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Meta-analyses on Corporate Social Responsibility (CSR): a literature review

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Abstract

This paper addresses quantitative meta-analyses on corporate governance-related determinants and firms' (non) financial consequences of Corporate Social Responsibility (CSR). Legitimacy theory as our theoretical framework assumes that, through a social contract, a company must fulfil the respective society's values and expectations and gain legitimacy. We also rely on the business case argument, assuming a positive relationship between CSR and financial outcomes of the firm. This analysis focusses on 54 quantitative meta-analyses on CSR and includes a structured literature review in order to increase our knowledge, which corporate governance variables and proxies of firm's (non) financial outcome have been heavily included in archival research, and if there is an overall impact of these variables. Prior meta-analyses indicate that board independence, board gender diversity, and board size have a positive impact on CSR performance. Moreover, both CSR performance and environmental performance increase financial performance. This literature review makes a useful contribution to prior studies by summarizing the overall impact of corporate governance variables on CSR and their (non) financial consequences and by deducing recommendations for future research.

Keywords Corporate Social Responsibility · Corporate governance · Legitimacy theory · Literature Review · Meta-analysis

JEL Classification G32 · G41 · M41 · M42 · M48

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1 Introduction

Since the financial crisis of 2008–09, public interest entities (PIEs) are very active in Corporate Social Responsibility (CSR) strategies in line with the triple bottom line (economic, social, and environmental goals). In view of various (inter) national frameworks, e.g., the Global Reporting Initiative (GRI) Standards and their voluntary character in many regimes, stakeholders criticize the reliability of CSR reports and included CSR performance measures due to greenwashing policy and information overload (Huang and Watson 2015). CSR performance measures and reports are connected with increased managerial discretion as a potential self-impression tool (Huang and Watson 2015). According to the famous business case argument for CSR (Schaltegger et al. 2019), successful CSR strategies should lead to better firm's (non) financial performance and increased firm value. A proper corporate governance system is needed to decrease greenwashing and information overload (Ortas et al. 2017) and to increase firm reputation. Especially, monitoring duties of non executive directors and the implementation of incentive-based compensation systems for top managers should strengthen substantial CSR management systems and avoid symbolic CSR activities (Guerrero-Villegas et al. 2018).

In line with the increased relevance in business practice, CSR represents a key topic in empirical-quantitative research. Next to numerous literature reviews on the business case of CSR (Schaltegger et al. 2019) who focus the variation of different theories, research methods and CSR proxies within this field, quantitative meta-analyses on CSR research become important during the last few years (e.g., Majumder et al. 2017; Cafri et al. 2010). As there are very different results in empirical-quantitative CSR studies, meta-analyses statistically summarize the existing research and increase the validity of CSR research and its implications. Another main goal of meta-analyses is the implementation of relevant moderator analysis across multiple studies (Velte 2019a; Friede et al. 2015; Parmigiani and Rivera-Santos 2011). As we notice an increased amount of CSR-related meta-analyses during the last years, we are surprised that no literature review on CSR meta-analyses exists so far. In more detail, we just identify four literature reviews on meta-analyses in business administration: a literature review of meta-analyses on accounting (Khlif and Chalmers 2015), auditing (Hay 2019), finance (Geyer-Klingeberg et al. 2020) and accounting, auditing and corporate governance (Velte 2019b). We see a major research gap on conducting a literature review on prior CSR meta-analyses in view of the following reasons: First, archival CSR research has been increased during the last decade and show heterogeneous results, leading to increased use of meta-analyses on CSR. Prior meta-analyses have used different methods, variables, and moderators, stressing the need to structure the results with the help of a literature review. Second, in line with legitimacy theory and the business case argument for CSR, it is questionable whether prior CSR meta-analyses reported a positive impact of corporate governance on CSR and whether CSR is connected with positive (non) financial consequences. We thus question whether corporate governance as a monitoring and incentive tool is needed for top managers to decrease opportunistic behaviour and strengthen their CSR efforts. Third, as CSR proxies are also very heterogeneous in practice and research, we know very little about the overall impact of corporate governance on different CSR proxies and their consequences, based on meta-analyses. We thus differentiate between the most used variables in prior research: CSR performance, reporting and their related subpillars (e.g., environmental or carbon issues), board gender diversity, Sustainable Supply Chain Management (SSCM) and Socially Responsible Investments (SRI). Fourth, one of the main goals of meta-analyses is to include relevant *moderator* and *mediator analyses*. Significant results may be related to moderating and meditating variables, so that it increases our knowledge on factors that may have an impact on the business case for CSR. Therefore, the goal of our study is to evaluate 54 quantitative CSR meta-analyses by addressing the following main research questions:

1. *What are the main corporate governance-related determinants of CSR?*
2. *What are the key firms' (non) financial consequences of CSR?*
3. *Which moderator and mediator variables have been included in prior CSR meta-analyses?*

Our literature review on CSR meta-analyses indicates that the majority of included studies has focussed on the CSR-financial performance-link. In view of the key corporate governance-related determinants, we note that *board independence, board gender diversity* and *board size* have a positive impact on CSR performance. Thus, corporate governance tools can fulfil a main incentive and monitoring tool for top managers in order to increase their CSR efforts. Moreover, in line with our business case argument, *CSR (environmental) performance* leads to increased *financial performance* according to our literature review. Thus, shareholders and other stakeholder groups include successful CSR strategies in their decision-making and this may lead to an increased firm value.

The following review provides useful information for researchers, regulators, and practitioners, which may stimulate future researchers to conduct more quantitative meta-analyses on CSR. Furthermore, business practice and regulatory bodies should be aware of the great need to strengthen the comparability of CSR performance and related CSR reporting tools. Regulators may be encouraged to implement stricter regulations on sustainable corporate governance in order to decrease greenwashing policies and lower information overload with regard to CSR.

This article is structured as follows: after introducing our legitimacy theoretical framework and our research framework (Sect. 2), we portray the main results of our literature view on CSR meta-analyses (Sect. 3). Then, we stress main restrictions of existing research and present selective recommendations for future research activities (Sect. 4). A summary of our results will be focussed in Sect. 5.

2 Legitimacy theoretical foundation and research framework

2.1 General remarks

Legitimacy theory has established as one of the most important organizational and management theories. This theory assumes that an organization has an implicit social contract with the society in which it operates. This social contract (Shocker and Sethi 1973) should motivate managers to comply with a society's specific values, norms and boundaries by implementing adequate structures and processes (Dowling and Pfeffer 1975). Thus, the long-term success and survival of a firm is subject to its ability to meet society's expectations through suitable systems. If a legitimacy gap arises or is detected, organizations adopt legitimating strategies (Fernando and Lawrence 2014).

However, societal values are dynamic (Deegan 2002), especially with regard to CSR. Therefore, legitimization is a continuous process, which is supported by effective tools for communicating organization's legitimization actions. CSR efforts therefore enhance an organization's image as a good corporate citizen (O'Donovan 1999). Such legitimization strategies improve an organization's access to resources, their image and their customer, employee and investor relationships, which will subsequently enhance their competitive position. If society suspects a lack of transparency, its legitimacy suffers (Aguilera et al. 2007).

Heterogeneous stakeholders' information needs can only be fulfilled by the implementation of substantial CSR management systems, e.g., by SRI policy, SSCM, CSR reports and precise CSR performance measures. CSR reporting and the communication of CSR performance represent major challenges in order to gain legitimacy of main stakeholder groups. As greenwashing policy and information overload (Mahoney et al. 2013) are major risks in business practice, stakeholders expect reliable CSR information. Related managerial discretion in CSR and opportunistic behaviour of top managers may be reduced by proper corporate governance systems. Corporate governance is related with internal and external incentive and monitoring tools in order to strengthen CSR strategies in line with stakeholder demands (sustainable corporate governance). Legitimacy theory assumes that CSR strategies can be both symbolic or substantive (Mahoney et al. 2013). Substantive CSR strategies imply a careful implementation of CSR into the firm's business model and risk management system (Brown and Fraser 2006). An integrative view of economic, environmental, and social goals is required in order to prevent a symbolic use of CSR. Symbolic CSR activities are intended to meet stakeholders' expectations and enhance public image and financial outputs as offensive greenwashing policy (Maroun 2020). As there is no integration of CSR within the business model and risk management, financial and non financial performances are analysed separately in this context. This also refers to the separate publication of traditional financial statements and CSR reports as a simple marketing tool. Thus, it is not clear, whether corporate governance mechanisms are needed in order to stipulate CSR and whether CSR strategies lead to positive firm's (non) financial performance (Byron and Post 2016). In this literature review, we rely on the business case argument for CSR. The business case argument for CSR proposes that top management follows an "enlightened self-interest" by achieving financial goals while considering CSR aspects (Schaltegger et al. 2019) and vice versa. In more detail, management evaluates a trade-off between CSR and financial success. In line with firm's (non) financial performance as a consequence of CSR activities, the business case argument also assumes that corporate governance-related pressure may mainly influence this direction.

Effective corporate governance should put pressure on top managements to implement substantial CSR strategies. Corporate governance can be classified as a legitimacy tool toward stakeholders' demands regarding the reliability of CSR activities. The following two main subgroups can be found: *internal corporate governance* (board composition), and *external corporate governance* (ownership structure) (e.g., Velte et al. 2020). As internal and external corporate governance represent different concepts, a clear differentiation is justified. This differentiation is also very useful to characterize corporate governance regimes. Countries with a clear focus on internal corporate governance (insider systems), e.g., Continental Europe, strengthen their regulations on board effectiveness, e.g., by audit committees. Regimes with a focus on external corporate governance (outsider- or market systems) increase their regulations on shareholder rights and on enforcement to monitor firms and put pressure on top managers to conform with shareholders' interests.

2.2 Internal corporate governance

Internal corporate governance is mainly linked to board composition. Management should act in line with stakeholders' interests in their investment and strategic decisions. The board of directors, at the apex of internal control systems, advise and monitor the management (executive directors) and has to duty to hire, fire, and to compensate the senior management (Gillan 2006; Shleifer and Visny 1997). Research on corporate boards has concentrated on the links between board structure and firm value. Legitimacy theory assumes that board effectiveness leads to increased CSR activities (e.g., performance and reporting) to improve firm reputation and gain social legitimacy. As CSR strategies are linked with restricted objectivity and thus increased managerial discretion, greenwashing behaviour and information overload may threaten stakeholders' interests. In our literature review, we assume that board composition as board effectiveness will have a positive impact on CSR outputs.

2.3 External corporate governance

In line with Shleifer and Vishny (1997), shareholders use monitoring mechanisms to ensure that they will gain a return on their investments. Shareholders, as the residual claimants, elect board members and boards owe a fiduciary obligation to shareholders. In line with shareholders, other stakeholders have information needs which have to be addressed by executive directors (Gillan 2006). Normally, shareholder do not just rely on the monitoring by the board of directors. They implement individual monitoring mechanisms to put pressure on the top management to fulfil their goals. Say on pay voting is a major example for active monitoring by shareholders. The degree of monitoring is mainly dependent on the individual ownership structure within a firm. Corporate governance research mainly stresses the monitoring role of institutional investors and blockholders in view of their increased power and influence on senior managers (Gillan 2006; Shleifer and Visny 1997). From a traditional perspective, investors' goals mainly rely on financial performance. During the last decade, social responsible investors with long-term and non-financial preferences have entered the capital market (Velte et al. 2020). These investors are normally part of institutional investors and blockholders, leading to an increased influence on firms' CSR strategies, e.g., climate change policies. Legitimacy theory assumes that strong monitoring by shareholders as (non) financial shareholder activism will put pressure on senior management to increase their CSR efforts.

2.4 Firms' (non) financial consequences of CSR

We stated in Sect. 2.1 that both internal and external corporate governance are connected with increased CSR activities of the firm. But all corporate governance elements, both the board of directors and shareholders, are not only interested in an appropriate CSR performance and reporting. They also demand an adequate level of financial performance to guarantee going concern of the firm. Legitimacy theory assumes that the senior management increases their efforts to reach legitimacy of the society. Firm reputation can only be reached by a conglomeration of financial and CSR-related success of firm strategies. CSR efforts can be classified as "pre-financials" and they will be transferred into financial outcome if the market will honour the management activities. Moreover, as CSR strategies include a bundle of different aspects, an increase of a specific CSR variable, e.g., CSR performance, may also related to future changes in CSR reporting or supply chain management.

According to the business case argument for CSR, firm value, shareholder trust and other stakeholder demands are dependent from each other and gain legitimacy for firms (Dowling and Pfeffer 1975). There may be both intrinsic or extrinsic motivation of the top management to implement CSR management systems. Firms with better CSR tools can mainly influence their financial benefits in the long run (e.g., increased cash flows, liquidity) and thus gain better stakeholder reputation (Schaltegger et al. 2019). Stakeholders use CSR measures, e.g., CSR performance or CSR reporting quality, in order to analyse the reliability of CSR management and related firm risks (Velte et al. 2020). If stakeholders assume a low risk of greenwashing policy and information overload in a specific firm, they may not leave the firm or may increase their engagement with higher firm value as a financial consequence (Schaltegger et al. 2019). But certain CSR measures could also increase overall CSR performance as a consequence of professional CSR management, stressing the interlocks between various CSR efforts (e.g., the promotion of gender diversity in boards and their impact on CSR performance) (Byron and Post 2016). As successful CSR efforts should be linked with better stakeholder relations and firm reputation, CSR should also be value relevant for the capital market (Velte and Stawinoga 2017), especially for sustainable investors. Thus, we differentiate between financial performance and CSR performance as firm's (non) financial consequences of CSR strategies.

2.5 Research framework

Figure 1 presents an overview of our research framework. In line with the business case argument for CSR and legitimacy theory, CSR (and related subpillars) will be connected with better firms' (non) financial performance. Furthermore, an appropriate corporate governance is needed as a firm-specific pressure for executive directors to increase their CSR activities and lower the possibility of greenwashing behaviour and self-impression management. Indeed, corporate governance as a monitoring mechanism should lead to higher substantial CSR efforts and thus increased CSR performance and reporting in line with stakeholders' needs. Thus, the goal of our literature review on prior CSR meta-analyses is a detailed analysis of the corporate governance-related determinants of CSR and their (non) financial consequences with a clear focus on financial performance. As CSR variables are heterogeneous in empirical-quantitative research, we differentiate between the most used variables in our review: CSR (and related subpillars) performance and reporting, board gender diversity, sustainable supply chain management (SSCM) and socially responsible investments (SRI). We are also interested in moderator and mediator analyses in this research strength.

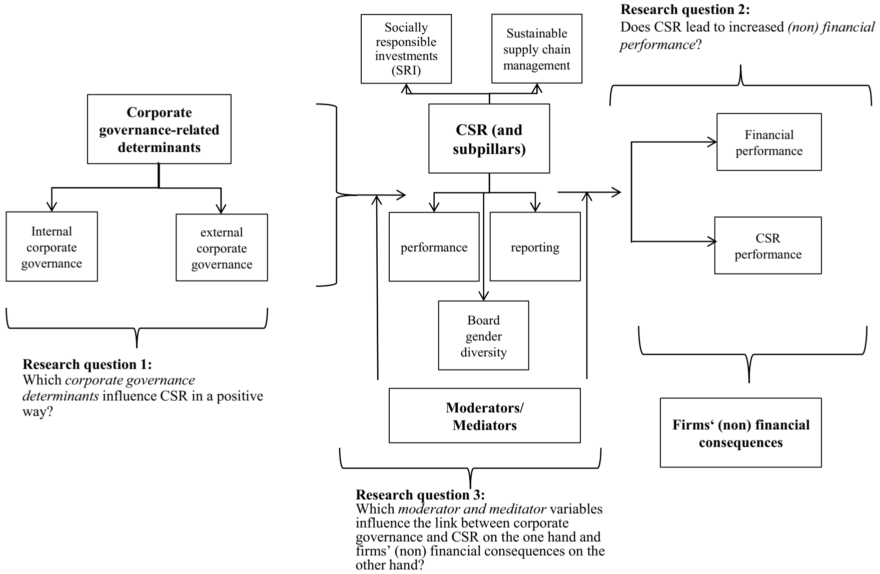

Fig. 1 Research framework on CSR meta-analyses

Based on legitimacy theory and the business case argument, our analysis focusses on the impact of corporate governance on CSR. We assume that greenwashing and information will be decreased by strict monitoring by the board of directors and shareholders. Then, we assume that successful CSR strategies should lead to increased (non) financial performance. The board of directors and shareholders will put pressure on the management to implement substantial CSR management systems. These substantial CSR efforts will strengthen (non) financial performance from a long-term perspective. Firm reputation and legitimacy by the society include both financial success and CSR performance. However, we are aware of the fact that the research on these two topics is very complex and linked with many interdependencies. Researchers include possible moderator and mediator variables to address those interdependencies. The implementation of moderators and mediators represents one of the major goals of meta-analyses. We like to incorporate prior findings on CSR meta-analyses whether certain moderators and mediators drive our two relationships. Thus, as a summary, the following three research questions are stated:

1. Which *corporate governance determinants* influence CSR in a positive way?
2. Does CSR lead to increased *(non) financial performance*?
3. Which *moderator and meditator* variables influence the link between corporate governance and CSR on the one hand and firms' (non) financial consequences on the other hand?

Our analysis is based on established papers on conducting high-quality structured literature reviews (Torraco 2005). We identify a major research gap in meta-analyses on the business case for CSR, leading to a closer look on the determinants and consequences of CSR. While CSR-related meta-analyses have increased during the last years, we do not find any literature review on prior meta-analyses on that topic. In more detail, we stress that only four literature reviews on meta-analyses in business administration exist so far: a review of accounting (Khlif and Chalmers 2015), auditing (Hay 2019), finance (Geyer-Klingeberg et al. 2020) and accounting, auditing and corporate governance (Velte 2019b). We see a major research gap on the business case research on CSR, as regulators, practice and research currently controversially discuss whether corporate governance-issues are related to better CSR and whether a stricter regulation on sustainable corporate governance is needed. Moreover, we like to stress top managers' incentives to increase CSR activities as it may lead to higher financial and CSR performance in the long run.

We use several international databases to the end of December 2020 to select our sample of included studies (Web of Science, Google Scholar, SSRN, Ebsco, Science Direct). A targeted search was conducted using the keyword "meta-analysis" in connection with "CSR", "Sustainability", "Corporate Social Responsibility", "CSR Performance", "CSR Reporting", "Sustainability Reporting", "Sustainability Performance", "gender diversity", "socially responsible investment", "sustainable supply chain management" and related terms. We also included broad terms such as “Corporate Governance” and “firm value”. A temporal restriction on the included CSR meta-analyses was not necessary because of the relatively young research tradition. We begin with an initial sample of 71 meta-analyses.

As exclusion criteria, we only recognize quantitative meta-analyses on CSR as our goal is to analyse economic determinants and consequences of CSR. Thus, 5 studies were dropped. In line with other literature reviews, we only include meta-analyses published in English in peer-reviewed journals. Working papers were excluded. This step leads to a reduction of 12 studies. Thus, 54 studies represent the final sample of our literature review.

3 Main results of CSR meta-analyses

3.1 Content analysis

Prior CSR meta-analyses are characterized by a heterogeneity of collected data, study designs, theoretical approaches, and analytical techniques. Literature reviews have become a relevant research method for scholars, practitioners, and regulators seeking to increase our knowledge about a complex research topic (Webster and Watson 2002). For scholars, a literature review should create new knowledge about CSR using existing meta-analyses that covers the selected topic. A literature review should also contribute to theory development and may close research gaps and revealing precise research recommendations. For practitioners, a literature review gives useful information and insights into effective organizational developments for future business strategies and guidance for policy-making and implementation. As many regulators currently discuss stricter regulations on CSR, sustainable corporate governance, and sustainable finance, our literature review should guide regulatory bodies in these issues. We present a structured literature review in line with our theoretical foundation and our research framework. We mainly focus on our key research questions, addressing corporate governance-related determinants of CSR, the impact of CSR on (non) financial performance, and moderator and mediator variables on these links.

Table 1 gives an overview of the papers per publication year (Panel A), journal (Panel B), content (Panel C) and CSR variables (Panel D). According to Panel A, we note an increased research activity during the last few years (2017–2010) and a rather young research discipline (first study in 1997). Moreover, referring to Panel C, most meta-analyses in our review have been published in Business Ethics and Sustainability journals, e.g., *Business and Society*, *Business Strategy and the Environment*, *Corporate Social Responsibility and Environmental Management*, or *Journal of Business Ethics*. Management and corporate governance journal are also included to a higher amount. Most of the meta-analyses address the consequences of CSR, especially the impact of CSR performance on financial performance (Panel C). Determinants of CSR are of lower attraction yet. Panel D stresses that CSR performance represents the most important CSR variable included in prior meta-studies.

Table 1 Count of cited published papers

Panel A: by publication year	
Total: 54	2020: 12
	2019: 6
	2018: 8
	2017: 4
	2016: 4
	2015: 6
	2014: 2
	2013: 4
	2012: 1
	2011: 1
	2010: 1
	2005: 1
	2003: 1
	2001: 2
	1997: 1
Panel B: by journal	
Total: 54	*Business Ethics/Sustainability journals: 29* Business and Society: 4 Business Ethics Quarterly: 1 Business Ethics: 2 Business Strategy and the Environment: 3 Corporate Social Responsibility and Environmental Management: 3 Ecological Economics: 1 International Journal of Sustainable Strategic Management: 1 Journal of Business Ethics: 4 Journal of Cleaner Production: 1 Journal of Industrial Ecology: 2 Organization and Environment: 1 Social Indicators Research: 1 Social Responsibility Journal: 2 Sustainability: 3
	Accounting and corporate finance journals: 5 Asia–pacific financial studies: 1 International journal of accounting and information management: 1 International Review of Financial Analysis: 1 Journal of International Accounting Research: 1 Journal of Sustainable Finance and Investment: 1

Table 1 (continued)

Panel B: by journal	
	Management/corporate governance journals: 20 Academy of Management Journal: 1 Asia Pacific Journal of Management: 1 Corporate governance: 1 Corporate ownership and control: 1 European Management Journal: 1 International Journal of Production Economics: 1 Journal of Business and Psychology: 1 Journal of Family Business Management: 1 Journal of Management Control: 1 Journal of Management Studies: 1 Journal of Management: 2 Journal of Managerial Issues: 1 Journal of Promotion Management: 1 Journal of Supply Chain Management: 1 Organization Studies: 1 PLOS one: 1 Procedia Manufacturing: 1 Revue de Gestion des Ressources Humanies: 1 Transportation Research: 1
Panel C: by content	
Total: 54	Corporate governance-related determinants of CSR: 11 Firms' (non) financial consequences of CSR: 43
Panel E: by CSR variable	
Total: 54	CSR performance: 21 CSR reporting: 5 CSR reporting/performance: 6 Environmental management/performance: 9 Gender board diversity: 4 Social performance: 1 Socially responsible investments (SRI): 3 Sustainability/green supply chain management: 5

Table 2 gives an overview about included moderator and mediator variables. One of the main advantages of meta-analyses is to identify possible moderator and mediator variables. With few exceptions, most papers include moderators (51). Methodological moderator variables are recognized in nearly every meta-analysis, while the differentiation of measures of independent and dependent variables is rather common (29). Moreover, firm-specific variables, e.g., industry, and country-related governance factors, e.g. cultural aspects, are important in our literature review. In contrast to this, accounting and corporate governance-related moderators are rarely included yet. We also note a very low amount of mediator variables in prior CSR meta-analyses (3).

3.2 Corporate governance determinants

We already noted that many meta-analyses relate on determinants of CSR as dominant research topic. In line with prior literature (Velte 2019b), we differentiate between internal corporate governance (board composition) and external corporate governance (ownership structure) with a focus on board composition measures. The average number of included studies within the meta-analyses is rather low (24–158). In our literature review, we mention those studies with a relatively high and low amount of included studies. A possible reason for this is the restricted amount of single studies on the link between corporate governance and CSR. All of our included studies with a specific description of the applied procedures included random-effects models, assuming the variability between effect sizes is due to sampling error in addition to the variability in the population. Most of prior meta-analyses on the link between corporate governance and CSR included bivariate meta-analyses. A bivariate meta-analysis is a special type of meta-analysis that summarises the results from separately performed diagnostic test studies while keeping the two-dimensionality of the data.

3.2.1 Internal corporate governance (board composition)

The main duty of the board of directors is to monitor the executive directors in line with stakeholders' interests (Byron and Post 2016; Maroun 2020; Wintoki et al. 2012). During the last decade, many different board characteristics were implemented in order to analyse board effectiveness. Board effectiveness should lead to increased executives' incentives to rely on CSR activities. In this literature review, we note a research intensity on *board independence, board gender diversity, board size, board activity and CEO duality* as main determinants of CSR performance and reporting.

Board independence represents one major requirement of board effectiveness, as non executives should conduct their monitoring tasks without major conflicts of interests in line with stakeholders' needs. There are clear indications that board independence significantly increases both CSR performance (Endrikat et al. 2020; Ortas et al. 2017) and CSR reporting (Lagasio and Cucari 2019; Velte 2019a; Guerrero-Villegas et al. 2018). However, Majumder et al. (2017) found insignificant results, based on just 29 included studies. During the last decade, *board gender diversity* also gets main attraction in CSR research. A greater range of board diversity, especially with regard to gender, should lead to increased awareness of CSR strategies. Thus, prior meta-analyses state that board gender diversity is linked with better CSR performance (Endrikat et al. 2020; Byron and Post 2016) and CSR reporting (Lagasio and Cucari 2019; Velte 2019a; Guerrero-Villegas et al. 2018). Again, Majumder et al. (2017) did not find any significant results. *Board size* and *board activity* are our next internal corporate governance determinants in our literature review. Literature assumes that an appropriate board size and board meeting frequency are necessary to guarantee board effectiveness (Endrikat et al. 2020). With regard to board size, there are indications of a positive impact on both CSR

Table 2 Included meta-analyses in the literature review grouped by moderating and mediator variables

Moderating variables*	Number
Included	51
Not included	3
Firm specific moderating variables: 39	
Development stage	1
Environmental strategy	4
Export orientation	2
Firm reputation	1
Firm risk mitigation	1
Firm size	6
Industry	11
Innovation level	3
Market conditions	1
Organizational form	3
Product type	1
Region	4
Stakeholder reciprocation	1
Accounting and corporate governance specific moderating variables: 5	
Board independence	1
Board meeting frequency	1
Board size	2
Employees' age and gender	1
Main country specific moderating variables: 30	
Code law	3
Commitment to sustainable goals	1
Cultural aspects (Hofstede)	5
Developed/developing country	6
Economic fluctuations	1
Environmental policy	1
Gender parity	5
Governance framework	1
Income	1
Labor protection	1
Legal enforcement	1
Shareholder protection	4
Main research method specific moderating variables: 73	4
Choice of controls	7
Country	29
Measures of independent and/or dependent variables	3
Methods of regression	7
Publication bias	7
Research design	2
Sampling	9
Time frame	12
*Mediator variables**	
included	3
not included	52
CSR committee	1
Organizational justice, trust and identification	1
Reputation building, competencies, learning and efficiency	1

*Studies may recognize more than one moderator or mediator variable performance (Endrikat et al. 2020; Zubeltzu-Jaka et al. 2020) and CSR reporting (Lagasio and Cucari 2019; Guerrero-Villegas et al. 2018; Majumder et al. 2017). However, Velte (2019a) did not find any significant impact on CSR reporting. Board activity is of lower relevance yet. According to Majumder et al. (2017), board meetings and CSR reporting are positively related, while insignificant results are also available (Lagasio and Cucari 2019). Heterogeneous results can be stated for *CEO duality*. From a theoretical perspective, CEO duality can either contribute to better board effectiveness and CSR activities or may be linked to a reduced monitoring activity with regard to powerful and opportunistic CEOs. Most of the included meta-analyses stated a non-significant relationship between CEO duality and CSR (Endrikat et al. 2020; Lagasio and Cucari 2019; Velte 2019a; Majumder et al. 2017). According to Guerrero-Villegas et al. (2018), CEO duality decreases CSR reporting. Le et al. (2015) is the only study in our review with a focus on *top managements' values and demographic characteristics*. The authors just included 29 studies and found that stakeholder values and diversity in experience of top managers are related with increased CSR performance. However, CEO ethical leadership, age and tenure are not related with CSR (Le et al. 2015). We also identify one study on the *determinants of board gender diversity* (Halliday et al. 2020), based on 158 included studies. The authors found female CEO, female chairperson, CEO duality and board independence to have a positive impact on board gender diversity, while board age decreases it.

As the key goal of meta-analyses is to identify and analyse possible *moderators and mediators* of CSR, we also stress the key results. In this context, we note a very low attractiveness of *mediator* analysis in prior meta-analyses. One exception is Endrikat et al. (2020), who found a significant mediator influence of CSR committees on the impact of selective board composition variables on CSR performance.

With regard to *moderators*, board independence and code law regimes strengthen the positive influence of board size on CSR performance (Zubeltzu-Jaka et al. 2020). This is in line with the moderating impact of civil law regimes on the link between board independence and CSR performance (Ortas et al. 2017). Majumder et al. (2017) found that the differentiation between developed and developing countries impacts the positive relationship between board size and CSR reporting. Other country-related aspects as significant moderator variables are the degree of shareholder protection (Endrikat et al. 2020; Velte 2019a; Byron and Post 2016), legal enforcement (Velte 2019a), country-related gender parity (Endrikat et al. 2020; Byron and Post 2016), low country commitment to sustainable goals (Guerrero-Villegas et al. 2018) and market conditions (Ortas et al. 2017) with an impact on the relationship between corporate governance variables and CSR. Moreover, country-related gender parity weakens the link between a female CEO and board diversity (Halliday et al. 2020). Finally, different CSR proxies represent important moderator variables in the included meta-analyses (Endrikat et al. 2020; Ortas et al. 2017 with regard to self-reporting proxies; Le et al. 2015 with regard to social performance).

3.2.2 External corporate governance (ownership structure)

External corporate governance is linked with external stakeholders' monitoring. Prior corporate governance research heavily relies on shareholders as key stakeholders of PIEs. In this context, *ownership structure* can have a major impact on management strategies. Certain groups of shareholders, mainly sustainable investors, may put pressure on top management to increase CSR strategies in line with other stakeholder interests. Until now, a low research activity on external corporate governance determinants can be found. Canavati (2018) stated a positive influence of *family ownership* on CSR performance. This contrasts the results by Lagasio and Cucari (2019) and Majumder et al. (2017) who stressed insignificant results on ownership structure in general and on government, foreign and institutional ownerships in particular.

With regard to *moderator variables*, according to Canavati (2018), private family firms and weak labor and corporate governance frameworks positively contribute to the impact of family ownership on CSR performance. Moreover, big four audits have a positive and managerial and concentrated ownership have a negative impact on CSR reporting (Majumder et al. 2017).

3.3 Firms' (non) financial consequences of CSR

In line with the business case argument, most archival research on CSR relies on *firms' financial consequences*. Literature states that both CSR performance and CSR reporting may lead to positive financial developments within companies in the long run (e.g., Busch and Friede 2018a). As stakeholders' demands on CSR-related information and successful CSR strategies increased since the financial crisis of 2008–09, high CSR performance and CSR reporting quality may be connected with increased firm reputation, better stakeholder relations and thus higher firm valuation. Next to firm's financial consequences, CSR performance and reporting may have a significant impact on other CSR-related consequences. This strength of research addresses the connectivity between various CSR measures. Thus, in our literature review, we separate between *financial performance* and *CSR performance* on the one hand and between CSR and related subpillars (e.g., environmental performance) on the other hand.

In comparison to Sect. 3.2, we note a higher average amount of studies included in prior meta-analyses on (non) financial consequences of CSR (18–437 studies). This can be explained by a relatively long tradition of studies on the CSR-financial performance-link and the increased amount of meta-analyses on that topic. In line with our results in Sect. 3.2, random-effects models were dominantly used. One major exception is the use of fixed-effects models on the impact of environmental (green) supply chain management on (non) financial performance. Fixed-effects models in meta-analyses assume that there is one true effect size that underlies all the studies in the analysis. While we stress a variety of different methods (uni-, bi-, and multivariate meta-analyses), bivariate meta-analyses are mainly used in this research topic. This is line with our remarks in Sect. 3.2. However, we note a relatively high amount of included meta-analyses with a lack of transparency on the applied procedures. This reduces the validity of the analyses.

3.3.1 Financial performance

Most of the included meta-analyses on the consequences of CSR address the *CSR performance-financial performance-link*. In this context, a differentiation between accounting-based (e.g., ROA) and market-based (e.g., Tobin's Q) measures is common. Some researchers also separate between accounting-, market- and perception-based proxies of financial performance (Orlitzky et al. 2001). There are several indications for a positive significant impact of CSR performance on financial performance (Vishwanathan et al. 2020; Busch and Friede 2018a; Plewnia and Guenther 2017; Hou et al. 2016; Lu and Taylor 2016; Friede et al. 2015; Wang et al. 2016; Quazi and Richardson 2012; Allouche and Laroche 2005; Orlitzky et al. 2003; Frooman 1997). More specifically, Busch and Friede (2018a) included 25 prior meta-analysis and state a bidirectional link between CSR and finanicial performance. According to Hou et al. (2016), the impact is stronger by including environmental performance and operational performance. In a recent study, however, based on 437 included studies, no significant results between CSR and financial performance can be found (Huang et al. 2020). Orlitzky and Benjamin (2001) stated a positive bidirectional link between CSR performance and firm risk.

A great variety of *moderator variables* have been included on this link. Vishwanathan et al. (2020) included 344 studies and have identified firm reputation, stakeholder reciprocation, firm risk mitigation and innovation level as relevant moderators. Plewnia and Guenther (2017) come to the conclusion, that time lags, region (US-settings), continuous time horizons, controls for advertising intensity and public ownership control moderate the CSR-financial performance link. According to Lu and Taylor (2016), referring to 198 CSR studies, long-term effects, environmental performance, non US-settings, pre-2000 studies and multi-industries are relevant moderators. Moreover, journal quality (Busch and Friede 2018a), SMEs, private firms and developing firms (Hou et al. 2016), environmental performance and developed countries (Wang et al. 2016) and sample size (Quazi and Richardson 2012) moderate this relationship. Orlitzky (2011) referred to 388 CSR studies and stressed that, in comparison to different publication outlets, economics journals concentrate on positive significant results. This might be a main argument for a problematic publication bias. The different measures of CSR and financial performance also represent major moderators in the included meta-analyses with a significant impact (Busch and Friede 2018a; Hou et al. 2016; Lu and Taylor 2016; Allouche and Laroche 2005; Orlitzky et al. 2003; Orlitzky and Benjamin 2001). In his main research objective, Orlitzky (2001) concluded that firm size does not moderate the CSR-financial performance relationship. Huang et al. (2020) addressed two main challenges of prior business case research. Economic fluctuations and endogeneity concerns limit the reliability of archival CSR research. The authors found that the elimination of confounding effects of economic fluctuations and the recognition of proper estimation methods due to endogeneity concerns lead to a positive CSR-financial performance link.

Environmental performance represents one major subpillar of CSR performance. In view of the current climate change discussions from an international perspective, it is not surprising that many prior studies focus on environmental performance as CSR proxy. There are also indications that environmental performance leads to better financial performance (Hang et al. 2019; Endrikat 2016; Endrikat et al. 2014; Albertini 2013; Dixon-Fowler et al. 2013). In more detail, Hang et al. (2019) stressed a short run (1 year) one-way link and a long run bidirectional link (after 1 year). Endrikat et al. (2014) also reported a partially bidirectional relationship. Furthermore, according to Endrikat (2016), market reactions are stronger negative for negative events than positive for positive events. In a current meta-analysis by Tsai et al. (2020), environmental management also leads to better financial performance. Busch and Lewandowski (2018b) included just 32 studies on carbon performance and found a positive impact on financial performance. Horvathova (2010) is the only meta-analysis in our review with insignificant results on the impact of environmental performance on financial performance.

We identify a variety of *moderator variables* on the environmental-financial performance link: employees' age, gender and culture (Wang et al. 2020), event windows related to event studies (Endrikat 2016), proactive strategic approaches, sampling, addressing endogeneity and financial risks (Endrikat et al. 2014), performance measures, regions, industry, time frame (Albertini 2013) and the differentiation between small firms, public firms and US-settings (Dixon-Fowler et al. 2013). Tsai et al. (2020) stressed that financial performance proxies, the year of data collection, industry, economic development and cultural aspects moderate the environmental-financial performance link. Moreover, according to Busch and Lewandowski (2018b), specific performance measures (relative emissions, market based financial performance) influence this relationship.

Next to environmental performance, we note that one meta-analysis also states a positive link between *social performance* and financial performance (Lopez-Arceiz et al. 2018). Size criteria for financial performance and social performance based on stakeholder criteria moderate this relationship.

As *board gender diversity* is controversially discussed with regard to the business case argument, some meta-analyses refer to the impact of female directors on financial performance. Hoobler et al. (2018), based on sales performance, and Post and Byron (2015), based on accounting returns, stated a positive impact. However, Pletzer et al. (2015) did not find any significant relationship. Cultural aspects (Hoobler et al. 2018), the degree of shareholder protection (Post and Byron 2015) and employees' perceived CSR and employees' perception of organization performance (Wang et al. 2020) can be qualified as main *moderator variables* on this relationship.

During the last decade, *SSCM* has gain main attraction in CSR research. The main goal of SSCM is the integration of environmentally and socially viable practices into the full supply chain lifecycle, from product design and development, to material selection, manufacturing, packaging, transportation, warehousing, distribution, consumption, return and disposal. Govindan et al. (2020) and Golicic and Smith (2013) found a positive impact of SSCM on financial performance. Moreover, the branch of industry (manufacturing) (Govindan et al. 2020; Golicic and Smith

2013), measurements of SSCM, region and time (Golicic and Smith 2013) represent relevant moderator variables.

SRI are investments that are considered socially responsible due to the nature of the business the firm conducts. Common themes for SRI include green and socially conscious investing. SRI can be made into individual companies with good green and social value, or through a socially conscious mutual fund or exchange-traded fund (ETF). Kim (2019), Revelli and Viviani (2015) and Rathner (2013) analyse whether SRI perform better in comparison to conversional funds. The authors state a non-significant relationship. As main significant moderators, the economic crisis, control groups, the SRI measure, sampling and methodology (Kim 2019), survivorship bias and US focus (Rathner 2013) are recognized.

3.3.2 CSR performance

Next to financial performance, CSR strategies or subpillars can improve future *CSR performance*, stressing the various interlinks between CSR variables. This assumption was stated by Gabriel and Nathwani (2014), while this link is more pronounced by proactive CSR strategies. With regard to the link between CSR reporting and CSR performance, Gallardo-Vazquez et al. (2019) did not find any significant results. However, region, firm size and CSR disclosure type were included as significant moderators (Gallardo-Vazquez et al. 2019). There are also indications that green supply chain management and CSR performance are positively linked (Fang and Zhang 2018; Qorri et al. 2018; Geng et al. 2017). The authors used fixed-effects models as research design. The most important moderators in this context are industry, ISO, export orientation, culture (uncertainty avoidance) (Fang and Zhang 2018), region, industry or firm size (Qorri et al. 2018; Geng et al. 2017).

Doan and Sassen (2020) reported a weak negative influence of environmental performance on *environmental reporting*. The different proxy variations represent a main moderator variable. According to Erauskin-Tolosa et al. (2020), environmental management practices lead to better *environmental performance*, moderated by mature certification and environmental innovation. Finally, CSR performance leads to better *brand loyalty* (Aljarah and Ibrahim 2020), *customer relationship quality* (Aljarah et al. 2020) and increased *employees' attitudes and behaviour* (Zhao et al. 2020). The innovation level and the manufacturing industry weaken the link between CSR and brand loyalty. Cultural collectivism, experience product types and online survey designs strengthen the link (Aljarah and Ibrahim 2020). The relationship between CSR and customer relationship quality is even stronger by customer relationship proxy trust (Aljarah et al. 2020). Organizational justice, trust and identification mediate the link between CSR and employees' attitudes and behaviour (Zhao et al. 2020).

3.4 Key results

With regard to corporate governance determinants, we find that *board independence, board gender diversity and board size* have a positive impact on *CSR performance*. These results are in line with the assumption that corporate governance and CSR represent two dependent disciplines (sustainable corporate governance). As CSR activities can be used for greenwashing policy and self-impression management, corporate governance attributes strengthen monitoring quality, and incentive alignment and put pressure on top managers to include substantial CSR strategies. Moreover, according to our literature review, both *CSR performance* and *environmental performance* lead to increased *financial performance*. Thus, firm can follow the business case argument for CSR and may increase their firm value. Other relationships in this literature review are inconclusive. The amount of meta-analyses are either too low or these studies found insignificant results (e.g., CEO duality, SRI out-performance). This leaves room for many research recommendations in the next chapter. Figure 2 summarize our key results and Table 3 gives a detailed overview of included meta-analyses on CSR.

4 Research recommendations

4.1 Internal corporate governance

Due to the lack of standardization of CSR, we stress a high degree of managerial discretion (e.g., by the choice of CSR reporting frameworks or performance measures), leading to a low comparability of CSR proxies over time and between PIEs (Mahoney et al. 2013). Furthermore, greenwashing and impression management mainly influence CSR activities and may be connected with symbolic use of CSR. Our literature review on prior CSR meta-analyses indicates that the majority of included studies concentrate on CSR performance as main proxy, financial performance as major consequence of CSR and variations of CSR measures as moderator variables. We recommend to conduct future meta-analyses on other corporate governance determinants, e.g., sustainable board expertise, on CSR reporting and subpillars of CSR, e.g., carbon reporting. As current discussions heavily rely on carbon performance and disclosure, we know very little about the overall effects of corporate governance on carbon-related issues (Doan and Sassen 2020). Moreover, as mediator analyses are very low in amount (Endrikat et al. 2020), other corporate governance variables may mediate the impact of CSR on financial outputs. In this context, future moderators should be more linked with the separation between symbolic/substantive and extrinsic/intrinsic motivations of senior managers in view to CSR strategies. Interestingly, the reliability of CSR performance and reporting by voluntary CSR assurance services, e.g., by professional accountants, is not included in meta-analytical research designs yet (Velte and Stawinoga 2017). Next to classical content analysis and scoring method, advanced methods of textual analysis (e.g., by the use of artificial intelligence, recognition of social media) can mainly impact

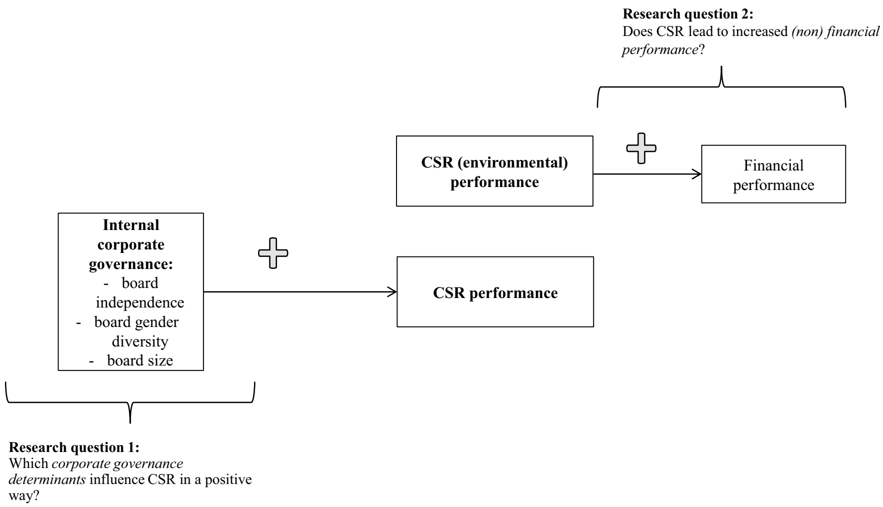

Fig. 2 Key results of our literature review

the future empirical business case research on CSR e.g., by including readability measures or by analysing tone management. The current focus on archival (secondary) studies with regard to CSR research and their recognition in quantitative meta-analyses should be complemented by experimental designs in order to include individual preferences of various stakeholder groups.

Furthermore, individual manager characteristics and traits, e.g. by the CEO and other members of the top management team, should be included in meta-analytical designs. In line with upper echelons theory (Hambrick and Mason 1984), behavioural corporate governance aspects might also influence CSR strategies. CEO, CFO or other Chief officers characteristics, e.g. education and professional backgrounds, personality and preferences, as well as sustainability-related attitudes, should be addressed. In line with the monitoring role of corporate governance mechanisms, incentive alignment between managers and stakeholders can be mainly achieved by sustainable management compensation systems. As Winschel and Stawinoga (2019) conduct a literature review on the determinants and consequences of sustainable CEO compensation, we do not find any meta-analysis on this important topic yet.

4.2 External corporate governance

Interestingly, external corporate governance factors (ownership structure) are rarely used in comparison to board composition. We know very little about the impact of different types of investors on CSR in view of their time horizon and their (non) financial interests. However, traditional corporate governance research has a main focus on ownership structure and their impact on financial performance. In line with the portfolio theory, shareholders' investment decisions are linked with considerations of risk and return (Cumming and Johan 2007; Hoq et al. 2010; Faller

Table 3 Detailed overview about the included meta-analyses on CSR

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
Panel A: corporate governance-related determinants of CSR							
2020	Endrikat et al.	Business and Society	82 Bivariate meta-analysis Random effects	Board characteristics (board size, board independence, board gender diversity, CEO duality)	CSR performance	*Mediator*: CSR committee Moderators: shareholder protection, gender parity, dimension of CSR (S, E or aggregate)	+ (directly and indirectly; not CEO duality) Mediator: + Moderator: +
2020	Halliday et al.	Journal of Business and Psychology	158 Bivariate meta-analysis Random effects	Board characteristics (CEO duality, CEO age, female CEO, female chairperson, board member average age, board independence, board ownership, family ownership)	Gender board diversity	National context for gender equality (world economic forum global gender gap index)	+ (female CEO, female chairperson, CEO duality, board independence) –(board age) Moderator: weaker for female CEO
2020	Zubeltzu-Jaka et al.	Corporate Social Responsibility and Environmental Management	80 Multivariate meta-analysis Random effects	Board size	CSR performance (self-reporting, external reported or archival)	Board independence, code law	+ Moderator: + (independence, code law)

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2019	Lagasio and Cucari	Corporate Social Responsibility and Environmental Management	24 Bivariate meta-analysis Random effects	Corporate governance (board size, board independence, board gender diversity, board meetings, CEO duality, institutional and state ownership)	CSR reporting	–	+ (board independence, board size, board gender diversity)
2019	Velte	Corporate Ownership andcontrol	51 Bivariate meta-analysis n.A	Board composition (board independence, CEO duality, gender diversity, board size)	CSR reporting (individual, external ratings)	Shareholder protection, legal enforcement, code law	+ (board independence, board gender diversity) Moderator: + shareholder protection, legal enforcement

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2018	Canavati	Journal of Family Business Management	97 Bivariate meta-analysis Random effects	Family ownership (private versus public, family ownership and management versus one of these factors)	CSR performance (internal versus external)	Measurement of family and CSR, labor protection, environmental policy and corporate governance regulatory framework, country cultural aspects (long-term orientation, risk-aversion)	+ Moderator: private family firms +, family ownership and management +, weak labor and corporate governance regulatory frameworks
2018	Guerrero-Villegas et al.	Sustainability	88 Bivariate meta-analysis n.A	Board attributes (board independence, CEO duality, board size, gender diversity)	CSR reporting	Country's commitment to sustainable goals	– (CEO duality); + (board independence, board size, gender diversity) Moderator: + (low level of commitment)

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2017	Ortas et al.	Sustainability	87 Multivariate meta-analysis Random effects	Board independence (percentage of independent directors, percentage of non executive/outside directors)	CSR performance (individual scores based on CSR reporting, archival/external CSR performance ratings, e.g. TRI, KLD, Asset4, Bloomberg, Jantzi and Hexun)	Corporate governance systems (civil law, common law, mixed law, others), CSR performance measures, market conditions (from 2010 to 17, from 07 to 09, from 02 to 06, before 2002, multi period papers)	+ Moderators: + (civil law, CSR self-reporting proxy, market conditions)

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2017	Majumder et al.	International Journal of Accounting and Information Management	29 Bivariate meta-analysis n.A	Corporate governance variables (board size, meeting frequency, big four audit, board independence, board gender diversity, percentage of non executive directors, government ownership, foreign ownership, institutional ownership, managerial ownership, concentrated ownership, CEO duality)	CSR reporting	Developed and developing countries	+ (board size, board meetings, big four audits) – (managerial ownership, concentrated ownership) Moderator: + (board size)

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2016	Byron and Post	Corporate Governance	87 Bivariate meta-analysis Random effects	Women on boards of directors	CSR performance	Country specific criteria: shareholder protection (world bank) and gender parity (World Economic Forum's Global Gender gap score)	+ Moderator: stronger shareholder protection +, gender parity +
2015	Le et al.	Journal of Managerial Issues	29 Multivariate meta-analysis Random effects	Top Managers' stakeholder values (e.g., CEO ethical leadership, CEO values) and demographic characteristics (age, tenure, experience)	CSR performance (type as strategic versus social)	Type of CSR measure	+ (values and diversity in experience) Moderator: + (social CSR performance)

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
Panel B: firm's (non) financial consequences							
2020	Aljarah and Ibrahim	Journal of Promotion Management	43 Bivariate meta-analysis Random effects	CSR performance	Brand loyalty	Cross-cultural variation, level of innovation, industry, product type, survey design, sampling	+ Moderator: level of innovation –; cultural collectivism +, product type (experience products) +, industry (manufacturing) –, survey design (online) +
2020	Aljarah et al.	Social Responsibility Journal	60 Multivariate meta-analysis Random effects	CSR performance	Customer relationship quality (satisfaction, trust and commitment)	Developed versus developing countries	+ (commitment strongest effect) Moderator: + (only trust)
2020	Doan and Sassen	Journal of Industrial Ecology	62 Multivariate meta-analysis Random effects	Environmental performance (performance aspect, measurement technique, impact direction, firm adjustment)	Environmental disclosure (reporting aspect, measurement technique, quality aspect, index adjustment)	Measurement of environmental performance, measurement of environmental disclosure	– (weak) Moderators: +

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2020	Govindan et al.	Transportation Research Part E	129 Bivariate meta-analysis Random effects	Sustainability supply chain management (environmental, social, combined)	Firm performance (financial, operational)	Industry, developed/developing economy	+ Moderator: manufacturing +
2020	Huang et al.	International Review of Financial Analysis	437 Multivariate meta-analysis N.A	CSR performance	Financial performance (accounting based, market based, perception based)	Economic fluctuations, estimation methods (endogeneity concerns)	+/– Moderator: + by eliminating the confounding effect of economic fluctuations and proper estimation methods
2020	Tsai et al.	Business Strategy and the Environment	92 Bivariate meta-analysis n.A	Environmental Management Practices	Financial performance	Performance proxy, year of data collection, industry, economic development, cultural aspects (Hofstede)	+ Moderators: +
2020	Vishwanathan et al.	Journal of Management Studies	344 Bivariate meta-analysis n.A	Strategic CSR performance	Financial performance (accounting based, market based)	Enhancing firm reputation, increasing stakeholder reciprocation, mitigating firm risk, innovation capacity	+ Moderators: +

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2020	Wang et al.	Business Ethics	65 Bivariate meta-analysis Random effects	CSR performance and reporting (employees' perceptions)	Employees' perception of external prestige and organizational support, organizational identification and organizational trust, organizational commitment and organizational justice, work engagement and job satisfaction, job performance, organizational citizenship behavior, creativity	Samples' demographic characteristics (age and gender), national culture	+ Moderators: +
2020	Zhao et al.	Journal of Management	86 Multivariate meta-analysis N.A	Perceived CSR performance and reporting	Employee attitudes and behavior (organizational commitment, job satisfaction, OCB, turn over intention)	CSR measures *Mediator*: organizational justice, organizational trust, organizational identification	Mediator: +

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2020	Erauskin-Tolosa et al.	Business Strategy and the Environment	53 Bivariate meta-analysis Random effects	Environmental Management Practices (Adoption of voluntary environmental certification ISO 14,001 and Eco-Management and Audit Scheme (EMAS)	Environmental performance (efficiency and emissions or separate, innovation)	Mature certification, environmental innovation, performance proxy, EMAS or ISO14001, internalization of certified EMS	+ Moderator: mature certification +, environmental innovation +
2019	Gallardo-Vazquez et al.	Sustainability	95 Bivariate meta-analysis n.A	CSR reporting	Financial and non financial performance	Measurement of performance and organization size, type of organization, branch of industry, region	+/– Moderators: region, disclosure type, measures of firm size +

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2019	Hang et al.	Business Strategy and the Environment	142 Bivariate meta-analysis Random effects	Environmental performance Financial performance	Financial performance Environmental performance	Publication bias test	Short run (1 year): financial performance-environmental performance link + Long run (after 1 year): environmental performance-financial performance link: +

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2019	Kim	Asia–Pacific Financial Studies	51 Meta-regression Random effects	Socially responsible investments versus conventional investments	Investment performance	Sampling and methodology	+/– Moderators: + (economic crisis, control group, investment universe, screening procedure, mutual funds, publication year, author type, control group, issues, risk adjustment, weighting scheme, data refinement, benchmark model, and matching procedure)
2018	Busch and Friede (second tier meta analysis)	Corporate Social Responsibility and Environmental Management	25 (meta-analyses) n.A n.A	CSR performance	Financial performance (perceptional, operational, accounting based)	Measures of performance, time frame, sample size, journal quality, methods	+ (bidirectional) Moderators: performance (operational) +, journal quality +

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2018	Busch and Lewandowski	Journal of Industrial Ecology	32 Multivariate meta-analysis Random effects	Carbon performance (mandatory/voluntary reporting, direct/indirect emissions, absolute/relative emissions, annual/reduction)	Financial performance (accounting based, market based)	Performance measures	+ Moderators: performance measures (relative emissions +, market based financial +)
2018	Fang and Zhang	Journal of Cleaner Production	54 Multivariate meta-analysis Random effects	Green supply chain management (internal versus external practices (green purchasing, customer cooperation, investment recovery, eco-design)	Financial, environmental and operational performance	Industry, ISO certification, export orientation, cultural dimensions (power distance, individualism, masculinity, uncertainty avoidance, long-term orientation, indulgence), year of publication	+ (strongest impact of environmental performance) Moderators: industry, ISO, export orientation, uncertainty avoidance +

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2018	Hoobler et al.	Journal of Management	78 Bivariate meta-analysis Random effects	Gender board diversity (CEO, top management teams, board)	Financial performance (accounting based and market based)	Country-level gender egalitarian culture (gender supportive climate), women's unique contributions (board meeting frequency, board size)	+ (sales performance) Moderator: + (culture)
2018	Lopez-Arceiz et al.	Social Indicators Research	83 Multivariate meta-analysis Random effects	Social performance	Financial performance (accounting based, market based, perception based, size criteria)	Measurement criteria and organizational characteristics	+ Moderators: + (size criteria for financial performance; social performance based on stakeholder criteria
2018	Qorri et al.	Procedia Manufacturing	85 Bivariate meta-analysis Fixed effects	Green supply chain management	Financial and non-financial performance	Geographical region, industry, firm size	+ Moderators: +
2017	Geng et al.	International Journal of Production Economics	50 Multivariate meta-analysis Fixed effects	Green supply chain management	Financial, environmental and social performance	Industry, firm size, ISO certification, export orientation	+ Moderators: +

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2017	Plewnia and Guenther	Journal of Management Control	45 Bivariate meta-analysis Random effects	CSR performance (donation dummy, donation amount, elative donations)	Financial performance (accounting based, market based)	Time lags, study design, performance proxy, sample country, year of sample collection, partial correlation in general, controls (firm size, industry, advertising intensity, past financial performance, public ownership)	+ Moderator: + (time lag, USA, continuous time horizon, control for advertising intensity, public ownership control)
2016	Endrikat	Journal of Business Ethics	29 Univariate meta-analysis Random effects	Environmental performance	Financial performance based on event studies	US versus non US sample, events before/after the year 2000, controlled for confounding events or not, abnormal or cumulative abnormal returns, one day or longer event window	+ (market reactions stronger negative for negative events than positive for positive events) Moderator: event window +

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2016	Hou et al.	Asia Pacific Journal of Management	28 Bivariate meta-analysis Random effects	CSR performance (environmental, social)	Firm performance (financial performance, operational performance)	Development stage, firm size, organizational form, measurement models (archival versus self created CSR measures)	+ (stronger impact of environmental performance; stronger impact on operational performance) Moderators: + (SME, private firms, developing firms, direct CSR measures)
2016	Lu and Taylor	Journal of International Accounting Research	198 Univariate meta-analysis n.A	CSR performance (environmental, social performance)	Financial performance (accounting based, market based)	Measurement of performance, long-term effect, sample, industry, country, method	+ Moderator: especially in the long run, environmental performance, accounting based financial performance, non US, pre-2000 studies, multi-industry
2015	Friede et al.	Journal of Sustainable Finance and Investment	25 meta studies (second order) n.A n.A	CSR performance	Financial performance	–	+

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2015	Pletzer et al.	PLOS one	20 Univariate meta-analysis Random effects	Board gender diversity (percentage)	Financial performance (ROA, ROE, and Tobin's Q)	Developing/developed country and income (Gross National Income per capita), mean board size	+/–
2015	Post and Byron	Academy of Management Journal	140 Multivariate meta-analysis Random effects	Board gender diversity	Financial performance (accounting based and market based) Board activities (board monitoring, board strategy involvement)	Country specific criteria: shareholder protection (world bank) and gender parity (World Economic Forum's Global Gender gap score)	+ (accounting returns) Moderator: + (shareholder protection) although the relationship between female board representation and market performance is near zero the relationship is positive in countries with greater gender parity

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2015	Revelli and Viviani	Business Ethics	85 Univariate meta-analysis Random effects	Socially responsible investments (SRI)	Financial performance	Measurements	+/–
2016	Wang et al.	Business and Society	42 Bivariate meta-analysis Random effects	CSR performance	Financial performance (accounting based, market based, perception based)	Management strategy,, developed versus developing country	+ (no bidirectional link) Moderators: + environmental performance, developed economics
2014	Endrikat et al.	European Management Journal	149 Bivariate meta-analysis Random effects	Environmental performance (process based, outcome based, proactive, reactive)	Financial performance (market based, accounting based)	Measurement of performance, controls (firm size, industry, financial risk, R&D, advertising, capital intensity, endogeneity), time frame, sample type	+ (and partially bidirectional) Moderators: proactive strategic approach +, sample type +, endogeneity +, financial risk +
2014	Gabriel and Nathwani	International Journal of Sustainable Strategic Management	18 N.A N.A	CSR performance and reporting (strategies)	Financial, social and environmental performance	CSR measures (proactive versus reactive strategies)	+ Moderator: proactive +

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2013	Albertini	Organization andEnvironment	52 N.A N.A	Environmental performance	Financial performance (market based, accounting based and organizational based)	Measures, regional differences, industry, time frame	Moderators: +
2013	Dixon-Fowler et al.	Journal of Business Ethics	39 Bivariate meta-analysis Random effects	Environmental performance (emissions, others, self-report or archival measures)	Financial performance (time lag, accounting based, market based)	Measurement of performance, firm size, region, public versus private firms, industry, environmental strategy	+ Moderators: small firms +, public firms +, USA +
2013	Golicic and Smith	Journal of Supply Chain Management	31 Bivariate meta-analysis Fixed effects	Environmental supply chain management (upstream, design, production, downstream)	Financial performance (market, accounting and operational based)	Measurement of environmental management and performance, industry, sample region, firm size, time	+ Moderators: + except for firm size

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2013	Rathner	Journal of Business Ethics	25 Univariate meta-analysis n.A	Social responsible investments versus conventional investment	Investment outperformance (dummy; yes/no)	Performance evaluation, matching, authorship numbers, survivorship bias, US funds, time period, number of SRI and conventional funds	Consideration of the survivorship bias and focus on USA increases the outperformance of SRI
2012	Quazi and Richardson	Social Responsibility Journal	51 Bivariate meta-analysis N.A	CSR performance	Financial performance (accounting based, market based)	Time frame, sample size and methodology	+ Moderators: sample size and methodology
2011	Orlitzky	Business Ethics Quarterly	388 Bivariate meta-analysis N.A	CSR performance	Financial performance	Publication outlet (economics, finance, accounting journals versus Social Issues Management, Business Ethics or Business and Society Journals	Economics did not find null or negative CSR-CFP correlations

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2010	Horvathova	Ecological Economics	37 Bivariate meta-analysis N.A	Environmental performance	Financial performance (accounting based, market based)	Measurement of performance, methods, lagged years, country, journal quality)	+/–
2005	Allouche and Laroche	Revue de Gestion des Ressources Humanies	82 Multivariate meta-regression N.A	CSR performance	Financial performance (market based, accounting based, perceptual based)	USA, journal type, measurement of performance, time frame, method of regression, choice of controls (industry, firm size, risk, R&D intensity)	+ Moderator: measurement of performance (reputation index) +
2003	Orlitzky et al.	Organization Studies	52 Bivariate meta-analysis N.A	CSR (reporting, rating, social audits, managerial principles and values)	Financial performance (accounting based, market based, perception based)	*Mediators:* reputation-building, competencies, learning and efficiency Artefacts, measurement strategies	+ Moderator: + accounting-based financial performance; reputation index
2001	Orlitzky	Journal of Business Ethics	20 Bivariate meta-analysis Random effects	CSR performance	Financial performance	Firm size	Moderator: +/–

Table 3 (continued)

Year of publication	Author(s)	Journal	Methodological aspects: number of studies method Applied procedures (random- versus fixed effects model)	Independent variable(s)	Dependent variable(s)	Moderators/mediators	Significant results
2001	Orlitzky and Benjamin	Business and Society	60 Multivariate meta-analysis Random effects	CSR (reporting, ratings, social audits, performance, environmental performance)	Firm risk (accounting based, market based)	Measurement of CSR performance and firm risk	– (bidirectional link) (more pronounced by market risk measures (e.g. beta) than accounting risk (e.g. return on invested capital. Long term debt ratio)
1997	Frooman	Business and Society	27 N.A N.A	CSR performance (events)	Financial performance (stock market reaction)	–	+

and Knyphausen-Aufseß 2018). While institutional investors are primarily focused on financial results and investment risks, SRIs explicitly consider ESG aspects in their investment decisions (Clark and Hebb 2005). The time horizon of institutional investors plays an important role in this context (Cox et al. 2004). Thus, long- and short-term investors on the one hand, and active and passive institutions on the other hand, realise different investment strategies (Soliman et al. 2013). Future meta-analyses should include the impact of institutional ownership on CSR due to the increased amount of studies on that topic.

Other stakeholder groups, e.g., customers or suppliers, are rarely included in prior empirical-quantitative research on CSR (Winschel and Stawinoga 2019). We know very little about the impact of other stakeholder groups on CSR strategies and a possible moderator influence. In line with corporate governance, many researchers analyse the impact of country-related governance on CSR, e.g., shareholder rights or cultural aspects. Thus, there are many research gaps in view of conducting meta-analyses on possible determinants of CSR, if the amount of single studies on that topic reaches an appropriate range.

4.3 (Non) financial consequences of CSR

We already mentioned that most of our included meta-studies focussed on the impact of CSR performance on financial performance. But other (non) financial consequences also important in recent CSR studies, e.g. the impact of CSR on earnings management or tax avoidance, indicating heterogeneous results. Literature assumes that intrinsic motivations of managers may lead to a negative impact of CSR strategies on both earnings management and tax avoidance (Velte et al. 2020). Opportunistic manager behaviour (greenwashing policies) may lead to a positive relationship between these variables.

In many ways, we know very little about reversed causality in CSR meta-regressions (Endrikat et al. 2014). A bidirectional link between corporate governance-related determinants and CSR on the one hand and firms' (non) financial consequences of CSR on the other hand may be more realistic (Endrikat et al. 2014). Increased CSR activities may be the consequence of higher financial circumstances and successful CSR management may also lead to increased corporate governance mechanisms in the future. In view of these important endogeneity concerns, future meta-analyses on CSR should explicitly include moderator variables whether included single studies have used "advanced" regression models, e.g., two or three stage least squares (SLS) or generalized method of moments (GMM) models with instrumental variables (Wintoki et al. 2012). While the amount of meta-analyses on firm's (financial) consequences of CSR has increased during the last years and recent studies increased their number of included studies and samples, we recommend to increase the transparency of explanations of applied procedures. Some meta-analyses do not explicitly include whether they conducted a uni-, bi- or multivariate meta-analysis or whether they have chosen a random- or fixed effects model.

5 Summary

Stakeholders of PIEs demand an appropriate CSR management system that includes diversity concepts, CSR reporting and performance measures (Maroun 2020). During the last decade, firm valuation is not only dependent on financial performance, but also on environmental and social strategies and successful management strategies on these issues. As a main challenge, greenwashing policy and information overload are main risks in business practice, which have been criticized by many stakeholder groups (Mahoney et al. 2013). With reference to the business case argument for CSR (Schaltegger et al. 2019), it is not clear, whether CSR-oriented firms will have better (non) financial performance in the future. Thus, the impact of corporate governance as key determinants of successful CSR practices might be crucial. During the last decade, massive research has been conducted on the corporate governance-related determinants and firm's (non) financial consequences of CSR activities (e.g., Endrikat et al. 2020). We also recognize many literature reviews (e.g., Velte et al. 2020) and meta-analyses on CSR. However, no literature review on CSR-related meta-analyses exists so far. Prior literature review of meta-analyses only address accounting (Khlif and Chalmers 2015), auditing (Hay 2019), finance (Geyer-Klingeberg et al. 2020) and accounting, auditing and corporate governance (Velte 2019b) without any focus on CSR. We see a major research gap on focussing CSR meta-analyses, as it is questionable, which corporate governance determinants are most important in prior research and will positively influence CSR efforts. Moreover, we are interested whether CSR strategies will lead to positive (non) financial consequences for firms. Meta-analyses are more suitable for inclusion in literature reviews as single studies because their aggregation of information leads to an increased statistical power (Cafri et al. 2010). It increases our knowledge about archival CSR research because the overall effect of various single studies on CSR can be included. Thus, we offer the first comprehensive, legitimacy theory-based framework on the business case of CSR meta-studies. In this context, we systematically include empirical-quantitative meta-analyses on CSR and differentiate between in- and external corporate governance drivers on the one hand and (non) financial performance as main firms' consequences on the other hand. We are also interested in prior moderator and mediator analysis within meta-analytic designs.

In contrast to narrative literature reviews and single studies, quantitative meta-analyses as an alternative research method become important in CSR research during the last few years. This literature review includes 54 meta-analyses on CSR and states that the majority of quantitative CSR research concentrates on the CSR-financial performance-link. In line with the business case for CSR, board independence, board gender diversity and board size as key corporate governance factors have a positive impact on CSR performance. These corporate governance determinants seem to be most relevant in prior CSR research and significantly promote CSR strategies. Moreover, with regard to firms' (non) financial consequences, both CSR performance and environmental performance lead to increased financial performance. There are clear indications that the business case argument for CSR does exit in business practice. However, prior meta-analyses do not mainly address the challenges of symbolic or substantive use of CSR efforts. Mediator analyses are rare and moderator analyses mainly rely on methodological aspects and classical firm-related attributes (e.g., industry). We propose research recommendations from a methodological and content-related perspective in this literature review in line with our main research questions.

Our analysis is not only useful for researchers, but it also makes a main contribution for regulatory bodies and business practice. First, based on our first research question, corporate governance mechanisms may promote successful CSR management strategies as an incentive and monitoring tool in line with our business case hypothesis. Executives should be aware of stakeholder pressure in conducting substantial instead of symbolic CSR in order to prevent information overload and greenwashing policy. Firms should clearly integrate CSR issues into their business model and their risk management processes. Second, based on our second research question, a positive link between CSR and financial performance includes a proper integration of different firm departments and a dynamic dialogue (e.g., finance and accounting department, IT, marketing, and sustainability) and sustainability expertise in the board of directors. Increased sustainability expertise by managers will strengthen CSR management and a more balanced view of both risks and chances (future value drivers) of intensive CSR investments and reorganization of business strategies. CSR efforts as "pre-financials" may be transferred into financial outputs from a long-term perspective and increase firm reputation and legitimacy. A stricter link between CSR and financial performance may be realistic, if firms switch from classical financial reporting and CSR reporting to an integrated report. A clear connectivity between financial and CSR information as integrated thinking may have a positive influence on substantial CSR strategies. Integrated reporting can be also most useful for external valuation by capital market participants and other stakeholders. Thus, a long-term transformation from CSR management to integrated thinking processes as a clear interaction of financial and CSR aspects is favorable. Finally, based on our third research question, the impact of corporate governance on CSR and their (non) financial consequences are most complex and heterogeneous in business practice. Corporate governance may only be related with increased CSR efforts if a specific environment is existent (e.g., other firm-related or country-related aspects as moderators or mediators). Similar aspects may be most important due to the CSR-financial performance link.

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