DJSI	0.1914	1.0000							
GRI	0.1951	0.3555	1.0000						
GC	0.4832	0.5060	0.2856	1.0000					
INDEX	0.4371	0.8805	0.4970	0.8322	1.0000				
LNASSET	-0.0701	0.4952	0.2648	0.4594	0.5325	1.0000			
ROE	0.5072	0.3605	0.5259	0.5090	0.5580	0.2243	1.0000		
ROA	0.4170	0.3936	0.4245	0.3275	0.4724	0.1441	0.8211	1.0000	
QTOBIN	0.1854	0.2303	0.2912	0.0157	0.1972	-0.1110	0.4552	0.6234	1.0000

Source: Own elaboration.

problems of multicollinearity,⁸ nor heteroscedasticity⁹; the autocorrelation¹⁰ problem was corrected by including the term AR (1) (following the Cochrane-Orcutt model).

Several estimates were carried out for variable ROA; and, as with variable ROE, the best results were offered by the model that included variables GRI and COMPL.RECOM. There were autocorrelation problems, however they were overcome. The two variables were also significant, but the full model explained only 29.8% of the result, somewhat less than that obtained for ROE.

No satisfactory results were obtained for Tobin's Q variable.

In the Model 2 analysis (see Table 6), the models for ROE (Adj. R-squared 50.2%), and for ROA (Adj. R-squared 44.8%) are significant and explanatory (Prob. $F < 0.05$); however this was not the case when considering Tobin's Q variable. Autocorrelation problems were detected under both ROA and ROE; these were corrected by including variable AR (1), after observing with the Breusch-Godfrey test that the autocorrelation was of first order. In both cases, the correction can be verified by checking the data in the tables (the introduced variable AR (1) is not significant as Prob. $t < 0.05$).

Endogeneity has been resolved in both models 1 and 2 through the application of Hausman's test (Hausman, 1978; Hausman and Taylor, 1981).

⁸ Multicollinearity is the existence of a linear relationship between the independent variables.

⁹ Heteroscedasticity refers to the unequal variance between the variables.

¹⁰ Autocorrelation problems were resolved by contrasting ROE and ROA data from 2008.

The hypotheses initially posed are confirmed after carrying out the statistical analysis on those companies that met the requirement – having drafted out the sustainability report – according to the GRI guide. Thus, according to Model 1, hypothesis H1.1 and H1.3 hold for variables ROE and ROA, and we can affirm that (1) those companies obtaining better rating on sustainability according to the GRI Sustainability Reporting Guidelines obtained superior financial results; and (2) those companies enjoying higher percentages of compliance with the recommendations of UCGG present better financial results, as measured by ROE and ROA.

According to the results of Model 2, we can also confirm the second hypothesis for variables ROA and ROE; and, can state that those companies achieving the best results in terms of ROA and ROE obtain greater Social Behaviour Index values and, as a consequence, are distinguished for adopting better overall CSR policies.

In none of the models did we find a correlation for Tobin's Q ratio, as exhibited in Table 7. In this respect, McGuire et al. (1988) had advised of using accounting ratios, especially ROA, rather than market or risk ratios, for FP variables, deeming them better predictors. We can affirm, as other authors (McGuire et al., 1988; Charlo Molina and Moya Clemente, 2010; Choi et al., 2010; Karagiorgos, 2010; Harjoto and Jo, 2011) have done, that the expected conclusion – positive sign in the studied relationships – has been reached.

The main results (as shown in Table 7) are:

Model 1 (direct relation): greater values for GRI and for COMPL.RECOM lead to greater values of ROA and ROE.

Model 2 (inverse relation): greater values for ROA and ROE imply greater value of Social Behaviour Index.

Table 5 Model 1 results.

Variables	Results of the Model 1 for ROE			Results of Model 1 for ROA		
	Coefficient	Std. error	T-statistic	Coefficient	Std. error	T-statistic
COMPL_RECOM	229.307 (0.0007)***	59.036	3.884	35.392 (0.0073)**	12.129	2.918
GRI	93.426 (0.0030)***	28.440	3.284	14.634 (0.0205)**	5.917	2.473
LNASSET	5.940 (0.0357)**	2.678	2.219	0.702 (0.2153)	0.552	1.271
C	-342.940 (0.0000)	62.890	-5.453	-45.591 (0.0007)	12.795	-3.876
AR(1)	0.394 (0.0505)	0.192	2.054	0.389 (0.0550)	0.193	2.013
R-squared	0.5097			0.3954		
Adj R-squared	0.4313			0.2986		
Durbin-Watson statistic	2.1400			1.8504		
F-statistic	6.4980			4.0866		
Prob (F-Sta.)	0.000995			0.011033		
Number of firms	107					

Source: Own elaboration.

* $p \leq 0.1$.

** $p \leq 0.05$.

*** $p \leq 0.005$.

Table 6 Model 2 results.

Variables	Results of Model 2 to index and ROE			Results of Model 2 to index and ROA		
	Coefficient	Std. error	T-statistic	Coefficient	Std. error	T-statistic
ROE	0.003 (0.0035)***	0.001	3.210	0.016 (0.0155)**	0.006	2.590
LNASSET	0.0580 (0.109)	0.021	2.743	0.066 (0.0050)***	0.022	3.066
C	0.247 (0.2249)	0.199	1.243	0.147 (0.4751)	0.203	0.725
AR(1)	0.343 (0.0852)	0.192	1.789	0.341 (0.0918)	0.195	1.751
R-squared	0.5539			0.5047		
Adj R-squared	0.5024			0.4476		
Durbin-Watson statistic	1.7600			1.8170		
F-statistic	10.7605			8.8318		
Prob (F-Sta)	0.000089			0.000332		
Number of firms	107					

Source: Own elaboration.

* $p \leq 0.1$.

** $p \leq 0.05$.

*** $p \leq 0.005$.

Table 7 Verification of models' hypotheses.

Study results	Model 1	Model 2
Hypothesis 1.1 (+GRI implies +FP)	Verified with ROA and ROE	
Hypothesis 1.2 (+DJSI implies +FP)	Not verified	
Hypothesis 1.3 (+COMPL_RECOM implies +FP)	Verified with ROA and ROE	
Hypothesis 1.4 (+GC implies +FP)	Not verified	
Hypothesis 2 (+FP implies + Social Behaviour Index)		Verified with ROA and ROE

In spite of these positive results we acknowledge there are certain limitations in our research. First, the limited geographical and temporal scope. Second, as a consequence of the bidirectional relationship, a feedback circle is generated between social and financial variables, and it is not altogether clear which come first.

Conclusions and future directions for research

This study has demonstrated, as expected, that the social is profitable, and the profitable is social, thereby forming a virtuous circle as suggested by [Surroca et al. \(2010\)](#). That is, socially responsible policies transform into higher profits and

higher profits transform into socially responsible policies. This bidirectional relationship in CSR–FP has proven positive in both directions. Hence, in economic terms, we affirm that for firms, *ceteris paribus*, increasing CSR outlays leads to an improved FP, and withal, firms enjoying greater financial strength present an improved Social Behaviour Index. This generates positive mutual feedback that encourages firms to (1) apply CSR policies with their financial resources, and (2) verify how their CSR investments lead to improved financial returns.

Furthermore, from a theoretical point of view, the literature revision has introduced distinct theories: agency, stewardship, resources dependency and institutional perspective; in certain postulates they may be applied to the models of our analysis. However, our empirical results confirm that stakeholder theory provides the most solid foundation for the complete study. The CSR-FP bidirectional relationship demonstrates that all interest groups derive benefits in some way or another. In addition, the normative and instrumental approaches of this theory are also satisfied by the outcome of this work; the former because the recommendations of Good Corporate Governance as an element of CSR undoubtedly generate benefits; the latter by confirming and consolidating the relative importance given by the companies to the different areas of CSR, a function of the priority assigned to each of the interest groups.

We believe the contribution of this work to be important for the following reasons: first, because of the original combination of variables to assess CSR, based on the valuation of GRI, inclusion in the DJSI index (Dow Jones Sustainability Index), compliance with the recommendations of good CG, and whether the company is a signee of the Global Compact; second, because the variable referring to CG, albeit enjoying widespread backing, had never been used in an empirical study in Spain; and finally, because we performed the direct and the reverse analysis, posing the question in terms of whether the financial results obtained by Spanish companies have an impact on their social behavior and vice versa.

An important and novel conclusion in this Spanish case relates to the CG variable as no study had previously included the compliance with good government as a component element in measuring company CSR. From the positive correlation existing between this variable and the ratios ROE and ROA we may conclude that the existing mechanisms that regulate the operation of the boards of directors can serve as a guide to shareholders and investors in making their investment decisions; likewise, socially responsible investments will be bolstered by the ethical and respectful behaviors conforming to the principles outlined by UCGG.

Although no single internationally implemented legal mechanism exists to regulate the behavior of company boards of directors, the Spanish UCGG possesses a large number of concordances between its recommendations and both the OECD's Principles of CG, and other recommendations of the European Commission. Even if some recommendations are presently being challenged, as for example that the same individual act as company CEO while simultaneously holding the position of chairman of the board of directors, we understand that this study in adding to the knowledge base at the international level facilitates further research – when taking as variable CG – of CSR and FP.

In light of our results, company observance with the guideline of the GRI is highly recommended. Applying the principles of the GRI when presenting sustainability reports assures financial advantages, and by extrapolation all stakeholders stand to benefit.

From an academic standpoint, we would like to draw attention to the importance for corporations to comply with the recommendations of good CG and the GRI guideline. We stress the relevance for the board of directors to consider that social policies form an integral part of overall company strategy. Boards should feel emboldened to adopt such policies as they feedback into increased profitability and boost overall corporate visibility.

Future research should aim to resolve which of the two variables, CSR or financial profitability, initiates the CSR economic profitability cycle, or more specifically, clarify if profitable companies invest in CSR and in so doing gain an additional advantage that translates into improved economic returns, or on the contrary, companies exercising socially responsible behaviors obtain better economic returns. As business strategies focus over the long-term, research should include a data sample comprising at least four years.

A further aim, a consequence of the uniformity evolving from increased awareness in the social responsibility of firms, should consist in compiling a true and representative index to measure CSR. The complexity involved in calculating CSR complicates comparison of the studies; thus, a universal index representing social behavior would help in the homogenizing of future empirical analyses. Moreover, and in agreement with the authors who have served as benchmark in our development of the theoretical approach to this research, we would like to emphasize that stakeholder theory as well as its instrumental approach should play a significant role in the formulation of this index.

Finally, this study has proved that positive financial ratios lead to improved social behavior; the inverse relationship, businesses with a more social focus obtain better financial results, also holds. This mutual feedback between the social and financial aspects is key to an ethical business behavior. The board of directors, in following the recommendations of good CG, represents the starting point for the application of CSR to business decision-making as it strives to enrich society as a whole.

Annex 1. Sample of listed companies

Abengoa, S.A.
 Abertis Infraestructuras, S.A.
 Acciona, S.A.
 Acerinox, S.A.
 Acs, Actividades de Const.y Servicios S.A.
 Adolfo Dominguez, S.A.
 Afirma Grupo Inmobiliario, S.A.
 Agrofurse, Agrícola de F. Secos, S.A. (AGF)
 Ahorro Familiar, S.A. (AHF)
 Almirall, S.A.
 Amper, S.A. (AMP)
 Antena 3 de Television, S.A.
 Ayco Grupo Inmobiliario, S.A. (AYC)
 Azkoyen S.A.

Baron de Ley, S.A.
 Befesa, Medio Ambiente, S.A.
 Bodegas Riojanas, S.A.
 Bolsas y Mercados Españoles, Shmsf, S.A.
 Campofrio Food Group, S.A.
 Cartera Industrial Rea, S.A.
 Cementos Portland Valderrivas, S.A.
 Cia. de Inversiones Cinsa S.A.
 Cia. Española de Petroleos, S.A.
 Cia. Levantina, Edificacion de O.Publicas
 Cia. Vinicola del Norte de España
 Cie Automotive, S.A.
 Clínica Baviera, S.A.
 Codere, S.A.
 Const.y Auxiliar de Ferrocarriles S.A.
 Corporacion Dermostetica, S.A.
 Corporacion Financiera Alba, S.A.
 Critería Caixacorp, S.A.
 Dinamia Capital Privado, S.A.
 Dogi International Fabrics, S.A.
 Duro Felguera, S.A.
 Ebro Puleva, S.A.
 Elecnor, S.A.
 Enagas, S.A.
 Endesa, Sociedad Anonima
 Ercros S.A.
 Española del Zinc, S.A.
 Faes Farma,S.A.
 Ferrovial, S.A.
 Fersa Energias Renovables, S.A.
 Fluidra, S.A.
 Fomento de Constr. y Contratas S.A.
 Funespaña, S.A.
 Gamesa Corporacion Tecnologica, S.A.
 Gas Natural Sdg, S.A.
 Gral. de Alquiler de Maquinaria, S.A.
 Grifols, S.A.
 Grupo Catalana de Occidente S.A.
 Grupo Empresarial Ence, S.A.
 Grupo Empresarial San Jose, S.A.
 Grupo Tavex, S.A.
 Iberdrola Renovables, S.A.
 Iberdrola, S.A.
 Iberia, Lineas Aereas de España, S.A.
 Iberpapel Gestion, S.A.
 Inbesos, S.A./Nyasa valores corporacion, SA
 Indo Internacional S.A.
 Indra Sistemas, S.A., Serie A
 Industria de Diseño Textil, S.A. "inditex"
 Inmobiliaria Colonial, S.A.
 Inmobiliaria del Sur, S.A.
 Inmolevante, S.A. (ILV)
 Inverfiatc, S.A. (FIA)
 Inypsa Informes y Proyectos, S.A. (INY)
 Jazztel, P.L.C. (JAZ)
 Laboratorios Farmaceuticos Roví, S.A. (ROVI)
 Lingotes Especiales S.A.
 Liwe Española, S.A. (LIW)
 Mapfre, S.A. (MAP)
 Martinsa-fadesa, S.A.
 Metrovacesa S.A.
 Miquel y Costas & Miquel, S.A.
 Montebalito, S.A.
 Natra S.A.
 Natraceutical, S.A.
 Nh Hoteles, S.A.
 Nicolas Correa S.A.
 Obrascon Huarte Lain, S.A.
 Papeles y Cartones de Europa, S.A. (EUROPAC, PAC?)
 Pescanova, S.A. (PVA)
 Prim, S.A. (PRM)
 Promotora de Informaciones, S.A. (PRISA, PRS)
 Prosegur S.A., Cia. de Seguridad (PSG)
 Puleva Biotech, S.A. (BIO)
 Realía Business, S.A. (RLIA)
 Red Electrica Corporacion, S.A. (REE)
 Renta 4 Servicios de Inversion, S.A. (R4)
 Renta Corporacion Real Estate, S.A. (REN)
 Repsol Ypf,S.A. (REP)
 Reyál Urbis, S.A. (REY)
 Rusticas, S.A. (RTC)
 Sacyr Vallehermoso, S.A. (SYV)
 Seda de Barcelona, S.A. (la) (SED)
 Service Point Solutions, S.A. (SPS)
 Sniace (SNC)
 Sol Melia,S.A. (SOL)
 Solaria Energia y Medio Ambiente, S.A. (SLR)
 Sos Corporacion Alimentaria, S.A. (SOS)
 Sotogrande S.A. (STG)
 Tecnicas Reunidas, S.A. (TRE)
 Tecnomcom, Telecomunicaciones y Energia, S. (TEC)
 Telefonica, S.A. (TEF)
 Testa Inmuebles en Renta, S.A. (TST)
 Tubacex, S.A. (TUB)
 Tubos Reunidos, S.A. (TRG)
 Union Europea de Inversiones, S.A. (UEI)
 Unipapel, S.A. (UPL)
 Uralita, S.A. (URA)
 Urbar Ingenieros, S.A. (UIN)
 Urbas Guadahermosa, S.A. (UBS)
 Vertice Trescientos Sesenta Grados, S.A. (VER)
 Vidrala S.A. (VID)
 Viscofan, S.A. (VIS)
 Vocento, S.A. (VOC)
 Vueling Airlines, S.A. (VLG)
 Zardoya Otis, S.A. (ZOT)
 Zeltia, S.A. (ZEL)

References

- Adams, R.B., Hermalin, B.E., Weisbach, M.S., 2010. [The role of boards of directors in corporate governance: a conceptual framework and survey](#). *J. Econ. Lit.* 48 (1), 58–107.
- Akpinar, A., Jiang, Y., Gómez-Mejía, L.R., Berrone, P., Walls, J.L., 2008. [Strategic use of CSR as a signal for good management](#), *IE Business School Working Paper WP, 08-25*.
- Albareda Vivó, L., Balaguer Franch, M.R., 2009. [The challenges of socially responsible investment among institutional investors: exploring the links between corporate pension funds and corporate governance](#). *Bus. Soc. Rev.* 114 (1), 31–57.
- Albareda, L., 2013. [CSR governance innovation: standard competition-collaboration dynamic](#). *Corp. Gov.* 13 (5), 551–568.

- Alniacik, U., Alniacik, E., Genc, N., 2011. How corporate social responsibility information influences stakeholders' intentions. *Corp. Soc. Responsib. Environ. Manage.* 18, 234–245.
- Amaeshi, K., Amao, O.O., 2009. Corporate social responsibility in transnational spaces: exploring influences of varieties of capitalism on expressions of corporate codes of conduct in Nigeria. *J. Bus. Ethics* 86, 225–239, <http://dx.doi.org/10.1007/s10551-009-0192-z>.
- Argandoña, A., Von Weltzien Hoivik, H., 2009. Corporate social responsibility: one size does not fit all. Collecting evidence from Europe. *J. Bus. Ethics* 89, 221–234, <http://dx.doi.org/10.1007/s10551-010-0394-4>.
- Aupperle, K., Carroll, A., Hatfield, J., 1985. An empirical examination of the relationship between corporate social responsibility and profitability. *Acad. Manage. J.* 28 (2), 446–463.
- Belu, C., Manescu, C., 2013. Strategic corporate social responsibility and economic performance. *Appl. Econ.* 45 (19), 2751–2764, <http://dx.doi.org/10.1080/00036846.2012.676734>.
- Bhimani, A., Soonawalla, K., 2005. From conformance to performance: the corporate responsibilities continuum. *J. Account. Public Policy* 24, 165–174.
- Boesso, G., Kumar, K., Michelon, G., 2013. Descriptive, instrumental and strategic approaches to corporate social responsibility. *Account. Audit. Account. J.* 26 (3), 399–422, <http://dx.doi.org/10.1108/09513571311311874>.
- Bowen, H., 1953. *Social Responsibility of the Businessman*. Harper and Row, New York.
- Brammer, S., Pavelin, S., 2006. Corporate reputation and corporate performance: the importance of fit. *J. Manage. Stud.* 43 (3), 435–455, <http://dx.doi.org/10.1111/j.1467-6486.2006.00597.x>.
- Byrne, E.F., 2011. Business ethics should study illicit businesses: to advance respect for human rights. *J. Bus. Ethics* 103 (4), 497–509, <http://dx.doi.org/10.1007/s10551-011-0885-y>.
- Cadbury, A., 2000. The corporate governance agenda. *J. Corp. Govern.* 8, 7–15 (Practice-Based Papers).
- Callan, S.J., Thomas, J.M., 2009. Corporate financial performance and corporate social performance: an update and reinvestigation. *Corp. Soc. Responsib. Environ. Manage.* 16, 61–78, <http://dx.doi.org/10.1002/csr.182>.
- Carver, J., 2010. A case for global governance theory: practitioners avoid it, academics narrow it, the world needs it. *Corp. Govern. Int. Rev.* 18 (2), 149–157.
- Cetindamar, D., 2007. Corporate social responsibility practices and environmentally responsible behavior: the case of the United Nations global compact. *J. Bus. Ethics* 76 (2), 1639–1761, <http://dx.doi.org/10.1007/s10551-006-9265-4>.
- Chan, M.C., Watson, J., Woodliff, D., 2013. Corporate governance quality and CSR disclosures. *J. Bus. Ethics*, <http://dx.doi.org/10.1007/s10551-013-1887-8>.
- Charlo Molina, M.J., Moya Clemente, I., 2010. El comportamiento financiero de las empresas socialmente responsables. *Investig. Eur. Dir. Econ. Empresa* 16 (2), 15–25.
- Choi, J., Kwak, Y., Choe, C., 2010. Corporate social responsibility and corporate financial performance: evidence from Korea. *Aust. J. Manage.* 35 (3), 291–311.
- CNMV, 1998. Informe de la comisión especial para el estudio de un código ético de los consejos de administración de las sociedades (Comisión Olivencia). Comisión Nacional del Mercado de Valores.
- CNMV, 2003. Informe de la comisión especial para el fomento de la transparencia y seguridad en los mercados y las sociedades cotizadas (Comisión Aldama). Comisión Nacional del Mercado de Valores.
- CNMV, 2006. Código unificado de buen gobierno de las sociedades cotizadas. Comisión Nacional del Mercado de Valores (Código Conthe).
- Cochran, P.L., Wood, R.A., 1984. Corporate social responsibility and financial performance. *Acad. Manage. J.* 27 (1), 42–56.
- Coombs, J.E., Gilley, K.M., 2005. Stakeholder management as a predictor of CEO compensation: main effects and interactions with financial performance. *Strateg. Manage. J.* 26, 827–840, <http://dx.doi.org/10.1002/smj.476>.
- Crespí, R., 2010. Observatorio de gobierno corporativo y transparencia informativa de las sociedades cotizadas en el mercado continuo español, Papeles de la Fundación, 40. Fundación de Estudios Financieros.
- CSR Observatory, 2010. La Responsabilidad Social Corporativa en las memorias anuales de las empresas del Ibex 35, Available at: <http://www.observatoriosc.org> (accessed 09.08.12).
- Cuervo, A., 2002. Corporate governance mechanisms: a plea for less code of good governance and more market control. *Corp. Govern. Int. Rev.* 10 (2), 84–93.
- Daily, C.M., Dalton, D.R., 1994. Bankruptcy and corporate governance: the impact of board composition and structure. *Acad. Manage. J.* 37 (6), 1603–1617.
- Davis, K., Blomstrom, R., 1975. *Business and Society: Environment and Responsibility*. McGraw-Hill, New York, NY.
- Davis, J.H., Shoorman, F.D., Donaldson, L., 1997. Towards a stewardship theory of management. *Acad. Manage. J.* 22 (1), 20–47.
- Donaldson, L., 1990. The ethereal hand: organizational management theory. *Acad. Manage. Rev.* 15 (3), 369–381.
- Donaldson, L., 1999. Making stakeholder theory whole. *Acad. Manage. Rev.* 24 (2), 237–241.
- Donaldson, L., Davis, J.H., 1991. Stewardship theory or agency theory: CEO governance and shareholder returns. *Aust. J. Manage.* 16, 49–64.
- Donaldson, L., Davis, J.H., 1994. Boards and company performance—research challenges the conventional wisdom. *Corp. Govern. Int. Rev.* 2 (3), 151–160.
- Donaldson, T., Preston, L.E., 1995. The stakeholder theory of the corporation: concepts, evidence and implications. *Acad. Manage. Rev.* 20 (1), 65–91.
- Donker, H., Poff, D., Zahir, S., 2008. Corporate values, codes of ethics, and firm performance: a look at the Canadian context. *J. Bus. Ethics* 82 (3), 527–537, <http://dx.doi.org/10.1007/s10551-007-9579-x>.
- Elkington, J., 2006. Governance for sustainability. *Corp. Govern. Int. Rev.* 14 (6), 522–529.
- Fama, E.F., 1980. Agency problems and the theory of the firm. *J. Polit. Econ.* 88 (2), 288–307.
- Fama, E.F., Jensen, M.C., 1983. Separation of ownership and control. *J. Law Econ.* 26 (2), 301–325.
- Fombrun, C., Shanley, M., 1990. What's in a name? Reputation building and corporate strategy. *Acad. Manage. J.* 33, 233–258.
- Freeman, R.E., 1984. *Strategic Management: A Stakeholder Approach*. Boston, Pitman.
- Frias-Aceituno, J.V., Rodríguez-Ariza, L., García-Sánchez, I.M., 2013. The role of the board in the dissemination of integrated corporate social reporting. *Corp. Soc. Responsib. Environ. Manage.* 20, 219–233, <http://dx.doi.org/10.1002/csr.1294>.
- Gallego, I., 2006. The use of economic, social and environmental indicators as a measure of sustainable development in Spain. *Corp. Soc. Responsib. Environ. Manage.* 13 (2), 78–97.
- Gjølberg, M., 2009. Measuring the immeasurable? Constructing an index of CSR practices and CSR performance in 20 countries. *Scand. J. Manage.* 25 (1), 10–22.
- Guerras Martín, L.A., Navas López, J.E., 2004. *La Dirección estratégica de la empresa: teoría y aplicaciones*. Thomson, Madrid.
- Guest, P.M., 2009. The impact of board size on firm performance: evidence from the UK. *Eur. J. Financ.* 15 (4), 385–404.
- Harjoto, M.A., Jo, H., 2011. Corporate governance and CSR nexus. *J. Bus. Ethics* 100 (1), 45–67.

- Hausman, J.A., 1978. Specification tests in econometrics. *Econometrica* 46 (6), 1251–1272.
- Hausman, J.A., Taylor, W.E., 1981. Panel data and unobservable individual effects. *Econometrica* 49 (6), 1377–1399.
- Hedberg, C.-J., Von Malmborg, F., 2003. The global reporting initiative and corporate sustainability reporting in Swedish companies. *Corp. Soc. Responsib. Environ. Manage.* 10, 153–164, <http://dx.doi.org/10.1002/csr.038>.
- Hess, D., Warren, D.E., 2008. The meaning and meaningfulness of corporate social initiatives. *Bus. Soc. Rev.* 113 (2), 163–197, Retrieved from: <http://search.proquest.com/docview/43251588?accountid=14568>
- Hong, Y., Andersen, M.L., 2011. The relationship between corporate social responsibility and earnings management: an exploratory study. *J. Bus. Ethics* 104 (4), 461–471, Retrieved from: <http://search.proquest.com/docview/1012739129?accountid=14568>
- Ingle, C., Mueller, J., Cocks, G., 2011. The financial crisis, investor activists and corporate strategy: will this mean shareholders in the boardroom? *J. Manage. Govern.* 15 (4), 557–587, <http://dx.doi.org/10.1007/s10997-010-9130-9>.
- Jackling, B., Johl, S., 2009. Board structure and firm performance: evidence from India's top companies. *Corp. Govern. Int. Rev.* 17 (4), 492–509.
- Jamali, D., Safieddine, A.M., Rabbath, M., 2008. Corporate governance and corporate social responsibility synergies and interrelationships. *Corp. Govern. Int. Rev.* 16 (5), 443–459.
- Jensen, M.C., Meckling, W.H., 1976. Theory of the firm: managerial behavior, agency costs and ownership structure. *J. Financ. Econ.* 3 (4), 305–360.
- Johanson, D., Östergren, K., 2010. The movement toward independent directors on boards: a comparative analysis of Sweden and the UK. *Corp. Govern. Int. Rev.* 18 (6), 527–539.
- Jones, T.M., Wicks, A.C., 1999. Convergent stakeholder theory. *Acad. Manage. Rev.* 24 (2), 206–221.
- Judge, W., Li, S., Pinsker, R., 2010. National adoption of international accounting standards: an institutional perspective. *Corp. Govern. Int. Rev.* 18 (3), 161–174.
- Karagiorgos, T., 2010. Corporate social responsibility and financial performance: an empirical analysis on Greek companies. *Eur. Res. Stud.* XIII, 4.
- Kaufman, A., Englander, E., 2011. Behavioral economics, federalism and the triumph of stakeholder theory. *J. Bus. Ethics* 102 (2), 421–438.
- Knudsen, J.S., 2011. Company delistings from the UN global compact: limited business demand or domestic governance failure? *J. Bus. Ethics* 103 (3), 331–349, <http://dx.doi.org/10.1007/s10551-011-0875-0>.
- Legendre, S., Coderre, F., 2013. Determinants of GRI G-3 applications levels: the case of the Fortune Global 500. *Corp. Soc. Responsib. Environ. Manage.* 20, 182–192, <http://dx.doi.org/10.1002/csr.1285>.
- Lindgreen, A., Swaen, V., Johnston, W.J., 2009. Corporate social responsibility: an empirical investigation of U.S. organizations. *J. Bus. Ethics* 85 (2), 303–323, <http://dx.doi.org/10.1007/s10551-008-9738-8>.
- Lopez, M.V., Garcia, A., Rodriguez, L., 2007. Sustainable development and corporate performance: a study based on the Dow Jones Sustainability Index. *J. Bus. Ethics* 75 (3), 285–300, <http://dx.doi.org/10.1007/s10551-006-9253-8>.
- Lu, L.Y.Y., Liu, J.S., 2013. The knowledge diffusion paths of corporate social responsibility – from 1970 to 2011. *Corp. Soc. Responsib. Environ. Manage.*, <http://dx.doi.org/10.1002/csr.1309>.
- Maak, T., 2008. Undivided corporate responsibility: towards a theory of corporate integrity. *J. Bus. Ethics* 82 (2), 353–368, <http://dx.doi.org/10.1007/s10551-008-9891-0>.
- Maak, T., Pless, N.M., 2009. Business leaders as citizens of the world. Advancing humanism on a global scale. *J. Bus. Ethics* 88 (3), 537–550, <http://dx.doi.org/10.1007/s10551-009-0122-0>.
- Margolis, J.D., Walsh, J.P., 2003. Misery loves companies: rethinking social initiatives by business. *Adm. Sci. Q.* 48 (2), 268–305.
- McGuire, J.B., Alison, S., Schneeweis, T., 1988. Corporate social responsibility and firm financial performance. *Acad. Manage. J.* 31 (4), 854–872.
- McWilliams, A., Siegel, D., 2000. Corporate social responsibility and financial performance: correlation or misspecification? *Strateg. Manage. J.* 21 (5), 603–609.
- Michalos, A.C., 2008. Ancient observations on business ethics: Middle East meets West. *J. Bus. Ethics* 79 (1–2), 9–19, <http://dx.doi.org/10.1007/s10551-007-9386-4>.
- Mill, G., 2006. The financial performance of a socially responsible investment over time and a possible link with social corporate social responsibility. *J. Bus. Ethics* 63, 131–148.
- Mody, P., Mudoj, D., 2011. A study on OECD principles to global corporate governance. *Int. J. Bus. Econ. Manage. Res.* 2 (5), 80–91, Retrieved from: <http://search.proquest.com/docview/901301369?accountid=14568>
- Muth, M., Donaldson, L., 1998. Stewardship theory and board structure: a contingency approach. *Corp. Govern. Int. Rev.* 6 (1), 5–28.
- Orlitzky, M., Schmidt, F.K., Rynes, S.L., 2003. Corporate social and financial performance: a meta-analysis. *Organ. Stud.* 24 (3), 403–441.
- Ortas, E., Moneva, J.M., Salvador, M., 2014. Do social and environmental screens influence ethical portfolio performance? Evidence from Europe. *Bus. Res. Q.* 17, 11–21.
- Pava, M.L., 2008. Why corporations should not abandon social responsibility. *J. Bus. Ethics* 83 (4), 805–812, <http://dx.doi.org/10.1007/s10551-008-9666-7>.
- Pava, M.L., Krausz, J., 1996. The association between corporate social-responsibility and financial performance: the paradox of social cost. *J. Bus. Ethics* 15 (3), 321, Retrieved from: <http://search.proquest.com/docview/1302745886?accountid=14568>
- Perfect, S.B., Wiles, K.W., 1994. Alternative construction of Tobin's Q. An empirical comparison. *J. Empir. Financ.* 1 (3–4), 313–341.
- Pesqueux, Y., Damak-Ayadi, S., 2005. Stakeholder theory in perspective. *Corp. Govern. Int. Rev.* 5 (2), 5–21.
- Pfeffer, J., 1973. Size, composition and function of hospital boards of directors: a study of organization–environment linkage. *Adm. Sci. Q.* 18 (3), 349–364.
- Pfeffer, J., Salancik, G.R., 1978. *The External Control of Organizations: A Resource Dependence Perspective*. New York, Harper and Row.
- Preston, L.E., Donaldson, T., 1999. Stakeholder management and organizational wealth. *Acad. Manage. Rev.* 24 (4), 619–625.
- Rodriguez-Fernández, M., 2015. Company financial performance. Does board size matter? Case of the EUROSTOXX50 index. *Cuad. Gest.* 15 (2), 15–38.
- Ruggie, J.G., 2004. The global compact: an extraordinary journey. In: Fussler, C., Kramer, A., Van der Vegt, S. (Eds.), *Raising the Bar: Creating Value with the UN Global Compact*. Greenleaf Publishing, Sheffield, UK, pp. 15–17.
- Schuler, D.A., Cording, M., 2006. A corporate social performance–corporate financial performance behavioral model for consumers. *Acad. Manage. Rev.* 31 (3), 540–558, Retrieved from: <http://0-search.proquest.com.jabega.uma.es/docview/210951504?accountid=14568>
- Scott, W.R., 2001. *Institutions and Organizations*, 2nd ed. Sage, Thousand Oaks, CA.
- Shleifer, A., Wolfenzon, D., 2002. Investor protection and equity markets. *J. Financ. Econ.* 66, 3–27.
- Smith, N.C., 2003. Corporate social responsibility: whether or how? *Calif. Manage. Rev.* 45 (4), 52–76.
- Spence, L., Perrini, F., 2009. Practice and politics: ethics and social responsibility in SMEs in the European Union. *Afr. J. Bus. Ethics*

- 4 (2), 20–31, Retrieved from: <http://search.proquest.com/docview/849642489?accountid=14568>
- Stanwick, P.A., Stanwick, S.D., 1998. *The relationship between corporate social performance and organizational size, financial performance and environmental performance: an empirical examination*. *J. Bus. Ethics* 17 (2), 195–204.
- Sternberg, E., 1999. *The Stakeholder Concept: A Mistaken Doctrine*. London, Foundation for Business Responsibilities.
- Stiglbauer, M., 2010. Transparency and disclosure on corporate governance as a key factor of companies' success: a simultaneous equations analysis for Germany. *Probl. Perspect. Manage.* 8 (1), 161–173, Retrieved from: <http://search.proquest.com/docview/742840341?accountid=14568>
- Strand, R., 2013. The chief officer of corporate social responsibility: a study of its presence in top management teams. *J. Bus. Ethics* 112 (4), 721–734, <http://dx.doi.org/10.1007/s10551-012-1568-z>.
- Surroca, J., Tribó, J.A., Waddock, S., 2010. *Corporate responsibility and financial performance: the role of intangible resources*. *Strateg. Manage. J.* 31, 463–490.
- The Green Book of the European Commission, 2001. Fomentar un marco europeo para la responsabilidad social de las empresas. Bruselas, 18.7.2001 COM (2001) 366 final, <http://eur-lex.europa.eu/legal-content/ES/TXT/PDF/?uri=CELEX:52001DC0366&qid=1433318086120&from=EN>
- Waddock, S.A., Graves, S.B., 1997. *The corporate social performance–financial performance link*. *Strateg. Manage. J.* 18 (4), 303–319.
- Welford, R., 2007. Corporate governance and corporate social responsibility: issues for Asia. *Corp. Soc. Responsib. Environ. Manage.* 14, 42–51, <http://dx.doi.org/10.1002/csr.139>.
- Wilburn, K., Wilburn, R., 2013. Using global reporting initiative indicators for CSR programs. *J. Global Responsib.* 4 (1), 62–75, <http://dx.doi.org/10.1108/20412561311324078>.
- Wood, D.J., Jones, R.E., 1995. *Stakeholder mismatching: a theoretical problem in empirical research on corporate social performance*. *Int. J. Organ. Anal.* 3 (3), 229–267.

Web Pages Consulted

- RSC Observatory. Guía para la elaboración de Memorias de Sostenibilidad. Disponible en <http://www.observatorio-rse.org.es>
- Observatorio de la sostenibilidad en España. Sostenibilidad en España 2010. Available at: <http://www.sostenibilidad-es.org>
- United Nations (2012). From web page www.org.esa/dsd. Division for Sustainable Development. UN department and social affairs.
- UNCED (1992). United Nations Conference Environmental Development, Rio de Janeiro. Retrieved from <http://www.un.org/geninfo/bp/enviro.html>