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CORPORATE SOCIAL RESPONSIBILITY PERFORMANCE, REPORTING AND GENERALIZED METHODS OF MOMENTS (GMM): A STRUCTURED REVIEW OF CORPORATE GOVERNANCE DETERMINANTS AND FIRMS' FINANCIAL CONSEQUENCES

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Abstract

In line with the business case argument for corporate social responsibility (CSR), CSR performance and reporting should lead to positive firms' financial outputs. As CSR issues may be linked with greenwashing behavior and self-impression management, effective corporate governance as a monitoring tool should increase CSR reporting and performance. While empirical-quantitative research on CSR extremely increased since the last decade, endogeneity concerns impair the validity of research results. This paper focuses on one of the most important techniques to include endogeneity concerns: the generalized method of moments (GMM) as dynamic panel regression. This paper summarizes the results of archival research on corporate governance determinants and firms' financial consequences of CSR performance and reporting. The increased importance of managing and reporting on CSR issues represents the key motivation to conduct a systematic literature review. By including 131 quantitative peer-reviewed empirical studies in this field, in line with legitimacy and stakeholder theory, there are indications that 1) gender diversity positively influences CSR performance, and 2) CSR performance increases both accounting- and market-based financial performance (ROA and Tobin's Q). A research agenda with detailed research recommendations are provided for future studies.

Keywords: CSR Performance, CSR Reporting, Corporate Governance, Environmental Performance, Financial Performance, Legitimacy Theory

Authors' individual contribution: The Author is responsible for all the contributions to the paper according to CRediT (Contributor Roles Taxonomy) standards.

Declaration of conflicting interests: The Author declares that there is no conflict of interest.

1. INTRODUCTION

Sustainable management with high quality in corporate social responsibility (CSR) represents a key challenge in public interest entities (PIEs) since the financial crisis 2007–08. As the term "CSR" has been used heterogeneously in the literature, we rely on the "triple bottom line concept" and the business case model, assuming that economic, environmental and social aspects are equal within sustainable and stakeholder-oriented management (Carroll, 1999). CSR reports are complements to traditional financial reports and are a major stakeholder management tool (Hahn & Kühnen, 2013). Literature states that shareholders and other stakeholders put pressure on PIEs' executives to increase CSR performance and the quality of CSR reports (Moneva, Archel, & Correa, 2006). However, opportunistic manager behavior may lead to information overload and greenwashing policies (García-Sánchez, Hussain, Khan, & Martínez-Ferrero, 2020).

During the last years, several institutions (e.g., the European Commission [EC], 2020) implemented regulations on corporate governance, CSR, and sustainable finance issues. The "EU Green deal project" represents one of the current strategies in order to implement climate change policies within firms and to increase the relevance of environmental aspects in the decision-making of capital market participants (EC, 2020). Many researchers have analyzed the influence of corporate governance attributes (board composition and ownership structure) on both CSR performance and reporting and their firms' financial consequences (Malik, 2015; Hirunyawipadaa & Xiong, 2018). They assume that effective corporate governance leads to better CSR performance and reporting. Moreover, successful CSR strategies imply positive financial consequences for firms, e.g. increased financial performance (Hirunyawipadaa & Xiong, 2018). However, the results of related studies are characterized by a high level of heterogeneity, indicating both positive and negative relationships, as well as insignificant results. One major reason for this low comparability of study designs and results is endogeneity within this research topic (Wintoki, Linck, & Netter, 2012; Lahouel, Gaies, Zaied, & Jahmane, 2019). Endogeneity in regression models implies that an explanatory (endogenous) variable correlates with the error term (Ullah, Zaefarian, & Ullah, 2020). Endogeneity bias may cause inconsistent estimates, which potentially leads to wrong inferences, misleading significant results, interpretations, and incorrect theoretical interpretations. Literature assumes that almost 90% of papers published in premier journals have not adequately addressed endogeneity bias (Ullah et al., 2020). The main sources of endogeneity are omitted variables, errors-in-variables and simultaneous causality. A variety of techniques have been discussed to address these concerns: e.g., instrumental variable techniques (two-stage least squares (2SLS) and three-stage least square (3SLS) estimation), propensity score matching (PSM), Heckman two-step approach or dynamic panel generalized methods of moments (GMM) estimators (Lahouel et al., 2019). Dynamic panel GMM estimators were developed by Arellano and Bond (1991), Arellano and Bover (1995), and Blundell and Bond (1998). Wintoki et al. (2012) stressed for the first time the key endogeneity problems in the link between sustainable corporate governance and firms' financial consequences. The authors stated that GMM is superior to traditional static regression models, e.g., pooled OLS or fixed-effect panel regressions. Wintoki et al. (2012) stressed three key advantages of GMM. Firstly, unlike OLS regressions, firm-fixed effects can be included to account for (fixed) unobservable heterogeneity. Secondly, unlike traditional fixed-effects regressions, research can recognize that current corporate governance will be influenced by previous realizations of, or shocks to, past firm performance. Thirdly, unlike either OLS or traditional fixed-effects regressions, GMM estimators assume that the underlying economic process itself is dynamic. If current corporate governance relates to past performance, some combination of variables from the firm's history may be used as valid instruments to account for simultaneity. Recent studies on CSR performance also stress the need to include GMM to address endogeneity concerns (Dang, Houanti, Sahut, & Simioni, 2020).

Given the current relevance of the topic and the limited comparability between CSR studies, we conduct a structured literature review of 131 empirical-quantitative studies on corporate governance determinants of CSR performance, reporting and financial consequences, based on GMM regressions. We differentiate between board composition and ownership structure as corporate governance determinants, between financial performance, capital costs, financial distress and financial analysts as financial consequences for firms, as well as between CSR performance and reporting as two main CSR proxies. We are also interested in moderator and mediator variables in prior CSR research and present the main variables and their effects.

Thus, our key research questions are:

RQ1: Does corporate governance influence CSR performance and reporting (and related subpillars)?

RQ2: Do CSR performance and reporting (and related subpillars) influence firms' financial consequences?

RQ3: Which moderators and mediators are included in prior research?

According to our literature review, we note two tendencies. Firstly, gender diversity is positively related to CSR performance. Secondly, CSR performance and financial performance (ROA and Tobin's Q) are also positively related. We do not find any evidence for other relationships due to the low amount of GMM studies or inconclusive results in the past.

Our literature review mainly contributes to former research on that topic (e.g., Dienes, Sassen, & Fischer, 2016; Hahn & Kühnen, 2013; Jain & Jamali, 2016; Malik, 2015; Velte, 2017). To the best of our knowledge, we present the first literature review on GMM research designs in archival CSR research. The focus on this superior research method, which addresses endogeneity concerns, increases the comparability of included studies and validity of presented research results. As researchers, regulators and companies are more and more aware of possible relationships between corporate governance and CSR on the one hand ("sustainable corporate governance") and CSR and financial outputs on the other hand ("sustainable finance"), reversed causality and omitted variables as major endogeneity problems should be carefully addressed in archival research designs (Dang et al., 2020).

Thus, our analysis addresses researchers, regulators, and practitioners alike. It provides a useful starting point for future research in terms of analyzing the link between corporate governance, CSR and financial consequences. Our results also provide the main impetus for the valuation and development of recent sustainable corporate governance and finance regulations. Our literature review contributes to this current regulatory discussion (e.g., on climate change policy) by showing the possible effect of current initiatives. Finally, our aim is to motivate executives to recognize the interactions of corporate governance, CSR and financial outputs as key elements of the business case argument for CSR and the need for reducing greenwashing policies by proper governance mechanisms.

Our analysis is structured as follows. Firstly, we present a theoretical foundation to introduce our main corporate governance determinants and firms' financial consequences (Section 2), whereas we rely on CSR performance and reporting as key proxies and related subpillars, legitimacy theory, and stakeholder theory. Then, we present our research framework and introduce our research method in Section 3. The focus of this paper is the findings of our literature review (Section 4), whereas we differentiate between a bibliometric and content analysis of our include studies, corporate governance determinants, moderators and mediators of CSR determinants, financial consequences, as well as moderator and mediator analysis of CSR outputs. After that, the review considers the limitations of prior research and makes useful contributions for future research in this field (Section 5) by differentiating between methodology and content-related issues. Our analysis ends with a conclusion in Section 6.

2. LITERATURE REVIEW

2.1. Legitimacy theory

According to legitimacy theory, firms have implicit social contracts with their society (Shocker & Sethi, 1973). These social contracts should lead to compliance of the firm with a society's specific values, norms and boundaries by including sustainability management practices (Dowling & Pfeffer, 1975). Legitimacy theory assumes that firms implement CSR strategies to influence CSR performance and reporting in line with stakeholders' expectations. As a complement to financial reporting, CSR reports should contribute to these challenges. We learn from the VW "Dieselgate" scandal and the current Wirecard crisis that CSR performance and reports are connected with the risks of greenwashing and information overload. However, it is not clear, whether firms only use CSR aspects symbolically or substantially. Corporate governance as a monitoring tool should motivate top management to adopt CSR strategies for substantive reasons and to prevent greenwashing policies. Thus, corporate governance strengthens firms' legitimacy toward stakeholders' demands regarding reliable CSR performance variables and reporting. The following two subgroups of corporate governance are relevant:

1) *Board composition* (e.g., board diversity, board independence);
2) *Ownership structure* (e.g., institutional ownership).

Concerning board composition, monitoring of the executive directors by non-executives (e.g., audit committees) fulfils a key role in lowering the greenwashing risk and in increasing the quality of CSR management (Velte, 2017). It depends on the specific profile of board members and their incentives (e.g., gender diversity on the board), whether CSR strategies will be successful from a long-term perspective. Moreover, monitoring by the shareholders is of key relevance. While ownership structure is very heterogeneous within companies, some parts of shareholders, e.g., sustainable institutional investors will be active monitors of the board of directors and will promote CSR strategies. Thus, we assume that both board composition and ownership structure will have a great impact on CSR performance and CSR reporting.

In line with corporate governance-related determinants, firm's financial consequences can be explained by legitimacy theory (Karim, Manab, & Ismail, 2020a; Velte, Stawinoga, & Lueg, 2020). This theory assumes that CSR performance and reporting increase firm reputation and trust for shareholders and other stakeholder groups (Dowling & Pfeffer, 1975). Companies with an appropriate CSR strategy may receive benefits (e.g., increased cash flows, liquidity) and thus get better performance, which is discounted with the firm-related (risk-based) capital costs (El Ghoul, Guedhami, Kwok, & Park, 2018). Shareholders and other stakeholders may include CSR information in their decision-making and use CSR performance and reporting to evaluate the quality of sustainability management. If stakeholders are satisfied with the top management and greenwashing risks are low, they reward firms with lower capital costs and thus increase firm value (Karim, Manab, & Ismail, 2020b). CSR performance and reporting should lower information and value gaps between balanced equity and firm value. Therefore, CSR should be value-relevant for the capital market (Rossi & Harjoto, 2020). As CSR performance and reporting reflect non-financial risks and chances of the firm, a sustainable management system can also contribute to increased future liquidity and resilience. Successful CSR strategies can decrease the probability of financial distress and bankruptcy. Moreover, CSR aspects are not only useful for investors, but also financial analysts. Analysts will include CSR aspects to forecast the future success of the firm. Consequently, we separate between the following subgroups of financial consequences of CSR performance and reporting:

1) *financial performance*;
2) *capital costs*;
3) *financial distress*, and
4) *financial analysts*.

Positive financial output can only be achieved in the long run, if that firm's CSR strategy is considered realiable by shareholders and other stakeholders. CSR can also be used as a "symbolic" management tool connected with greenwashing and information overload. As financial consequences may be inconclusive or even negative by symbolic use of CSR, we add stakeholder theory.

2.2. Stakeholder theory

Stakeholder theory assumes that companies must fulfil the needs of heterogeneous stakeholder groups (Freeman, 1984; Freeman, Harrison, Wicks, Parmar, & de Colle, 2010) that deal with conflicts of interest. Therefore, top management implements a successful stakeholder management system and analyses the interests of heterogeneous stakeholder groups regarding CSR strategies of a firm (Freeman, 1984). The implementation of a stakeholder management system with intrinsic motivation of executives increases the probability of CSR strategies' adoption in line with stakeholder theory (Freeman et al., 2010). This theory argues that CSR performance and reporting reflect stakeholders' interests and balance heterogeneous needs within different stakeholder groups (Eccles & Krzus, 2015).

In total, relying on legitimacy theory and stakeholder theory, we assume that corporate governance variables as board composition and ownership structure influences CSR performance and reporting quality. Moreover, CSR performance and reporting have an impact on stakeholder trust and firm's financial consequences.

3. RESEARCH FRAMEWORK AND METHODOLOGY

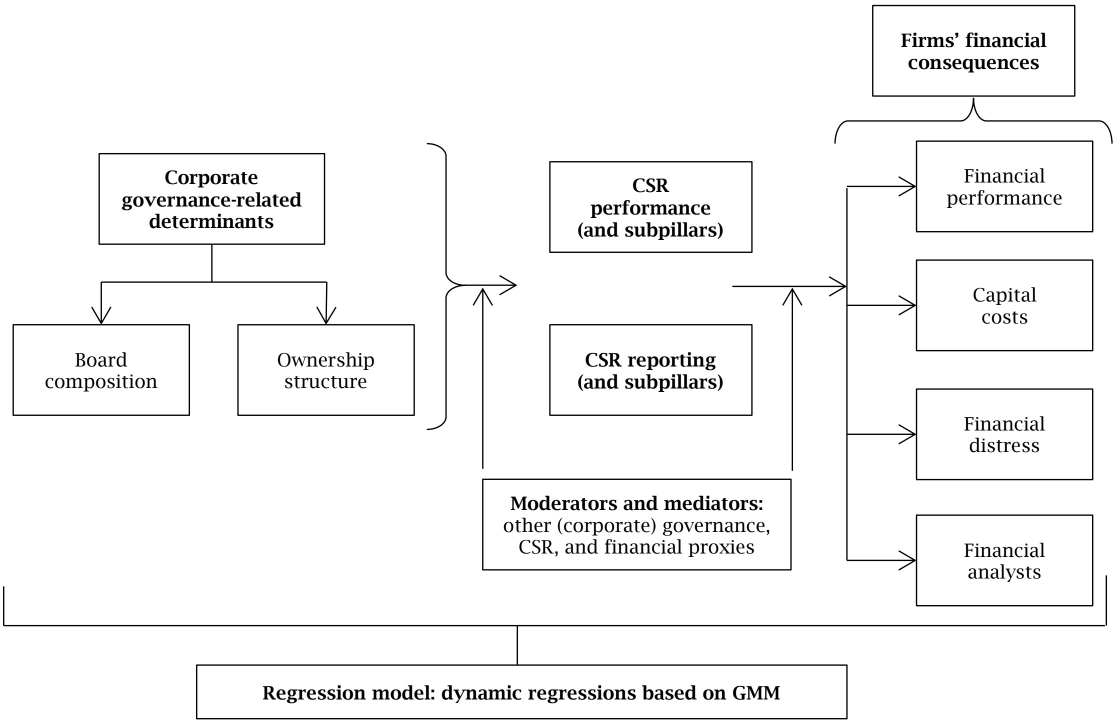
As we already stressed the huge endogeneity concerns within CSR research, the validity of prior research results is crucial. Hence, a proper analysis of related studies without a clear focus on the respected regression model(s) is not possible. In this paper, we rely on a structured literature review as a research method based on established processes (e.g., Denyer & Tranfield, 2009). As a first step, we expand on our research objective. In contrast to prior literature reviews on CSR research (Dienes et al., 2016; Jain & Jamali, 2016; Malik, 2015; Velte, 2017), we focus on studies with dynamic panel regressions (GMM) to intensively address endogeneity concerns and increase comparability of included studies. We rely on prior researchers (Wintoki et al., 2012; Lahouel et al., 2019) who stress the difference between the results of GMM studies and other regression models in the context of corporate governance, CSR and financial performance. Accordingly, we concentrate on corporate governance determinants and firms' financial consequences of CSR, as endogeneity concerns are extremely high in those research topics and prior archival research mainly focuses on those links.

Two main types of GMM gain importance in archival research. Arellano and Bond (1991) use a "difference" GMM to develop valid instruments. They first-difference the panel data to remove the time-invariant fixed effect and show that the lagged dependent variables' values (levels) constitute legitimate instruments for the first-differenced variable, so that the residuals are free from second-order serial correlation. Blundell and Bond (1998) suggest an alternative GMM "system" estimator: in addition to the first-differencing used by Arellano and Bond (1991), Blundell and Bond (1998) utilize the lagged first differences as instruments in a non-transformed (levels) equation. Recent studies argue that the system GMM is superior in comparison to the difference GMM (Ullah et al., 2020).

In line with prior literature (Malik 2015; Velte 2017), there is a clear separation between performance and reporting on the one hand, and total CSR scores and subcategories (e.g., environmental or carbon issues) on the other hand. So, it is necessary to increase the quality of our review. We rely on the triple bottom line concept and focus on separate CSR reports. The integrated reporting concept as a combination of financial and CSR reports is not addressed (García-Sánchez & Noguera-Gamez, 2017). Since the last decade, stakeholders demand precise information about the CSR activities of a firm. Most PIEs publish separate CSR reports according to certain frameworks (e.g., according to the Global Reporting Initiative Standards). These reports are analysed by shareholders and other stakeholder groups. In line with our theoretical framework, firms like to attract shareholders and other stakeholders by (voluntary) CSR reports. Moreover, during the last years, CSR reports and other information of firms are analysed by rating agencies, financial analysts and the public to measure the CSR performance and performance pillars (e.g., carbon performance) of the specific firm. Our theoretical framework also assumes that a key firm goal is to increase its CSR performance to attract their stakeholders. As CSR reports can be linked to risks of greenwashing and information overload, positive or negative stakeholder reactions may be the consequence. Thus, a recent variable of greenwashing behaviour is "CSR decoupling", which is also included in our sample (García-Sánchez et al., 2020a). Consequently, we motivate the choice of these two main CSR proxies regarding the increased research activity on CSR. We are also interested in moderator and mediator analyses performed in prior empirical research on that topic. Other (corporate) governance, CSR and financial proxies can play a moderating or mediating role on the link between corporate governance variables (e.g., board gender diversity) on CSR, stressing the interdependent relationships between (corporate) governance, CSR and firm value. Furthermore, other (corporate) governance, CSR and financial variables can moderate or mediate firms' financial consequences of CSR.

Figure 1 gives an overview of our research framework.

Figure 1. Research framework on GMM-CSR research



As the main requirement to select our sample, we use several international databases for our sample of studies, namely: Web of Science, Google Scholar, the Social Science Network (SSRN), EBSCO and Science Direct. This strategy implies that a paper published or accepted in an international journal is included in at least one database. Our search string included the relevant keywords ("CSR", "CSR performance", "CSR reporting", "environmental performance", "environmental reporting", "carbon performance", "carbon reporting" in connection with "GMM" and "governance", "corporate governance", "board composition", "ownership structure", "financial performance", "capital costs", "financial distress", "financial analysts", "firm value") and related terms.

We did not restrict our sample to a specific period or regime given the international relevance of this topic and the current attraction to include GMM as a regression method. As we are interested in the corporate governance-related determinants and firm's financial consequences of CSR, we only include empirical-quantitative (archival) studies. We are aware of the fact that some researchers also gain primary data via content analysis of sustainability and corporate governance reports, interviews or surveys to combine this information with regression models. However, archival data also dominates the research design in those studies. In order to guarantee an appropriate quality of this literature review, we only included articles published in English-language scientific journals with peer-review. Therefore, published books, book chapters and current working papers (e.g., those published on SSRN) are left out in line with other literature reviews on CSR and corporate governance (Jain & Jamali, 2016).

Our initial sample of studies counted 196 articles. After scanning the titles and abstracts of the articles, we excluded 46 articles without GMM method, 12 studies without CSR reporting and performance subcategories, as well as 7 articles without English peer-reviewed journals. The final sample had 131 studies.

Our structured literature review is conducted via vote-counting methodology (Light & Smith, 1971). We code the relevant empirical studies concerning the selected (sub-)constructs and our research framework. We evaluate the significant results of regression analyses within the empirical studies. A positive (negative) significant relationship between corporate governance inputs and financial outputs of CSR was coded as 1 (-1) and an insignificant link between those variables was coded as 0. Then, the range of (in)significant results separated between corporate governance determinants and financial consequences of CSR are counted.

In this context, the literature mentions key limitations of the vote counting method in literature reviews (Combs, Ketchen, Crook, & Roth, 2011). As we just compare the number of significance and do not take the size of the samples or the effect size into account, vote counting is a limited method for synthesizing evidence from multiple evaluations. These limitations of vote counting and literature reviews can be prevened by quantitative meta-analysis (Combs et al., 2011). Although meta-analyses are rarely used in CSR and corporate governance research, an increased amount can be found during the last years (Endrikat, de Villiers, Guenther, & Guenther, 2020; Khlif, Hussainey, & Achek, 2015). Meta-analyses require heterogeneous research results, comparable independent and dependent variables, moderators, and a reasonable number of studies on a specific topic. As the implementation of GMM studies in CSR research is a rather young research discipline and the number of studies on one special topic, e.g., the impact of board composition on CSR, is too low yet, we rely on a structured literature review to get a first comprehensive overview of this research topic and guide future researchers. However, for future research designs, we suggest performing quantitative meta-analyses of the impact of specific corporate governance variables on CSR and selected financial consequences of CSR, if an increased number of studies is available for one comparable measure, e.g., the impact of board composition on CSR based on GMM.

4. RESULTS OF THE LITERATURE REVIEW

4.1. Bibliometric and descriptive content analysis

Table 1 gives an overview of the included studies per publication year (Panel A), region (Panel B), journal (Panel C), content (Panel D), CSR proxy (Panel E), and GMM model (Panel F). Panel A stresses that GMM estimators have been heavily included in CSR research during the last few years and present a rather young research discipline (starting point in 2009). Most of our included studies rely on an international sample in order to increase the sample size and to recognize country effects. Moreover, the US-American capital market is very relevant as research design. Panel C illustrates that journal publications are heterogeneous regarding discipline and quality. Both accounting and corporate finance journals and management, CSR and corporate governance journals can be found. The most famous journals are *Corporate Social Responsibility and Environmental Management* (16 studies), *Journal of Business Ethics* (11 studies), *Sustainability* (11 studies), and *Business Strategy and the Environment* (10 studies). According to Panel D, most studies focus on financial consequences. Interestingly, CSR performance represents the most relevant CSR proxy in GMM research (Panel E). Reporting measures and subpillars (environmental or carbon aspects) are of lower relevance yet. Finally, with regard to the main separation between difference and system GMM, most of our included studies use the system GMM. Unfortunately, there are many studies with intransparent or a lack of explanations on the specific version of GMM estimators.

Table 1. Count of cited papers (Part 1)

Panel A: By publication year	
Total: 131	• 2021: 1 • *2020: 50* • *2019: 33* • 2018: 17 • 2017: 5 • 2016: 12 • 2015: 6 • 2014: 4 • 2013: 1 • 2011: 1 • 2009: 1
Panel B: By region	
Total: 131	• Australia: 2 • China: 17 • France: 3 • Ghana: 1 • India: 3 • Iran: 1 • Italy: 2 • *International: 52* • Japan: 2 • Korea: 2 • Malaysia: 2 • Pakistan: 3 • Palestine: 2 • Portugal: 1 • Saudi Arabia: 1 • Spain: 1 • UK: 5 • *USA: 31*

Table 1. Count of cited papers (Part 2)

Panel C: By journal	
Total: 131	Accounting and corporate finance journals: • Accounting & Finance: 2 • Applied Economic Letters: 4 • Applied Economics: 2 • Australian Accounting Review: 2 • Critical Perspectives on Accounting: 1 • Emerging Markets Finance and Trade: 2 • Finance Research Letters: 5 • Global Finance Journal: 2 • International Journal of Accounting & Information Management: 1 • International Journal of Financial Economics: 1 • International Journal of Managerial Finance: 1 • International Review of Financial Analysis: 1 • Journal of Accounting & Public Policy: 1 • Journal of Accounting and Taxation: 1 • Journal of Banking and Finance: 4 • Journal of Corporate Finance: 1 • Journal of Risk and Financial Management: 1 • Managerial Finance: 1 • Pacific-Basin Finance Journal: 1 • Review of Accounting and Finance: 1 • Review of Quantitative Finance and Accounting: 1 • The Financial Review: 1 • The International Journal of Accounting: 1 • The Quarterly Review of Economics and Finance: 1
	Management/CSR/corporate governance journals: • Asia-Pacific Journal of Business Administration: 1 • Benchmarking: 1 • British Journal of Management: 1 • Business & Society: 2 • Business Ethics: A European Review: 1 • Business Strategy and Development: 1 • *Business Strategy and the Environment: 10* • Competiviness Review: 1 • Corporate Governance: 1 • *Corporate Social Responsibility and Environmental Management: 16* • Economic Research: 1 • Energy Policy: 1 • Environmental Science and Pollution Research: 2 • European Journal of International Management: 2 • Global Business Review: 1 • International Business Review: 1 • International Journal of Contemporary Hospitality Management: 1 • Journal of Asia Business Studies: 1 • *Journal of Business Ethics: 11* • Journal of Business Research: 2 • Journal of Cleaner Production: 7 • Journal of Economics and Business: 1 • Journal of Environmental Management: 1 • Journal of Management: 1 • Journal of Management and Sustainability: 1 • Journal of Public Affairs: 1 • Management Decision: 1 • Management of Environmental Quality: 1 • Review of Managerial Science: 3 • Social Responsibility Journal: 3 • Sustainability Accounting, Management and Policy Journal: 1 • *Sustainability: 11*
Panel D: By content	
Total: 131	• *Firm's financial consequences: 78* • Corporate governance determinants: 53
Panel E: By CSR proxy	
Total: 131	Performance: • *CSR performance: 84* • Environmental (carbon) performance: 16 (3)
	Reporting: • CSR reporting: 23 • Environmental (carbon) reporting: 3 (1) • CSR decoupling (gap between performance and reporting): 1
Panel F: By GMM model	
Total: 131	• Difference GMM (e.g., Arellano & Bond): 37 • *System GMM (e.g., Blundell & Bond): 58* • No comment on the model: 36

4.2. Corporate governance-related determinants

Prior literature reviews and meta-analyses on corporate governance and CSR (Guerrero-Villegas, Pérez-Calero, Hurtado-González, & Giráldez-Puig, 2018) stated a positive relationship. Thus, in correspondence to prior literature reviews (Velte et al., 2020), we mainly structure included studies in 1) board composition and 2) ownership structure. While CSR performance represents the most important measure, also CSR reporting, environmental and carbon aspects as key subpillars of CSR are included. Three studies focus on a broad corporate governance index as a significant driver of CSR performance (Anwer, Azmi, Mohamad, & Paltrinieri, 2020; Jo, Song, & Tsang, 2016) or carbon performance (Luo & Tang, 2021). Gallogo-Alvarez and Pucheta-Martinez (2020a) represent the only study in our sample with a focus on country-related governance factors (legal system and national environmental performance index) and find a positive impact on environmental reporting.

The following sub-sections give an overview of our review about board composition and ownership structure.

4.2.1. Board composition

According to our theoretical framework, monitoring activities of the board of directors should meet shareholders' and other stakeholders' interests. Therefore, various board characteristics are included in prior corporate governance research to analyse board effectiveness (Malik, 2015). It is assumed that an effective board strongly supports and promotes top management's decision to increase their CSR activities (Malik, 2015). García-Sánchez, Suarez-Fernandez, and Martínez-Ferrero (2019b) conduct a board composition index and stress a positive impact on CSR performance. Referring to a management entrenchment index, the study by García-Sánchez et al. (2020a) states a positive impact of CSR decoupling as greenwashing behaviour. In a direct comparison to ownership structure, board composition variables are the most relevant determinants in our literature review. However, the authors do not rely on the board composition index but address specific characteristics because of the potential heterogeneous effects.

It is not surprising, that *board diversity*, especially *gender* diversity, is of crucial importance in our review concerning the controversial political debate on introducing fixed board quotas and their contribution to sustainable management (Lopatta, Böttcher, Lodhia, & Tideman, 2020; Nadeem, Gyapong, & Ahmed, 2020). Our studies mainly rely on gender diversity as the ratio of female board members. Only a few studies additionally address foreign directors to stress international diversity. The majority of related studies stated a positive impact of gender diversity on CSR reporting, CSR performance, as well as environmental performance. With regard to CSR performance, an increased influence of gender diversity was found by Karim et al. (2020b), Lopatta et al. (2020), Orazalin and Baydauletov (2020), Shahbaz, Karaman, Kilic, and Uyar (2020), Francoeur, Labelle, Balti, and Bouzaidi (2019), Nadeem et al. (2020), Rodríguez-Ariza, Cuadrado-Ballesteros, Martínez-Ferrero, and García-Sanchez (2017), Arayssi, Dah, and Jizi (2016), and Kaspereit, Lopatta, and Matolscsy (2016). García-Sánchez et al. (2019a), Khan, Khan, and Saeed (2019), and Nadeem, Zaman, and Saleem (2017) focus on CSR reporting and stress a positive impact of gender diversity. In line with critical mass theory (Kanter, 1977), a critical mass of at least three female directors is related to better CSR reporting (Amorelli & García-Sánchez, 2020) and CSR performance (Yarram & Adapa, 2021). However, according to Jain and Zaman (2020), female directors on the board reduce CSR performance. Lu and Herremans (2019) and Kassinis, Panayiotou, Dimou, and Katsifaraki (2016) rely on environmental performance and state a positive influence of gender diversity, while Elmagrhi et al. (2019) find a non-linear relationship. Another diversity variable is nationality. *Foreign directors* are linked to different cultural backgrounds and attitudes, and should increase the CSR activities. In comparison to gender diversity, foreign diversity is used rarely yet. Naciti (2019) and Cuadrado-Ballesteros, García-Sánchez, and Ferrero (2017) include a combined gender and nationality diversity index. This diversity index and CSR performance are positively related. There are also indications that foreign diversity increases both CSR performance (Beji, Yousfi, Loukil, & Omri, 2020) and CSR reporting (Khan et al., 2019).

Along with diversity, prior studies also investigate the effect of *board independence* on CSR outputs (e.g., Beji et al., 2020; Endo, 2020). On the one hand, board independence can lead to better board monitoring given increased objectivity of the members. On the other hand, specific knowledge about the company, the industry and the business model may be lower then. It is not surprising that inconclusive relationships between board independence, CSR performance and CSR reporting are existent. While Beji et al. (2020), Shahbaz et al. (2020), and Cuadrado-Ballesteros et al. (2017) find a positive relationship between board independence and performance, an oppositive effect was stated by Chintrakarn, Jiraporn, Tong, Jiraportn, and Proctor (2020), Jain and Zaman (2020), and Naciti (2019). With regard to CSR reporting, prior research is also inconclusive (positive relationship by García-Sánchez and Martinez-Ferrero, 2018, and negative link by García-Sánchez and Martinez-Ferrero, 2019). Endo (2020) presents the only study in our literature review that addresses environmental performance. The author states a positive impact of board independence.

Moreover, *board size* is a relevant corporate governance variable in archival research. In line with board independence, board size is a heterogeneous variable, as both a positive and negative impact on CSR may be realistic. While an appropriate board size ensures board effectiveness, a bigger board can also lead to more transaction costs and conflicts in decision-making. Referring to our included studies, board size increases both CSR performance (Beji et al., 2020; Jain & Zaman, 2020) and environmental performance (Cancela, Neves, Rodrigues, & Dias, 2020; Endo, 2020). According to Cuadrado-Ballesteros et al. (2017) both size and CSR performance are related in a non-linear way (inverted U-shaped relationship), assuming a certain optimum of board size to realize a maximum of CSR performance.

A similar relationship may also be realistic by using board meetings, board age or board tenure as corporate governance variables. *Board meetings* can either increase board effectiveness and incentives for CSR strategies or decrease their opportunities as too many board meetings can represent a low efficiency and conflict of interests. Only two studies include this variable and found heterogeneous results (positive impact by Shahbaz et al., 2020, and negative link by Jain and Zaman, 2020). *Board age* can also be positively or negatively related to CSR, as younger directors are more open to sustainable management on the one hand, while older directors have more experience on the other hand. There is only one study (Beji et al., 2020) on this topic, stressing a positive impact on CSR performance. *Board tenure* can also either represent a driver of increased experience and possibility of implementing CSR strategies, while a new director can also be classified as a change agent and may implement a different, more CSR-related management philosophy. Again, only one study discusses this topic, indicating a positive link between board tenure and CSR reporting (Khan et al., 2019).

From an international perspective, committees (*audit committees*) mainly support the duties of directors' board. Since the US-American Sarbanes-Oxley Act 2002 was passed, there is a great amount of research on audit committees and their sustainable corporate governance duties. Audit committees monitor the firm's reporting and risk management process and supervise managers, internal auditors and external auditors (Cancela et al., 2020). Audit committees should lead to increased CSR activities of top management in line with stakeholders' interests, e.g., by supervision of the CSR strategies and reports. Interestingly, we only note one study in our sample on that topic. Cancela et al. (2020) include the implementation of audit committees and environmental performance and state a positive relationship. Next to audit committees, due to the increased stakeholder awareness of CSR, research has concentrated on *CSR committees* and their impact on CSR issues (Orazalin, 2020). The authors assume that CSR committees mainly support the audit committee in monitoring the CSR performance and reporting process. Thus, there are indications that the formation of CSR committees increases CSR performance (Orazalin, 2020; Shahbaz et al., 2020), CSR reporting (Gallego-Alvarez & Pucheta-Martinez, 2020b) and environmental performance (Cancela et al., 2020). In opposite to this, Jain and Zaman (2020) report a negative relationship, assuming a possible symbolic use of these committees for legitimacy reasons.

Specific expertise of board members is of key importance in corporate governance literature. With regard to *board education,* Beji et al. (2020) stress a positive influence of the educational level on CSR performance, while an opposite effect on CSR reporting was shown by Khan et al. (2019). *Multiple directorships* can also significantly increase board expertise, e.g., about the specific industries, while corporate governance quality may be also reduced in line with the "busyness" argument. According to Beji et al. (2020) and Amin, Chourou, Kamal, Malik, and Zhao (2020), multiple directorships and board networks increase CSR performance.

Moreover, *management compensation* is a very important board composition variable in prior CSR studies. Since the financial crisis of 2008–09, stakeholders criticise short-term management contracts and the focus on financial goals (Ding, Zhao, & Wang, 2020). Instead, an integration of social and environmental issues in variable management compensation and a long-term perspective is an important stakeholder demand. In line with this assumption, Ding et al. (2020) report that a short-term management compensation horizon leads to increased technical CSR performance with a higher risk of greenwashing behaviour. While Ongsakul, Jiraporn, and Treepongkaruna (2019) find a positive relationship between managerial stock ownership and CSR performance, the opposite link was found by Withisuphakorn and Jiraporn (2019). Finally, Pucheta-Martinez, Bel-Oms, and Rodrigues (2020) include stakeholder engagement policies by the top management and state an increased environmental reporting.

In line with board variables, individual board member characteristics are also relevant in CSR research. It is not surprising that the chief executive officer (CEO) is focused due to his great influence within the board. We recognize a variety of different *CEO variables*. García-Sánchez, Hussain, Martínez-Ferrero, and Ruiz-Barbadillo (2019a) find an increased CSR performance by including *CEO ability*. According to Naciti (2019), *CEO duality* leads to better CSR performance. Sajko, Boone, and Buyl (2020) use *CEO greed* as opportunistic management behaviour and stress an increased CSR performance. Sarfraz, He, and Shah (2020) report a positive link between cognitive CEOs and environmental performance. Finally, *CEO compensation* either increases (Boubaker, Chebbi, & Grira, 2019; Sheikh, 2018) or decreases (Park, Song, & Lee, 2019) CSR performance.

4.2.2. Ownership structure

In line with board composition, the literature assumes that ownership structure may be an important driver of CSR activities (Endo, 2020). As investors may react heterogeneously given their time horizon and preferences, it is realistic that large and institutional shareholders are more powerful than small and private investors and will promote their strategic goals. In our sample, ownership variables have been included to a rather low degree. As *foreign blockholders* have both an increased information demand and a high bargaining power, it depends on their CSR goals whether they can put pressure on the top management to increase CSR activities. Endo's (2020) study recognizes a negative impact of foreign blockholders on environmental performance. The author assumes that the blockholders in that specific sample are mainly short-term and financially oriented. With regard to *institutional ownership*, Zaid et al. (2020a) find a positive impact on CSR reporting in static regressions and no significant results in dynamic panel regressions.

4.3. Moderator and mediator analysis of CSR determinants

During the last years, empirical-quantitative CSR research includes possible *moderator and mediator variables* with a clear focus on moderators. Therefore, researchers analyse whether the link between corporate governance determinants of CSR can be moderated or mediated by other factors. We differentiate two types of moderator and mediator analysis in our literature review:

1) *other (corporate) governance variables* are used as moderators or mediators, and
2) *other CSR and financial variables.*

Firstly, we stress the results of eight studies on *(corporate) governance variables* that may moderate the relationship between other corporate governance factors and CSR. Concerning *board composition*, according to Zaid et al. (2020a), board independence strengthens the positive link between institutional ownership and CSR reporting (Zaid et al., 2020b). Amorelli and García-Sánchez (2020) find that the human capital of board members, specific skills and board experience positively moderate the link between gender diversity and CSR reporting. Moreover, an annual bonus for management strengthens the negative CEO greed-CSR performance link (Sajko et al., 2020). Jain and Zaman (2020) state that both *ownership structure* and board composition strengthen the positive link between board size and CSR performance and the negative link between board independence, board meetings, gender, CSR committee, and CSR performance. Moreover, institutional ownership pronounces the negative link between CEO compensation and CSR performance (Park et al., 2019). According to Nadeem et al. (2020), family ownership moderates the positive link between gender and environmental performance. In contrast to this, the positive relationship between gender diversity and CSR performance is weakened by family firms (Rodríguez-Ariza et al., 2017).

García-Sánchez and Martinez-Ferrero (2018) stress that CSR assurance turns the negative effect of board independence on CSR reporting to a positive link. García-Sánchez et al.'s (2019a) study finds that the positive link between gender diversity and CSR reporting is strengthened in mandatory CSR reporting regimes.

Other studies rely on *other CSR and financial variables* as moderators. There are hints that environmentally sensitive industries moderate the increased impact of gender diversity on environmental performance (Lu & Herremans, 2019). Furthermore, business environment complexity and requirement of advising moderate the positive influence of board networks on CSR performance (Amin et al., 2020). According to Ongsakul et al. (2019), the positive relationship between managerial ownership and CSR performance is moderated by economic policy uncertainty. Pucheta-Martinez et al. (2020) include financial performance as a moderator and find that it weakens the positive impact of stakeholder engagement policies on environmental reporting. According to Ding et al. (2020), earnings pressure strengthens the positive influence of short-term management compensation on technical CSR performance as a potential greenwashing policy. We also include two studies with *CSR moderators.* García-Sánchez and Martinez-Ferrero (2018) report a moderator effect of CSR performance on the increased effect of board independence on CSR reporting. Finally, carbon strategy and carbon managerial awareness moderate the positive relationship between governance performance and carbon performance (Luo & Tang, 2021).

Unfortunately, the *mediator* analysis is of low attractiveness yet. Orazalin (2020) finds that CSR strategy mediates the positive impact of CSR committees on CSR performance (Orazalin, 2020). Similarly, corporate innovation mediates the positive link between cognitive CEOs and environmental performance (Sarfraz et al., 2020).

4.4. Firm's financial consequences

Firm's financial consequences of CSR issues are the most intensive research topic in our literature review, especially financial performance. In line with the business case argument, researchers assume that CSR performance and reporting quality have a positive impact on financial output in the long run (Lin et al., 2020). In this context, Rossi and Harjoto (2020) find that CSR reporting is connected with lower agency costs. Agency costs can be analysed by the following main variables: 1) *financial performance*, 2) *capital costs*, 3) *firm risk*, 4) *financial distress,* and *5) financial analysts.*

4.4.1. Financial performance

Most studies in our literature review analyse the impact of CSR performance on financial performance. A variety of heterogeneous financial performance measures can be found, stressing the heterogeneous use of financial performance proxies. In line with prior research, financial performance variables can be mainly separated in accounting-based (e.g., Return on Assets (ROA)) or market-based (e.g., Tobin's Q) (Lin et al., 2020). We start with the *accounting-based* measures that are mainly influenced by managerial discretion and earnings management. With regard to CSR performance, there is a high probability that financial performance will be higher in the future (Bahta, Yun, Islam, & Ashfaq, 2020; Ferrero-Ferrero, Fernández-Izquierdo, & Muñoz-Torres, 2016). Thus, many researchers state a positive impact of CSR performance on *ROA* (Jahmane & Gaies, 2020; Khattak, 2020; Lin et al., 2020; Long, Li, Wu, & Song, 2020; Wu, Shao, Yang, Ding, & Zhang, 2020; Javeed & Lefen, 2019; Cavaco & Crifo, 2014; Shakil, Mahmood, Tasnia, & Munim, 2019; Feng, Chen, & Tang, 2018; Oh & Park, 2015; Callan & Thomas, 2009). Few studies stress a non-linear relationship (Adegbite, Guney, Kwabi, & Tahir, 2019; Kim & Oh, 2019; Meier, Naccache, & Schier, 2019) or even a negative link (Buallay, Fadel, Alajmi, & Saudagaran, 2020). According to Karim et al. (2020a), Nekhili, Nagati, Chtioui, and Nekhili (2017), Alipour, Ghanbari, Jamshidinavid, and Taherabadi (2019), as well as Saini and Singhania (2019), CSR reporting and ROA are also positively related. Similar results also occur for environmental performance (Gangi, Daniele, & Varrone, 2020; Jiang, Xue, & Xu, 2018; Jo et al., 2015; Qi et al., 2014), environmental reporting (Zhang & Ouyang, 2020), carbon reporting (Hirunyawipada & Xiong, 2018), and carbon performance (Robaina & Madaleno, 2020). In line with ROA, prior studies also stress that *return on equity (ROE)* will be increased by CSR performance (Jahmane & Gaies, 2020; Khattak, 2020; Lin et al., 2020; Javeed & Lefen, 2019; Shakil et al., 2019; Al-Malkawi & Javaid, 2018; Cornett, Erhemjamts, & Tehranian, 2016; Callan & Thomas, 2009). Again, non-linear relationships (Adegbite et al., 2019) or negative impacts (Buallay et al., 2020) are very rare. A positive impact of ROE on carbon reporting (Alipour et al., 2019), environmental performance (Gangi et al., 2020) and environmental reporting (Zhang & Ouyang, 2020) is also existent. Other accounting-based financial performance measures are less important. CSR performance is also positively related to *return on invested capital (ROIC)* (Oh & Park, 2015), *return on sales (ROS)* (Callan & Thomas, 2009), and *growth rate* (Feng et al., 2018; Oh & Park, 2015). With regard to *economic value added (EVA),* researchers also state a positive impact of CSR reporting (Rossi & Harjoto, 2020) and environmental reporting (Zhang & Ouyang, 2020), while Zhang, Wei, Zhu, and George-Ufot (2020) find a non-linear relationship between EVA and environmental performance. Other significant positive links exist between CSR reporting, *return on capital employed (ROCE)* (Saini & Singhania, 2019) and *revenue ratio* (Gavana, Gottardo, & Moisello, 2018), environmental performance and *earnings per share (EPS)* (Wang, Liu, Sui, & Liu, 2020), as well as between environmental reporting and ROS (Zhang & Ouyang, 2020). With regard to the banking industry, CSR performance and bank market power (Forgione & Migliardo, 2020) and environmental performance and bank net interest margin (Khattak & Saiti, 2020) are positively related only in developing countries.

Referring to the *market-based* financial performance, most included studies use *Tobin's Q* and state a positive impact of CSR performance (Jahmane & Gaies, 2020; Lin et al., 2020; Cavaco & Crifo, 2014; Zolotoy, O'Sullivan, & Chen, 2019; Kao, Yeh, Wang, & Fung, 2018; Sial, Chunmei, Khan, & Nguyen, 2018; Sheikh, 2018; Price & Sun, 2017; Callan & Thomas, 2009). Non-linear relationships (Sun & Ding, 2020) in dynamic markets (Kim & Oh, 2019) and negative links (Lahouel et al., 2020; Buallay et al., 2020; Di Tommaso & Thornton, 2020) are rarely stated. Similar results can be found in view of CSR reporting (Nekhili et al., 2017; Rossi & Harjoto, 2020; Alipour et al., 2019; Saini & Singhania, 2019; Kim, Park, & Lee, 2018), environmental reporting (Zhang & Ouyang, 2020) and carbon reporting (Hirunyawipada & Xiong, 2018). However, Zhang et al. (2020) stress a non-linear relationship between environmental performance and Tobin's Q. Other market-based financial performance items are of lower importance with heterogeneous results. CSR performance and *share price* are non-linearly (Adegbite et al., 2019) or negatively related (Di Tommaso & Thornton, 2020). Moreover, the *book value of capital* is reduced by CSR performance (Di Tommaso & Thornton, 2020). Positive connections can be found between CSR performance and *price-to-book-ratio* (Al-Malkawi & Javaid, 2018), as well as *market value* (Martinez-Ferrero et al., 2017; Martinez-Ferrero & Frias-Aceituno, 2015). Moreover, CSR reporting increases both *total shareholder return (TSR)* (Rossi & Harjoto, 2020) and *market value of equity* (Saini & Singhania, 2019), while Rehman, Riaz, Cullinan, Zhang, and Wang (2020) report a negative direction.

4.4.2. Capital costs

Capital costs as a major part of firm values can be included as total capital costs or separated between costs of equity and debt. Literature states that CSR issues can have a major impact on firm value (Li & Liu, 2018). Five studies in our review include the *cost of equity* and report a negative impact of CSR performance (El Ghoul, Guedhami, Kwok, & Mishra, 2011), CSR reporting (Li & Liu, 2018; Cuadrado-Ballesteros, García-Sánchez, & Ferrero, 2016) and environmental performance (El Ghoul et al., 2018; Gupta, 2018). Similar results can be stated by including the *cost of debt*, CSR performance (Kordsachia, 2020; Eliwa, Aboud, & Saleh, 2021; Ge & Liu, 2015) and CSR reporting (Eliwa et al., 2021). García-Sánchez et al. (2020b) include the *total cost of capital* and state a positive influence on CSR decoupling.

4.4.3. Firm risk

Firm risk is another key subpillar of firm value and can be addressed by including total risk (e.g., by stock volatility), systematic risk (mainly by beta factors), or unsystematic firm risk (e.g., by standard deviation of residuals from the CAPM). Literature assumes that increased CSR performance and reporting lead to reduced firm risk and thus increased firm value. Some researchers address these issues and state that firm risk is lower when companies increase CSR performance (Di Tommaso & Thornton, 2020; Chollet & Sandwidi, 2018; Chang, Kim, & Li, 2014; Kim, Li, & Li, 2014) with regard to stock price crash risk (Hunjra, Mehmood, & Tayachi, 2020), CSR reporting (Rossi & Harjoto, 2020) and environmental performance (Cai, Cui, & Jo, 2016).

4.4.4. Financial distress

As CSR strategies and financial performance should be positively related in the long run, current research also includes *financial distress*, e.g., by using the Altman-Z-score. Results are homogeneous and indicate that financial distress risk is lower by increased CSR performance (Badayi, Matemilola, Bany-Ariffin, & Theng, 2020) only in the developing countries (Shahab, Ntim, & Ullah, 2019; Liu et al., 2019), better environmental performance (Gangi et al., 2020) and CSR reporting (García-Sánchez et al., 2019a). According to García-Sánchez et al. (2020b), CSR decoupling leads to lower access to finance.

4.4.5. Financial analysis

Financial outputs and future firm success are mainly driven by *financial analysts' forecasts.* Analyst forecast errors and dispersion are an important proxy in archival research. However, we used them rarely in our sample. It is assumed that CSR performance and reporting lead to a reduction of analyst forecast error and dispersion as agency conflicts, especially information asymmetry, are lower by CSR-related firms (Cui, Jo, & Na, 2018).

Prior research confirms this assumption as analyst forecast error or dispersion is lower if CSR performance (Cui et al., 2018) and CSR reporting (Martinez-Ferrero, Ruiz-Cano, & Garcia-Sanchez, 2016) are higher; similiarly, CSR decoupling leads to higher analyst forecast error (García-Sánchez et al., 2020a).

4.5. Moderator and mediator analysis of CSR consequences

Prior research includes possible *moderator and mediator variables* of firms' financial consequences of CSR with a clear focus on moderators. Thus, the relationship between firms' financial consequences may be moderated or mediated by other factors. We separate between two types of moderator and mediator analysis in our literature review:

1) *other (corporate) governance variables* are used as moderators or mediators, and
2) *other CSR or financial variables.*

Firstly, we explain the main results of *(corporate) governance moderators*. With regard to *board composition*, Nekhili et al. (2017) find that gender diversity moderates the positive link between CSR reporting and financial performance. While Karim et al. (2020a) state that board independence weakens the negative CSR-financial performance link, this variable strengthens the positive link between CSR reporting and financial performance according to Alipour et al. (2019). Javeed and Lefen (2019) include CEO power as moderator; the positive CSR-financial performance link is more pronounced by CEO power.

Other researchers address the *ownership structure* as a moderator. State ownership represents a well-known corporate governance variable in Asian countries, e.g. in China, leading to heterogeneous results. According to Long et al. (2020), state ownership weakens the positive CSR-financial performance link. With regard to Jiang et al. (2018) and Kao et al. (2018), non-state ownership strengthens the link between environmental and CSR performance, as well as financial performance. It also strengthens the negative relationship between CSR performance and financial distress (Shahab et al., 2019). In contrast to this, Wu et al. (2020) find that the positive CSR-financial performance link is strengthened by state ownership. Similarly, state ownership strengthens the negative impact of CSR reporting on the cost of equity (Li & Liu, 2018). Next to state ownership, institutional ownership is included as a moderator variable. Institutional ownership turns the negative link between CSR reporting and market value to a positive link (Rehman et al., 2020). Furthermore, short-term institutional ownership strengthens the negative link between CSR performance and firm risk (Kim et al., 2014). Feng et al. (2018) also find that ownership concentration moderates the CSR-financial performance link (Feng et al., 2018). Blockholder weakens the positive link between CSR reporting and financial performance (Kim et al., 2018). Moreover, there are indications that the positive relationship between CSR reporting and financial performance is weakened by foreign ownership (Saini & Singhania, 2019) and strengthened by family ownership (Gavana et al., 2018).

Next to corporate governance, few researchers also include *country-related governance* variables. According to Gupta (2018), country-specific governance rankings weaken the negative relationship between environmental performance and cost of equity. In contrast to this, above-average national CSR performance strengthens the negative link between CSR reporting and analyst forecast errors (Martinez-Ferrero et al., 2016). Moreover, the positive relationship between CSR performance and financial performance is moderated by legal and corporate governance systems (Martinez-Ferrero & Frias-Aceituno, 2015), religious norms in the area surrounding firms headquarters (Zolotoy et al., 2019), and country-related institutional quality (Khattak, 2020). Furthermore, Eliwa et al. (2021) find that stakeholder-oriented regimes strengthen the negative relationship between CSR performance and cost of debt.

In line with (corporate) governance, *other CSR and financial proxies* as the moderators play an important role in prior CSR research. Lee, Lu, and Wang (2018) include CSR concerns as moderators and state that the positive link between CEO overconfidence and stock price crash risk is more pronounced. According to García-Sánchez et al. (2019b), CSR assurance moderates the positive link between CSR reporting and access to finance. More attention has been paid on *other financial variables* as moderators. Lin et al. (2020), Ferrero-Ferrero et al. (2016), Lin et al. (2019c), Qi et al. (2014) and Sheikh (2018) show that market-based assets of the firm, interdimensional performance consistency, financial slack, resource slack, and product market competition moderate the positive CSR-financial performance link. In contrast to this, corporate political activity moderates this link in a negative way (Lin et al., 2019a). With regard to the positive relationship between carbon reporting and financial performance, Hirunyawipada and Xiong (2018) report a moderating influence of marketing and operations capabilities. Moreover, environmental uncertainty moderates the environmental-financial performance link (Zhang et al., 2020). Furthermore, the branch of industy moderates the negative link between CSR performance and cost of equity (El Ghoul et al., 2011), the negative link between CSR reporting and cost of equity (Li & Liu, 2018), and the positive CSR-financial performance link (Long et al., 2020). Li and Liu (2018) show that the negative impact of CSR reporting on the cost of equity is strengthened by the firm size. Morever, firm risk strengthens the negative influence of CSR performance on analyst forecast dispersion (Cui et al., 2018). With regard to financial distress, this variable moderates the negative impact of CSR performance on the cost of debt (Kordsachia, 2020) and the positive CSR-financial performance link (Wu et al., 2020). Finally, earnings management weakens the negative impact of CSR performance on financial constraints (Liu et al., 2019), CSR-financial performance link (Sial et al., 2018) or strengthens it (Martinez-Ferrero et al., 2017).

We only identify three studies in our sample with the *mediator* variables. Bahta et al. (2020) find that innovation capability partially mediates the positive CSR-financial performance link. According to Zhang and Ouyang (2020), firm reputation mediates the link between environmental reporting and financial performance. Finally, analyst forecast accuracy mediates the negative impact of CSR reporting on the cost of equity (Cuadrado-Ballesteros et al., 2016).

4.6. Key results

According to our literature review, we show that the *gender diversity* is significantly positively related to *CSR performance*. Moreover, CSR performance leads to increased *financial performance*, especially based on *ROA and Tobin's Q*. Other corporate governance determinants, firms' financial consequences, and other CSR proxies are still inconclusive in their results, as the amount of archival studies based on GMM is still too low or insignificant results are existent. We identify a variety of research gaps that we mention in the following section.

5. IMPLICATIONS FOR FUTURE RESEARCH

5.1. Methodological implications

We already noted that archival research on corporate governance, CSR and financial outputs is linked with increased endogeneity concerns (Wintoki et al., 2012; Lahouel et al., 2019). Most of the prior researches on that topic do not address these concerns properly (Ullah et al., 2020). While our literature review is focused on GMM, other approaches are also useful to cope with reversed causality, omitted variables or self-selection bias (e.g., 2SLS or 3SLS with instrumental variables, SEM, Heckman two-stage approach, PSM) (Lahouel et al., 2019; Ullah et al., 2020). In line with Wintoki et al. (2012) and Lahouel et al. (2019), we recommend future researchers including GMM in sustainable corporate governance research. Advanced regression models addressing endogeneity problems should not be used only as robustness checks but included as main regression. Instead, lower-level methods, e.g., pooled OLS or (static) panel regressions, should be used as robustness analyses. We also note an increased intransparency of prior researches in explaining the GMM estimators and instruments. In this context, the specific GMM specification (difference versus system) and instruments should be explicitly described and the choice should be justified. Furthermore, we recommend including more advanced regression methods for endogeneity reasons as robustness checks in line with GMM to increase the validity of the study.

We also stress that prior researches mainly include linear regression models, indicating that a maximum level of corporate governance can be useful to increase CSR, and CSR and financial performance are linearly related. However, an optimal level of those indicators and a non-linear relationship seems to be more realistic in business practice (indicating a U-shape or inverted U-shape curve).

5.2. Content-related implications

Prior researches dominantly focus on board composition variables, especially on gender diversity. Future researchers should analyse whether other aspects of board composition, e.g., experience, expertise, busy boards, committees, and CSR proxies are linked with endogeneity problems, leading to GMM estimators. It is also useful to include behavioural corporate governance aspects with increased relevance. Researchers may analyse the effects of CEO and CFO demographic (e.g., gender, age, experience, education) or behavioural (e.g., altruism, narcissism, overconfidence) characteristics on CSR strategies. As non-financial components in a firm's management compensation are getting more important, such as CSR-related compensation systems or stock options, their impact on CSR performance and reporting is also relevant (Winschel & Stawinoga, 2019).

In contrast to board composition, we know very little about the impact of ownership structure, especially institutional ownership, on CSR reporting and performance based on GMM. Non-financial shareholder activism, e.g., by sustainable investors, should motivate top managers to increase CSR issues and decrease greenwashing policies (Velte, 2020). Future researchers should evaluate the effect of sustainable investors, e.g., based on signing of the UN Principles for Sustainable Investors (PRI), on CSR.

With regard to firms' financial consequences, we recommend including other variables than financial performance. We know very little about the impact of CSR performance and reporting on financial distress, capital costs, firm risks, and financial analysts. In comparison to the great attraction of moderator analyses, the amount of mediator variables in GMM models is not satisfying. As prior researches focus on CSR performance, environmental or carbon performance and reporting proxies should be more addressed to the current global climate change discussion (Gangi et al., 2020).

We recognize that very few studies include GMM models for analysing other related topics, e.g. the impact of corporate governance on integrated reporting and their financial consequences for firms (e.g., García-Sánchez & Noguera-Gamez, 2017), the influence of CSR on tax avoidance (e.g., Gandullia & Pisera, 2020) or the link between earnings management and CSR (e.g., García-Sánchez & Garcia-Meca, 2017). As integrated reporting and CSR reporting represent different concepts, we did not include these few GMM studies in our literature review. Endogeneity concerns may be also related to these research topics, leading to the inclusion of GMM in future research designs.

6. CONCLUSION

Empirical-quantitative research on corporate governance-related determinants and firms' financial consequences of CSR performance and reporting has increased since the last decade. Given the heterogeneous research results and increased endogeneity problems within this research strength (Wintoki et al., 2012; Lahouel et al., 2019; Ullah et al., 2020), our structured literature review on 131 studies focuses on dynamic panel regression models (GMM). According to our legitimacy and stakeholder-theoretical framework, we assume that corporate governance leads to increased CSR performance and reporting. In line with the business case argument for CSR (Hirunyawipadaa & Xiong, 2018), we also posit that CSR performance and reporting are linked to positive firms' financial consequences. Furthermore, we analyze whether these relationships are moderated or mediated by other (corporate) governance, CSR or financial attributes. We find that 1) gender diversity has a positive impact on CSR performance and 2) CSR performance leads to better financial performance, especially based on ROA and Tobin's Q. Given the low amount of GMM studies and their heterogeneous results, we do not find any pieces of evidence for other relationships and proxies.

While noting an increased amount of literature reviews on the link between corporate governance, CSR and financial consequences (e.g., Malik, 2015; Velte, 2017), to the best of our knowledge, we conduct the first literature review with a clear focus on GMM estimators on these issues. Our key motivation for this strategy is the recognition of endogeneity problems within this research topic. Dynamic panel regressions represent a high-quality technique to address endogeneity problems in archival research and are linked with an increased validity in comparison to static regressions, e.g. pooled OLS (Wintoki et al., 2012). Thus, the comparability of prior archival research on CSR is very low. We stress a major increase in the use of GMM during the last few years and expect that GMM estimators will become "best practice" for archival CSR research in high-ranked journals in the future.

We also offer useful recommendations to researchers in our review. With regard to methodological issues, we address the need for transparency of GMM descriptions, the recognition as main regression models instead of robustness checks, as well as the combination of other advanced regression models for endogeneity issues (e.g., PSM or Heckman two-step approach). Concerning the content-related aspects, other board composition variables than gender diversity and ownership structure should be more addressed in future research designs in line with other financial outputs than performance. We also notice additional relevant topics for the choice of GMM in future CSR research, e.g., the impact of tax avoidance or earnings management on CSR and vice versa.

Our research results have also useful implications for *business practice and regulators*. During the last years, many reform initiatives have been started to connect corporate governance issues and CSR aspects on the one hand ("sustainable corporate governance") and their financial outputs ("sustainable finance") on the other hand. Our research results indicate that regulations on board composition, especially the promotion of gender diversity, may be necessary to increase CSR performance and reporting and decrease greenwashing policies. Moreover, in line with the business case argument (Hirunyawipadaa & Xiong, 2018), companies' successful CSR strategy can be linked with positive financial outputs. Managers should integrate CSR aspects in their decision-making and business model to guarantee a long-term going concern of the firm. This strategy can be mainly justified by the current climate change policy and the related transformation of business models (e.g., in the automobile industry).

Finally, we stress the *limitations* of our study. We note that vote counting is a limited method for synthesizing evidence from multiple evaluations, as only the number of significances is considered. A quantitative meta-analysis can increase the validity. However, the variety of corporate governance determinants and financial consequences of CSR in our included sample is not comparable to conduct an overall meta-analysis. Furthermore, as the number of GMM studies on a specific proxy (e.g., gender diversity) is still low, a specific meta-analysis on special variables is not useful yet. Given the increased research activity on GMM during the last few years, we expect that future researchers will include GMM estimators in archival CSR research as best practice and will also be able to conduct meta-analysis then.

REFERENCES

1. Adegbite, E., Guney, Y., Kwabi, F., & Tahir, S. (2019). Financial and corporate social performance in the UK listed firms: The relevance of non-linearity and lag effects. *Review of Quantitative Finance and Accounting, 52*(1), 105–158. https://doi.org/10.1007/s11156-018-0705-x
2. Alipour, M., Ghanbari, M., Jamshidinavid, B., & Taherabadi, A. (2019). Does board independence moderate the relationship between environmental disclosure quality and performance? Evidence from static and dynamic panel data. *Corporate Governance, 19*(3), 580–610. https://doi.org/10.1108/cg-06-2018-0196
3. Al-Malkawi, H.-A. N., & Javaid, S. (2018). Corporate social responsibility and financial performance in Saudi Arabia: Evidence from Zakaz contribution. *Managerial Finance, 44*(6), 648–664. https://doi.org/10.1108/mf-12-2016-0366
4. Amin, A., Chourou, L., Kamal, S., Malik, M., & Zhao, Y. (2020). It's who you know that counts: Board connectedness and CSR performance. *Journal of Corporate Finance, 64*, 101662. https://doi.org/10.1016/j.jcorpfin.2020.101662
5. Amorelli, M.-F., & García-Sánchez, I.-M. (2020). Critical mass of female directors, human capital, and stakeholder engagement by corporate social reporting. *Corporate Social Responsibility and Environmental Management, 27*(1), 204–221. https://doi.org/10.1002/csr.1793
6. Anwer, Z., Azmi, W., Mohamad, S., & Paltrinieri, A. (2020). Why CEOs invest in corporate social responsibility initiatives: Evidence on Shariah compliant firms. *Applied Econonomics Letters, 28*(8), 655–662. https://doi.org/10.1080/13504851.2020.1770674
7. Arayssi, M., Dah, M., & Jizi, M. (2016). Women on boards, sustainability reporting and firm performance. *Sustainability Accounting, Management and Policy Journal, 7*(3), 376-401.
8. Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *Review of Economic Studies, 58*, 277–297. https://doi.org/10.1108/sampj-07-2015-0055
9. Arellano, M., & Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of Econometrics, 68*(1), 29–51. https://doi.org/10.1016/0304-4076(94)01642-d
10. Badayi, S. A., Matemilola, B., Bany-Ariffin, A. N., & Theng, L. W. (2020). Does corporate social responsibility influence firm probability of default? *International Journal of Financial Economics, 26*(3), 3377–3395. https://doi.org/10.1002/ijfe.1966

11. Bahta, D., Yun, J., Islam, M. R., & Ashfaq, M. (2020). Corporate social responsibility, innovation capability and firm performance: Evidence from SME. *Social Responsibility Journal, 17*(6), 840–860. https://doi.org/10.1108/srj-12-2019-0401
12. Beji, R., Yousfi, O., Loukil, N., & Omri, A. (2020). Board diversity and corporate social responsibility: Empirical evidence from France. *Journal of Business Ethics, 173*(1), 133–155. https://doi.org/10.1007/s10551-020-04522-4
13. Belu, C., & Manescu, C. (2013). Strategic corporate social responsibility and economic performance. *Applied Economics, 45*(19), 2751–2764. https://doi.org/10.1080/00036846.2012.676734
14. Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics, 87*(1), 115–143. https://doi.org/10.1016/s0304-4076(98)00009-8
15. Boubaker, S., Chebbi, K., & Grira, J. (2019). Top management inside debt and corporate social responsibility? Evidence from the US. *The Quarterly Review of Economics and Finance, 78,* 98–115. https://doi.org/10.1016/j.qref.2019.12.001
16. Bruna, M. G., Dang, R., Ammari, A., & Houanti, L. (2020). The effect of board gender diversity on corporate social performance: An instrumental variable quantile regression approach. *Finance Research Letters, 40,* 101734. https://doi.org/10.1016/j.frl.2020.101734
17. Buallay, A., Fadel, S. M., Alajmi, J., & Saudagaran, S. (2020). Sustainability reporting and bank performance after financial crisis: Evidence from developed and developing countries. *Competitiveness Review: An International Business Journal, 31*(4), 747–770. https://doi.org/10.1108/cr-04-2019-0040
18. Cai, L., Cui, J., & Jo, H. (2016). Corporate environmental responsibility and firm risk. *Journal of Business Ethics, 139*(3), 563–594. https://doi.org/10.1007/s10551-015-2630-4
19. Callan, S. J., & Thomas, J. M. (2009). Corporate financial performance and corporate social performance: An update and reinvestigation. *Corporate Social Responsibility and Environmental Management, 16(*2), 61–78. https://doi.org/10.1002/csr.182
20. Cancela, B. L., Neves, M. E. D., Rodrigues, L. L., & Dias, A. C. G. (2020). The influence of corporate governance on corporate sustainability: New evidence using panel data in the Iberian macroeconomic environment. *International Journal of Accounting & Information Management, 28*(4), 785–806. https://doi.org/10.1108/ijaim-05-2020-0068
21. Carroll, A. B. (1999). Corporate social responsibility. *Business and Society, 38*(3), 268–295. https://doi.org/10.1177/000765039903800303
22. Cavaco, S., & Crifo, P. (2014). CSR and financial performance: Complementarity between environmental, social and business behaviours. *Applied Economics, 46*(27), 3323–3338. https://doi.org/10.1080/00036846.2014.927572
23. Chang, K., Kim, I., & Li, Y. (2014). The heterogeneous impact of corporate social responsibility activities that target different stakeholders. *Journal of Business Ethics, 125,* 211–234. https://doi.org/10.1007/s10551-013-1895-8
24. Chintrakarn, P., Jiraporn, P., Tong, S., Jiraportn, N., & Proctor, R. (2020). How do independent directors view corporate social responsibility (CSR)? Evidence from a quasi-natural experiment. *The Financial Review, 55*(4), 697–716. https://doi.org/10.1111/fire.12244
25. Chollet, P., & Sandwidi, B. W. (2018). CSR engagement and financial reisk: A virtous circle? International evidence. *Global Finance Journal, 38,* 65–81. https://doi.org/10.1016/j.gfj.2018.03.004
26. Combs, J. G., Ketchen, D. J., Crook, T. R., & Roth, P. L. (2011). Assessing cumulative evidence within 'macro' research: Why meta-analysis should be preferred over vote counting. *Journal of Management Studies, 48*(1), 178–197. https://doi.org/10.1111/j.1467-6486.2009.00899.x
27. Cornett, M. M., Erhemjamts, O., & Tehranian, H. (2016). Greed or good deeds: An examination of the relation between corporate social responsibility and the financial performance of U.S. commercial banks around the financial crisis. *Journal of Banking & Finance, 70,* 137–159. https://doi.org/10.1016/j.jbankfin.2016.04.024
28. Cuadrado-Ballesteros, B., García-Sánchez, I.-M., & Ferrero, J.-M. (2016). How are corporate disclosures related to the cost of capital? The fundamental role of information asymmetry. *Management Decision, 54*(7), 1669–1701. https://doi.org/10.1108/MD-10-2015-0454
29. Cuadrado-Ballesteros, B., García-Sánchez, I.-M., & Ferrero, J.-M. (2017). The impact of board structure on CSR practices on the international scale. *European Journal of International Management, 11*(6), 227–253. https://doi.org/10.1504/EJIM.2017.10008503
30. Cui, J., Jo, H., & Na, H. (2018). Does corporate social responsibility affect information asymmetry? *Journal of Business Ethics, 148,* 549–572. https://doi.org/10.1007/s10551-015-3003-8
31. D'Amato, A., & Falivena, C. (2020). Corporate social responsibility and firm value: Do firm size and age matter? Empirical evidence from European listed companies. *Corporate Social Responsibility and Environmental Management, 27*(2), 909–924. https://doi.org/10.1002/csr.1855
32. Dahiya, M., & Singh, S. (2020). The linkage between CSR and cost of equity: An Indian perspective. *Sustainability Accounting, Management and Policy Journal, 12*(3), 499–521. https://doi.org/10.1108/SAMPJ-10-2019-0379
33. Dang, R., Houanti, L., Sahut, J. M., & Simioni, M. (2020). Do women on corporate boards influence corporate social performance? A control function approach. *Finance Research Letters, 39,* 101645. https://doi.org/10.1016/j.frl.2020.101645
34. Denyer, D., & Tranfield, D. (2009). Producing a systematic review. In D. Buchanan & A. Bryman (Eds.), *The Sage handbook of organizational research methods* (pp. 671–689). London, England: Sage.
35. Di Tommaso, C., & Thornton, J. (2020). Do ESG scores effect bank risk taking and value? Evidence from European banks. *Corporate Social Responsibility and Environmental Management, 27*(5), 2286–2298. https://doi.org/10.1002/csr.1964
36. Dienes, D., Sassen, R., & Fischer, F. (2016). What are the drivers of sustainability reporting? A systematic review. *Sustainability Accounting, Management and Policy Journal, 7*(2), 154–189. https://doi.org/10.1108/SAMPJ-08-2014-0050
37. Ding, L., Zhao, Z., & Wang, L. (2020). Executive incentives matter for corporate social responsibility under earnings pressure and institutional investors supervision. *Sustainability, 12*(6), 2492. https://doi.org/10.3390/su12062492
38. Dowling, J., & Pfeffer, J. (1975). Organizational legitimacy: Social valued and organizational behavior. *Pacific Sociological Review, 18*(1), 122–136. https://doi.org/10.2307/1388226
39. Eccles, R. G., & Krzus, M. P. (2015). *The integrated reporting movement — Meaning, momentum motives, and materiality.* Hoboken, NJ: Wiley.

40. El Ghoul, S., Guedhami, O., Kwok, C. C. Y., & Mishra, D. R. (2011). Does corporate social responsibility affect the cost of capital? *Journal of Banking & Finance, 35*(9), 2388–2406. https://doi.org/10.1016/j.jbankfin.2011.02.007
41. El Ghoul, S., Guedhami, O., Kwok, C. C. Y., & Park, K. (2018). Corporate environmental responsibility and the cost of capital: International evidence. *Journal of Business Ethics, 149,* 335–361. https://doi.org/10.1007/s10551-015-3005-6
42. Eliwa, Y., Aboud, A., & Saleh, A. (2021). ESG practices and the cost of debt: Evidence from EU countries. *Critical Perspectives on Accounting, 79,* 102097. https://doi.org/10.1016/j.cpa.2019.102097
43. Elmagrhi, M., Ntim, C. G., Elamer, A. A., & Zhang, Q. (2019). A study of environmental policies and regulations, governance structures, and environmental performance: The role of female directors. *Business Strategy and the Environment, 28*(1), 206–220. https://doi.org/10.1002/bse.2250
44. Endo, K. (2019). Does the stock market value corporate environmental performance? Some perils of static regression models. *Corporate Social Responsibility and Environmental Management, 26*(6), 1530–1538. https://doi.org/10.1002/csr.1767
45. Endo, K. (2020). Corporate governance beyond the shareholder–stakeholder dichotomy: Lessons from Japanese corporations' environmental performance. *Business Strategy and the Environment, 29*(4), 1625–1633. https://doi.org/10.1002/bse.2457
46. Endrikat, J., de Villiers, C., Guenther, T., & Guenther, E. (2020). Board characteristics and corporate social responsibility: A meta-analytic investigation. *Business and Society.* https://doi.org/10.1177/0007650320930638
47. European Commission (EC). (2020). *A European green deal: Striving to be the first climate-neutral continent.* Retrieved from https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en
48. Feng, Y., Chen, H.-H., & Tang, J. (2018). The impacts of social responsibility and ownership structure on sustainable financial development of China's energy industry. *Sustainability, 10*(2), 301. https://doi.org/10.3390/su10020301
49. Ferrero-Ferrero, I., Fernández-Izquierdo, M.-A., & Muñoz-Torres, M.-J. (2016). The effect of environmental, social and governance consistency on economic results. *Sustainability, 8*(10), 1005. https://doi.org/10.3390/su8101005
50. Forgione, A. F., & Migliardo, C. (2020). CSR engagement and market structure: Evidence from listed banks. *Finance Research Letters, 35,* 101592. https://doi.org/10.1016/j.frl.2020.101592
51. Francoeur, C., Labelle, R., Balti, S., & Bouzaidi, S. (2019). To what extent do gender diverse boards enhance corporate social performance? *Journal of Business Ethics, 155,* 343–357. https://doi.org/10.1007/s10551-017-3529-z
52. Freeman, R. E. (1984). *Strategic management: A stakeholder approach.* Boston, MA: Pitman.
53. Freeman, R. E., Harrison, J. S., Wicks, A. C., Parmar, B. L., & de Colle, S. (2010). *Stakeholder theory: The state of the art.* Cambridge University Press. https://doi.org/10.1017/CBO9780511815768
54. Gallego-Alvarez, I., & Pucheta-Martinez, M. C. (2020a). How cultural dimensions, legal systems, and industry affect environmental reporting? Empirical evidence from an international perspective. *Business Strategy and the Environment, 29*(5), 2037–2057. https://doi.org/10.1002/bse.2486
55. Gallego-Alvarez, I., & Pucheta-Martinez, M. C. (2020b). Corporate social responsibility reporting and corporate governance mechanisms: An international outlook from emerging countries. *Business Strategy and Development, 3*(1), 77–97. https://doi.org/10.1002/bsd2.80
56. Gandullia, L., & Pisera, S. (2020). Do income taxes affect corporate social responsibility: Evidence from European-listed companies. *Corporate Social Responsibility and Environmental Management, 27*(2), 1017–1027. https://doi.org/10.1002/csr.1862
57. Gangi, F., Daniele, L. M., & Varrone, N. (2020). How do corporate environmental policy and corporate reputation affect risk-adjusted financial performance? *Business Strategy and the Environment, 29*(5), 1975–1991. https://doi.org/10.1002/bse.2482
58. García-Sánchez, I.-M., & Garcia-Meca, E. (2017). CSR engagement and earnings quality in banks: The moderating role of institutional factors. *Corporate Social Responsibility and Environmental Management, 24*(2), 145–158. https://doi.org/10.1002/csr.1405
59. García-Sánchez, I.-M., & Martínez-Ferrero, J. (2018). How do independent directors behave with respect to sustainability disclosure? *Corporate Social Responsibility and Environmental Management, 25*(4), 609–627. https://doi.org/10.1002/csr.1481
60. García-Sánchez, I.-M., Hussain, N., Khan, S. A., & Martínez-Ferrero, J. (2020a). Do markets punish or reward corporate social responsibility decoupling? *Business & Society, 60*(6), 1431–1467. https://doi.org/10.1177%2F0007650319898839
61. García-Sánchez, I.-M., Hussain, N., Martínez-Ferrero, J., & Ruiz-Barbadillo, E. (2019a). Impact of disclosure and assurance quality of corporate sustainability reports on access to finance. *Corporate Social Responsibility and Environmental Management, 26*(4), 832–848. https://doi.org/10.1002/csr.1724
62. García-Sánchez, I.-M., Suarez-Fernandez, O., & Martínez-Ferrero, J. (2019b). Female directors and impression management in sustainability reporting. *International Business Review, 28*(2), 359–374. https://doi.org/10.1016/j.ibusrev.2018.10.007
63. García-Sánchez, I.-M., & Noguera-Gamez, L. (2017). Integrated reporting and stakeholder engagement: The effect on information asymmetry. *Corporate Social Responsibility and Environmental Management, 24*(5), 395–413. https://doi.org/10.1002/csr.1415
64. García-Sánchez, I.-M., Aibar-Guzmán, B., Aibar-Guzmán, C., & Azevedo, T.-C. (2020b). CEO ability and sustainability disclosures: The mediating effect of corporate social responsibility performance. *Corporate Social Responsibility and Environmental Management, 27*(4), 1565–1577. https://doi.org/10.1002/csr.1905
65. Gavana, G., Gottardo, P., & Moisello, A. M. (2018). Do customers value CSR disclosure? Evidence from Italian family and non-family firms. *Sustainability, 10*(5), 1642. https://doi.org/10.3390/su10051642
66. Ge, W., & Liu, M. (2015). Corporate social responsibility and the cost of corporate bonds. *Journal of Accounting and Public Policy, 34*(6), 597–624. https://doi.org/10.1016/j.jaccpubpol.2015.05.008
67. Guerrero-Villegas, J., Pérez-Calero, L., Hurtado-González, J.-M., & Giráldez-Puig, P. (2018). Board attributes and corporate social responsibility disclosure: A meta-analysis. *Sustainability, 10*(12), 1–22. https://doi.org/10.3390/su10124808

68. Gupta, K. (2018). Environmental sustainability and implied cost of equity: International evidence. *Journal of Business Ethics, 147,* 343–365. https://doi.org/10.1007/s10551-015-2971-z
69. Hahn, R., & Kühnen, M. (2013). Determinants of sustainability reporting: A review of results, trends, theory, and opportunities in an expanding field of research. *Journal of Cleaner Production, 59,* 5–21. https://doi.org/10.1016/j.jclepro.2013.07.005
70. Hirunyawipadaa, T., & Xiong, G. (2018). Corporate environmental commitment and financial performance: Moderating effects of marketing and operations capabilities. *Journal of Business Research, 86,* 22–31. https://doi.org/10.1016/j.jbusres.2018.01.002
71. Hunjra, A. I., Mehmood, R., & Tayachi, T. (2020). How do corporate social responsibility and corporate governance affect stock price crash risk? *Journal of Risk and Financial Management, 13*(2), 30. https://doi.org/10.3390/jrfm13020030
72. Jahmane, A., & Gaies, B. (2020). Corporate social responsibility, financial instability and corporate financial performance: Linear, non-linear and spillover effects — The case of the CAC 40 companies. *Finance Research Letters, 34,* 101483. https://doi.org/10.1016/j.frl.2020.101483
73. Jain, T., & Jamali, D. (2016). Looking Inside the black box: The effect of corporate governance on corporate social responsibility. *Corporate Governance: An International Review, 24*(3), 253–273. https://doi.org/10.1111/corg.12154
74. Jain, T., & Zaman, R. (2020). When boards matter: The case of corporate social reesponsibility. *British Journal of Management, 31*(2), 365–386. https://doi.org/10.1111/1467-8551.12376
75. Javeed, S. A., & Lefen, L. (2019). An analysis of corporate social responsibility and firm performance with moderating effects of CEO power and ownership structure: A case study of the manufacturing sector of Pakistan. *Sustainability, 11*(1), 248. https://doi.org/10.3390/su11010248
76. Jiang, Y., Xue, X., & Xu, W. (2018). Proactive corporate environmental responsibility and financial performance: Evidence from Chinese energy enterprises. *Sustainability, 10*(4), 964. https://doi.org/10.3390/su10040964
77. Jo, H., Kim, H., & Park, K. (2015). Corporate environmental responsibility and firm performance in the financial sercives sector. *Journal of Business Ethics, 131,* 257–284. https://doi.org/10.1007/s10551-014-2276-7
78. Jo, H., Song, M. H., & Tsang, A. (2016). Corporate social responsibility and stakeholder governance around the world. *Global Finance Journal, 29,* 42–69. https://doi.org/10.1016/j.gfj.2015.04.003
79. Kanter, R. M. (1977). Some effects of the proportions on group life. *American Journal of Sociology, 82*(5), 965–990.
80. Kao, E. H., Yeh, C. C., Wang, L. H., & Fung, H. G. (2018). The relationship between CSR and performance: Evidence in China. *Pacific-Basin Finance Journal, 51,* 155–170. https://doi.org/10.1016/j.pacfin.2018.04.006
81. Karim, S., Manab, N. A., & Ismail, R. B. (2020b). The dynamic impact of board composition on CSR practices and their mutual effect on organizational returns. *Journal of Asia Business Studies, 14*(4), 463–479. https://doi.org/10.1108/JABS-07-2019-0214
82. Karim, S., Manab, N. A., & Ismail, R. B. (2020a). Assessing the governance mechanisms, corporate social responsibility and performance: The moderating effect of board independence. *Global Business Review.* https://doi.org/10.1177/0972150920917773
83. Kaspereit, T., Lopatta, K., & Matolscsy, Z. (2016). Board gender divesity and dimensions of corporate social responsibility. *Journal of Management and Sustainability, 6,* 50–66. https://doi.org/10.5539/jms.v6n2p50
84. Kassinis, G., Panayiotou, A., Dimou, A., & Katsifaraki, G. (2016). Gender and environmental sustainability: A longitudinal analysis. *Corporate Social Responsibility and Environmental Management, 23*(6), 399–412. https://doi.org/10.1002/csr.1386
85. Khan, I., Khan, I., & Saeed, B. (2019). Does board diversity affect quality of corporate social responsibility disclosure? Evidence from Pakistan. *Corporate Social Responsibility and Environmental Management, 26*(6), 1371–1381. https://doi.org/10.1002/csr.1753
86. Khattak, M. A., & Saiti, B. (2020). Banks' environmental policy and business outcomes: The role of competition. *Business Strategy and the Environment.* https://doi.org/10.1002/bse.2622
87. Khattak, M. A. (2020). Corporate sustainability and financial performance of banks in Muslim economies: The role of institutions. *Journal of Public Affairs.* https://doi.org/10.1002/pa.2156
88. Khlif, H., Hussainey, K., & Achek, I. (2015). The effect of national culture on the association between profitability and corporate social and environmental disclosure. A meta-analysis. *Meditari Accountancy Research, 23*(3), 296–321. https://doi.org/10.1108/MEDAR-12-2014-0064
89. Kim, W. S., & Oh, S. (2019). Corporate social responsibility, business groups and financial performance: A study of listed Indian firms. *Economic Research, 32,* 1777–1793. https://doi.org/10.1080/1331677X.2019.1637764
90. Kim, W. S., Park, K., & Lee, S. H. (2018). Corporate social responsibility, ownership structure, and firm value: Evidence from Korea. *Sustainability, 10*(7), 2497. https://doi.org/10.3390/su10072497
91. Kim, Y., Li, H., & Li, S. (2014). Corporate social responsibility and stock price crash risk. *Journal of Banking & Finance, 43,* 1–13. https://doi.org/10.1016/j.jbankfin.2014.02.013
92. Kordsachia, O. (2020). A risk management perspective on CSR and the marginal cost of debt: Empirical evidence from Europe. *Review of Managerial Science, 15,* 1611–1643. https://doi.org/10.1007/s11846-020-00392-2
93. Lahouel, B. B., Gaies, B., Zaied, Y. B., & Jahmane, A. (2019). Accounting for endogeneity and the dynamics of corporate social — Corporate financial performance relationship. *Journal of Cleaner Production, 230,* 352–364. https://doi.org/10.1016/j.jclepro.2019.04.377
94. Lahouel, B. B., Zaied, Y. B., Song, Y., & Yang, G. (2020). Corporte social performance and financial performance relationship: A data envelopment analysis approach without explicit input. *Finance Research Letters.* https://doi.org/10.1016/j.frl.2020.101656
95. Lee, Y. C., Lu, Y. C., & Wang, Y. C. (2018). Corporate social irresponsibility, CEO overconfidence, and stock price crash risk. *Applied Economics Letters, 26,* 1143–1147. https://doi.org/10.1080/13504851.2018.1540835
96. Li, S., & Liu, C. (2018). Quality of corporate social responsibility disclosure and cost of equity capital: Lessons from China. *Emerging Markets Finance and Trade, 54,* 2472–2494. https://doi.org/10.1080/1540496X.2018.1443441
97. Light, R., & Smith, P. (1971). Accumulating evidence: Procedures for resolving contradictions among different research studies. *Harvard Educational Review, 41*(4), 429–471. https://doi.org/10.17763/haer.41.4.437714870334w144

98. Lin, W. L., Ho, J. A., & Sambasivan, M. (2019a). Impact of corporate political activity on the relationship between corporate social responsibility and financial performance: A dynamic panel data approach. *Sustainability, 11*(1), 60. https://doi.org/10.3390/su11010060
99. Lin, W. L., Ho, J. A., Lee, C., & Ng, S. I. (2020). Impact of positive and negative corporate social responsibility on automotive firms' financial performance: A market-based asset perspective. *Corporate Social Responsibility and Environmental Management, 27*(4), 1761–1773. https://doi.org/10.1002/csr.1923
100. Lin, W. L., Ho, J. A., Ng, S. I., & Lee, C. (2019b). Does corporate social responsibility lead to improved firm performance? The hidden role of financial slack. *Social Responsibility Journal, 16*(7), 957–982. https://doi.org/10.1108/SRJ-10-2018-0259
101. Lin, W. L., Law, S. H., Ho, J. A., & Sambasivan, M. (2019c). The causality direction of the corporate social responsibility — Corporate financial performance Nexus: Application of panel vector autoregression approach. *North American Journal of Economics and Finance, 48*, 401–418. https://doi.org/10.1016/j.najef.2019.03.004
102. Liu, N., Liu, C., Guo, Q., Da, B., Guan, L., & Chen, H. (2019). Corporate social responsibility and financial performance: A quantile regression approach. *Sustainability, 11*(3), 3717. https://doi.org/10.3390/su11133717
103. Long, W., Li, S., Wu, H., & Song, X. (2020). Corporate social responsibility and financial performance: The roles of government intervention and market competition. *Corporate Social Responsibility and Environmental Management, 27*(2), 525–541. https://doi.org/10.1002/csr.1817
104. Lopatta, K., Böttcher, L., Lodhia, S. K., & Tideman, S. A. (2020). The relationship between gender diversity and employee representation at the board level and non-financial performance: A cross-country study. *The International Journal of Accounting, 55*(1), 2050001. https://doi.org/10.1142/S1094406020500018
105. Lopez-Gonzalez, E., Martinez-Ferrero, J., & Garcia-Meca, E. (2019). Corporate social responsibility in family firms: A contingency approach, *Journal of Cleaner Production, 211*, 1044–1064. https://doi.org/10.1016/j.jclepro.2018.11.251
106. Lu, J., & Herremans, I. M. (2019). Board gender diversity and environmental performance: An industries perspective. *Business Strategy and the Environment, 28*(7), 1449–1464. https://doi.org/10.1002/bse.2326
107. Luo, L., & Tang, Q. (2021). Corporate governance and carbon performance: Role of carbon strategy and awareness of climate risk. *Accounting & Finance, 61*(2), 2891–2934. https://doi.org/10.1111/acfi.12687
108. Malik, M. (2015). Value-enhancing capabilities of CSR: A brief review of contemporary literature. *Journal of Business Ethics, 127*, 419–438. https://doi.org/10.1007/s10551-014-2051-9
109. Martinez-Ferrero, J., & Frias-Aceituno, J. V. (2015). Relationship between sustainable development and financial performance: International empirical research. *Business Strategy and the Environment, 24*(1), 20–39. https://doi.org/10.1002/bse.1803
110. Martinez-Ferrero, J., & García-Sánchez, I.-M. (2015). Is corporate social responsibility an entrenchment strategy? Evidence in stakeholder protection environments. *Review of Managerial Science, 9*, 89–114. https://doi.org/10.1007/s11846-014-0120-1
111. Martinez-Ferrero, J., Ruiz-Cano, D., & Garcia-Sanchez, I.-M. (2016). The causal link between sustainable disclosure and information asymmetry: The moderating role of the stakeholder protection context. *Corporate Social Responsibility and Environmental Management, 23*(5), 319–332. https://doi.org/10.1002/csr.1379
112. Martinez-Ferrero, J., Villaron-Peramato, O., & García-Sánchez, I.-M. (2017). Can investors identify managerial discretion in corporate social responsibility practices? The moderate role of investor protection. *Australian Accounting Review, 80*(1), 4–16. https://doi.org/10.1111/auar.12138
113. Meier, O., Naccache, P., & Schier, G. (2019). Exploring the curvature of the relationship between HRM-CSR and corporate financial performance. *Journal of Business Ethics, 170*, 857–873. https://doi.org/10.1007/s10551-019-04332-3
114. Moneva, J. M., Archel, P., & Correa, C. (2006). GRI and the camouflaging of corporate unstainability. *Accounting Forum, 30*(2), 121–137. https://doi.org/10.1016/j.accfor.2006.02.001
115. Naciti, V. (2019). Corporate governance and board of directors: The effect of a board composition on firm sustainability performance. *Journal of Cleaner Production, 237*, 117727. https://doi.org/10.1016/j.jclepro.2019.117727
116. Nadeem, M., Gyapong, E., & Ahmed, A. (2020). Board gender diversity and environmental, social and economic value creation: Does family ownership matter? *Business Strategy and the Environment, 29*(3), 1268–1284. https://doi.org/10.1002/bse.2432
117. Nadeem, M., Zaman, R., & Saleem, I. (2017). Boardroom gender diversity and corporate sustainability practices: Evidence from Australian Securities Exchange listed firms. *Journal of Cleaner Production, 149*, 874–885. https://doi.org/10.1016/j.jclepro.2017.02.141
118. Nekhili, M., Boukadhaba, A., & Nagati, H. (2020). The ESG-financial performance relationship: Does the type of employee representation matter? *Corporate Governance: An International Review, 29*(2), 134–161. https://doi.org/10.1111/corg.12345
119. Nekhili, M., Nagati, H., Chtioui, T., & Nekhili, A. (2017). Gender-diverse board and the relevance of voluntary CSR reporting. *International Review of Financial Analysis, 50*, 81–100. https://doi.org/10.1016/j.irfa.2017.02.003
120. Noor, S., Saeed, A., Baloch, M. S., & Awais, M. (2020). CSR permanency, family ownership, and firm value: Evidence from emerging economies. *Corporate Social Responsibility and Environmental Management, 27*(5), 2135–2149. https://doi.org/10.1002/csr.1953
121. Oh, W., & Park, S. (2015). The relationship between corporate social responsibility and corporate financial performance in Korea. *Emerging Markets Finance and Trade, 51*(3), 85–94. https://doi.org/10.1080/1540496X.2015.1039903
122. Ongsakul, V., Jiraporn, P., & Treepongkaruna, S. (2019). Does managerial ownership influence corporate social responsibility (CSR)? The role of economic policy uncertainty. *Accounting & Finance, 61, 763–779.* https://doi.org/10.1111/acfi.12592
123. Orazalin, N. (2020). Do board sustainability committees contribute to corporate environmental and social performance? The mediating role of corporate social responsibility strategy. *Business Strategy and the Environment, 29*(1), 140–153. https://doi.org/10.1002/bse.2354
124. Orazalin, N., & Baydauletov, M. (2020). Corporate social responsibility strategy and corporate environmental and social performance: The moderating role of board gender diversity. *Corporate Social Responsibility and Environmental Management, 27*(4), 1664–1676. https://doi.org/10.1002/csr.1915

125. Park, S., Song, S., & Lee, S. (2019). The influence of CEOs' equity-based compensation on restaurant firms' CSR initiatives. The moderating role of institutional ownership. *International Journal of Contemporary Hospitality Management, 31*(9), 3664–3682. https://doi.org/10.1108/IJCHM-03-2018-0221
126. Price, J. M., & Sun, W. (2017). Doing good and doing bad: The impact of corporate social responsibility and irresponsibility on firm performance. *Journal of Business Research, 80,* 82–97. https://doi.org/10.1016/j.jbusres.2017.07.007
127. Pucheta-Martinez, M. C., Bel-Oms, I., & Rodrigues, L. L. (2020). Does stakeholder engagement encourage environmental reporting? The mediating role of firm performance. *Business Strategy and the Environment, 29(8),* 3025–3037. https://doi.org/10.1002/bse.2555
128. Qi, G. Y., Zeng, S. X., Shi, J. J., Meng, X. H., Lin, H., & Yang, Q. X. (2014). Revisiting the relationship between environmental and financial performance in Chinese industry. *Journal of Environmental Management, 145,* 349–356. https://doi.org/10.1016/j.jenvman.2014.07.010
129. Ramon-Llorens, M. C., Garcia-Meca, E., & Pucheta-Martinez, M. C. (2020). Female directors on boards. The impact of faultlines on CSR reporting. *Sustainability Accounting, Management and Policy Journal, 12*(1), 156–183. https://doi.org/10.1108/SAMPJ-07-2019-0273
130. Rehman, R., Riaz, Z., Cullinan, C., Zhang, J., & Wang, F. (2020). Institutional ownership and value relevance of corporate social responsibility disclosure: Empirical evidence from China. *Sustainability, 12*(6), 2311. https://doi.org/10.3390/su12062311
131. Robaina, M., & Madaleno, M. (2020). The relationship between emissions reduction and financial performance: Are Portuguese companies in a sustainable development path? *Corporate Social Responsibility and Environmental Management, 27*(3), 1213–1226. https://doi.org/10.1002/csr.1876
132. Rodríguez-Ariza, L., Cuadrado-Ballesteros, B., Martínez-Ferrero, J., & García-Sanchez, I.-M. (2017). The role of female directors in promoting CSR practices: An international comparison between family and non-family businesses. *Business Ethics, 26*(2), 162–174. https://doi.org/10.1111/beer.12140
133. Rossi, F., & Harjoto, M. A. (2020). Corporate non-financial disclosure, firm value, risk, and agency costs: Evidence from Italian listed companies. *Review of Managerial Science, 14,* 1149–1181. https://doi.org/10.1007/s11846-019-00358-z
134. Saini, N., & Singhania, M. (2019). Performance relevance of environmental and social disclosures: The role of foreign ownership. *Benchmarking: An International Journal, 26*(6), 1845–1873. https://doi.org/10.1108/BIJ-04-2018-0114
135. Sajko, M., Boone, C., & Buyl, T. (2020). CEO greed, corporate social responsibility, and organizational resilience to systemic shocks. *Journal of Management, 47*(4), 957–992. https://doi.org/10.1177/0149206320902528
136. Sarfraz, M., He, B., & Shah, S. G. M. (2020). Elucidating the effectiveness of cognitive CEO on corporate environmental performance: The mediating role of corporate innovation. *Environmental Science and Pollution Research, 27,* 45938–45948. https://doi.org/10.1007/s11356-020-10496-7
137. Shabbir, M. S., Aslam, E., Irshad, A., Bilal, K., Aziz, S., Abbasi, B. A., & Zia, S. (2020). Nexus between corporate social responsibility and financial and non-financial sectors' performance: A non-linear and disaggregated approach. *Environmental Science and Pollution Research, 27,* 39164–39179. https://doi.org/10.1007/s11356-020-09972-x
138. Shahab, Y., Ntim, C. N., & Ullah, F. (2019). The brighter side of being socially responsible: CSR ratings and financial distress among Chinese state and non-state owned firms. *Applied Economics Letters, 26*(3), 180–186. https://doi.org/10.1080/13504851.2018.1450480
139. Shahbaz, M., Karaman, A. S., Kilic, M., & Uyar, A. (2020). Board attributes, CSR engagement, and corporate performance: What is the nexus in the energy sector? *Energy Policy, 143,* 111582. https://doi.org/10.1016/j.enpol.2020.111582
140. Shakil, M. H., Mahmood, N., Tasnia, M., & Munim, Z. H. (2019). Do environmental, social and governance performance affect the financial performance of banks? A cross-country study of emerging market banks. *Management of Environmental Quality, 30*(6), 1331–1344. https://doi.org/10.1108/MEQ-08-2018-0155
141. Sheikh, S. (2018). Corporate social responsibility, product market competition, and firm value. *Journal of Economics and Business, 98,* 40–55. https://doi.org/10.1016/j.jeconbus.2018.07.001
142. Sheikh, S. (2019). An examination of the dimensions of CEO power and corporate social responsibility. *Review of Accounting and Finance, 18*(2), 221–244. https://doi.org/10.1108/RAF-01-2018-0034
143. Sheikh, S. (2020). CEO inside debt and corporate social responsibility. *International Journal of Managerial Finance, 16*(4), 525–546. https://doi.org/10.1108/IJMF-10-2019-0397
144. Shocker, A., & Sethi, P. (1973). An approach to incorporating societal preferences in developing corporate action strategies. *California Management Review, 15*(4), 97–105. https://doi.org/10.2307/41164466
145. Sial, M. S., Chunmei, Z., Khan, T., & Nguyen, V. K. (2018). Corporate social responsibility, firm performance and the moderating effect of earnings management in Chinese firms. *Asia-Pacific Journal of Business Administration, 10*(2/3), 184–199. https://doi.org/10.1108/APJBA-03-2018-0051
146. Sun, W., & Ding, Z. (2020). Is doing bad always punished? A moderated longitudinal analysis on corporate social irresponsibility and firm value. *Business & Society, 60*(7), 1811–1848. https://doi.org/10.1177/0007650320928544
147. Ullah, S., Zaefarian, G., & Ullah, F. (2020). How to use instrumental variables in addressing endogeneity? A step-by-step procedure for nonspecialists. *Industrial Marketing Management, 96,* A1–A6. https://doi.org/10.1016/j.indmarman.2020.03.006
148. Velte, P. (2017). Does board composition have an impact on CSR reporting? *Problems and Perspectives in Management, 15*(2), 19–35. https://doi.org/10.21511/ppm.15(2).2017.02
149. Velte, P. (2020). Institutional ownership, environmental, social, and governance performance and disclosure. A review on empirical quantitative research. *Problems and Perspectives in Management, 18,* 282–305. https://doi.org/10.1016/j.jclepro.2020.120063
150. Velte, P., Stawinoga, M., & Lueg, R. (2020). Carbon performance and disclosure: A systematic review of governance-related determinants and financial consequences. *Journal of Cleaner Production, 254,* 1200063. https://doi.org/10.1016/j.jclepro.2020.120063
151. Wang, Y., Liu, J., Sui, X., & Liu, L. (2020). Does corporate social responsibility improve financial performance? Evidence from pure green side. *Finance Research Letters, 36,* 101522. https://doi.org/10.1016/j.frl.2020.101522

152. Wellalage, N., & Acharya, S. (2018). Does the composition of boards of directors impact on CSR scores? *Social Responsibility Journal, 14*(3), 651–669. https://doi.org/10.1108/SRJ-03-2017-0039
153. Winschel, J., & Stawinoga, M. (2019). Determinants and effects of sustainable CEO compensation. A structured literature review of empirical evidence. *Management Review Quarterly, 69,* 265–328. https://doi.org/10.1007/s11301-019-00154-9
154. Wintoki, M. B., Linck, J. S., & Netter, J. M. (2012). Endogeneity and the dynamics of internal corporate governance. *Journal of Financial Economics, 105*(3), 581–606. https://doi.org/10.1016/j.jfineco.2012.03.005
155. Withisuphakorn, P., & Jiraporn, P. (2019). Deciphering the motives behind corporate social responsibility (CSR) using managerial ownership: Evidence from heteroskedastic identification. *Applied Economics Letters, 26*(12), 963–970. https://doi.org/10.1080/13504851.2018.1524973
156. Wu, L., Shao, Z., Yang, C., Ding, T., & Zhang, W. (2020). The impact of CSR and financial distress on financial performance. Evidence from Chinese listed companies of the manufacturing industry. *Sustainability, 12*(17), 6799. https://doi.org/10.3390/su12176799
157. Yarram, S. R., & Adapa, S. (2021). Board gender diversity and corporate social responsibility: Is there a case for critical mass? *Journal of Cleaner Production, 278,* 123319. https://doi.org/10.1016/j.jclepro.2020.123319
158. Zaid, M. A. A., Abuhijleh, S. T. F., & Pucheta-Martinez, M. C. (2020a). Ownership structure, stakeholder engagement, and corporate social responsibility policies: The moderating effect of board independence. *Corporate Social Responsibility and Environmental Management, 27*(3), 1344–1360. https://doi.org/10.1002/csr.1888
159. Zaid, M. A. A., Wang, M., Adib, M., Sahyouni, A., & Abujikleh, S. T. F. (2020b). Boardroom nationality and gender diversity: Implications for corporate sustainability performance. *Journal of Cleaner Production, 251,* 119652. https://doi.org/10.1016/j.jclepro.2019.119652
160. Zhang, Y., & Ouyang, Z. (2020). Doing well by doing good: How corporate environmental responsibility influences corporate financial performance. *Corporate Social Responsibility and Environmental Management, 28,* 54–63. https://doi.org/10.1002/csr.2031
161. Zhang, Y., Wei, J., Zhu, Y., & George-Ufot, G. (2020). Untangling the relationship between corporate environmental performance and corporate financial performance: The double-edged moderating effects of environmental uncertainty. *Journal of Cleaner Production, 263,* 121584. https://doi.org/10.1016/j.jclepro.2020.121584
162. Zolotoy, L., O'Sullivan, S., & Chen, Y. (2019). Local religious norms, corporate social responsibility, and firm value. *Journal of Banking and Finance, 100,* 218–233. https://doi.org/10.1016/j.jbankfin.2019.01.015