

Does CSR contribute to the financial sector's financial stability? The moderating role of a sustainability committee

CSR
contributing to
the financial
sector

Nurlan Orazalin

*Southampton Business School, University of Southampton, Southampton, UK and
Bang College of Business, KIMEP University, Almaty, Kazakhstan*

Cemil Kuzey

*Arthur J. Bauernfeind College of Business, Murray State University,
Murray, Kentucky, USA*

Ali Uyar

Department of Finance, Excelia Business School, La Rochelle, France, and

Abdullah S. Karaman

*College of Engineering and Technology, American University of the Middle East,
Egaila, Kuwait*

Received 12 December 2022

Revised 7 March 2023

17 April 2023

Accepted 20 April 2023

Abstract

Purpose – This study tests whether corporate social responsibility (CSR) performance is a predictor of the financial sector's financial stability (FS), with the moderation of a sustainability committee.

Design/methodology/approach – The sample covers financial sector firms included in the Thomson Reuters Eikon database. The analyses are based on 8,840 firm-year observations for the years between 2002 and 2019 and the country-firm-year fixed-effects (FE) regression analysis is executed.

Findings – The results reveal that CSR initiatives contribute to the financial sector's FS as a whole and the sector's three individual sub-sectors. This proven significant association holds for all sub-sectors, namely insurance, banking, and investment banking. Moreover, the moderation analysis reveals the prominent role of a sustainability committee in bridging CSR performance (CSR_P) with FS.

Research limitations/implications – The findings highlight that meeting societies' expectations pays back in the form of greater FS in the financial sector.

Practical implications – The findings suggest that CSR engagement helps the financial sector firms manage their risks and alleviates exposure to insolvency. This is because CSR performance promotes firms' accountability and transparency toward stakeholders. The results help motivate managers to pursue CSR goals more seriously to ensure FS. The moderation analysis implies that sustainability committees develop policies and practices to integrate the non-financial and financial goals of the firm.

Originality/value – Although prior studies have examined the link between CSR and financial performance (FP) in the financial sector, those studies have largely ignored FS in terms of risk-adjusted performance. Besides, prior studies have exclusively focused on the banking sector, but the authors concentrate on the banking, insurance, and investment banking sectors.

Keywords CSR initiatives, CSR performance, Sustainability committee, Financial stability, Sustainable development, Financial sector

Paper type Research paper

1. Introduction

Corporate social responsibility (CSR) has gained rising attention among academics, professionals, and policy-makers worldwide in recent years. In response to increasing

Conflict of Interest: The authors declare that they have no conflict of interest.



complexity and changing paradigms in society, business organizations are increasingly motivated to engage in CSR activities/practices, such as developing eco-friendly products/services, promoting sustainability-related initiatives, and undertaking environmental responsibilities (Alkaraan *et al.*, 2023b; Gong and Ho, 2018). Prior literature suggests that CSR enables firms to attract potential investors, enhance competitive advantage, and promote sustainable development through increased customer loyalty, lesser reputation risk, and enhanced employee motivation (Okafor *et al.*, 2021; Ramzan *et al.*, 2021). Such economic benefits of CSR can lead to positive financial results, such as increased profitability (Li *et al.*, 2020) and reduced financial risks (Neitzert and Petras, 2022). However, changing business environments greatly affect the role of CSR in meeting stakeholder demands/expectations and enhancing/maintaining corporate sustainability (Orazalin *et al.*, 2019). In this regard, the question of whether CSR improves financial stability (FS) is still an ongoing concern in the current literature (Boubaker *et al.*, 2020).

A growing body of literature (Albitar *et al.*, 2020; Awaysheh *et al.*, 2020; Li *et al.*, 2020; Sandberg *et al.*, 2022) has explored whether CSR influences financial performance (FP). However, these investigations have focused on firm profitability and the value of non-financial firms, and there is relatively scant research investigating the CSR—FS nexus in financial firms. While a few studies (e.g. Gangi *et al.*, 2019; Nguyen and Nguyen, 2020; Ramzan *et al.*, 2021) have mainly focused on commercial banks operating in single countries/regions and confirmed the risk-reducing effects of CSR, it is still unclear whether CSR results in improved FS within financial sub-sectors, such as insurance, banking, and investment banking in a multi-country context. Given that FS is a critical issue, especially for financial sector firms (Uyar *et al.*, 2022), the study of the above-mentioned financial sub-sectors in this context is important to gain a better understanding of the relationship between CSR and FS.

Prior literature (Amran *et al.*, 2014; Baraibar-Diez and Odriozola, 2019; Orazalin *et al.*, 2023; Peters and Romi, 2015) has emphasized the importance of a sustainability committee (SUSCOM) in protecting stakeholders' interests, managing CSR/sustainability-related risks, improving CSR/sustainability performance, and creating value for shareholders. Nevertheless, existing research on the link between CSR performance (CSR/P) and FS has paid little attention to the moderating role of SUSCOMs. Some studies have assessed whether the CSR—performance nexus is moderated by the presence of SUSCOMs and provided inconclusive results (Kuzey *et al.*, 2021; Uyar *et al.*, 2021a). However, the above/prior investigations do not focus on financial sub-sectors, and more importantly, do not consider FS. Our study, therefore, aims to extend the extant literature by exploring the effect of CSR/P on FS and assessing the moderating impact of SUSCOMs on the given nexus in the context of financial sub-sectors (insurance, banking, and investment banking).

Due to their intermediation roles, banking and insurance firms are more exposed to CSR/sustainability and financial risks than non-financial firms (Uyar *et al.*, 2022). These firms have lost trust among customers and other stakeholders due to their engagement in non-socially responsible activities (e.g. the misuse of financial products/services, massive accounting frauds, etc.), especially during the financial crisis (Esteban-Sanchez *et al.*, 2017). Since then, influential stakeholders have started focusing not only on their main business activities/operations but also on their CSR commitments (Lock and Seele, 2015). In addition to their own sustainability risks, financial sector firms are also affected by the CSR/sustainability risks of their clients and business partners (Neitzert and Petras, 2022). For example, due to growing global environmental challenges, financial firms are facing additional climate-related financial risks (Kuzey *et al.*, 2021). Furthermore, providing financial services to high-polluting sectors may increase business risks associated with borrowers' insolvency due to potential environmental lawsuits and fines (Bätae *et al.*, 2021). Neglecting ethical and social principles/standards may also damage the reputation, lead to fines/sanctions, and increase the likelihood of default (Neitzert and Petras, 2022). Hence, financial sector firms have started

introducing sustainable development practices and incorporating CSR practices in their organizational strategies (Alkaraan, 2021a; Uyar *et al.*, 2022). Although banks and insurance firms face relatively similar sustainability-related issues (Lock and Seele, 2015), they are exposed to a broad range of CSR risks/threats that may impede their financial survival/success (Uyar *et al.*, 2022). Nevertheless, the question of whether CSR and corporate governance (CG) practices contribute to the FS of financial sector firms, especially in an international setting, is still unclear. Our study, therefore, answers the recent calls (Alkaraan, 2021b; Neitzert and Petras, 2022) for understanding the relationships among CSR, FS, and SUSCOMs in the context of financial firms operating in different economies.

Consequently, using data from publicly traded financial firms between 2002 and 2018, we examine the links among CSR, FS, and SUSCOM by employing panel data analysis. Our findings show a positive association between CSR and FS, suggesting that financial sector firms with better CSR are more financially stable. Further, the results show that this proven positive association holds for all three financial sub-sectors. The results also reveal the moderating effect of SUSCOMs on the CSR—FS relationship, indicating the positive role of SUSCOM in linking CSR initiatives with FS. This finding is consistent with the notion that SUSCOM plays a key role in effectively devising and implementing CSR strategies/policies (Arayssi *et al.*, 2020), as well as managing risks and gaining benefits from CSR practices (Burke *et al.*, 2019). Our main results remain robust after performing several additional tests.

Our work provides several important contributions. First, it extends the CSR literature by assessing the effect of CSR on FS in the financial sub-sectors, including insurance, banking, and investment banking. Although prior literature (e.g. Alkaraan *et al.*, 2022; Boubaker *et al.*, 2020; Dakhli, 2022; Orazalin *et al.*, 2019) has shown that CSR influences FP of non-financial firms, empirical evidence on the CSR—FS link, especially in the above-mentioned financial sub-sectors, is limited. Second, despite the argument that banking and insurance firms belonging to the same sector and facing similar CSR concerns can achieve similar financial benefits from CSR engagement (Kuzey *et al.*, 2021), the CSR—FS link has yet to be studied separately for each sub-sector. In this regard, our study contributes to the CSR and FS literature by providing new evidence that CSR is a significant driver of FS in all three financial sub-sectors. Third, our study adds to the CG literature (Alkaraan, 2022; Alkaraan *et al.*, 2023a; Hussainey *et al.*, 2022; Nandy *et al.*, 2022) by examining the moderating role of SUSCOMs. As noted by Beji *et al.* (2021), there is a need to investigate the role of SUSCOMs in establishing the link between CSR and business risks. In this case, our findings highlighting the importance of SUSCOMs in bridging CSR with FS are an important extension of the literature. Fourth, our study contributes to the CSR, FS, and CG literature by focusing on financial sector firms operating in different economies. While a few investigations (Batae *et al.*, 2021; Nguyen and Nguyen, 2020; Ramzan *et al.*, 2021) exploring the CSR—FS link have focused on financial firms in single countries/regions and provided inconclusive results, empirical evidence on the effects of CSR and SUSCOM on FS of financial firms in a multi-country context is almost non-existent. Our study, therefore, extends the extant literature by presenting worldwide evidence on the relationships among CSR, FS, and SUSCOM.

2. Theoretical framework and hypotheses development

As our study investigates the relationships among CSR, FS, and SUSCOMs, we deem it appropriate to adopt stakeholder theory (ST) to inform our empirical analysis. ST posits that firms committed to CSR can improve their FP by balancing the interests of all stakeholders (Freeman, 1984). Based on the ST perspective, Berman *et al.* (1999) argue that fostering positive relationships with all stakeholders leads to more effective use of economic resources, thereby increasing FP outcomes. In this case, CSR engagement, which aims to meet the expectations/needs of different stakeholders, can create values not only for shareholders but also for other

stakeholder groups (e.g. employees, customers, communities, regulators) (Surroca *et al.*, 2010). In other words, the implementation of CSR activities/initiatives may enhance stakeholder satisfaction, which in turn ensures long-term survival and financial success (Stevens *et al.*, 2005). Consistent with this view, recent research (Li *et al.*, 2020; Sandberg *et al.*, 2022) argues that proactive CSR activities/initiatives enable firms to gain support from key stakeholders and achieve/maintain competitive advantage, and therefore, firms with improved CSR have better financial results. ST also supports the development of CG mechanisms, such as the establishment of SUSCOMs aimed at promoting CSR/sustainability-related initiatives/strategies (Amran *et al.*, 2014; Hussain *et al.*, 2018), strengthening stakeholder relationships (Michelon and Parbonetti, 2012), and improving FP (Kuzey *et al.*, 2021). From the ST perspective, SUSCOMs can enhance stakeholder relationships by promoting CSR activities/initiatives (Baraibar-Diez and Odriozola, 2019) and improve financial outcomes by meeting the conflicting demands/needs of all stakeholders (Orazalin *et al.*, 2023). Thus, ST suggests that firms with SUSCOMs tend to have superior CSR, which in turn leads to higher FS.

2.1 CSR performance and financial stability

The stakeholder view suggests that CSR engagement serves as an effective mechanism to restore/sustain public trust and maintain/foster positive relationships with all stakeholders (Okafor *et al.*, 2021). This is because CSR may enhance firms' accountability and transparency toward all stakeholders and prevent fines/sanctions arising from environmental/social issues (Uyar *et al.*, 2022). Furthermore, CSR/sustainability activities help firms manage their business risks (Orazalin *et al.*, 2019) and create value for all stakeholders (Li *et al.*, 2020). In line with ST, past research (Albitar *et al.*, 2020; Siueia *et al.*, 2019) suggests that firms tend to improve their FP by satisfying stakeholder demands/expectations for CSR engagement. As such, the ST perspective posits that CSR activities/initiatives enable business entities to promote sustainable development (Orazalin, 2020), enhance competitive advantage (Sandberg *et al.*, 2022), and ultimately improve FS for being socially responsible (Ramzan *et al.*, 2021), thus suggesting a positive link between CSR and FS.

Prior investigations on the CSR—FS relationship have mainly focused on non-financial firms (e.g. Boubaker *et al.*, 2020; Gong and Ho, 2018; Orazalin *et al.*, 2019). With regard to financial firms, a few studies have provided mixed results. For example, Ramzan *et al.* (2021) report that strong CSR engagement enhances the FS of Pakistani commercial banks. Further, Neitzert and Petras (2022) document that CSR activities have a risk-reducing effect on default and portfolio risks. Other bank-related studies have also revealed a positive link between CSR and FS (Gangi *et al.*, 2019; Nguyen and Nguyen, 2020). By contrast, Ben Abdallah *et al.* (2020) report that improved sustainability performance has a negative impact on the FS of European banks. Similarly, Batae *et al.* (2021) reveal that better social performance is associated with increased financial risks in Europe. Nevertheless, none of the past/above studies has examined whether CSR influences FS within the insurance, banking, and investment banking sub-sectors. Given that corporate response to CSR issues are industry-driven and sensitive to industry-specific factors (Lock and Seele, 2015), the effects of CSR on FS can vary across different industries. However, Kuzey *et al.* (2021) argue that the CSR-FP relationship also depends on the homogeneity of sectors and provide evidence that CSR has a similar and positive effect on FP across different financial sub-sectors (e.g. banking, consumer lending and insurance). As discussed previously, CSR engagement is viewed as an effective strategy to gain social legitimacy, enhance reputation, and achieve a competitive advantage in the financial sector (Gangi *et al.*, 2019; Siueia *et al.*, 2019). Thus, based on the stakeholder view and the discussion above, we expect that improved CSR will lead to better FS in the financial sector and its three individual sub-sectors. Accordingly, our *first hypothesis* is:

H1. There is a positive association between CSR and FS in the financial sub-sectors.

2.2 Sustainability committees, CSR performance, and financial stability

According to ST, the formation of SUSCOMs indicates corporate commitments to CSR/sustainability-related issues (Amran *et al.*, 2014; Hussain *et al.*, 2018). The main functions of SUSCOM are aimed at protecting stakeholders' interests, addressing sustainability-related issues, managing CSR risks, and creating value for shareholders (Burke *et al.*, 2019; Peters and Romi, 2015). From the ST perspective, SUSCOMs play a crucial role in steering CSR initiatives/strategies and improving organizational performance (Baraibar-Diez and Odriozola, 2019; Peters and Romi, 2015). Consistent with this view, related studies (Kuzey *et al.*, 2021; Orazalin, 2020) have reported that firms with SUSCOMs exhibit better CSR/sustainability performance and have higher financial outcomes. Thus, the stakeholder view supports the adoption of SUSCOM to improve CSR (Hussain *et al.*, 2018), strengthen stakeholder relationships (Uyar *et al.*, 2021b), and enhance FP results (Orazalin *et al.*, 2023).

Empirically, few sector-related studies have assessed the moderating role of SUSCOMs. For instance, Kuzey *et al.* (2021) report that SUSCOMs reinforce the positive impact of CSR on firm profitability in the tourism and financial sectors, and on firm value only in the tourism sector. Similarly, Uyar *et al.* (2021a) document that the existence of SUSCOMs positively moderates the link between environmental performance and the development of the tourism sector. Observably, existing research does not consider whether SUSCOMs can moderate the CSR and FS relationship and, more importantly, in the context of financial sub-sectors, such as insurance, banking, and investment banking. Hence, our study seeks to address this research gap by assessing the moderating role of SUSCOM on the CSR—FS nexus. Given the importance of SUSCOMs in promoting CSR/sustainability-related initiatives (Orazalin, 2020) and improving organizational performance (Peters and Romi, 2015), SUSCOM is likely to affect the CSR—FS relationship. Hence, based on the stakeholder view and prior empirical evidence, we expect SUSCOMs to improve CSR, which in turn will lead to better FS. Accordingly, our *second hypothesis* is:

H2. The positive effect of CSR on FS is stronger when a SUSCOM is present.

3. Research methodology

3.1 Variables

In line with Gong and Ho (2018) and Uyar *et al.* (2022), we generated the dependent variable for the FS (FinStab1) proxy as follows:

$$FinStab1_{it} = \ln(Z\text{-Score}_{it}) = \ln\left(\frac{ROA_{it} + EquityRatio_{it}}{\sigma(ROA)_{it}}\right) \quad (1)$$

where ROA (the return on assets) is net income before tax over total assets, EquityRatio is the total equity over total assets and $\sigma(ROA)$ is the standard deviation of ROA. Besides, the Z-score assesses distance to insolvency, which arises from the insufficiency of equity to cover losses (Roy, 1952). The higher the Z-score the more stable a firm is financially (Gong and Ho, 2018). For the financial sector, maintaining stable profitability over the years in addition to earned profit and capital adequacy ratio is useful for assessing the long-term success of financial firms. Hence, we deflate profitability plus capital adequacy ratio by the standard deviation of profitability.

The test variables are drawn from Thomson Reuters Eikon (hereafter Thomson's) (formerly known as Asset4) environmental, social and governance (ESG) [1] performance score and its three pillars; environmental (ENV), social (SOC), and governance (GOV). The pillars enable the authors to calculate whether or not each pillar of ESG is associated with FS. ESG taxonomy is considered an objective, systematic, and auditable measurement of CSR worldwide (Cheng *et al.*, 2014). Hence, we followed prior studies (Cheng *et al.*, 2014; Uyar *et al.*, 2021b) in

using ESG score and its three pillars' scores ranging between zero and 100 as a CSR proxy. A higher ESG score indicates higher CSR in the composite and individual ESG pillars.

The presence of a sustainability committee (SUScom) is incorporated into the study as a moderator to explore its role in connecting CSR to FS; it is a binary variable taking one if the committee exists, and zero otherwise (Arayssi *et al.*, 2020; Pucheta-Martínez and Gallego-Álvarez, 2019). Wasiuzzaman *et al.* (2021) found that SUSCOMs play a moderating role between slack financial resources and CSR commitment. Hence, we chose SUSCOM as a moderating factor between CSR and FS.

As control variables, we include board size (Brdsz), board gender diversity (Brddiversity), board independence (Bdrindpend), director skills (Brdskills), board structure policy (Brdpolicy), executive ESG compensation policy (ESGcompens), and chief executive officer (CEO) duality (CEOdual), and free-float percentage (FFloat) as a proxy of ownership composition, firm size (Frmsz), firm age (Frmage) and leverage. These variables are commonly controlled firm characteristics used in several prior studies (Orazalin *et al.*, 2019; Uyar *et al.*, 2022; Wasiuzzaman *et al.*, 2021). Besides, following prior studies (Orazalin and Mahmood, 2021; Uyar *et al.*, 2022), we integrated public governance strength (i.e. World Governance Indicators (WGI)) as a country-level control variable [2]. All variables, their descriptions, and sources are presented in Table A1 (in Appendix).

3.2 Sample and data

The sample of this study includes all the firms in the financial industry included in the Thomson database with available ESG data from 2002 onward until 2019. Thomson is one of the sources of financial analysis data compiled from 2,000 contributors and covering 99% of the worldwide market capitalization. It includes financial news, company fundamentals, ESG data, and global pricing data, among others. It is a vital step to conduct data screening before further multivariate techniques (Hair *et al.*, 2010). First, we excluded firm-year records of the financial sector with a negative equity ratio following Gong and Ho (2018). Initially, there were 8,845 firm-year records of financial firms with their equity ratio being zero or positive between 2002 and 2019. Then, according to the initial summary statistics, Board size and Leverage had a heavy skewness with extreme values. Thus, they are winsorized in both tails including lower and top tails at one percent. The significantly extreme values at the two tails are replaced with their winsorized counterpart values. Following the outlier detection phase, five extreme firm-year records are eliminated. Finally, the missing data analysis and the imputation are utilized. The variables ENV, SOC, Brdsz, FFloat, Firmage, and Leverage have 0.02%, 0.02%, 0.14%, 0.48%, 0.48%, and 0.61% missing observations, respectively. The ratios are significantly less than 1% within the whole sample. Although the percentage of the missing records of the aforementioned variables is relatively small, these missing values are subject to an imputation phase. We use the Markov chain Monte Carlo method with linear regression as the model type for scale variables. FinStab has missing values because of the calculations using standard deviations, which results in missing values automatically. Furthermore, Firmage is not imputed since 9.52% of the observations do not have a history of firm age. Hence, the final sample size is 8,840 records from Insurance (2,018), Banking Services (4,943), and Investment Banking and Investment Services (1,879) and 59 countries.

3.3 Empirical methodology

We employ the following model to test *H1*:

$$Y_{i,t,c} = \beta_0 + \beta_1(X)_{i,t,c} + \beta_2(Controls)_{i,t,c} + \beta_3 \sum (Country)_c + \beta_4 \sum (Firm)_i + \beta_5 \sum (Year)_t + \varepsilon_{i,t,c} \quad (2)$$

where the “Y” denotes FinStab1 as the dependent variable. The “X” term denotes the independent variables including ESG, ENV, SOC, and GOV. The control variables are Brdsize, CEOdual, Brddiversity, Bdrindepend, Brdskills, Brdpolicy, ESGcompens, Frmsize, Leverage, Frmage, FFfloat, and WGI.

To test *H2*, we employ the following model:

$$Y_{i,t,c} = \beta_0 + \beta_1(X)_{i,t,c} + \beta_2(M)_{i,t,c} + \beta_3(X*M)_{i,t,c} + \beta_2(Controls)_{i,t,c} + \beta_3 \sum (Country)_c + \beta_4 \sum (Firm)_i + \beta_5 \sum (Year)_t + \varepsilon_{i,t,c} \quad (3)$$

where the term “Y” shows FinStab1 as the dependent variable. The term “X” shows ESG, ENV, SOC, and GOV as the independent testing variables, and the term “M” shows SUScom as the moderating variable. The control variables are the same as in [Equation \(2\)](#).

4. Results and findings

4.1 Descriptive statistics

The summary of the descriptive statistics is shown in [Table 1](#). The mean value of FinStab1 is 3.01, ESG is 42.53, ENV is 23.54, SOC is 42.31, and GOV is 49.90. Regarding the moderating variable, 37% of the observations indicate the existence of SUScom. Further, correlation coefficients are reported in [Table 2](#) for investigating the bivariate associations among the variables. As shown, ESG, ENV, SOC, GOV, and SUScom have a significant linear bivariate correlation with FinStab1.

4.2 Empirical findings/results

The baseline analysis utilizes the country, firm, and year fixed-effects (FE) panel regression analysis. The proposed models are run for the full sample and the three sub-samples

Variable	Obs	Mean	Std. Dev	Min	Max
FinStab1	8,605	3.01	1.02	-3.09	7.31
FinStab2	8,606	3.20	1.01	-3.75	7.48
ESG	8,840	42.53	19.33	1.54	94.97
ENV	8,840	23.54	28.70	0.00	97.69
SOC	8,840	42.31	22.03	0.12	97.42
GOV	8,840	49.90	22.75	0.46	99.38
SUScom	8,840	0.37	0.48	0.00	1.00
Brdsize	8,840	11.74	3.77	4.00	21.00
CEOdual	8,840	0.35	0.48	0.00	1.00
Brddiversity	8,840	14.96	12.10	0.00	71.43
Bdrindepend	8,840	78.45	17.87	0.00	100.00
Brdskills	8,840	0.84	0.37	0.00	1.00
Brdpolicy	8,840	0.89	0.31	0.00	1.00
ESGcompens	8,840	0.19	0.39	0.00	1.00
Frmsize	8,840	24.17	2.07	15.04	29.10
Leverage	8,840	0.16	0.20	0.00	0.83
Frmage	7,998	37.54	34.67	0.00	211.00
FFloat	8,840	77.79	24.82	0.02	100.00
WGI	8,840	0.99	0.65	-1.18	1.97

Note(s): This table presents the descriptive statistics of the variables

Source(s): Table created by authors

Table 1.
Descriptive statistics

Table 2.
Correlation

Variable	1	2	3	4	5	6	7	8	9	10
1 FinStab1	1									
2 FinStab2	0.971*	1								
3 ESG	-0.077*	-0.052*	1							
4 ENV	-0.066*	-0.036*	0.791*	1						
5 SOC	-0.082*	-0.050*	0.885*	0.729*	1					
6 GOV	-0.032*	-0.030*	0.773*	0.409*	0.425*	1				
7 SUScom	-0.051*	-0.026*	0.573*	0.614*	0.540*	0.333*	1			
8 Brdsize	-0.019	-0.003	0.147*	0.231*	0.160*	0.030*	0.172*	1		
9 CEOdual	-0.037*	-0.021*	-0.115*	-0.122*	-0.018	-0.166*	-0.108*	0.022*	1	
10 Brddiversity	0.025*	0.026*	0.330*	0.243*	0.319*	0.232*	0.191*	0.029*	-0.046*	1
11 Bdrindepend	0.008	-0.008	0.215*	0.060*	0.203*	0.200*	0.025*	0.075*	0.014	0.251*
12 Brdskills	0.005	0.003	0.124*	0.019	0.082*	0.169*	0.005	-0.153*	0.049*	0.164*
13 Brdpolicy	-0.040*	-0.041*	0.283*	0.139*	0.277*	0.225*	0.117*	-0.018	0.048*	0.236*
14 ESGcompens	0.007	0.009	0.353*	0.311*	0.331*	0.239*	0.256*	-0.01	-0.053*	0.265*
15 Firmsize	-0.028*	0.006	0.496*	0.565*	0.433*	0.323*	0.370*	0.447*	-0.02	0.076*
16 Leverage	-0.176*	-0.160*	0.018	0.013	0.028*	0.005	0.033*	-0.089*	0.016	-0.019
17 Firmage	-0.036*	-0.025*	0.082*	0.160*	0.109*	-0.030*	0.104*	0.220*	0.003	0.009
18 FFloat	-0.077*	-0.065*	0.125*	0.018	0.111*	0.139*	-0.027*	0.023*	0.181*	0.147*
19 WGI	-0.106*	-0.112*	0.037*	0.006	0.033*	0.042*	-0.059*	-0.122*	0.110*	0.195*

Variable	11	12	13	14	15	16	17	18	19
11 Bdrindepend	1								
12 Brdskills	0.089*	1							
13 Brdpolicy	0.266*	0.241*	1						
14 ESGcompens	0.117*	0.124*	0.147*	1					
15 Firmsize	0.064*	-0.051*	0.009	0.114*	1				
16 Leverage	-0.088*	-0.025*	-0.018	0.005	-0.013	1			
17 Firmage	-0.064*	-0.172*	-0.084*	0.022*	0.200*	-0.009	1		
18 FFloat	0.040*	0.130*	0.104*	0.127*	0.036*	-0.052*	-0.082*	1	
19 WGI	0.025*	0.209*	0.124*	0.175*	-0.043*	-0.052*	-0.089*	0.414*	1

Note(s): This table presents the correlation analysis. * $p < 0.05$
Source(s): Table created by authors

including Banking, Insurance, and InvestBanking sectors. Table 3 for the full sample shows that ESG, ENV, and SOC have a significant positive association with FinStab1 while the coefficient of GOV is positive but has a low significance level [3]. Hence, the findings confirm that firms that have higher CSR (composite as well as its three individual indicators) are likely to be financially more stable, thus supporting *H1*. Similarly, Table 4 for three sub-financial sectors shows that the coefficient of ESG is significant and positive in Banking, Insurance, and InvestBanking. These findings lend support to *H1* for the three sub-sectors.

Table 5 shows the moderating effect of SUScom on the association of ESG, ENV, SOC, and GOV with FinStab. The interaction variables *ESG*SUScom*, *SOC*SUScom*, and *GOV*SUScom* have a significant positive relationship with FinStab while the interaction variable *ENV*SUScom* does not have a significant relationship with FinStab. Hence, the moderating effects of SUSCOMs between composite ESG score and FinStab, SOC score and FinStab, and GOV score and FinStab are confirmed, thus supporting *H2*.

4.3 Robustness tests

To check the robustness of the baseline analysis results, additional analyses are implemented by incorporating an alternative dependent variable and addressing endogeneity and omitted variable concerns.

Independent variables	(1)	(2)	(3)	(4)
	FinStab1	FinStab1	FinStab1	FinStab1
ESG	0.0014 ^{***} (3.82)			
ENV		0.00091 ^{***} (4.19)		
SOC			0.00098 ^{***} (3.31)	
GOV				0.00035 (1.52)
Brdsize	0.0033 ^{**} (2.12)	0.0030 [*] (1.90)	0.0028 [*] (1.82)	0.0031 ^{**} (1.97)
CEOdual	0.029 ^{***} (2.73)	0.027 ^{**} (2.50)	0.026 ^{**} (2.43)	0.030 ^{***} (2.75)
Brddiversity	-0.00099 ^{**} (-2.17)	-0.00084 [*] (-1.85)	-0.00087 [*] (-1.92)	-0.00090 ^{**} (-1.97)
Bdrindepend	0.00073 ^{**} (2.19)	0.00088 ^{***} (2.64)	0.00085 ^{**} (2.56)	0.00076 ^{**} (2.25)
Brdskills	-0.040 ^{***} (-3.58)	-0.038 ^{***} (-3.35)	-0.038 ^{***} (-3.34)	-0.038 ^{***} (-3.37)
Brdpolicy	-0.053 ^{***} (-3.70)	-0.046 ^{***} (-3.25)	-0.047 ^{***} (-3.37)	-0.048 ^{***} (-3.34)
ESGcompens	0.024 ^{**} (2.01)	0.026 ^{**} (2.15)	0.025 ^{**} (2.11)	0.027 ^{**} (2.27)
Frmsize	-0.32 ^{***} (-33.79)	-0.32 ^{***} (-33.86)	-0.32 ^{***} (-33.72)	-0.31 ^{***} (-33.58)
Leverage	-0.80 ^{***} (-18.34)	-0.80 ^{***} (-18.38)	-0.80 ^{***} (-18.34)	-0.80 ^{***} (-18.41)
Frmage	0.033 ^{***} (14.49)	0.032 ^{***} (14.00)	0.033 ^{***} (14.34)	0.035 ^{***} (15.62)
FFloat	-0.00077 ^{**} (-2.43)	-0.00074 ^{**} (-2.33)	-0.00076 ^{**} (-2.38)	-0.00076 ^{**} (-2.39)
WGI	0.22 ^{***} (5.34)	0.23 ^{***} (5.43)	0.22 ^{***} (5.27)	0.23 ^{***} (5.44)
Constant	9.37 ^{***} (41.80)	9.40 ^{***} (41.83)	9.35 ^{***} (41.66)	9.23 ^{***} (41.82)
Country, firm, and year FE	Y	Y	Y	Y
N	7,793	7,793	7,793	7,793
Adj R ²	0.23	0.23	0.23	0.23
F-stat	71.75 ^{***}	71.88 ^{***}	71.59 ^{***}	71.20 ^{***}

Note(s): This table presents the association between CSR performance and financial stability. FinStab1 is the proxy for financial stability which is the logarithm of the Z-Score proxied by the sum of ROA and Equity Ratio over the standard deviation of ROA as in Eq. (1). Here, ROA is income before tax over total assets. While ESG is a composite CSR performance score (ranging between 0 and 100) of environmental, social and corporate governance pillars, ENV is the environmental pillar score, SOC is the social pillar score, and GOV is the governance pillar score. All range from 0 to 100. All variables are defined in Table A1. *t* statistics in parentheses. **p* < 0.10, ***p* < 0.05 and ****p* < 0.01

Source(s): Table created by authors

Table 3.
Country, firm and year
FE regression analysis

Independent variables\sectors	(1)	(2)	(3)
	FinStab1 Banking	FinStab1 Insurance	FinStab1 InvestBanking
ESG	0.00098 ^{**} (2.52)	0.0023 ^{***} (2.86)	0.0019 [*] (1.79)
Brdsize	0.0017 (1.07)	0.011 ^{**} (2.54)	0.0039 (0.82)
CEOdual	0.035 ^{***} (3.02)	0.031 (1.27)	0.031 (0.96)
Brddiversity	-0.0012 ^{**} (-2.41)	0.00064 (0.63)	-0.0015 (-1.15)
Bdrindepend	0.00067 [*] (1.96)	-0.000060 (-0.07)	0.0033 ^{***} (3.30)
Brdskills	-0.013 (-1.12)	-0.046 (-1.52)	-0.14 ^{***} (-4.01)
Brdpolicy	-0.034 ^{**} (-2.30)	0.022 (0.57)	-0.17 ^{***} (-4.33)
ESGcompens	0.027 ^{**} (2.05)	-0.030 (-1.11)	0.034 (1.00)
Frmsize	-0.28 ^{***} (-22.87)	-0.44 ^{***} (-19.46)	-0.31 ^{***} (-15.62)
Leverage	-0.67 ^{***} (-14.02)	-1.01 ^{***} (-7.06)	-0.98 ^{***} (-9.81)
Frmage	0.031 ^{***} (12.37)	0.038 ^{***} (8.14)	0.030 ^{***} (3.88)
FFloat	-0.0016 ^{***} (-4.83)	-0.0012 (-1.62)	0.0035 ^{***} (3.34)
WGI	0.21 ^{***} (5.26)	0.25 ^{**} (1.98)	0.28 [*] (1.93)
Constant	8.86 ^{***} (31.12)	11.9 ^{***} (21.49)	8.34 ^{***} (16.86)
Country, firm, and year FE	Yes	Yes	Yes
N	4,469	1782	1,542
Adj R ²	0.25	0.28	0.27
F-stat	45.61 ^{***}	20.63 ^{***}	16.68 ^{***}

Note(s): This table presents the association between CSR performance and financial stability for the financial sub-sectors namely Banking, Insurance and Investment Banking. FinStab1 is the proxy for financial stability which is the logarithm of the Z-Score proxied by the sum of ROA and Equity Ratio over the standard deviation of ROA as in Eq. (1). Here, ROA is income before tax over total assets. ESG is a composite CSR performance score ranging between 0 and 100. All variables are defined in Table A1. *t* statistics in parentheses. **p* < 0.10, ***p* < 0.05 and ****p* < 0.01

Source(s): Table created by authors

Table 4.
Country, firm, and year
FE regression
analysis—Banking,
Insurance and
InvestBanking

First, we use an alternative dependent variable, FinStab2, calculated similarly to FinStab1 with only one difference; ROA is net income after tax over total assets. Table 6 shows that the coefficients of ESG, ENV, and SOC are significant and positive while the coefficient of GOV is insignificant. The results are in line with the initial analysis results. FinStab2 is also used as an alternative dependent variable and its association with ESG is investigated for the three sub-sectors. Table 7 shows that ESG has a significant and positive relationship with FinStab2 in Banking and Insurance. However, ESG has a positive but insignificant association with FinStab2 in the InvestBanking sector. The results are largely compatible with the output of the baseline analysis.

Second, we utilize instrumental variable regression analysis. Following Konadu *et al.* (2022), we use SUScom and ESGcompens as instrumental variables. We posit that these CSR configurations have a direct potential effect on CSR commitments, and hence they are suitable instrumental variables. We provided the results of the first stage, second stage, Durbin-Wu-Hausman test of endogeneity, overidentifying restriction test, and weak instrument test in Table 8. Accordingly, the results of the Durbin-Wu-Hausman test reveal that SUScom and ESGcompens are endogenous regressors. Also, the results of overidentifying restrictions test show that the provided instruments are valid. Finally, the results of the weak instrument test show that the instruments are not weak since the test statistics values are fairly larger than the suggested value of 10. Table 8 shows that the coefficients of ESG, ENV, SOC, and GOV are significant and positive. The results are largely consistent with the initial results.

Finally, two more analyses are performed for addressing endogeneity and omitted variable concerns. We generate an alternative sample using Propensity Score Matching

Independent variables	(1)	(2)	(3)	(4)	CSR contributing to the financial sector
	FinStab1	FinStab1	FinStab1	FinStab1	
ESG	0.00070* (1.66)				
SUScom	-0.040 (-1.55)	0.0047 (0.33)	-0.029 (-1.28)	-0.0077 (-0.34)	
ESG*SUScom	0.0011** (2.44)				
ENV		0.00058* (1.96)			
ENV*SUScom		0.00036 (1.14)			
SOC			0.00041 (1.19)		
SOC*SUScom			0.00097** (2.44)		
GOV				0.000068 (0.25)	
GOV*SUScom				0.00059* (1.65)	
Brdsize	0.0033*** (2.10)	0.0030* (1.91)	0.0029* (1.88)	0.0031** (1.98)	
CEOdual	0.029*** (2.75)	0.027** (2.54)	0.027** (2.52)	0.030*** (2.77)	
Brddiversity	-0.00099** (-2.19)	-0.00086* (-1.91)	-0.00092** (-2.03)	-0.00092** (-2.01)	
Bdrindepend	0.00077** (2.31)	0.00088*** (2.64)	0.00086*** (2.59)	0.00079** (2.35)	
Brdskills	-0.040*** (-3.56)	-0.038*** (-3.35)	-0.038*** (-3.35)	-0.038*** (-3.34)	
Brdpolicy	-0.048*** (-3.37)	-0.045*** (-3.21)	-0.045*** (-3.16)	-0.046*** (-3.23)	
ESGcompens	0.021* (1.74)	0.024** (1.99)	0.022* (1.83)	0.024*** (2.04)	
Frmsize	-0.32*** (-33.79)	-0.32*** (-33.76)	-0.32*** (-33.71)	-0.32*** (-33.70)	
Leverage	-0.79*** (-18.19)	-0.79*** (-18.25)	-0.79*** (-18.21)	-0.79*** (-18.24)	
Frmage	0.032*** (14.11)	0.032*** (13.83)	0.032*** (14.02)	0.034*** (14.95)	
FFloat	-0.00075** (-2.34)	-0.00073** (-2.29)	-0.00074** (-2.34)	-0.00072** (-2.27)	
WGI	0.23*** (5.43)	0.23*** (5.51)	0.23*** (5.45)	0.23*** (5.47)	
Constant	9.41*** (41.86)	9.41*** (41.72)	9.39*** (41.68)	9.32*** (41.85)	
Country, firm, and year FE	Yes	Yes	Yes	Yes	
N	7,793	7,793	7,793	7,793	
Adj R ²	0.23	0.23	0.23	0.23	
F-stat	67.48***	67.37***	67.36***	66.98***	

Note(s): This table presents the moderating effect of sustainability committee between CSR performance and financial stability. FinStab1 is the proxy for financial stability which is the logarithm of the Z-Score proxied by the sum of ROA and Equity Ratio over the standard deviation of ROA as in Eq. (1). Here, ROA is income before tax over total assets. SUScom refers to sustainability committee existence which takes 1 if the sustainability committee exists, otherwise 0. While ESG is a composite CSR performance score (ranging between 0 and 100) of environmental, social and corporate governance pillars, ENV is the environmental pillar score, SOC is the social pillar score, and GOV is the governance pillar score. All range from 0 to 100. All variables are defined in Table A1. *t* statistics in parentheses. * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$

Source(s): Table created by authors

Table 5.
Moderating role of
SUScom

(PSM) and Entropy Balancing approaches (Hainmueller, 2012; Hainmueller and Xu, 2013). These two approaches are widely used methods to address possible endogeneity and omitted variable bias (Hossain and Masum, 2022).

To generate treatment and control groups, we use the top quartiles of the independent testing variables (ESG, ENV, SOC, and GOV) as the treatment group and the remaining observations of the testing variables as the control group. The baseline research models are re-run based on the alternative sample generated by the entropy balance approach. The results in Table 9 are consistent with the initial analysis results where the coefficients of ESG, ENV, SOC, and GOV are significantly positive.

Similarly, the alternative sample generated by the PSM method is used to re-run the baseline research models. Again, the results in Table 10 are compatible with the main results in which ESG, ENV, SOC, and GOV are significantly positive. The coefficients of GOV in both approaches (Entropy balancing and PSM) became significant in the robustness check, which was weak in the initial analysis.

Independent variable	(1) FinStab2	(2) FinStab2	(3) FinStab2	(4) FinStab2
ESG	0.0012*** (3.58)			
ENV		0.00089*** (4.24)		
SOC			0.00091*** (3.14)	
GOV				0.00029 (1.31)
Controls	Included	Included	Included	Included
Country, firm, and year FE	Y	Y	Y	Y
N	7,794	7,794	7,794	7,794
Adj-R ²	0.24	0.24	0.24	0.24
F-stat	73.29***	73.52***	73.16***	72.79***

Note(s): This table presents the association between CSR performance and financial stability based on an alternative financial stability proxy. FinStab2 is the logarithm of the Z-Score proxied by the sum of ROA and Equity Ratio over the standard deviation of ROA as described in Eq. (1). Here, ROA is net income over total assets. While ESG is a composite CSR performance score (ranging between 0 and 100) of environmental, social and corporate governance pillars, ENV is the environmental pillar score, SOC is the social pillar score and GOV is the governance pillar score. All range from 0 to 100. All variables are defined in Table A1. *t* statistics in parentheses. * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$

Table 6.
Alternative dependent variable—Country, firm and year FE regression analysis

Source(s): Table created by authors

Independent variables\sectors	(1) FinStab2 Banking	(2) FinStab2 Insurance	(3) FinStab2 InvestBanking
ESG	0.0010*** (2.73)	0.0019** (2.47)	0.0016 (1.50)
Controls	Included	Included	Included
Country, firm, and year FE	Y	Y	Y
N	4,470	1,782	1,542
Adj R ²	0.26	0.29	0.27
F-stat	47.32***	22.06***	16.53***

Note(s): This table presents the association between CSR performance and financial stability in three sub-sectors based on an alternative financial stability proxy. FinStab2 is the logarithm of the Z-Score proxied by the sum of ROA and Equity Ratio over the standard deviation of ROA as described in Eq. (1). Here, ROA is net income over total assets. ESG is a composite CSR performance score ranging between 0 and 100. All variables are defined in Table A1. *t* statistics in parentheses. * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$

Table 7.
Alternative dependent variable—Banking, Insurance and InvestBanking

Source(s): Table created by authors

5. Discussion and conclusion

Without a doubt, CSR initiatives, associated human resources, and information system configurations are costly engagements for firms. Although CSR practices help to improve/promote stakeholder relationships, community development, and reputation building, firms are increasingly expecting to see whether CSR engagement is justified with financial outcomes as well as non-financial consequences. Hence, this study assesses whether CSR contributes to the financial sector's FS. In addition, the study posits that SUSCOMs have a moderating impact on the CSR—FS link. The rationale behind this assumption is that SUSCOMs develop and implement strategies in a way that CSR activities/initiatives produce positive financial outcomes for the organization. Thus, we respond to the call for a need to investigate the role of SUSCOMs in establishing the link between CSR and business risks (Beji *et al.*, 2021).

Independent variables	(1) ESG 1st stage	(2) FinStab1 2nd stage	(3) ENV 1st stage	(4) FinStab1 2nd stage	(5) SOC 1st stage	(6) FinStab1 2nd stage	(7) GOV 1st stage	(8) FinStab1 2nd stage
SUScom	7.76 ^{***} (23.92)		14.2 ^{***} (27.03)		8.30 ^{***} (21.19)		4.59 ^{***} (8.91)	
ESGcompens	2.56 ^{***} (6.54)		1.90 ^{***} (2.99)		2.50 ^{***} (5.29)		2.96 ^{***} (4.77)	
ENV		0.00035 ^{***} (2.72)						
SOC				0.0019 ^{***} (2.72)		0.00033 ^{***} (2.71)		
GOV								0.00059 ^{***} (2.62)
Controls	Included	Included	Included	Included	Included	Included	Included	Included
Country, firm, and year FE	Y	Y	Y	Y	Y	Y	Y	Y
WUJH		2.81 [*]		7.57 ^{***}		3.27 [*]		18.73 ^{***}
OVID		2.57		0.38		0.11		2.68
WIT		1,385.24		1,546.54		1,229.46		225,142
N	7,793	7,793	7,793	7,793	7,793	7,793	7,793	7,793
F-stat	223.21 ^{***}		204.15 ^{***}		188.17 ^{***}		62.97 ^{***}	
χ^2 -stat		1,306,759.04 ^{***}		1,310,149.10 ^{***}		1,301,713.81 ^{***}		1,210,121.81 ^{***}

Note(s): This table presents the association between CSR performance and financial stability based on the instrumental variable regression analysis. FinStab1 is the proxy for financial stability which is the logarithm of the Z-Score proxied by the sum of ROA and Equity Ratio over the standard deviation of ROA as in Eq. (1). Here, ROA is income before tax over total assets. While ESG is a composite CSR performance score (ranging between 0 and 100) of environmental, social and corporate governance pillars, ENV is the environmental pillar score, SOC is the social pillar score, and GOV is the governance pillar score. All range from 0 to 100. All variables are defined in Table A1. *t* statistics in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Instrumental variables: sustainability committee existence (SUScom) and Executive ESG compensation existence (ESGcompens)

WUJH: Wu-Hausman test of endogeneity; OVID: overidentifying restriction test (Sargan) and WIT: weak instrument test (F-value)

Source(s): Table created by authors

Table 8.
Instrumental variable
for panel data models

Independent variables	(1) FinStab1	(2) FinStab1	(3) FinStab1	(4) FinStab1
ESG	0.00095** (2.08)			
ENV		0.00035* (1.78)		
SOC			0.00051** (2.01)	
GOV				0.00015* (1.66)
Controls	Included	Included	Included	Included
Country, firm, and year FE	Y	Y	Y	Y
N	7,793	7,793	7,793	7,793
Adj R^2	0.36	0.42	0.34	0.29
F-stat	181.66***	214.86***	150.77***	98.39***

Note(s): This table presents the association between CSR performance and financial stability based on the Entropy balancing. FinStab1 is the proxy for financial stability which is the logarithm of the Z-Score proxied by the sum of ROA and Equity Ratio over the standard deviation of ROA as in Eq. (1). Here, ROA is income before tax over total assets. While ESG is a composite CSR performance score (ranging between 0 and 100) of environmental, social and corporate governance pillars, ENV is the environmental pillar score, SOC is the social pillar score, and GOV is the governance pillar score. All range from 0 to 100. All variables are defined in Table A1. t statistics in parentheses. * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$

Table 9.
Entropy balance

Source(s): Table created by authors

Independent variables	(1) FinStab1	(2) FinStab1	(3) FinStab1	(4) FinStab1
ESG	0.00051** (2.10)			
ENV		0.00012* (1.79)		
SOC			0.00079** (1.99)	
GOV				0.00052* (1.88)
Controls	Included	Included	Included	Included
Country, firm, and year FE	Y	Y	Y	Y
N	2,896	2,886	2,896	3,190
Adj R^2	0.34	0.36	0.30	0.27
F-stat	42.05***	45.54***	33.93***	31.48***

Note(s): This table presents the association between CSR performance and financial stability based on the Propensity Score Matching. FinStab1 is the proxy for financial stability which is the logarithm of the Z-Score proxied by the sum of ROA and Equity Ratio over the standard deviation of ROA as in Eq. (1). Here, ROA is income before tax over total assets. While ESG is a composite CSR performance score (ranging between 0 and 100) of environmental, social and corporate governance pillars, ENV is the environmental pillar score, SOC is the social pillar score and GOV is the governance pillar score. All range from 0 to 100. All variables are defined in Table A1. t statistics in parentheses. * $p < 0.10$, ** $p < 0.05$ and *** $p < 0.01$

Table 10.
Propensity Score
Matching (PSM)

Source(s): Table created by authors

Our study contributes to the CSR, FS, and CG literature in the financial sector in several ways. First, it extends the recent and growing body of literature on the risk-reducing role of CSR mostly conducted in non-financial sectors (Gong and Ho, 2018; Orazalin *et al.*, 2019). Second, our study adds to the extant literature (Gangi *et al.*, 2019; Nguyen and Nguyen, 2020) by assessing the risk-reducing effects of CSR in the financial sub-sectors, such as insurance, banking, and investment banking. Third, our study extends existing research (Baraibar-Diez and Odriozola, 2019; Orazalin, 2020) by testing the moderating effect of

SUSCOMs on the link between CSR and FS. Finally, our work is among the first to assess the relationships among CSR, FS, and SUSCOMs of financial firms in a multi-country context.

The study draws several conclusions. First, CSR initiatives contribute to the financial sector's FS. The result is consistent with prior investigations that have studied commercial banks operating in single countries/regions and confirmed the risk-reducing effects of CSR (e.g. [Gangi et al., 2019](#); [Nguyen and Nguyen, 2020](#); [Ramzan et al., 2021](#)). [Hsu and Chen \(2015\)](#) argue that CSR reinforces FS by helping firms achieve higher credit ratings, which implies mitigation of exposure to credit risks. Besides, proactively addressing environmental and social concerns may alleviate operational and litigation risks arising from non-compliance with environmental and employee- and community-related regulations ([Grougiou et al., 2016](#); [Shahbaz et al., 2020](#)). However, we reveal that the governance pillar has a weak association with FS. Second, the significant association between CSR and FS holds for financial sub-sectors, including insurance, banking, and investment banking. This outcome confirms previously obtained evidence that banks by being sensitive to social/environmental issues can reduce their risks significantly ([Gangi et al., 2019](#)), and they are rewarded with higher performance for being socially responsible ([Ramzan et al., 2021](#)). Finally, the moderation analysis reveals the prominent role of SUSCOMs in bridging CSR with FS. This finding extends prior studies that have explored the link between CSR and FP but produced inconsistent results ([Govindan et al., 2021](#); [Hussain et al., 2018](#); [Li et al., 2017](#)). The finding implies that SUSCOMs play a crucial role in effectively devising and implementing CSR policies/strategies ([Arayssi et al., 2020](#)), managing risks, and gaining benefits arising from CSR ([Burke et al., 2019](#)). Nevertheless, although this moderation effect holds for the composite ESG proxy and social and governance pillars, it does not hold for the environmental pillar.

We suggest several theoretical, managerial, and policy implications. First, our findings support the stakeholder view in that firms committed to CSR can enhance their FP by balancing the interests of all stakeholders ([Freeman, 1984](#); [Berman et al., 1999](#)). Through ensuring FS, the implementation of CSR activities/initiatives results in stakeholder satisfaction, which in turn reinforces long-term firm survival ([Stevens et al., 2005](#)). The significant association between the environmental dimension and FS implies that financial sector firms could enhance FS by incorporating environmental initiatives into their business processes/strategies. As the financial sector does not produce a tangible product, it can enhance efficiency in service delivery by minimizing resource usage (e.g. energy and waste) and emissions and focusing on eco-innovation practices (i.e. process innovation). Furthermore, the significant association between the social pillar and FS implies that caring employees, promoting community engagement, respecting human rights, and ensuring product responsibility could play a major role in strengthening FS. Moreover, pursuing CSR initiatives/strategies that require the integration of environmental and social sensitivities into day-to-day business operations and decision-making and communicating outputs accordingly can strengthen financial firms' legitimacy. Likewise, insurance firms' attitude towards CSR issues and pricing insurance contracts of environmentally and socially well-managed companies will demonstrate their incorporation of CSR activities/practices into daily business practices and contribute to their FS ([Van Den Berghe and Louche, 2005](#)). In the case of investment banking, there is a rapidly growing branch of the sector namely socially responsible investment, which requires the incorporation of environmental and social issues into decision-making and trading practices ([Williams, 2007](#)). Moreover, [Van Den Berghe and Louche \(2005\)](#) highlight the exposure of investment banks to public scrutiny due to corporate social irresponsibility and loss of pension savings in corporate scandals like Enron, which can cause credibility erosion and, ultimately, hurt FS. Finally, the insignificant association between governance pillar and FS could be attributable to the composition of the governance pillar, which includes management, shareholders' rights, and CSR strategy dimensions.

These dimensions may have a diverging effect on FS so that the composite governance pillar does not produce a significant outcome.

The moderation analysis highlights the importance of SUSCOMs in linking CSR with FP, thus supporting the stakeholder view in that SUSCOMs play a key role in steering CSR initiatives/strategies and improving FP (Baraibar-Diez and Odriozola, 2019; Peters and Romi, 2015). As the current level of SUSCOMs' existence is on average 37% for financial sector firms, opening more space to them in the corporate structure is important. The study also offers some implications for stock markets and investors. Stock market regulators can take initiatives for inciting firms to greater CSR engagement. This is because as CSR leads to greater FS, it can be leveraged to alleviate agency conflicts between managers and shareholders. Although the association between the governance pillar and FS was insignificant, the interaction of SUSCOMs with the governance pillar produces a positive significant result for FS. This implies that SUSCOMs help mobilize board capital for ensuring greater FS via CSR.

As a limitation, the sample of the study includes publicly traded financial firms. Hence, readers should be cautious about generalizing the results to other sectors and non-listed financial firms. Furthermore, we measure the presence of SUSCOM with the binary variable due to the unavailability of the data for the composition of SUSCOMs in the database. Hence, future studies based on hand-collected data from corporate reports may execute further analysis to ascertain whether SUSCOM composition makes a difference in CSR uptake and moderates the CSR—FS link. Moreover, other firm-level factors (e.g. ownership structure, executive CSR compensation, and CEO abilities) and external factors (e.g. stakeholder versus shareholder orientation, financial sector development of the country, and regulatory quality) may affect the link between CSR and FS of financial sector firms; hence it is important to assess the effects of these factors. In addition, future studies could deepen the investigation by focusing on individual dimensions of ESG pillars. For example, although the effect of the governance pillar is not significant in the main analysis, its three sub-dimensions, namely management, shareholders' rights, and CSR strategy may reveal different outcomes, which deserve the exclusive focus of researchers. Finally, it is also possible to develop a qualitative study to highlight what kind of strategies SUSCOMs devise and implement to connect CSR practices with FS.

Notes

1. Environmental, social and governance.
2. The data for WGI were collected from (World Bank, 2021).
3. The authors would like to note that the robustness tests addressing endogeneity issues show that GOV has also a significant positive association with FinStab1.

References

- Albitar, K., Hussainey, K., Kolade, N. and Gerged, A.M. (2020), "ESG disclosure and firm performance before and after IR: the moderating role of governance mechanisms", *International Journal of Accounting and Information Management*, Vol. 28 No. 3, pp. 429-444.
- Alkaraan, F. (2021a), "Strategic investment decision-making: mergers and acquisitions toward industry 4.0", *Advances in Mergers and Acquisitions*, Vol. 20, pp. 39-52.
- Alkaraan, F. (2021b), "Editorial: recent debates on corporate governance and sustainability", *Corporate Governance and Sustainability Review*, Vol. 5 No. 3, pp. 4-6.
- Alkaraan, F. (2022), "Editorial: current issues in corporate governance and sustainability", *Corporate Governance and Sustainability Review*, Vol. 6 No. 2, pp. 4-6.

- Alkaraan, F., Albahloul, M. and Hussainey, K. (2023a), "Carillion's strategic choices and the boardroom's strategies of persuasive appeals: ethos, logos and pathos", *Journal of Applied Accounting Research*, Vol. ahead-of-print No. ahead-of-print, doi: [10.1108/JAAR-06-2022-0134](https://doi.org/10.1108/JAAR-06-2022-0134).
- Alkaraan, F., Albitar, K., Hussainey, K. and Venkatesh, V.G. (2022), "Corporate transformation toward Industry 4.0 and financial performance: the influence of environmental, social, and governance (ESG)", *Technological Forecasting and Social Change*, Vol. 175, 121423.
- Alkaraan, F., Elmarzouky, M., Hussainey, K. and Venkatesh, V.G. (2023b), "Sustainable strategic investment decision-making practices in UK companies: the influence of governance mechanisms on synergy between industry 4.0 and circular economy", *Technological Forecasting and Social Change*, Vol. 187, 122187.
- Amran, A., Lee, S.P. and Devi, S.S. (2014), "The influence of governance structure and strategic corporate social responsibility toward sustainability reporting quality", *Business Strategy and the Environment*, Vol. 23 No. 4, pp. 217-235.
- Arayssi, M., Jizi, M. and Tabaja, H.H. (2020), "The impact of board composition on the level of ESG disclosures in GCC countries", *Sustainability Accounting, Management and Policy Journal*, Vol. 11 No. 1, pp. 137-161.
- Awaysheh, A., Heron, R.A., Perry, T. and Wilson, J.I. (2020), "On the relation between corporate social responsibility and financial performance", *Strategic Management Journal*, Vol. 41 No. 6, pp. 965-987.
- Bătae, O.M., Dragomir, V.D. and Feleagă, L. (2021), "The relationship between environmental, social, and financial performance in the banking sector: a European study", *Journal of Cleaner Production*, Vol. 290, 125791.
- Baraibar-Diez, E. and Odriozola, M.D. (2019), "CSR committees and their effect on ESG performance in UK, France, Germany, and Spain", *Sustainability*, Vol. 11, p. 18.
- Beji, R., Yousfi, O., Loukil, N. and Omri, A. (2021), "Board diversity and corporate social responsibility: empirical evidence from France", *Journal of Business Ethics*, Vol. 173, pp. 133-155.
- Ben Abdallah, S., Saïdane, D. and Ben Slama, M. (2020), "CSR and banking soundness: a causal perspective", *Business Ethics: A European Review*, Vol. 29 No. 4, pp. 706-721.
- Berman, S.L., Wicks, A.C., Kotha, S. and Jones, T.M. (1999), "Does stakeholder orientation matter? The relationship between stakeholder management models and firm financial performance", *Academy of Management Journal*, Vol. 42 No. 5, pp. 488-506.
- Boubaker, S., Cellier, A., Manita, R. and Saeed, A. (2020), "Does corporate social responsibility reduce financial distress risk?", *Economic Modelling*, Vol. 91, pp. 835-851.
- Burke, J.J., Hoytash, R. and Hoytash, U. (2019), "The heterogeneity of board-level sustainability committees and corporate social performance", *Journal of Business Ethics*, Vol. 154 No. 4, pp. 1161-1186.
- Cheng, B., Ioannou, I. and Serafeim, G. (2014), "Corporate social responsibility and access to finance", *Strategic Management Journal*, Vol. 35 No. 1, pp. 1-23.
- Dakhli, A. (2022), "The impact of corporate social responsibility on firm financial performance: does audit quality matter?", *Journal of Applied Accounting Research*, Vol. 23 No. 5, pp. 950-976.
- Esteban-Sanchez, P., de la Cuesta-Gonzalez, M. and Paredes-Gazquez, J.D. (2017), "Corporate social performance and its relation with corporate financial performance: international evidence in the banking industry", *Journal of Cleaner Production*, Vol. 162, pp. 1102-1110.
- Freeman, R.E. (1984), "Strategic management: a stakeholder approach, pitman series in business and public policy".
- Gangi, F., Meles, A., D'Angelo, E. and Daniele, L.M. (2019), "Sustainable development and corporate governance in the financial system: are environmentally friendly banks less risky?", *Corporate Social Responsibility and Environmental Management*, Vol. 26 No. 3, pp. 529-547.

-
- Gong, Y. and Ho, K.-C. (2018), "Does corporate social responsibility matter for corporate stability? Evidence from China", *Quality and Quantity*, Vol. 52, pp. 2291-2319.
- Govindan, K., Kilic, M., Uyar, A. and Karaman, A.S. (2021), "Drivers and value-relevance of CSR performance in the logistics sector: a cross-country firm-level investigation", *International Journal of Production Economics*, Vol. 231, 107835.
- Grougiou, V., Dedoulis, E. and Leventis, S. (2016), "Corporate social responsibility reporting and organizational stigma: the case of 'sin' industries", *Journal of Business Research*, Vol. 69 No. 2, pp. 905-914.
- Hainmueller, J. (2012), "Entropy balancing for causal effects: a multivariate reweighting method to produce balanced samples in observational studies", *Political Analysis*, Vol. 20 No. 1, pp. 25-46.
- Hainmueller, J. and Xu, Y. (2013), "Ebalance: a stata package for entropy balancing", *Journal of Statistical Software*, Vol. 54 No. 7, pp. 1-18.
- Hair, J.F., Anderson, R.E., Tatham, R.L. and Black, W.C. (2010), *Multivariate Data Analysis with Readings*, 7th ed., Prentice Hall, Englewood Cliffs, NJ.
- Hossain, A.T. and Masum, A. Al. (2022), "Does corporate social responsibility help mitigate firm-level climate change risk?", *Finance Research Letters*, Vol. 47, 102791.
- Hsu, F.J. and Chen, Y.C. (2015), "Is a firm's financial risk associated with corporate social responsibility?", *Management Decision*, Vol. 53 No. 9, pp. 2175-2199.
- Hussain, N., Rigoni, U. and Orij, R.P. (2018), "Corporate governance and sustainability performance: analysis of triple bottom line performance", *Journal of Business Ethics*, Vol. 149 No. 2, pp. 411-432.
- Hussainey, K., Albitar, K. and Alkaraan, F. (2022), "Corporate narrative reporting on Industry 4.0 technologies: does governance matter?", *International Journal of Accounting and Information Management*, Vol. 30 No. 4, pp. 457-476.
- Konadu, R., Ahinful, G.S., Boakye, D.J. and Elbardan, H. (2022), "Board gender diversity, environmental innovation and corporate carbon emissions", *Technological Forecasting and Social Change*, Vol. 174, 121279.
- Kuzey, C., Uyar, A., Nizaeva, M. and Karaman, A.S. (2021), "CSR performance and firm performance in the tourism, healthcare, and financial sectors: do metrics and CSR committees matter?", *Journal of Cleaner Production*, Vol. 319, 128802.
- Li, S., Ngiatedema, T. and Chen, F. (2017), "Understanding the impact of green initiatives and green performance on financial performance in the US", *Business Strategy and the Environment*, Vol. 26 No. 6, pp. 776-790.
- Li, Z., Liao, G. and Albitar, K. (2020), "Does corporate environmental responsibility engagement affect firm value? The mediating role of corporate innovation", *Business Strategy and the Environment*, Vol. 29 No. 3, pp. 1045-1055.
- Lock, I. and Seele, P. (2015), "Analyzing sector-specific CSR reporting: social and environmental disclosure to investors in the chemicals and banking and insurance industry", *Corporate Social Responsibility and Environmental Management*, Vol. 22 No. 2, pp. 113-128.
- Michelon, G. and Parbonetti, A. (2012), "The effect of corporate governance on sustainability disclosure", *Journal of Management and Governance*, Vol. 16 No. 3, pp. 477-509.
- Nandy, M., Kuzey, C., Uyar, A., Lodh, S. and Karaman, A.S. (2022), "Can CSR mechanisms spur GRI adoption and restore its lost value relevance?", *Journal of Applied Accounting Research*, Vol. ahead-of-print No. ahead-of-print, doi: [10.1108/JAAR-03-2022-0068](https://doi.org/10.1108/JAAR-03-2022-0068).
- Neitzert, F. and Petras, M. (2022), "Corporate social responsibility and bank risk", *Journal of Business Economics*, Vol. 92 No. 3, pp. 397-428.
- Nguyen, L.T. and Nguyen, K.V. (2020), "The impact of corporate social responsibility on the risk of commercial banks with different levels of financial constraint", *Asia-Pacific Journal of Business Administration*, Vol. 13 No. 1, pp. 98-116.

-
- Okafor, A., Adeleye, B.N. and Adusei, M. (2021), "Corporate social responsibility and financial performance: evidence from US tech firms", *Journal of Cleaner Production*, Vol. 292, 126078, Elsevier.
- 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*, Vol. 29 No. 1, pp. 140-153.
- Orazalin, N. and Mahmood, M. (2021), "Toward sustainable development: board characteristics, country governance quality, and environmental performance", *Business Strategy and the Environment*, Vol. 30 No. 8, pp. 3569-3588.
- Orazalin, N., Mahmood, M. and Narbaev, T. (2019), "The impact of sustainability performance indicators on financial stability: evidence from the Russian oil and gas industry", *Environmental Science and Pollution Research*, Vol. 26 No. 8, pp. 8157-8168.
- Orazalin, N.S., Ntim, C.G. and Malagila, J.K. (2023), "Board sustainability committees, climate change initiatives, carbon performance, and market value", *British Journal of Management*, pp. 1-30.
- Peters, G.F. and Romi, A.M. (2015), "The association between sustainability governance characteristics and the assurance of corporate sustainability reports", *Auditing: A Journal of Practice and Theory*, Vol. 34 No. 1, pp. 163-198.
- Pucheta-Martínez, M.C. and Gallego-Álvarez, I. (2019), "An international approach of the relationship between board attributes and the disclosure of corporate social responsibility issues", *Corporate Social Responsibility and Environmental Management*, Vol. 26 No. 3, pp. 612-627.
- Ramzan, M., Amin, M. and Abbas, M. (2021), "How does corporate social responsibility affect financial performance, financial stability, and financial inclusion in the banking sector? Evidence from Pakistan", *Research in International Business and Finance*, Vol. 55, 101314, Elsevier.
- Roy, A.D. (1952), "Safety first and the holding of assets", *Econometrica*, Vol. 20 No. 3, p. 431.
- Sandberg, H., Alnoor, A. and Tiberius, V. (2022), "Environmental, social, and governance ratings and financial performance: evidence from the European food industry", *Business Strategy and the Environment*, pp. 1-19.
- Shahbaz, M., Karaman, A.S., Kilic, M. and Uyar, A. (2020), "Board attributes, CSR engagement, and corporate performance: what is the nexus in the energy sector?", *Energy Policy*, Vol. 143, May, 111582.
- Siuëia, T.T., Wang, J. and Deladem, T.G. (2019), "Corporate Social Responsibility and financial performance: a comparative study in the Sub-Saharan Africa banking sector", *Journal of Cleaner Production*, Vol. 226, pp. 658-668.
- Stevens, J.M., Steensma, H.K., Harrison, D.A. and Cochran, P.L. (2005), "Symbolic or substantive document? The influence of ethics codes on financial executives' decisions", *Strategic Management Journal*, Vol. 26 No. 2, pp. 181-195.
- Surroca, J., Tribó, J.A. and Waddock, S. (2010), "Corporate responsibility and financial performance: the role of intangible resources", *Strategic Management Journal*, Vol. 31 No. 5, pp. 463-490.
- Uyar, A., Kuzey, C., Kilic, M. and Karaman, A.S. (2021a), "Does firms' CSR engagement support tourism sector development? Moderation effect of CSR committee and CEO duality", *Tourism Economics*, pp. 1-25.
- Uyar, A., Kuzey, C., Kilic, M. and Karaman, A.S. (2021b), "Board structure, financial performance, corporate social responsibility performance, CSR committee, and CEO duality: disentangling the connection in healthcare", *Corporate Social Responsibility and Environmental Management*, Vol. 28 No. 6, pp. 1730-1748.
- Uyar, A., Wasiuzzaman, S., Kuzey, C. and Karaman, A.S. (2022), "Board structure and financial stability of financial firms: do board policies and CEO duality matter?", *Journal of International Accounting, Auditing and Taxation*, Vol. 47, 100474.
- Van Den Berghe, L. and Louche, C. (2005), "The link between corporate governance and corporate social responsibility in insurance", *Geneva Papers on Risk and Insurance: Issues and Practice*, Vol. 30, pp. 425-442.

- Wasiuzzaman, S., Uyar, A., Kuzey, C. and Karaman, A.S. (2021), "Corporate social responsibility: is it a matter of slack financial resources or strategy or both?", *Managerial and Decision Economics*, Vol. 43 No. 6, pp. 2444-2466.
- Williams, G. (2007), "Some determinants of the socially responsible investment decision: a cross-country study", *Journal of Behavioral Finance*, Vol. 8 No. 1, pp. 43-57.
- World Bank (2021), "The worldwide governance indicators (WGI)", available at: <http://info.worldbank.org/governance/wgi> (accessed 20 December 2021).

Appendix

Variable	Description
FinStab1	The logarithm of the Z-Score proxied by the sum of ROA and Equity Ratio over the standard deviation of ROA as in Eq. (1). Here, ROA is income before tax over total assets
FinStab2	The logarithm of the Z-Score proxied by the sum of ROA and Equity Ratio over the standard deviation of ROA as described in Eq. (1). Here, ROA is net income over total assets
EquityRatio	The ratio of total equity to total assets
SUScom	Sustainability committee existence which takes 1 if the sustainability committee exists, otherwise 0
ESG	Composite score (ranging between 0 and 100) of environmental, social and corporate governance pillars
ENV	Environmental pillar score scaling from 0 to 100. It includes resource usage, emissions and eco-innovation dimensions
SOC	Social pillar score scaling from 0 to 100. It includes workforce, human rights, product responsibility and community development
GOV	Governance pillar score scaling from 0 to 100. It includes management, shareholders' rights and CSR strategy dimensions
Brdsiz	Number of directors on board
CEOdual	CEO duality taking 1 if the CEO and chairman position is occupied by the same person, otherwise 0
Brddiversity	Board gender diversity denotes proportion of female directors on boards
Bdrindepend	Board independence denotes proportion of non-executive directors on boards
Brdskills	If the firm describes the experience, skills, or the age of every board member it takes 1 otherwise 0
Brdpolicy	If the firm has a policy for maintaining a well-established board structure it takes 1, otherwise 0
ESGcompens	Executive ESG compensation that takes 1 if the firm has a compensation policy based on ESG factors for the CEO, non-board executives, executive directors and other management bodies
Frmsize	The natural logarithm of total assets
Leverage	Total debt over total assets
Frmage	Firm age
FFloat	Free Float percentage of shares outstanding and freely tradeable by shareholders
WGI	The average of six World Governance Indicators including voice and accountability, government effectiveness, rule of law, control of corruption, regulatory quality and political stability and absence of violence/terrorism. All metrics range from -2.5 (weakest) to 2.5 (strongest)

Table A1.
Variables' list and definitions

Note(s): This table defines the research variables
Source(s): Table created by authors

About the authors

Dr Nurlan Orazalin is Assistant Professor of Accounting and Finance at Bang College of Business, KIMEP University, Kazakhstan. Currently, he is Postgraduate Researcher at the University of Southampton. He is Certified Management Accountant (CMA) and a member of the Institute of Management Accountants of USA. His research and professional interests are primarily focused on corporate finance, financial reporting, sustainability, banking and finance, disclosure, corporate governance and fair value accounting. His works have been published in prominent journals, including *British Journal of Management*, *Business Strategy and the Environment*, *Managerial Auditing Journal*, *Journal of Cleaner Production*, *Energy Policy*, *Gender in Management: An International Journal*, among others. Nurlan Orazalin is the corresponding author and can be contacted at: N.Orazalin@soton.ac.uk

Dr. Cemil Kuzey is currently Professor at the Department of Computer Science at Murray State University in Kentucky, USA, teaching Operation Research and Statistics for Social Sciences. He acquired his PhD degree in Business Administration through the Department of Quantitative Analysis, Istanbul University, Turkey. Among his academic pursuits, he took several graduate courses at the Ontario Institute for Studies in Education, University of Toronto. His research interests are related to operation research, data mining and business intelligence. His works have been published in prominent journals, including *Journal of Cleaner Production*, *Expert Systems with Applications*, *Australian Accounting Review*, *Advances in Accounting*, *International Journal of Public Administration*, *Journal of International Accounting, Auditing, and Taxation*, among others.

Dr Ali Uyar is currently Professor of Accounting at Excelia Business School, Excelia Group, France. He holds a PhD in Accounting and Finance and prestigious international CMA certification granted by the Institute of Management Accountants (USA). His research interests are corporate governance, sustainability/CSR performance/reporting and management accounting. His works have been published in prominent journals, including *Journal of Cleaner Production*, *Expert Systems with Applications*, *Journal of Intellectual Capital*, *Australian Accounting Review*, *Advances in Accounting*, *Managerial Auditing Journal*, *Research in Accounting Regulation*, *Transport Policy*, *Tourism Economics*, *International Journal of Public Administration*, *Journal of International Accounting, Auditing, and Taxation* and *International Journal of Auditing* among others.

Dr Abdullah S. Karaman is currently Associate Professor of Industrial Engineering at the American University of the Middle East, Kuwait. He received his PhD degree in Industrial and Systems Engineering from Rutgers University, New Jersey, USA. His research and teaching activities have been in the areas of business analytics, supply chain management, sustainability, simulation and multi-criteria decision-making. His research has been supported by the Department of Homeland Security, USA. His works have been published in the *European Journal of Operational Research*, *International Journal of Production Economics*, *Journal of Cleaner Production*, *Energy Policy*, *Transport Policy*, and *Tourism Economics*, among others.