

Effects of Climate Change Reporting Frameworks on Corporate Carbon Disclosure and Carbon Performance: Global Evidence

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Abstract

This study examines the effects of climate change reporting frameworks on corporate carbon disclosure and carbon performance, drawing on global evidence. It reviews, compares, and synthesises major carbon disclosure frameworks at global, regional, and country levels, including voluntary and mandatory approaches. The empirical analysis examines carbon disclosure and carbon performance trends among the world's largest companies across a five-year period, with additional country/region-wise and industry-wise comparisons. The study uses Carbon Disclosure Project (CDP) disclosure and performance scores as proxies and applies ordinary least squares regression, descriptive statistics, and Mann-Whitney tests to analyse changes and differences across firms, regions, and sectors. The findings show that corporate carbon disclosure improved consistently and significantly over the study period, both globally and across the major regions. In contrast, carbon performance did not demonstrate a consistent upward or downward trend. This divergence suggests that increased disclosure may be influenced not only by improvements in climate change performance but also by regulatory pressure, expanding voluntary disclosure channels, stakeholder expectations, and firms' efforts to legitimise their activities. Significant differences were also identified across regions and industries, with European Union firms showing the highest average disclosure and performance scores, while the energy sector recorded comparatively low scores. The study highlights the importance of effective reporting frameworks in promoting transparency while indicating that greater disclosure does not necessarily translate into sustained improvements in carbon performance.

Keywords

Sustainability accounting, environmental disclosure, environmental performance, carbon disclosure, carbon performance, climate change reporting framework.