

Does Board Connectedness Influence Corporate Sustainability Performance?

Carlos Manuel Pinheiro

carlos.manuel.pinheiro@universidadeeuropeia.pt

Universidade Europeia, BRU-IUL, ISCAL, Portugal

Andrew Clare

a.clare@city.ac.uk

Bayes Business School, UK

Alberto Franco Pozzolo

alberto.pozzolo@uniroma3.it

Roma Tre University and Centro Luca D'Agliano, Italy

Abstract

Corporate sustainability has attracted the attention of academics around the world over the last four decades. It is one of the most significant corporate trends (Harjoto and Jo, 2011). The role of the businesses has become threefold, catering to people, planet and prosperity – the triple bottom line. By doing so, companies can appropriate tangible benefits, e.g. (i) engaging employees who in turn can become more productive and aligned with the company's objectives (Cao and Rees, 2020); (ii) increasing customer loyalty and, therefore enhancing share-of-wallet and improving revenue (McDannold and Kwon, 2023); and (iii) tapping capital at a lower cost (Puggioni and Stefanou, 2019). For example, investors may be willing to divert their capital away from companies that are not actively contributing to the economic, social and environmental welfare of society (Shakil 2021; Tjahjadi et al., 2021).

To commit to responsible practices, companies require a corporate governance mechanism (Miras-Rodriguez et al., 2019; Amin et al., 2020). The board of directors is a key corporate governance mechanism, having the responsibility to monitor, control and supervise the management and operations of a company (Adams et al., 2008). As for the sustainability performance of companies, the “buck stops” with the C-suite, as directors define the rules, approve the policies and take the decisions (Díaz-Fernández, 2020; Tjahjadi et al., 2021). But, are Corporate Boards equipped to cope with the challenges posed by “the explosive growth in sustainable investments over the past decade” (Harjoto and Jo, 2011; Amin et al., 2020) and still fulfill their traditional duties spanning resource allocation and problem solving to strategy formulation (Jensen, 1993; Anderson et al., 2011)?

While executive directors are responsible for the daily management, non-executive directors (NEDs) also sit on the board of directors (BoD) but can play a more important role in influencing sustainable investments, mitigating the effects of entrenched or self-serving managers. NEDs are typically appointed by shareholders according to their knowledge and experience and, most importantly, based on their influence. NEDs can bring their advice and build on their social and professional networks to improve the board's access to information, according to social network theory (Adler and Kwon,

2002; Amin et al., 2020; Harjoto and Wang, 2020). There is a burgeoning literature about the benefits of well-connected boards (Larcker et al., 2013; Akbas et al., 2016; Amin et al., 2020). And it is recognized that “social and professional networks are a central feature of virtually all economic activities” (Larcker et al., 2013: 225).

Intriguingly, the relationship between NEDs and sustainable investment remains rather understudied (Amin et al., 2020). The large number of studies about board composition analyze the impact on financial performance and focus on the U.S. We aim at filling this gap by examining companies from the FTSE 350 U.K. and the networks of their non-executive directors (NEDs). The number of NEDs in the largest companies in U.K. has grown significantly in the last couple of decades. It has been considered that informal professional networks in U.K. are incipient as compared, for instance, with those in U.S., which makes board networks in U.K. a fertile ground for research (Harjoto and Wang, 2020). We collect data on NEDs sitting on FTSE 350 boards from BoardEx, spanning 2012-2022. BoardEx provides fine-grained information on NEDs attributes, experience and education. To proxy sustainable investments, we use ESG scores from Refinitiv database. We measure NEDs’ connectedness along the lines of previous studies by deploying three centrality measures: degree centrality, betweenness centrality, and eigenvector centrality (see Amin et al., 2020 for a recent use of this technique; or Affinito and Pozzolo, 2017, for a novel application of social network theory in the interbank market).

There are few studies that focus on the relationship between board connectedness and sustainability. An exception is a recent paper by Amin et al. (2020) who examined whether board connections influence a firm’s corporate social responsibilities. Their results document the advantage of well-connected boards in fostering CSR performance for U.S. firms. Harjoto and Wang (2020) use social network analysis on a sample of FTSE 350 companies, from 2007 to 2018. The authors document a positive influence of directors’ networks on ESG performance.

We test a number of hypotheses, building on theory and considering extant studies. First, because NEDs’ professional networks constitute a channel for the diffusion of information, transmission of knowledge and forward-looking trends, well-connected NEDs can reduce information asymmetries favoring more informed board decisions. This view builds on resource dependency theory.

H 1: NEDs connectedness is linked to corporate sustainability performance.

Second, well-connected NEDs can use their networks to have better access to information relevant for companies, reducing asymmetries and providing a channel for business opportunities. Strong board networks, as measured by centrality, in the lines of extant studies, should allow companies to have easier access to information and to cater more closely and accurately to stakeholders’ expectations, leading to better sustainability performance. According to social network theory and the related resource allocation theory, these links between individuals can influence namely the flow of information and facilitate access to other resources. This calls for testing the hypotheses:

H 2a, b, c: Boards with high (a) degree centrality, (b) eigenvector centrality, (c) betweenness centrality improve companies’ sustainability performance.

Third, agency theory suggests that NEDs acting in the best interests of companies and their shareholders are a governance mechanism to mitigate the different motivations of shareholders and executive managers (Jensen and Meckling, 1976). It may occur that NEDs limit the investments of companies on social responsibility in case these

investments are less value creating in the long haul or even value-destroying ones (Amin et al, 2020). So, self-serving executive directors' initiatives might be stopped by NEDs at the expense of the company not attaining its sustainability goals and leading to diminished performance. This view meets empirical evidence in periods of crises. As our sample encompasses two external shocks, the covid-19 pandemic and the war in Ukraine, we are able to analyze the dynamics of ESG performance and eventual structural breaks.

H 3a, b, c: Boards with high (a) degree centrality, (b) eigenvector centrality, (c) betweenness centrality influence companies' sustainability performance negatively in periods of crises.

Our baseline is a pooled ordinary least squares model:

$$ESG_{it} = \alpha_0 + \beta_1 Board\ connectedness_{i,t-1} + \beta_2 NEDs\ controls_{it} + \beta_3 Firm\ controls_{it} + \delta_i + \varepsilon_{it} \quad (1)$$

where ESG is our dependent variable pertaining to the overall ESG score and the environmental, social and governance sub-scores. Along the lines of extant literature, firm controls include size (log Assets; market capitalization), profitability (ROA, ROE), leverage (debt-to-equity), EBITDA and Price-to-book value.

Our results should be of interest to shareholders, stakeholders and regulators.

Keywords: Corporate Governance; Non-executive directors; Board connectedness; ESG

References

- Adams, R., Hermalin, B.E., Weisbach, M.S. (2008). The role of boards of directors in corporate governance: A conceptual framework and survey. *Journal of Economic Literature*, 48(1), 58-107.
- Adler, P.S., Kwon, S.-W. (2002). Social capital: Prospects for a new concept. *Academy of Management Review*, 27(1), 17-40, <http://amr.aom.org/content/27/1/17>.
- Affinito, M., Pozzolo, A.F. (2017). The interbank network across the global financial crisis: Evidence from Italy. *Journal of Banking & Finance*, 80, 90-107, <https://doi.org/10.1016/j.jbankfin.2017.03.019>.
- Akbas, F., Meschke, F., Wintoki, M.B. (2016). Director networks and informed traders. *Journal of Accounting and Economics*, 62(1), 1-23, <https://doi.org/10.1016/j.jacceco.2016.03.003>.
- 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>.
- Anderson, R.C., Reeb, D.M., Upadhyay, A., Zhao, W. (2011). The Economics of Director Heterogeneity. *Financial Management*, 40: 5-38. <https://doi.org/10.1111/j.1755-053X.2010.01133.x>
- Cao, Z., Rees, W. (2020). Do employee-friendly firms invest more efficiently? Evidence from labor investment efficiency. *Journal of Corporate Finance*, 65, 101744. <https://doi.org/10.1016/j.jcorpfin.2020.101744>.
- Díaz-Fernández, M.C., González-Rodríguez, M.R., Simonetti, B. (2020). Top management team diversity and high performance: An integrative approach based on upper echelons and complexity theory. *European Management Journal*, 38(1), 157-168, <https://doi.org/10.1016/j.emj.2019.06.006>.

- Harjoto, M.A., Jo, H. (2011). Corporate governance and CSR nexus. *Journal of Business Ethics*, 100, 45-67. <https://doi.org/10.1007/s10551-011-0772-6>
- Harjoto, M.A., Wang, Y. (2020). Board of directors network centrality and environmental, social and governance (ESG) performance. *Corporate Governance*, 20(6), 965-985. <https://doi.org/10.1108/CG-10-2019-0306>.
- Jensen, M.C. (1993). The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems. *The Journal of Finance*, 48, 831-880. <https://doi.org/10.1111/j.1540-6261.1993.tb04022.x>
- Jensen, M.C., Meckling, W.H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360, [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X).
- Larcker, D.E., So, E.C., WANG, C.C.Y. (2013). Boardroom centrality and firm performance. *Journal of Accounting Economics*, 55(2-3), 308-328.
- McDannold, J., Kwon, Y. (2023). How to grow your top line in a down market. *Harvard Business Review* 2023/01. <https://hbr.org/2023/01/how-to-grow-your-top-line-in-a-down-market>.
- Miras-Rodríguez, MdM., Martínez-Martínez D., Escobar-Pérez B. (2019). Which corporate governance mechanisms drive CSR disclosure practices in emerging countries? *Sustainability*, 11(1):61. <https://doi.org/10.3390/su11010061>
- Puggioni, D., Stefanou, S.E. (2019). The value of being socially responsible: A primal-dual approach. *European Journal of Operational Research*, 276(3), 1090-1103. <https://doi.org/10.1016/j.ejor.2019.01.065>.
- Shakil, M.H. (2021). Environmental, social and governance performance and financial risk: Moderating role of ESG controversies and board gender diversity. *Resources Policy*, 72, 102144, <https://doi.org/10.1016/j.resourpol.2021.102144>.
- Tjahjadi, B, Soewarno, N, Mustikaningtiyas, F. (2021). Good corporate governance and corporate sustainability performance in Indonesia: A triple bottom line approach. *Heliyon*, 7(3), e06453, <https://doi.org/10.1016/j.heliyon.2021.e06453>.