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Walk the talk! Is it possible to incentivise executives to reduce carbon emissions?

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Synopsis

Incentivising company executives to embrace and implement carbon emission reduction strategies is crucial in combating climate change. To gain more insight into how this may be achieved, we analyse the reduction in carbon emissions (aka carbon performance) in 262 non-financial listed firms in the UK from 2009 to 2018. We find that while actual carbon performance (ACP) has a negative impact on financial performance (FP), self-reported carbon performance (SRCP) has a positive impact on FP. We detect that pay incentives have a positive effect on the SRCP-FP nexus, and find that there is no similar effect on the ACP-FP relationship. We demonstrate that while firms give the appearance of employing compensation incentives to enhance self-reported CP, this is a symbolic gesture and importantly does not result in actual carbon emission reduction.

Introduction and Background

Global climate change resulting from carbon emissions is a top concern for businesses, governments, and other stakeholders. For example, policymakers and several governments are increasingly paying greater attention to the risks of severe climate crises on the planet. In response to this emerging climatic threat, various countries have ratified the Paris Climate Agreement, which is one of the most important global climate-related initiatives. The aim of this agreement is to combat climate change and mobilize all stakeholders in the effort to lower carbon emissions. To achieve the objective of the Paris agreement, there are calls for large firms to incentivise their executives to adopt carbon emission reduction initiatives. However, it is unclear whether these pay incentives strategies, which are progressively being implemented by large firms, can lead to a reduction in actual carbon emissions. This is regrettable, understanding these key relationships will assist the board and policymakers in designing sustainable compensation packages that will lead to a substantial reduction of carbon emissions. Motivated by a growing demand for action, the overall objective of our paper is to examine the effect of both ACP and SRCP on FP and explore the probable moderating effect of pay incentives on both CP-FP relationships.

Issues and Questions Considered

Admittedly, a small, but steadily growing number of studies examine the relationship between pay incentives, carbon performance and FP (see Adu et al., 2022; Haque & Ntim, 2020). However, none of these studies examine this relationship in a comprehensive and integrated manner. To illustrate, the

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measure of the CP variables in previous studies are largely based on either self-reported constructs or actual measures of CP (e.g., Haque, 2017; Velte, 2016). Our study utilises both self-reported and actual measures of CP. In addition, to broaden the investigation, we employ both CEO Pay and total executive compensation (TER) and four different measures of FP.

Specifically, to address the lacuna in the literature on the CP-FP nexus, we address three core research questions. Firstly, we investigate whether self-reported CP, and actual CP, can impact FP. Secondly, we test whether pay incentives (CEO Pay and TER) can moderate the association between CP and FP. Finally, building on previous literature relating to the tendency for firms to disclose greater self-reported CP (e.g., Adu et al., 2022; Haque & Ntim, 2020), we seek to ascertain whether the moderating effect of CEO Pay and TER on the CP-FP relationship, improves for the self-reported CP rather than the actual CP.

Methodology

The final sample is an unbalanced panel dataset of 2,579 firm-year observations, covering a 10-year period (2009-2018). To help conduct our analysis, we engage in two main investigations. Firstly, we employ one symbolic CP construct: self-reported carbon-reduction performance (SRCP). Secondly, we use two actual CP measures; (i) actual green-house gases emissions performance (GHGP) measured as the natural log of total actual GHG emissions in tons, and (ii) actual CO2 emissions performance (CO2P), measured as the natural log of total actual CO2 emissions in tons. Furthermore, we measure executive compensation with two variables, CEO Pay and TER. Likewise, we measure FP using four different variables, they are, return on assets (ROA), return on equity (ROE), Tobin's Q, and earnings per share (EPS).

Following a well-established line of research (see Adu et al., 2022; Nguyen et al., 2021; Elmagrhi et al., 2019), we use ordinary least squares regression models to examine the hypotheses. In addition, we distinctively estimate the moderation effect of CEO Pay and TER on the CP-FP relationship. We conduct additional analyses to ascertain the robustness of our results. Specifically, we estimate a dynamic two-step system generalized method of moments (GMM), as proposed by Blundell and Bond (1998) and two stage least squares (2SLS) models.

Outcomes and Findings

Overall, the results show that actual CP has a negative impact on FP. The results also reveal that self-reported CP activities, (and not actual CP) lower carbon emissions, are positively associated with FP, and this relationship is positively moderated by both CEO Pay and TER. The results also demonstrate that setting climate change-related targets in CEO Pay, and executive compensation packages positively moderates the self-reported CP-FP nexus, but we do not find a similar impact on the actual CP-FP relationship. These findings suggest that firms can design and employ sustainability targets in compensation packages as instruments to incentivise executives to pursue merely symbolic sustainability initiatives. Finally, our results are in line with the legitimisation aspect of neo-institutional theory, where firms appear to symbolically rely on superior self-reported CP activities, as a means of enhancing their corporate legitimacy and investors' perceptions. Importantly, this executive pay incentivisation focus on symbolic CP rather than actual CP fails to substantially help in combating climate change.

Overall, our study shows the key role executive compensation can play in driving corporate executives to engage in climate change-related activities. Firstly, to ensure that CP is sufficiently integrated into the core business of companies, firms ought to consider actual CP-(ACP) related targets in compensation contracts, with the aim of motivating both boards and executives to achieve goals which will have a positive impact on climate threat. Secondly, rating firms and analysts should shift from the traditional approach of relying on self-reported CP indicators and demand independently verified CP indicators. Rating agencies ought to focus on actual carbon emission reduction performance, and inform investors and the general public accordingly, so they can make well-informed investment decisions. Thirdly, our findings suggest that regulators should put in place an independent external assurance mechanism over the sustainability reports of firms to enhance the quality of CP reporting. Finally, given that carbon abatement projects demand large financial outlay, voluntary legislative actions will likely not be sufficient. In this case, there is a need for mandatory CP targets at the global, national, and corporate levels. Future studies could apply our empirical framework to other countries that have also ratified the 'Paris Climate Agreement', in a single country or in a cross-country analysis context.

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Forthcoming Research Bulletin

Title: It Never Ends: Vulnerable Consumers' Experiences of Persistent Liminality and Resource (Mis)Integration

Authors:
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