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# Firms' Board Independence and Corporate Social Performance: A Meta-Analysis

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Abstract: This paper investigates the influence of organizations' board independence on corporate social performance (CSP) using a meta-analytic approach. A sample of 87 published papers is used to identify a set of underlying moderating effects in that relationship. Specifically, differences in the system of corporate governance, CSP measurement models and market conditions have been considered as moderating variables. The results show that the independence of a company's board positively influences CSP. This is because companies with more independent directors in their boards are more likely to commit to stakeholder engagement, environmental preservation and community well-being. Interestingly, the results also show that the positive connection between board independence and CSP is stronger in civil law countries and when CSP is measured by self-reporting data. Finally, the strength of the influence of the independence of a firm's board on CSP varies significantly in different market conditions. The paper concludes by presenting the main implications for academics, practitioners and policy makers.

Keywords: corporate social performance; corporate governance; board independence; meta-analysis

### 1. Introduction

Society's awareness of sustainable business models [1] has had a significant influence on companies' commitment to corporate social responsibility (CSR) and practices related to corporate sustainability. This has resulted in the appearance of different models of corporate governance (CG) that, in general, recognize key stakeholders' claims in the corporate decision-making process. At the same time, significant environmental and social scandals in the corporate sphere have led governments and independent institutions to recommend principles and codes of conduct (a total of 461 codes of conduct were published by approximately one hundred countries and regulators between 1993 and 2016) to encourage companies' management to develop more sustainable CG approaches [2]. The awareness of institutions, and of society in general, of sustainable development has put it on the agenda of governments around the world. In fact, corporate contributions to sustainable development goals have attracted the attention of politicians, practitioners and academics. These contributions have been studied from different perspectives [3,4], but most previous research has focused on identifying and measuring the positive and negative organizational impacts on society and the environment [5,6]. As a result, some sustainability-related concepts have appeared, such as corporate social performance (CSP) [7] and corporate sustainability performance [8], which address corporations' contributions to environmental preservation, societies' economic progress and human well-being. The academic

Sustainability **2017**, *9*, 1006 2 of 26

literature related to corporate objectives and sustainability has grown substantially during the last two decades. Many papers focus on the influence of the adoption of different CG approaches on CSP [9–14]. However, these studies have not arrived at a consensus, and report contradictory and inconsistent results (e.g., while Cuadrado-Ballesteros et al. [15] and Rao et al. [16] found a positive connection, Sundarasen et al. [17] and Walls et al. [18] found a negative association, and Walls and Berrone [19] and Harjoto et al. [20] found no significant relationship).

Although previous research addressed the influence of some CG-related issues [10,12,21–23] (e.g., the independence, gender balance, size and remuneration of company boards, among others), the present paper contributes to the existing literature by providing the first meta-analysis of the influence of the independence of a company's board on CSP. To that end, a sample of 87 previously published papers is analyzed. This paper also contributes to previous research by collating a set of variables that have a potential moderating effect in the relationship between a corporation's board independence and CSP. Specifically, the following variables are considered to be tested as moderators in the relationship: (i) CG systems; (ii) CSP measurement approaches; and (iii) the economic conditions.

The paper is organized as follows. Section 2 introduces the theoretical foundations. Section 3 comprises the literature review and explains the research hypotheses. Section 4 focuses on the research design by describing the econometric notations of the meta-analytic approach. Section 5 shows the data collection procedure, inclusion criteria and measurement of the variables. Section 6 contains the results of the empirical analysis. Finally, the last section concludes that paper.

### 2. Theoretical Background

Over the last forty years, a large body of academic research has examined the theoretical notions of CSR and CSP from different perspectives [24-26]. Some definitions of CSR and CSP have been suggested [7,27], and there is not complete clarity about the interpretation of the key ideas that underlie these concepts. This has been addressed by Clarkson [28], who stated that the "fundamental problem in the field of business and society has been that there are no definitions of corporate social performance, corporate social responsibility, or corporate social responsiveness that provide a framework or model for the systematic collection, organization and analysis of corporate data relating to these important concepts". Carroll [29] suggests that the social responsibility of business encompasses the economic, legal, ethical and philanthropic responsibilities. Following Carroll [29], Wood [30] provides one of the first definitions of CSP, indicating that it refers to "a business organization's configuration of principles of social responsibility, process of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm's societal relationships". Other researchers provide additional definitions of CSP, such as that given by Lu et al. [31]. This confusion means that there are many ways to model CSP and to investigate its relationship with some organizational outputs such as corporate financial performance (CFP) [32]. Because there are many previously published papers addressing the links between the independence of firms' boards and CSP, this paper adopts the broad definition of CSP suggested by Visser et al. [33] and discussed by Swanson and Orlitzky [7]. In this way, CSP is considered to be the actual organizational social, environmental and economic results rather than the general notion of business accountability or responsibility to society as a whole. Using this definition of CSP, Orlitzky et al. [34] found that CSP is associated with the following four measurement strategies: (i) CSP disclosures; (ii) CSP reputation ratings; (iii) social audits, CSP processes, and observable outcomes; and (iv) managerial CSP principles and values.

Most mainstream studies have used stakeholder theory when addressing firms' incentives to engage with CSR-related practices and to understand differences in CSP between organizations [35]. Stakeholder theory [36] argues that companies should guarantee the protection of the interest of all the firms' stakeholders, arguing that companies are open systems that affect and can be affected by other agents outside and inside them. This reciprocity between companies and their stakeholders may be affected by the links that firms build with their stakeholders. The relationships can provide channels for communication with, and access to support from, external organizations [37] and other

Sustainability **2017**, *9*, 1006 3 of 26

kinds of stakeholders. This perspective makes it necessary to revisit the concept of the effectiveness of a company's board from a shareholder perspective to assess its validity in stakeholder theory [38]. It has been suggested that the stakeholder perspective of CG should be linked to CSP [39].

Among the different mechanisms of internal organizational governance [40], the independence of firms' boards is considered a key issue to ensure effective monitoring by the board [41], and to improve the range of firms' key strategic policies that address their stakeholders requirements [42], thus providing companies the ability to strengthen their links with their stakeholders [43–45] and to adapt to the external environment and increase efficiency [46]. As in the case of CSP, different authors have addressed the theoretical definition of corporate board independence. Historically, the degree of independence of director was assessed by addressing the absence of financial, family or professional ties between them and the companies whose boards they are part of [47]. Accordingly, three main approaches to measuring board independence have been recognized. Specifically, these approaches address the percentage of the presence of the following type of directors in companies' boards: (i) executive/non-executive directors; (ii) inside/outside directors; and, (iii) independent/non independent directors [48-50]. The presence of independent directors on companies' boards has its origins in the Anglo-Saxon economic systems [47], mainly driven by the absence of large shareholders who can directly control decisions about the firm's strategic management. Agency theory addresses the advantages of having independent directors on companies' boards [41,51], because they have the ability to mitigate the conflicts between shareholders and managers, providing a valuable protection mechanism [52]. The independence of firms' boards has become a key element of CG that goes beyond the function of organizational control, and allows companies to gain legitimacy and advice and connection with other organizations [53].

Under the stakeholder theory, those companies with greater board independence are more likely to consider other sensitivities and interests than those of managers and the majority of shareholders [21]. Stakeholder theory suggests that the appointment of independent directors to companies' boards gives companies' the opportunity to develop strategic policies that address a wider range of their key stakeholder needs and claims [54], because the human capital resources of the firms' board are based on the collective experience and expertise of board members [9]. Stakeholder theory argues for independent directors on company boards, because they are more effective in monitoring other societal realities, and therefore more sensitive to stakeholders' needs [55,56]. In general, independent directors are those with little connection with the CEO and others executive board members. Their personal background and their personal skills should increase their sensitivity to a broader context than the conventional view of business objectives (e.g., profits maximization). Stakeholder theory predicts some benefits for companies with more independent boards, including (i) legitimation of company activities [54]; (ii) safeguarding the interests of corporate stakeholders [46]; (iii) ensuring stakeholders' concerns are considered in corporate decision-making; (iv) increasing brand loyalty by building trust in customers [57]; and, (v) making workers more committed to business objectives [32].

The instrumental perspective of stakeholder theory [58] has been the main theoretical approach used to analyze the influence of several CG-related issues on CSP. In general, instrumental stakeholder theory argues that a company's board members should be responsible for setting the organization's mission and the strategies to achieve it [59]. It suggests that a company's board should be the main body responsible for designing, implementing and improving the companies' contributions to sustainable development and human well-being. The alignment of governance structures and business processes with CSR activities will make it possible to manage all the stakeholders' claims and needs in the core decision-making process. This will allow corporations to enhance their levels of both transparency and CSP [59–61]. Moreover, instrumental stakeholder theory predicts that those companies that have greater board independence should be more committed to CSR and also to satisfying the legitimate interests of their key stakeholders [36]. Therefore, it is expected that the presence of independent directors should improve a company's CSP [36]. In this way, instrumental stakeholder theory, [36,62] provides a theoretical basis that links the independence of a company's board and their CSP [20,63,64].

Sustainability **2017**, *9*, 1006 4 of 26

The influence of the independence of a firm's board on CSP has been extensively studied in recent decades by academic researchers, but studies have produced mixed and contradictory results. These are examined and studied in the following section with the aim of developing the research hypotheses.

### 3. Literature Review and Hypotheses Development

There is a large body of research analyzing the influence of some CG variables on different organizational outcomes. The existing literature also includes several meta-analyses designed to capture the global effect between specific corporate variables and CG-related issues. Such meta-analyses mainly focus on: (i) testing the link between CG variables and CFP [65]; (ii) evaluating the influence of a corporation's board gender composition on CFP [64]; (iii) addressing the impact of companies' board size and composition on CFP [49,66]; (iv) testing the relationship between a company's board leadership structure and CFP [67]; (v) testing the influence of companies' ownership structures on CFP [68]; and, (vi) testing the influence of corporate ownership concentration on CFP [69]. The literature also includes several meta-analyses on the influence of CSP on CFP [34,70,71], and a meta-analysis assessing the influence of a company's board gender composition on corporate environmental performance (CEP) [72]. However, to the best of the authors' knowledge, a meta-analysis of the impact of the independence of a corporation's board on CSP has not been performed, although many papers have reported studies of that relationship. Those papers are reviewed in the following section, and summarized in Table 1.

### 3.1. Linking Board Independence and Corporate Social Performance

Ntim and Soobaroyen [73] focused on a sample of South African firms and found a positive influence of the board's independence on both CFP and CSP. Similarly, Dunn and Sainty [74] studied a sample of 104 Canadian firms and concluded that companies with more independent boards generally obtain higher levels of CSP. In the same vein, Jo and Harjoto [59] studied a sample of nearly 15,000 U.S. firms, and found a positive connection between the independence of the board and CSP. This effect occurs because greater independence reduces conflicts of interests among different stakeholders. Further research, such as that developed by Sahin et al. [75], analyzed a sample of 165 Turkish firms and concluded that a higher proportion of independent board members allows companies to obtain better levels of CSP. Mallin et al. [76] examined the 100 U.S. best corporate citizens and found that companies with more independent boards often implement a business model that includes stakeholder management, and that ultimately has a positive influence on their CSP.

**Table 1.** Overview of studies included in the meta-analysis.

Code	Authors	Year	Sample Size	Observed r a	Number of r's Reported	Measure of CSP b	Measure of Firm Board Independence <sup>c</sup>
1	Amran et al. [77]	2014	113	0.016	1	Sustainability reporting quality index (D)	% of outside and independent directors (OUT, IND)
2	Amran et al. (B) [78]	2014	111	0.307 (t)	1	Bloomberg database of environmental disclosure ratings (SA/P/O)	% of independent and non-executive directors (IND, EX)
3	Arayssi et al. [79]	2016	975	0.300	1	Sustainability disclosures (D)	% of independent directors (IND)
4	Arena et al. [80]	2015	288	0.164 to 0.459	2	Kinder, Lydenberg and Domini (KLD) environmental data (SA/P/O)	% of independent directors (IND)
5	Arora and Dharwadkar [81]	2011	1522	-0.300 to 0.400	2	KLD positive and negative ratings (SA/P/O)	% of independent directors (IND)
6	Barakat et al. [82]	2015	101	-0.200	1	CSR disclosure index (including products, consumers and community involvement) (D)	% of independent directors (IND)
7	Barako and Brown [83]	2008	40	0.272	1	Social disclosure index (D)	% of non-executive directors (EX)
8	Bear et al. [9]	2010	51	0.420 to 0.104	2	KLD social scores (SA/P/O)	Director diversity Blau's index (IND, EX, OUT)
9	Ben-Amar et al. [84]	2015	541	0.250	1	Environmental disclosures (D)	% of independent directors (IND)
10	Benomran et al. [85]	2015	162	0.020	1	Social and environmental disclosures (D)	% of non-executive directors (EX)
11	Berrone and Gómez-Mejía [86]	2009	2088	-0.040 to -0.080	2	Environmental performance (D)	% of outside directors (OUT)
12	Boulouta [87]	2013	820	-0.023 to 0.101	3	KLD social scores (SA/P/O)	Ratio between outside and inside directors (OUT)
13	Bowrin [88]	2013	96	-0.083 (t)	1	Social and environmental disclosures (D)	% of non-executive directors (EX)
14	Brammer et al. [89]	2009	199	-0.036	1	Corporate reputation indices (R)	% of non-executive directors (EX)
15	Burke et al. [90]	2017	11458	0.130	1	Morgan Stanley Capital Investment (MSCI) CSP data (SA/P/O)	% of independent directors (IND)
16	Cho et al. [91]	2015	10297	0.070 (t)	1	KLD social scores (SA/P/O)	% of independent directors (IND)
17	Choi et al. [92]	2013	2042	0.280	1	KEJI social scores (SA/P/O)	% of outside directors (OUT)
18	Cormier et al. [93]	2011	137	−0.010 to −0.020	2	Social and environmental disclosures (D)	% of independent directors (IND)
19	David et al. [94]	2007	730	-0.040	1	KLD CSP ratings (SA/P/O)	% of outside directors (OUT)
20	De Villiers [22]	2011	5997	0.110	1	KLD environmental ratings (SA/P/O)	% of independent directors (IND)
21	Deschênes et al. [95]	2015	192	0.414 (t)	1	JANTZI CSP scores (SA/P/O)	% of independent directors (IND)
22	Ducassy [96]	2015	41	0.410	1	CFIE CSP scores (SA/P/O)	% of independent directors (IND)
23	Dunn and Sainty [74]	2009	174	0.219	1	JANTZI CSP scores (SA/P/O)	Business's board independence score (IND)

 Table 1. Cont.

Code	Authors	Year	Sample Size	Observed r <sup>a</sup>	Number of r's Reported	Measure of CSP <sup>b</sup>	Measure of Firm Board Independence <sup>c</sup>
24	Esa et al. [97]	2012	54	-0.003 to 0.153	2	Sustainability disclosures (D)	% of independent and non-executive directors (IND, EX)
25	Fernández-Gago et al. [98]	2016	145	0.361	1	CPS rating scores (SA/P/O)	% of independent directors (IND)
26	Frias-Aceituno et al. [99]	2013	1575	0.062	1	Sustainability disclosures (D)	% of non-executive directors (EX)
27	Galbreath [100]	2011	161	0.020 to 0.280	2	Social and environmental disclosures (D)	% of outside directors (OUT)
28	Galbreath [23]	2016	300	-0.250 to -0.270	2	GES environmental and social ratings (SA/P/O)	% of inside directors (OUT)
29	García-Sánchez et al. [101]	2015	5380	0.037 to 0.112	2	EIRIS ethics codes (CP/V)	% of independent directors (IND)
30	García-Sánchez [102]	2014	686	0.157 (t)	1	Sustainability disclosures (D)	% of independent directors (IND)
31	Ghazali and Weetman [103]	2006	87	-0.129 (t)	1	Social and environmental disclosures (D)	% of independent and non-executive directors (IND, EX)
32	Gupta et al. [104]	2015	1153	0 to 0.240	4	KLD scores (SA/P/O)	Average of the annual % of independent directors over the 10-year period (IND)
33	Habbash [105]	2016	267	-0.040	1	Sustainability disclosures and ISO 26000 (D, CP/V)	% of non-executive directors (EX)
34	Hafsi and Turgut [106]	2013	95	0.130	1	KLD CSP scores (SA/P/O)	% of outside directors (OUT)
35	Haldar and Mishra [107]	2015	24	0.295	1	Sustainability reporting (D)	% of independent directors (IND)
36	Haniffa and Cook [14]	2005	278	-0.182 to -0.241	4	Social disclosure index (R)	% of non-executive directors (EX)
37	Harjoto et al. [20]	2015	9001	-0.060 to 0.270	3	MSCI CSP scores (SA/P/O)	% of outside directors (OUT)
38	Hogan et al. [108]	2014	540	-0.020 to 0.050	3	Bloomberg environmental and social disclosure scores (SA/P/O, D)	% of independent directors (IND)
39	Hoje and Harjoto [109]	2011	13389	0.190	1	KLD CSP data (SA/P/O)	% of outside and independent directors (IND, OUT)
40	Htay et al. [110]	2012	120	0.120	1	Social and environmental disclosures (D)	% of independent and non-executive directors (IND, EX)
41	Huang [111]	2010	297	0.060 to 0.129	6	Sustainability disclosures (D)	% of independent directors (IND)
42	Hussain et al. [112]	2016	152	-0.042 to 0.325	3	Sustainability reporting (D)	% of independent directors (IND)
43	Ienciu et al. [113]	2012	54	0.476	1	Environmental disclosures (D)	% of independent directors (IND)
44	Janggu et al. [114]	2014	100	-0.124	1	Sustainability disclosures (D)	% of independent directors (IND)
45	Javaid Lone et al. [115]	2016	250	0.660	1	Sustainability disclosures (D)	% of independent directors (IND)
46	Jizi [116]	2017	1155	0.101 (t)	1	Bloomberg CSP scores (SA/P/O)	% of independent directors (IND)

 Table 1. Cont.

Code	Authors	Year	Sample Size	Observed r <sup>a</sup>	Number of r's Reported	Measure of CSP <sup>b</sup>	Measure of Firm Board Independence c
47	Jizi et al. [117]	2014	291	0.199 (t)	1	Sustainability disclosures (D)	% of independent directors (IND)
48	Johnson and Greening [12]	1999	252	-0.050 to 0.060	5	KLD CSP scores (SA/P/O)	% of outside directors (OUT)
49	Khan et al. [118]	2013	580	0.269	1	Social and environmental disclosures (D)	% of independent directors (IND)
50	Khan [119]	2010	30	0.550	1	Sustainability disclosures (D)	% of non-executive directors (EX)
51	Kiliç et al. [120]	2015	3106	0.010	1	Sustainability disclosures (D)	% of independent directors (IND)
52	Kock et al. [121]	2012	657	0.170 to 0.180	2	IRRC environmental performance data (SA/P/O)	% of independent directors (IND)
53	Li et al. [122]	2013	613	-0.080 to -0,050	4	HEXUN CSP data (SA/P/O)	% of independent directors (IND)
54	Liao et al. [123]	2015	329	0.280 to 0.310	2	Carbon Disclosure Project (D)	% of independent and non-executive directors (IND, EX)
55	Lim et al. [124]	2007	181	0.248	1	Social and environmental disclosures (D)	% of independent directors (IND)
56	Lu [125]	2013	2098	0.113	1	KLD CSP scores (SA/P/O)	Dichotomized board independence measure above and below the median (IND)
57	Mallin et al. [76]	2013	221	-0.033 to 0.123	7	Sustainability reporting and KLD CSP scores (D, SA/P/O)	% of independent directors (IND)
58	Martínez-Ferrero et al. [126]	2015	877	-0,380	1	EIRIS CSP scores (SA/P/O)	% of independent directors (IND)
59	Michelon and Parbonetti [13]	2012	114	-0.170 to $0.088$	7	Sustainability disclosures (D)	% of independent directors (IND)
60	Mohamad et al. [127]	2011	795	0.164 to -0.027	3	Sustainability disclosures (D)	% of independent directors (IND)
61	Musteen [128]	2010	324	0.190	1	Fortune's reputational rankings (R)	% of outside directors (OUT)
62	Ntim and Soobaroyen [73]	2013	600	0.155	1	Sustainability disclosures (D)	% of independent and non-executive directors (IND, EX)
63	Nurhayati et al. [129]	2015	285	-0.056	1	Sustainability disclosures (D)	% of independent and non-executive directors (IND, EX)
64	Ortiz de Mandojana et al. [130]	2016	210	-0.270	1	Dichotomized environmental sustainability index (R)	% of independent directors (IND)
65	Post et al. [131]	2011	78	-0.010 to 0.039	7	Sustainability disclosures and KLD environmental scores (D, SA/P/O)	% of outside directors (OUT)
66	Post et al. [72]	2015	180	0.085	1	KLD environmental performance scores (SA/P/O)	% of independent directors (IND)
67	Prado-Lorenzo et al. [132]	2009	288	0.270	1	Sustainability disclosures (D)	% of non-executive directors (EX)
68	Prado-Lorenzo and García-Sánchez [133]	2010	283	-0.044	1	Carbon Disclosure Project (D)	% of independent directors (IND)

 Table 1. Cont.

Code	Authors	Year	Sample Size	Observed r <sup>a</sup>	Number of r's Reported	Measure of CSP <sup>b</sup>	Measure of Firm Board Independence <sup>c</sup>	
69	Rao and Tilt [134]	2016	345	0,050 (t)	1	Sustainability disclosures (D)	% of independent directors (IND)	
70	Rao et al. [16]	2012	96	-0.062 to -0.111	2	Environmental disclosures (D)	% of independent directors (IND)	
71	Rodríguez-Ariza et al. [135]	2014	3521	-0.025	1	Sustainability disclosures (D)	% of independent directors (IND)	
72	Rodríguez-Domínguez et al. [136]	2009	351	0.078 to 0.212	3	Dichotomized Ethics code draw up (CP/V)	% of independent directors (IND)	
73	Roitto [137]	2013	31	0.127 (t)	1	CSP Hub disclosure rating (SA/P/O)	% of independent directors (IND)	
74	Rouf [138]	2011	93	0.569	1	Sustainability disclosures (D)	% of independent directors (IND)	
75	Sahin et al. [75]	2011	96	0.101	1	Sustainability disclosures (D)	% of independent directors (IND)	
76	Said et al. [139]	2009	150	-0.011	1	Sustainability disclosures (D)	% of non-executive directors (EX)	
77	Said et al. [140]	2013	120	-0.126	1	Environmental disclosures (D)	% of independent and non-executive directors (IND, EX)	
78	Sharif and Rashid [141]	2014	22	0.874	1	Social disclosures (D)	% of non-executive directors (EX)	
79	Shaukat et al. [142]	2016	2028	0.270 to 0.720	2	ASSET 4 environmental and social performance scores (SA/P/O)	% of independent directors (IND)	
80	Sundarasen et al. [17]	2016	450	-0.054 to 0.255	2	Sustainability disclosures (D)	% of independent and non-executive directors (IND, EX)	
81	Tauringana and Chithambo [143]	2015	860	0.160	1	Greenhouse gas (GHG) disclosures (D)	% of non-executive directors (EX)	
82	Walls and Berrone [19]	2015	1320	0.120	1	Trucost Environmental scores (SA/P/O)	% of outside directors (OUT)	
83	Walls and Hoffman [144]	2013	1881	0.050	1	KLD environmental scores (SA/P/O)	% of outside directors (OUT)	
84	Walls et al. [18]	2012	2002	0.130 to 0.250	2	KLD environmental scores (SA/P/O)	% of outside directors (OUT)	
85	Wang et al. [145]	2012	446	0.020 to 0.061	2	Environmental disclosures (D)	% of independent directors (IND)	
86	Williams [146]	2003	185	0.040	1	Social performance charitable contributions Ratio between outside and inside d (SA/P/O) (OUT)		
87	Zhang [147]	2012	475	-0.230 to -0.110	4	KLD CSP institutional and technical scores (SA/P/O)	% of outside directors (OUT)	

<sup>&</sup>lt;sup>a</sup> (t): refers to transformation procedure, usually t-test statistic converted to PM r: in some cases, transformation of d to r, and regression coefficient to r. <sup>b</sup> Classification of CSP (in parentheses): D = disclosures/content analysis; R = reputational indices; SA/P/O = social audit, process and outcome measures; CP/V = other measures of corporate principles and values. <sup>c</sup> Classification of corporate board independence (in parentheses): EX = presence of executive/non-executive directors; OUT = presence of outside/inside directors; IND = presence of independent/non independent directors.

Sustainability **2017**, *9*, 1006 9 of 26

Choi et al. [92] conclude that the presence of independent members on companies' boards has a positive impact on companies CSP, measured by the KEJI Index, which has scores for the following categories: (i) companies' contributions to communities; (ii) employee and consumer protection and satisfaction; (iii) firms' environmental protection; and, (iv) companies' contributions to economic growth. Barako and Brown [83] analyzed a sample of 40 Kenyan banks and provided empirical evidence of a positive influence of board independence on CSP. Focusing on the largest 100 Australian firms, Rao et al. [16] found a positive relationship between board independence and CSP, measured by social and environmental disclosures. Furthermore, Zhang et al. [148], focused on the 500 largest companies listed on the U.S. stock exchanges and concluded that having more outside directors on a corporation's board raises CSP levels. Cuadrado-Ballesteros et al. [15] analyzed a sample of 1043 international companies and found that board independence has a positive effect on CSP. Zhang [147] focused on a sample of 475 publicly traded Fortune 500 companies and found that more outside directors has a positive influence on CSP. Post et al. [131] analyzed 78 Fortune 1000 firms and found a positive connection between board independence and CSP, measured by Kinder, Lydenberg and Domini (KLD) ratings.

However, several studies find a negative connection between the independence of a company's board and CSP [17]. Hanniffa and Cook [14], Nurhayati et al. [130], Walls et al. [18] and Ortiz-de-Mandojana et al. [130] all found that the presence of non-executive and independent directors on company boards has a negative influence on CSP. In addition, Rodríguez-Ariza et al. [135], Benomran et al. [85] and Walls et al. [19,144] found no significant association between board independence and CSP.

Based on the previous discussion, the following hypothesis is proposed for testing:

**Hypothesis 1** (H1). Companies with higher levels of board independence will exhibit superior corporate social performance.

3.2. The Moderating Role of Approaches to the Measurement of Corporate Social Performance, Corporate Governance Systems, and the Economic Conditions

Although this paper contributes to the literature by providing a meta-analysis of the influence of the independence of companies' boards on CSP, some variables that are usually considered to have a significant impact on CSP will be treated as moderators of that relationship. The first moderating variable is related to the different approaches to CSP measurement used in previous research. Zahra and Pearce [149] found that the use of different methods of measuring CSP significantly affects how this concept is linked with other organizational processes and outcomes. Dixon-Fowler et al. [150] grouped the different measures of CSP into two categories: (i) self-report measures; and, (ii) externally-reported or archival data measures [150]. Self-reported measures of CSP are usually associated with social and environmental reports that companies disclose to their stakeholders. These reports show the positive and negative externalities that company processes and decisions have on the community, environment, and society as a whole. Externally-reported measures are related with CSP indicators that are commonly reported by external agencies (e.g., TRI, KLD, ASSET4, Bloomberg, Jantzi and HEXUN). CSP ratings and reputational rankings are also considered externally reported or archival measures of CSP. The difference between self-reported and externally-reported CSP measurement approaches is analogous to the difference between accounting and market based measures that are commonly used to measure CFP [64–68,150–152]. To test for the moderating effect of the CSP measurement approach, the sample was divided on the basis of the two categories. 52 of the 87 papers (59.77%) use self-reported measures and the other 35 papers use archival data measures (40.23%) (see Tables 2 and A1 in the Appendix A for more information). We anticipate that the relationship between the independence of a firm's board and CSP would be significantly affected by the approach adopted to measuring CSP. Therefore, the following hypothesis will be tested:

Sustainability **2017**, *9*, 1006 10 of 26

**Hypothesis 2** (H2). The positive link between the independence of a company's board and CSP will be higher when the latter is modelled using self-reported measures.

The second moderating variable considered in the analysis is related to the corporate governance system existing in specific countries. Previous research on CSP has mainly addressed the influence of the role of the company in a given society on its commitment to stakeholder engagement, environmental preservation and community involvement [15,24,101,153]. It is expected that different corporate governance systems in different countries will have a significant effect on the relationship between the independence of firms' boards and CSP.

Corporate governance structures are considered to be one of the most relevant factors in the relationship between companies and their stakeholders [154]. Governance structures are conditioned by: (i) national cultural institutions; (ii) national legal systems [155]; and (iii) national business systems [156-158]. Haake [159] classified countries as individualistic or communitarian, which is consistent with the classification provided by Ball et al. [155] based on proxies for the legal systems [160]. Individualistic countries (i.e., those exhibiting a common-law legal system) are mainly found in the U.S. and other Anglo Saxon countries [161]. These countries have a shareholder orientation [162] because the primary purpose of their firms consists in maximizing shareholder wealth. Haake [159] (p. 720) defines individualistic business systems as systems "in which actors safeguard their individual autonomy through loose interfaces" and therefore have the power to define corporate responsibility for themselves [161], creating a lot of freedom for the shareholders. As a result, firms in common-law countries may have less pressure to improve their CSP. In contrast, communitarian countries (i.e., codified law countries) include many continental European countries. These countries tend to promulgate laws to protect the rights of workers and other stakeholders [161], and are societies based on close and stable relationships between actors. This situation generates key responsibilities not only towards shareholders [161]. Accordingly, these countries have a stakeholder orientation [162], and therefore are more likely to attain higher levels of CSP.

Cuadrado-Ballesteros et al. [15] differentiate four main corporate governance systems (i.e., legal systems) from a global perspective: (i) Anglo-saxon; (ii) Germanic; (iii) Latin; and, (iv) Asian. The main issues that differentiate these governance systems are: (i) the instrumentalist or institutionalist view of the company; (ii) the level of business concentration; (iii) the importance of the capital market in a given economy; and, (iv) the relationship between performance and executives' remuneration. Other corporate governance systems have also been suggested by researchers. For example, Sanchez-Ballesta and García-Meca [68] considered the Anglo Saxon and continental systems in a study of the influence of corporate ownership structure on CFP. Similarly, Garcia-Meca and Sánchez-Ballesta [50] considered the Anglo Saxon, continental and Asian systems to study the links between the independence of a firm's board, ownership concentration and voluntary disclosure. Siddiqui [65] used a more restricted classification and grouped corporate governance systems into two categories: (i) common law systems; and, (ii) civil or codified law systems. We follow this broad approach because it is consistent with the approach used in most previous research on CSP and board independence, and because the use of two categories means there will be enough companies in each group to permit a robust empirical analysis.

Based on the previous discussion, we propose to test the following hypothesis:

**Hypothesis 3** (H3). The positive link between the independence of a company's board and CSP will be higher for companies in codified law systems.

Previous research found significant variations in CSP during different market cycles [163,164]. The underlying idea is that CSP is an organizational outcome, which is influenced by companies' strategic management decisions. If CSP is significantly different in a bull market from in a bear market, the link between the independence of a firm's board and CSP should also be different in different market/economic conditions. To determine the role of the market conditions in this relationship, we must be able to differentiate between bull and bear market cycles for the studies

Sustainability 2017, 9, 1006 11 of 26

included in the meta-analysis. The first period, from 1999 to 2001, is characterized by consistent economic growth in most economies of the world. Several economics scandals occurred at the end of the twentieth century (e.g., Enron, Tyco, Worldcom and Parmalat, among others), which stimulated government regulation [2] intended to change the structure of firms' boards to ensure their efficiency [165]. Zhang et al. [148] found that the Sarbanes-Oxley Act had a great impact on the structure of corporate boards and has produced an increase of outsider and women directors. This informs the second time-period considered, from 2002 to 2006. The second cutoff point is placed in 2007, and the global financial crisis and the sovereign debt crisis in Western Europe. Thus, the third period considered in the empirical analysis runs from 2007 to 2009. Dividing the studies between these three periods will make it possible to test whether the relationship between the independence of companies' boards and CSP is influenced by the different economic conditions. In fact, the European Commission [166] detected some shortcomings in CG (e.g., lack of board diversity) that have played an important role in the financial crisis. Previous research has indicated that firms' boards pay special attention to shareholders during bear market conditions, giving priority to financial and economic performance over CSP [167]. Research [164] also reveals that companies tend to decrease their attention to CSP-related issues during market downturns in order to reduce costs [168]. However, other works argue the opposite, indicating that corporations are more likely to focus on CSP practices during economic recessions in order to strengthen their relationships with their stakeholders and to ameliorate their CFP levels [169]. Finally, the last time-period studied is from 2010 to 2017, when most of the developed world economies began to recover from the negative consequences of the financial crisis. Based on the previous reasoning, the following hypothesis is proposed for testing:

**Hypothesis 4** (H4). The positive link between the independence of a company's board and CSP will be weaker in bear market periods.

### 4. Meta-Analytic Procedure

The main advantage of meta-analyses is that they make it possible to summarize and quantify the often conflicting evidence found in different studies that focus on a specific topic. A meta-analysis aims to obtain a set of objective, replicable and accurate statistical data [170] that provide additional evidence that is drawn from the entire sample of the studies analyzed, and that it could not be obtained from individual studies [171,172]. Two main statistical models have been applied in previous meta-analyses: (i) the fixed effects model; and, (ii) the random effects model [173,174]. The fixed effects approach assumes that all studies in the sample are studying the same effect size (i.e., correlation coefficient in this case) and the observed variability is exclusively attributable to the sampling error. The random effects approach considers the factors moderating the relationship between the variables and assumes that the studies included in the sample are not homogeneous. The random effects model has the ability to differentiate subgroups in which the effect size differs. Because we expect that the associations between the independence of a firm's board and CSP will not be the same in different circumstances, this paper adopts a random effects model.

Another key issue in meta-analysis econometrics is the measurement of the effect size, which reveals the magnitude of the relationship between two studied variables [171]. Taking data contained in the papers included in the sample, the effect size is measured using the average correlation coefficient, and this will inform conclusions about the influence of board independence on CSP. This paper implements the Hedges and Olkin [173–175] meta-analytic technique (HOMA), which is described below.

The average correlation coefficient of the relationship between the independence of a firm's board and CSP is computed as a weighted average of the observed correlations obtained from the papers in the sample. Observed correlation coefficients are first converted to a standard normal metric (i.e., Fisher's z; Zr), calculated by the following expression.

$$z_{r_{i}} = \frac{1}{2} \log_{e} \left( \frac{1 + r_{i}}{1 - r_{i}} \right) \tag{1}$$

where  $r_i$  is the correlation coefficient between the independence of a firm's board and CSP found in study i. The transformed effects are used to compute the weighted average effect, as given by Equation (2):

$$\overline{z}_{r} = \frac{\sum_{i=1}^{K} w_{i} z_{r_{i}}}{\sum_{i=1}^{K} w_{i}}$$
 (2)

where k is the number of studies in the meta-analysis and  $w_i$  is the weight of each study [176]. The average correlation coefficient,  $\overline{z}_r$ , and standard deviation,  $SE(\overline{z}_r)$  are used compute the appropriate confidence interval (in this case at a 95% confidence level) as shown in Equation (3):

$$[(\overline{z}_r) - 1.96 \times SE(\overline{z}_r); (\overline{z}_r) + 1.96 \times SE(\overline{z}_r)]$$
(3)

To convert the Fisher's z values (average effect and confidence interval) back to a correlation, the following expression is used:

$$\bar{\mathbf{r}} = \frac{\mathbf{e}^{2\bar{\mathbf{z}}} - 1}{\mathbf{e}^{2\bar{\mathbf{z}}} + 1} \tag{4}$$

To analyze the homogeneity of the observed correlations, the Cochram's Q statistic [172,177] is computed by Equation (5):

$$Q = \sum_{i=1}^{k} w_i (z_{r_i} - \bar{z}_r)$$
 (5)

If the correlations are homogeneous, the Q statistic follows Pearson's  $\chi^2$  distribution with K-1 degrees of freedom. If the calculated value exceeds the tabulated one for the specified level of significance, the hypothesis that the correlations are homogeneous must be rejected. The main limitation of this approach is that, although provides evidence about the possible existence of heterogeneity in the studied correlations, it does not quantify it. To measure the level of heterogeneity, the Higgings and Thompson  $I^2$  statistic is computed [178], using Equation (6).

$$I^2 = \frac{Q - (K - 1)}{Q} \tag{6}$$

In order to test the significance of the moderating effects, the full sample has been divided into different sub-samples according with the values of the discrete variables (i.e., moderating variables). The meta-analytical approach described above is then applied to each sub-sample to investigate possible differences in the influence of board independence on CSP between groups identified using the moderating variables.

## 5. Research Design: Inclusion Criteria, Search Process, Study Coding and Variables' Measurement

Different search techniques have been implemented to identify and select the relevant papers included in the sample [176]:

- First, relevant electronic databases (e.g., Proquest, EBSCO, Emerald, Wiley, Sciencedirect and Google scholar) are examined by different searches with different combinations of the following keywords: (i) corporate social performance; (ii) corporate environmental performance; (iii) corporate governance; (iv) board structure; and, (v) board independence. This step provided a total of 300 studies.
- In a second step, the initial searches were refined by further examining the different issues of
  academic journals that publish most of the papers addressing the influence of CG approaches on
  CSP (e.g., Journal of Business Ethics, Corporate Governance: An International Review, Journal

of Financial Economics, International Journal of Economics and Financial Issues). 28 additional papers were included in the sample, giving a total of 328 works.

- In the third step, only those papers focusing on the influence of board independence on CSP from an empirical point of view were selected. After this step, 168 papers were removed from the sample, producing a total of 160 studies.
- In a final step, those empirical studies that did not provided the required statistical data (i.e., correlation coefficients between the variables or the corresponding data to obtain them using Lipsey and Wilson's [171] conversion method) were removed (73). The final sample included 87 papers.

For those papers providing various effect sizes (i.e., reporting two correlation coefficients between the independence of a firm's board and environmental performance and social performance respectively), we followed the approach adopted by Hunter and Schmidt [172] of computing the average correlation [67]. Articles included in the final sample were coded by addressing the following issues: (i) authors; (ii) year of publication; (iii) CSP measurement model; (iv) correlation coefficient (observed or calculated); (v) countries covered by the sample; (vi) CG systems covered by the sample; and, (vii) sample period (see Table A1 in the Appendix A for detailed information).

One of the most important biases in meta-analytic studies is related with the publication bias [179]; studies with less significant results between the variables studied are more difficult to publish than the studies that show significant results, both as a result of the reluctance of publishers [180], and as a result of the non-delivery/presentation of such results by the researchers [181]. In order to test for the presence/absence of publication bias, the tolerance index of null results provided by Rosenthal (Fail-safe N) is computed. This approach estimates the number of unpublished studies that that would be necessary to reduce the effect size to a negligible level. We also used funnel plot analysis to visually identify outliers for removal.

Finally, this paper addresses previous discussions on how to measure the two studied variables (i.e., board independence and CSP) appropriately. On the one hand, the independence of a firm's board has been defined as the extent to which the board of directors operates independently from executive directors [182] and it has been usually measured as the percentage of board members who are non-executive directors, outside directors and independent directors [49,50,67,183]. On the other hand, Dunn and Sainty [74] state that "the essence of CSP is the recognition or awareness that there are multiple stakeholders against which a business has responsibility towards in the longer term". This definition involves broadening the focus on financial targets and including social and environmental targets, producing a need to measure and assess economic, social and environmental performance. Therefore, CSP not only addresses companies' economic success, but also includes the effects of the companies' activities on the environment and society as a whole [184]. This is consistent with the definition used by Orlitzky et al. [34], who, in their meta-analysis, used the definition of CSP provided by Wood [30] (p. 693), who indicated that CSP is a construct comprising "a business organization's configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm's societal relationships".

### 6. Results and Discussion

Table 2 presents the estimates obtained by applying HOMA meta-analytic method that will provide the required information to test the working hypotheses. The estimate for the direct effect (i.e., impact of the independence of a company's board on CSP) is positive ( $\bar{r}=0.1258$ ). This result indicates that the independence of company boards is positively connected with CSP, the greater the independence, the higher their level of CSP. The significance of the relationship is evaluated by through examining the size effect confidence interval. As the confidence interval [0.0946, 0.1566] does not include the value zero, it indicates that the effect is significant. Therefore hypothesis H1 cannot be rejected, implying that the presence of outside and independent directors on company boards have a positive influence on CSP. Additional tests need to be conducted to ensure the robustness of the result.

First, the value of the Q statistic indicates that the results reported are not homogeneous. Second, the  $I^2$  statistic indicates that the observed positive influence of board independence on CSP is very variable and, the introduction of moderating variables should be considered to reduce the variability. The value of the Rosenthal Fail-safe is higher than 12,000, indicating that the number of unpublished papers required to reduce the observed direct size effect to negligible is very large, so it is unlikely that there is any publication bias present. Finally, Figure 1 shows the Funnel plot, which also indicates an absence of publication bias, thus reinforcing the robustness of the observed global effect.

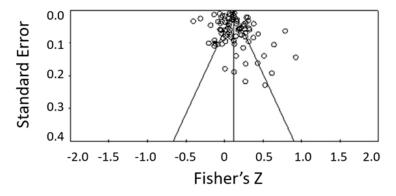


Figure 1. Funnel plot of standard error by Fisher's Z.

The observed positive connection between the independence of a company's board and CSP is in line with previous research findings [96]. The positive influence of the presence of outside and independent directors on company boards on CSP is in line with the assumptions of the instrumental stakeholder theory, because companies with more independent boards are more likely to consider the concerns and claims of their stakeholders. This produces a strategic management model that is more closely linked with sustainability, environmental preservation and society's well-being. The observed heterogeneity in the main size effect suggests that further examination of the moderating role of variables in the relationship is needed.

Table 2 also shows the information to test the other working hypotheses (H2, H3 and H4). H2 predicts that the positive influence of the board's independence on CSP is higher when CSP is measured trough companies' self-reported data. The estimates show that the parameter associated with the self-reported CSP measures ( $\bar{r} = 0.1386$ ) is higher than that observed for the external CSP data measures ( $\bar{r} = 0.1096$ ). Both size effects are significant because their confidence intervals do not include the value of zero (i.e., [0.0966, 0.1800] and [0.0612, 0.1575] respectively). These findings mean that the positive influence of the board's independence on CSP is higher when CSP is measured by self-reported data. This provides empirical evidence that different CSP measurement approaches act as a moderator in the main relationship, providing support for H2.

H3 predicts that the positive impact of board independence on CSP is greater in companies operating in civil law countries. The estimates show that the parameter associated with civil law countries ( $\bar{r}=0.1838$ ) is higher than the observed for common law countries ( $\bar{r}=0.1293$ ) and for countries with mixed systems ( $\bar{r}=0.1217$ ). The three size effects are significant because their confidence intervals do not include the value of zero (i.e., [0.0828, 0.2811], [0.0869, 0.1712] and [0.0537, 0.1887] respectively). These findings indicate that the positive influence of board independence on CSP is higher for companies in codified law countries. This finding is consistent with the view that companies in civil law countries exhibit a more stakeholder oriented management approach [36], instead of the shareholder oriented management model that is usually attributed to firms in common law countries [41,185]. In fact, the result suggests that, the selection of directors in stakeholder-oriented management models is more effective in reinforcing their advice function [186], and ultimately having a greater influence on CSP levels. On the other hand, companies operating in common-law countries often select their board members with the aim of improving CFP [149], resulting in lower levels of

CSP. The results provide empirical evidence that the different corporate governance systems moderate the link between board independence and CSP, and provide support for *H3*. Further empirical evidence of the significance of this moderator variable is that the heterogeneity decreases in two of the four sub-samples.

**Table 2.** Influence of the independence of companies' boards on corporate social performance.

		N	K	$\bar{r}$	−95% CI	+95% CI	Q-Stat	I <sup>2</sup> -Stat	Rosenthal Fail-Safe
	Direct effect								
1	Impact of board independence on CSP	100.359	87	0.1258	0.0946	0.1566	1749.24 ***	95.6108	12.736
	Moderating effects								
	Corporate Social Performance measurement								
	Self-reported CSP measures	28.418	52	0.1386	0.0966	0.1800	559.31 ***	90.8816	
	External CSP data measures	77.542	35	0.1096	0.0612	0.1575	1189.55 ***	97.1418	
	Corporate governance systems								
2	Civil law	6.732	9	0.1838	0.0828	0.2811	112.79 ***	92.9072	
3	Common law	75.624	46	0.1293	0.0869	0.1712	1031.57 ***	95.6377	
4	Mixed law	5.414	21	0.1217	0.0537	0.1887	290.93 ***	95.7885	
5	Other CG systems	12.589	11	0.0752	-0.0139	0,1631	237.45 ***	93.1254	
	Economic conditions								
8	From 2010 to 2017	5.214	16	0.1844	0.1085	0.2581	157.08 ***	90.4507	
9	From 2007 to 2009	5.608	19	0.1688	0.0977	0.2382	227.78 ***	92.0975	
10	From 2002 to 2006	13.596	17	0.1096	0.0373	0.1808	390.53 ***	95.9030	
11	Before 2002	1.759	6	0.0710	-0.0509	0.1907	14.28 *	64.9888	
	Multi-period papers	74.182	29	0.0951	0.0429	0.1468	897.42 ***	96.8800	

This table provides the results of the meta-analytic study. N is the total sample size; K is the number of effect sizes;  $\bar{r}$  shows the mean effect size; -95% CI and +95% CI are the limits of the mean size effect confidence intervals; Q-stat is the homogeneity test; and finally,  $I^2$ -stat shows the ratio of the study variance due to heterogeneity. \* and \*\*\* represent statistical significance at the 10% and 1% significance levels, respectively.

The last hypothesis, H4, predicts that the positive influence of board independence on CSP is lower during bear market periods. The estimates for each period show significant variations in the connection between the independence of a company's board and CSP. With the exception of the papers focusing on samples earlier than 2002, a positive and significant connection between the variables is observed through all the time-periods that were considered. The link between board independence on CSP is not significant for the studies prior to the scandals at the beginning of the century ( $\bar{r} = 0.0710$ , with a 95% CI of [-0.0509, 0.1907]) and positive and significant in studies in the following period  $(\bar{r} = 0.1096, \text{ with a } 95\% \text{ CI } [0.0373, 0.1808])$ , which was characterized companies adopting new CG models that led companies' boards to increase their independence ratio. Moreover, the strength of the link between board independence and CSP is greater during the global economic recession period, from 2007 to 2009, following the financial crisis ( $\bar{r}$ = 0.1688, with a 95% CI of [0.0977, 0.2382]). Finally, the strongest relationship is observed for the last period considered, from 2001 to 2007, which was mainly characterized by sustained economic growth in the main developed economies of the world. These findings suggest that there is a positive trend in the strength of the connection between the independence of a firm's board and CSP in the different samples considered; papers focusing on recent time-periods find a stronger connection between board independence and CSP than those focusing on earlier samples. Although these findings indicate that the economic conditions, of bull and bear markets, do moderate the relationship between the variables, they do not support H4.

### 7. Conclusions

This paper provides, to the best of the authors' knowledge, the first meta-analysis of evidence about the influence of the independence of a company's board on CSP. The potential effects of some moderating variables are investigated, with the aim of obtaining a better understanding of

the connection between board independence and CSP. Specifically, the role of the different CG systems, the different approaches to measuring CSP and the economic conditions are examined.

The results indicate that the independence of a firm's board is positively connected with CSP, and that the more independent the board is the higher their levels of CSP. In line with instrumental stakeholder theory, this finding can be explained because companies with more independent boards are more likely to commit to CSR issues and stakeholder engagement, thus attaining a higher degree of CSP. The overall effect of having an independent board on CSP is very heterogeneous, suggesting the existence of additional moderating variables that play a significant role in the relationship. This paper addresses the issue by introducing a number of moderating variables into the model. The results show that the relationship between board independence and CSP is stronger when CSP is measured using self-reported data. Although this moderating variable is significant, this finding should be interpreted with caution because self-reported CSP measures may have social desirability bias [187]. That is to say, self-reported levels of CSP may be higher than those measured with external CSP measures, because company boards have greater control over the provision of the former. The results also show that the positive influence of the independence of a firm's board on CSP is greater in companies in codified law countries. In general, previous research has found that companies operating in civil law countries adopt a stakeholder-oriented management model, with more focus on environmental and social issues. Our findings are in line with this idea, indicating that the presence of outside and independent directors on company boards acts as a positive driver of their CSP levels. Our results also provide evidence of notable variations in the strength of the connection between board independence and CSP in different market conditions. Although a positive and significant influence of board independence on CSP is found in all the time-periods examined (except for the period before 2002), the strength of the connection grows over time. This contradicts the anticipated idea that companies operating in adverse economic settings will reduce their focus on CSR issues and place more attention on cost reduction.

This paper provides interesting insights for future research in the field. As a number of moderating variables have been shown to be significant in the relationship between board independence and CSP, further moderating effects should be examined. The size of a company's board, whether the CEO and Chair of the Board are the same person, characteristics of ownership, the concentration of shareholding and the participation of institutional investors in the decision-making process are likely candidates for inclusion, and would provide a more comprehensive overview of the relationship. Future research could also analyze the connection between the independence of an organization's board and CSP by implementing a meta-regression approach, and that might provide additional and complimentary empirical evidence about the relationship.

The present research is not free from limitations. Although the meta-analytical research design includes most of the previous literature about the influence of the independence of a firm's board on CSP, it could not detect endogeneity or reverse causality if the original papers did not control for this effect [183]. The limited number of papers in some sub-samples when testing for moderating effects is another limitation of the current research.

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**Author Contributions:** Eduardo Ortas and Igor Álvarez were involved in the conception and design of the experiments. Eugenio Zubeltzu performed the experiments and all authors wrote the paper. Eugenio Zubeltzu contributed research materials and analysis tools. Eduardo Ortas and Igor Álvarez participated in the literature review and theoretical foundations. All authors gave thought to the conclusions. All authors read and approved the submitted manuscript.

**Conflicts of Interest:** The authors declare no conflict of interest.

Sustainability **2017**, 9, 1006 17 of 26

### Appendix A

**Table A1.** Details of the moderating variables for each study included in the meta-analysis.

4         Arena et al. [80]         2015         288         2008–2010         US         External-reported         Common-law           5         Arora and Dharwadkar [81]         2011         1522         2001–2005         US         External-reported         Common-law           6         Barakat et al. [82]         2015         101         2011         Palestine/Jordan         Self-reported         Mixed-law           7         Barako and Brown [83]         2008         40         2007         Kenya         Self-reported         Common-law           8         Bear et al. [9]         2010         51         2009         US         External-reported         Common-law           9         Ben-Amar et al. [84]         2015         541         2008–2014         Canada         Self-reported         Common-law           10         Benomran et al. [85]         2015         162         2006–2012         Libya         Self-reported         Mixed-law           11         Berrone and Gómez-Mejía [86]         2009         2088         1997–2003         US         Self-reported         Common-law           12         Boulouta [87]         2013         820         1999–2003         US         External-reported         Common-law     <	Code	Authors	Year	Sample Size	Sample Period	Countries	CSP Measurement Model	CG System
Arayssi et al. [79]   2016   975   2007-2012   UK   Self-reported   Common-law	1	Amran et al. [77]	2014	113	2010	Global	Self-reported	Others
Acron act al. [80]   2015   288   2008-2010   US   External-reported   Common-law Acron and Dharwadkar [81]   2011   1522   2001-2005   US   External-reported   Common-law Acron and Dharwadkar [81]   2015   101   2011   Palesine/Jordan   Self-reported   Common-law Acron and Brown [83]   2008   44   2007   Kerya   Self-reported   Common-law Acron and Brown [83]   2008   44   2007   Kerya   Self-reported   Common-law Acron and Brown [83]   2015   541   2008-2014   Canada   Self-reported   Common-law Acron and External   Self-reported   Common-law Acron and Self-reported   Self-reported   Common-law Acron and Self-reported   Self-	2	Amran et al. (B) [78]	2014	111	2008	Global	External-reported	Others
Arona and Dharwandkar [81]   2011   1522   2001-2005   US   External-reported   Common-law	3	Arayssi et al. [79]	2016	975	2007–2012	UK	Self-reported	Common-law
Baraka et al. [82]   2015   101   2011   Palestine/Jordan   Self-reported   Common-law	4	Arena et al. [80]	2015	288	2008–2010	US	External-reported	Common-law
Barako and Brown [83]   2008   40   2007   Kenya   Self-reported   Common-law	5	Arora and Dharwadkar [81]	2011	1522	2001–2005	US	External-reported	Common-law
Bear et al. [9]   2010   51   2009   US   External-reported   Common-law	6	Barakat et al. [82]	2015	101	2011	Palestine/Jordan	Self-reported	Mixed-law
Ben-Amar et al. [84]	7	Barako and Brown [83]	2008	40	2007	Kenya	Self-reported	Common-law
Benomran et al. [85]   2015   162   2006-2012   Libya   Self-reported   Mixed-law	8	Bear et al. [9]	2010	51	2009	US	External-reported	Common-law
Berrone and Gómez-Mejía [86]   2009   2088   1997-2003   US   External-reported   Common-law	9	Ben-Amar et al. [84]	2015	541	2008-2014	Canada	Self-reported	Common-law
Boulouta [87]   2013   820   1999-2003   US   External-reported   Common-law	10	Benomran et al. [85]	2015	162	2006–2012	Libya	Self-reported	Mixed-law
Bowrin [88]   2013   96   2010   Caribe   Self-reported   Mixed-law	11	Berrone and Gómez-Mejía [86]	2009	2088	1997–2003	US	Self-reported	Common-law
Brammer et al. [89]   2009   199   2002   UK   External-reported   Common-law	12	Boulouta [87]	2013	820	1999–2003	US	External-reported	Common-law
Burke et al. [90]   2017   11458   2003-2013   US   External-reported   Common-law	13	Bowrin [88]	2013	96	2010	Caribe	Self-reported	Mixed-law
16	14	Brammer et al. [89]	2009	199	2002	UK	External-reported	Common-law
The Choi et al. [92]   2013   2042   2002-2008   Korea   External-reported   Civil-law	15	Burke et al. [90]	2017	11458	2003–2013	US	External-reported	Common-law
17	16	Cho et al. [91]	2015	10297	2003–2011	US	External-reported	Common-law
David et al. [94]   2007   730   1992–1998   US   External-reported   Common-law	17	Choi et al. [92]	2013	2042	2002–2008	Korea	External-reported	Civil-law
De Villiers [22]   2011   5997   2003-2004   US   External-reported   Common-law	18	Cormier et al. [93]	2011	137	2005	Canada		Common-law
Deschénes et al. [95]   2015   192   2004–2008   Canada   External-reported   Common-law	19	David et al. [94]	2007	730	1992–1998	US		Common-law
22         Ducassy [96]         2015         41         2011         France         External-reported         Civil-law           23         Dunn and Sainty [74]         2009         174         2002, 2004–2006         Canada         External-reported         Common-law           24         Esa et al. [97]         2012         54         2005–2007         Malaysia         Self-reported         Mixed-law           25         Fernández-Gago et al. [98]         2016         145         2005–2010         Spain         External-reported         Civil-law           26         Frias-Accituno et al. [99]         2013         1575         2008–2010         Global         Self-reported         Others           27         Galbreath [100]         2011         161         2004         Australia         External-reported         Common-law           28         Galbreath [23]         2016         300         2012         Australia         External-reported         Common-law           30         Garcia-Sánchez et al. [101]         2015         5380         2003–2009         Global         Self-reported         Mixed-law           31         Ghazali and Weetman [103]         2006         87         2001         Malaysia         Self-reported	20	De Villiers [22]	2011	5997	2003–2004	US	External-reported	Common-law
22         Ducassy [96]         2015         41         2011         France         External-reported         Civil-law           23         Dunn and Sainty [74]         2009         174         2002, 2004–2006         Canada         External-reported         Common-law           24         Esa et al. [97]         2012         54         2005–2007         Malaysia         Self-reported         Mixed-law           25         Fernández-Gago et al. [98]         2016         145         2005–2010         Spain         External-reported         Civil-law           26         Frias-Aceituno et al. [99]         2013         1575         2008–2010         Global         Self-reported         Others           27         Galbreath [100]         2011         161         2004         Australia         External-reported         Common-law           29         Garcia-Sánchez et al. [101]         2015         5380         2003–2009         Global         Self-reported         Mixed-law           30         Garcia-Sánchez [102]         2014         686         2004–2010         Spain         Self-reported         Mixed-law           31         Ghazali and Weetman [103]         2006         87         2001         Malaysia         Self-reported	21	Deschênes et al. [95]	2015	192	2004–2008	Canada	External-reported	Common-law
Dunn and Sainty [74]   2009   174   2002, 2004–2006   Canada   External-reported   Common-law	22	Ducassy [96]	2015	41	2011	France		Civil-law
24         Esa et al. [97]         2012         54         2005–2007         Malaysia         Self-reported         Mixed-law           25         Fernández-Gago et al. [98]         2016         145         2005–2010         Spain         External-reported         Civil-law           26         Frias-Aceituno et al. [99]         2013         1575         2008–2010         Global         Self-reported         Others           27         Galbreath [100]         2011         161         2004         Australia         Self-reported         Common-law           28         Galbreath [23]         2016         300         2012         Australia         External-reported         Common-law           29         García-Sánchez et al. [101]         2015         5380         2003–2009         Global         Self-reported         Mixed-law           30         García-Sánchez [102]         2014         686         2004–2010         Spain         Self-reported         Mixed-law           31         Ghazali and Weetman [103]         2006         87         2001         Malaysia         Self-reported         Common-law           32         Gupta et al. [104]         2015         1153         2012         US         External-reported         Commo	23	·	2009	174	2002, 2004–2006	Canada		Common-law
25         Fernández-Gago et al. [98]         2016         145         2005-2010         Spain         External-reported         Civil-law           26         Frias-Accituno et al. [99]         2013         1575         2008-2010         Global         Self-reported         Others           27         Galbreath [100]         2011         161         2004         Australia         Self-reported         Common-law           28         Galbreath [23]         2016         300         2012         Australia         External-reported         Common-law           29         García-Sánchez et al. [101]         2015         5380         2003-2009         Global         Self-reported         Mixed-law           30         García-Sánchez et al. [103]         2016         86         2004-2010         Spain         Self-reported         Mixed-law           31         Ghazali and Weetman [103]         2006         87         2001         Malaysia         Self-reported         Mixed-law           32         Gupta et al. [104]         2015         1153         2012         US         External-reported         Common-law           33         Habbash [105]         2016         267         2007-2011         Saudi Arabia         Self-reported	24			54				Mixed-law
26         Frias-Aceituno et al. [99]         2013         1575         2008–2010         Global         Self-reported         Others           27         Galbreath [100]         2011         161         2004         Australia         Self-reported         Common-law           28         Galbreath [23]         2016         300         2012         Australia         External-reported         Common-law           29         García-Sánchez et al. [101]         2015         5380         2003–2009         Global         Self-reported         Mixed-law           30         García-Sánchez [102]         2014         686         2004–2010         Spain         Self-reported         Civil-law           31         Ghazali and Weetman [103]         2006         87         2001         Malaysia         Self-reported         Mixed-law           32         Gupta et al. [104]         2015         1153         2012         US         External-reported         Common-law           33         Habbash [105]         2016         267         2007–2011         Saudi Arabia         Self-reported         Common-law           34         Hafici and Turgut [106]         2013         95         2005         US         External-reported         Common-law <td>25</td> <td></td> <td></td> <td>145</td> <td></td> <td></td> <td></td> <td>Civil-law</td>	25			145				Civil-law
27         Galbreath [100]         2011         161         2004         Australia         Self-reported         Common-law           28         Galbreath [23]         2016         300         2012         Australia         External-reported         Common-law           29         García-Sánchez et al. [101]         2015         5380         2003–2009         Global         Self-reported         Mixed-law           30         García-Sánchez [102]         2014         686         2004–2010         Spain         Self-reported         Civil-law           31         Ghazali and Weetman [103]         2006         87         2001         Malaysia         Self-reported         Mixed-law           32         Gupta et al. [104]         2015         1153         2012         US         External-reported         Common-law           33         Habbash [105]         2016         267         2007–2011         Saudi Arabia         Self-reported         Mixed-law           34         Hafsi and Turgut [106]         2013         95         2005         US         External-reported         Common-law           35         Haldar and Mishra [107]         2015         24         2014         India         Self-reported         Mixed-law <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>*</td> <td></td>							*	
28         Galbreath [23]         2016         300         2012         Australia         External-reported         Common-law           29         García-Sánchez et al. [101]         2015         5380         2003–2009         Global         Self-reported         Mixed-law           30         García-Sánchez [102]         2014         686         2004–2010         Spain         Self-reported         Civil-law           31         Ghazali and Weetman [103]         2006         87         2001         Malaysia         Self-reported         Mixed-law           32         Gupta et al. [104]         2015         1153         2012         US         External-reported         Common-law           33         Habbash [105]         2016         267         2007–2011         Saudi Arabia         Self-reported         Mixed-law           34         Hafsi and Turgut [106]         2013         95         2005         US         External-reported         Common-law           35         Haldar and Mishra [107]         2015         24         2014         India         Self-reported         Common-law           36         Haniffa and Cook [14]         2005         278         1996, 2002         Malaysia         Self-reported         Mixed-law </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><u> </u></td> <td></td>							<u> </u>	
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30         García-Sánchez [102]         2014         686         2004–2010         Spain         Self-reported         Civil-law           31         Ghazali and Weetman [103]         2006         87         2001         Malaysia         Self-reported         Mixed-law           32         Gupta et al. [104]         2015         1153         2012         US         External-reported         Common-law           33         Habbash [105]         2016         267         2007–2011         Saudi Arabia         Self-reported         Mixed-law           34         Hafsi and Turgut [106]         2013         95         2005         US         External-reported         Common-law           35         Haldar and Mishra [107]         2015         24         2014         India         Self-reported         Common-law           36         Haniffa and Cook [14]         2005         278         1996, 2002         Malaysia         Self-reported         Mixed-law           37         Harjoto et al. [20]         2015         9001         1999–2010         US         External-reported         Common-law           38         Hogan et al. [108]         2014         540         2003–2011         US         External-reported         Common-law							•	
31   Ghazali and Weetman [103]   2006   87   2001   Malaysia   Self-reported   Mixed-law     32   Gupta et al. [104]   2015   1153   2012   US   External-reported   Common-law     33   Habbash [105]   2016   267   2007-2011   Saudi Arabia   Self-reported   Mixed-law     34   Hafsi and Turgut [106]   2013   95   2005   US   External-reported   Common-law     35   Haldar and Mishra [107]   2015   24   2014   India   Self-reported   Common-law     36   Haniffa and Cook [14]   2005   278   1996, 2002   Malaysia   Self-reported   Mixed-law     37   Harjoto et al. [20]   2015   9001   1999-2010   US   External-reported   Common-law     38   Hogan et al. [108]   2014   540   2003-2011   US   External-reported   Common-law     39   Hoje and Harjoto [109]   2011   13389   1993-2004   US   External-reported   Common-law     40   Htay et al. [110]   2012   120   1996-2005   Malaysia   Self-reported   Mixed-law     41   Huang [111]   2010   297   2006-2007   Taiwan   Self-reported   Civil-law     42   Hussain et al. [112]   2016   152   2007-2011   US   Self-reported   Common-law     43   Ienciu et al. [113]   2012   54   2009   Global   Self-reported   Others     44   Janggu et al. [114]   2014   100   2010   Malaysia   Self-reported   Mixed-law     45   Javaid Lone et al. [115]   2016   250   2010-2014   Pakistan   Self-reported   Mixed-law     46   Jizi [116]   2017   1155   2007-2012   UK   External-reported   Common-law     47   Jizi et al. [117]   2014   291   2009-2011   US   Self-reported   Common-law     48   Johnson and Greening [12]   1999   252   1993   US   External-reported   Common-law     49   Khan et al. [118]   2013   580   2005-2009   Bangladeshi   Self-reported   Mixed-law     49   Khan et al. [118]   2013   580   2005-2009   Bangladeshi   Self-reported   Common-law							•	
32         Gupta et al. [104]         2015         1153         2012         US         External-reported         Common-law           33         Habbash [105]         2016         267         2007-2011         Saudi Arabia         Self-reported         Mixed-law           34         Hafsi and Turgut [106]         2013         95         2005         US         External-reported         Common-law           35         Haldar and Mishra [107]         2015         24         2014         India         Self-reported         Common-law           36         Haniffa and Cook [14]         2005         278         1996, 2002         Malaysia         Self-reported         Mixed-law           37         Harjoto et al. [20]         2015         9001         1999-2010         US         External-reported         Common-law           38         Hogan et al. [108]         2014         540         2003-2011         US         External-reported         Common-law           39         Hoje and Harjoto [109]         2011         13389         1993-2004         US         External-reported         Common-law           40         Htay et al. [110]         2012         120         1996-2005         Malaysia         Self-reported         Mixed-law <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
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36         Haniffa and Cook [14]         2005         278         1996, 2002         Malaysia         Self-reported         Mixed-law           37         Harjoto et al. [20]         2015         9001         1999–2010         US         External-reported         Common-law           38         Hogan et al. [108]         2014         540         2003–2011         US         External-reported         Common-law           39         Hoje and Harjoto [109]         2011         13389         1993–2004         US         External-reported         Common-law           40         Htay et al. [110]         2012         120         1996–2005         Malaysia         Self-reported         Mixed-law           41         Huang [111]         2010         297         2006–2007         Taiwan         Self-reported         Common-law           42         Hussain et al. [112]         2016         152         2007–2011         US         Self-reported         Common-law           43         Ienciu et al. [113]         2012         54         2009         Global         Self-reported         Others           44         Janggu et al. [114]         2014         100         2010         Malaysia         Self-reported         Mixed-law								
37         Harjoto et al. [20]         2015         9001         1999–2010         US         External-reported         Common-law           38         Hogan et al. [108]         2014         540         2003–2011         US         External-reported         Common-law           39         Hoje and Harjoto [109]         2011         13389         1993–2004         US         External-reported         Common-law           40         Htay et al. [110]         2012         120         1996–2005         Malaysia         Self-reported         Mixed-law           41         Huang [111]         2010         297         2006–2007         Taiwan         Self-reported         Civil-law           42         Hussain et al. [112]         2016         152         2007–2011         US         Self-reported         Common-law           43         Ienciu et al. [113]         2012         54         2009         Global         Self-reported         Others           44         Janggu et al. [114]         2014         100         2010         Malaysia         Self-reported         Mixed-law           45         Javaid Lone et al. [115]         2016         250         2010–2014         Pakistan         Self-reported         Common-law <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
38         Hogan et al. [108]         2014         540         2003–2011         US         External-reported         Common-law           39         Hoje and Harjoto [109]         2011         13389         1993–2004         US         External-reported         Common-law           40         Htay et al. [110]         2012         120         1996–2005         Malaysia         Self-reported         Mixed-law           41         Huang [111]         2010         297         2006–2007         Taiwan         Self-reported         Civil-law           42         Hussain et al. [112]         2016         152         2007–2011         US         Self-reported         Common-law           43         Ienciu et al. [113]         2012         54         2009         Global         Self-reported         Others           44         Janggu et al. [114]         2014         100         2010         Malaysia         Self-reported         Mixed-law           45         Javaid Lone et al. [115]         2016         250         2010–2014         Pakistan         Self-reported         Mixed-law           46         Jizi [116]         2017         1155         2007–2012         UK         External-reported         Common-law							•	
39         Hoje and Harjoto [109]         2011         13389         1993–2004         US         External-reported         Common-law           40         Htay et al. [110]         2012         120         1996–2005         Malaysia         Self-reported         Mixed-law           41         Huang [111]         2010         297         2006–2007         Taiwan         Self-reported         Civil-law           42         Hussain et al. [112]         2016         152         2007–2011         US         Self-reported         Common-law           43         Ienciu et al. [113]         2012         54         2009         Global         Self-reported         Others           44         Janggu et al. [114]         2014         100         2010         Malaysia         Self-reported         Mixed-law           45         Javaid Lone et al. [115]         2016         250         2010–2014         Pakistan         Self-reported         Mixed-law           46         Jizi [116]         2017         1155         2007–2012         UK         External-reported         Common-law           47         Jizi et al. [117]         2014         291         2009–2011         US         Self-reported         Common-law								
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41         Huang [111]         2010         297         2006–2007         Taiwan         Self-reported         Civil-law           42         Hussain et al. [112]         2016         152         2007–2011         US         Self-reported         Common-law           43         Ienciu et al. [113]         2012         54         2009         Global         Self-reported         Others           44         Janggu et al. [114]         2014         100         2010         Malaysia         Self-reported         Mixed-law           45         Javaid Lone et al. [115]         2016         250         2010–2014         Pakistan         Self-reported         Mixed-law           46         Jizi [116]         2017         1155         2007–2012         UK         External-reported         Common-law           47         Jizi et al. [117]         2014         291         2009–2011         US         Self-reported         Common-law           48         Johnson and Greening [12]         1999         252         1993         US         External-reported         Common-law           49         Khan et al. [118]         2013         580         2005–2009         Bangladeshi         Self-reported         Mixed-law								
42         Hussain et al. [112]         2016         152         2007–2011         US         Self-reported         Common-law           43         Ienciu et al. [113]         2012         54         2009         Global         Self-reported         Others           44         Janggu et al. [114]         2014         100         2010         Malaysia         Self-reported         Mixed-law           45         Javaid Lone et al. [115]         2016         250         2010–2014         Pakistan         Self-reported         Mixed-law           46         Jizi [116]         2017         1155         2007–2012         UK         External-reported         Common-law           47         Jizi et al. [117]         2014         291         2009–2011         US         Self-reported         Common-law           48         Johnson and Greening [12]         1999         252         1993         US         External-reported         Common-law           49         Khan et al. [118]         2013         580         2005–2009         Bangladeshi         Self-reported         Mixed-law							<u> </u>	
43         Ienciu et al. [113]         2012         54         2009         Global         Self-reported         Others           44         Janggu et al. [114]         2014         100         2010         Malaysia         Self-reported         Mixed-law           45         Javaid Lone et al. [115]         2016         250         2010–2014         Pakistan         Self-reported         Mixed-law           46         Jizi [116]         2017         1155         2007–2012         UK         External-reported         Common-law           47         Jizi et al. [117]         2014         291         2009–2011         US         Self-reported         Common-law           48         Johnson and Greening [12]         1999         252         1993         US         External-reported         Common-law           49         Khan et al. [118]         2013         580         2005–2009         Bangladeshi         Self-reported         Mixed-law								
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45         Javaid Lone et al. [115]         2016         250         2010–2014         Pakistan         Self-reported         Mixed-law           46         Jizi [116]         2017         1155         2007–2012         UK         External-reported         Common-law           47         Jizi et al. [117]         2014         291         2009–2011         US         Self-reported         Common-law           48         Johnson and Greening [12]         1999         252         1993         US         External-reported         Common-law           49         Khan et al. [118]         2013         580         2005–2009         Bangladeshi         Self-reported         Mixed-law							<u> </u>	
46       Jizi [116]       2017       1155       2007–2012       UK       External-reported       Common-law         47       Jizi et al. [117]       2014       291       2009–2011       US       Self-reported       Common-law         48       Johnson and Greening [12]       1999       252       1993       US       External-reported       Common-law         49       Khan et al. [118]       2013       580       2005–2009       Bangladeshi       Self-reported       Mixed-law						•		
47         Jizi et al. [117]         2014         291         2009–2011         US         Self-reported         Common-law           48         Johnson and Greening [12]         1999         252         1993         US         External-reported         Common-law           49         Khan et al. [118]         2013         580         2005–2009         Bangladeshi         Self-reported         Mixed-law								
48 Johnson and Greening [12] 1999 252 1993 US External-reported Common-law 49 Khan et al. [118] 2013 580 2005–2009 Bangladeshi Self-reported Mixed-law								
49 Khan et al. [118] 2013 580 2005–2009 Bangladeshi Self-reported Mixed-law								
50 Khan [119] 2010 30 2007–2008 Bangladeshi Self-reported Mixed-law								
	50	Khan [119]	2010	30	2007–2008	Bangladeshi	Self-reported	Mixed-law

Sustainability **2017**, 9, 1006 18 of 26

Table A1. Cont.

Code	Authors	Year	Sample Size	Sample Period	Countries	CSP Measurement Model	CG System
51	Kiliç et al. [120]	2015	3106	2008–2012	Turkey	Self-reported	Civil-law
52	Kock et al. [121]	2012	657	1998, 2000	US	Self-reported	Common-law
53	Li et al. [122]	2013	613	2009–2010	China	External-reported	Mixed-law
54	Liao et al. [123]	2015	329	2011	UK	Self-reported	Common-law
55	Lim et al. [124]	2007	181	2001	Australia	Self-reported	Common-law
56	Lu [125]	2013	2098	2007–2011	US	External-reported	Common-law
57	Mallin et al. [76]	2013	221	2005–2007	US	External-reported	Common-law
58	Martínez-Ferrero et al. [126]	2015	877	2004–2010	Global	External-reported	Mixed-law
59	Michelon and Parbonetti [13]	2012	114	2005–2007	Global	self-reported	Mixed-law
60	Mohamad et al. [127]	2011	795	2005–2007	Malaysia	self-reported	Mixed-law
61	Musteen [128]	2010	324	2000	US	External-reported	Common-law
62	Ntim and Soobaroyen [73]	2013	600	2002–2009	South Africa	self-reported	Mixed-law
63	Nurhayati et al. [129]	2015	285	2010–2012	India	self-reported	Common-law
64	Ortiz de Mandojana et al. [130]	2016	210	2008	Global	self-reported	Mixed-law
65	Post et al. [131]	2011	78	2007	US	self-reported	Common-law
66	Post et al. [72]	2015	180	2004–2008	US	self-reported	Common-law
67	Prado-Lorenzo et al. [132]	2009	288	2004–2006	Spain	self-reported	Civil-law
68	Prado-Lorenzo and García-Sánchez [133]	2010	283	2007	Global	External-reported	Mixed-law
69	Rao and Tilt [134]	2016	345	2009–2011	Australia	self-reported	Common-law
70	Rao et al. [16]	2012	96	2008	Australia	self-reported	Common-law
71	Rodríguez-Ariza et al. [135]	2014	3521	2004–2009	Global	self-reported	Mixed-law
72	Rodríguez-Domínguez et al. [136]	2009	351	2009	Global	self-reported	Mixed-law
73	Roitto [137]	2013	31	2012	Finland	External-reported	Civil-law
74	Rouf [138]	2011	93	2007	Bangladesh	self-reported	Mixed-law
75	Sahin et al. [75]	2011	96	2007	Turkey	self-reported	Civil-law
76	Said et al. [139]	2009	150	2006	Malaysia	self-reported	Mixed-law
77	Said et al. [140]	2013	120	2009	Malaysia	self-reported	Mixed-law
78	Sharif and Rashid [141]	2014	22	2005–2010	Pakistan	self-reported	Mixed-law
79	Shaukat et al. [142]	2016	2028	2002–2010	UK	External-reported	Common-law
80	Sundarasen et al. [17]	2016	450	2011–2012	Malaysia	self-reported	Mixed-law
81	Tauringana and Chithambo [143]	2015	860	2008–2011	UK	self-reported	Common-law
82	Walls and Berrone [19]	2015	1320	2001–2007	US	External-reported	Common-law
83	Walls and Hoffman [144]	2013	1881	2002–2008	US	External-reported	Common-law
84	Walls et al. [18]	2012	2002	1997–2005	US	External-reported	Common-law
85	Wang et al. [145]	2012	446	2008	China	self-reported	Mixed-law
86	Williams [146]	2003	185	1991–1994	US	self-reported	Common-law
87	Zhang [147]	2012	475	2007–2008	US	External-reported	Common-law

This table shows the main details of the moderating variables of the papers included in the final sample of the meta-analysis.

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