IMPAX Asset Management

The financial impact of diversity and culture

Piecing together the research connecting people, policies and company performance

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Executive summary

- Positive correlations between diversity – particularly gender diversity in executive teams – and better company financial performance are increasingly present in the literature.
- A strong relationship between corporate culture and human resources policies is another emerging theme. These policies, in turn, are positively correlated with financial performance.
- Diversity supports both environmental and social aspects of the transition to a more sustainable economy, as it is positively correlated with more robust financial accounting, stronger innovation and better sustainability outcomes, including environmental reporting and climate disclosures.

Introduction

What drives financial performance? There is a long tradition in finance and academia of trying to understand performance drivers and each one's contribution. But after decades of portfolio attribution, we still have imperfect insight.

Often this comes down to something very simple: people and their many contributions to financial performance. The positive and quantitative links between indicators of corporate culture (including diversity, productivity, safety, happiness and personal fulfillment) and better financial performance send clear signals that people-oriented policies and cultures influence financial outcomes.

Our review of research into the relationship between corporate culture — including diversity — and financial performance yields what we believe are interesting and potentially investable insights.

The value of diversity

There are decades' worth of studies linking diversity, in all its various permutations, with financial value.

That literature, in turn, builds on a body of academic research testing group decision-making, much of which shows that heterogeneous groups make more robust, thoughtful and useful decisions than homogeneous groups. This means that there are various paths by which diversity can affect financial value.

Board diversity

We have collected 137 studies from more than two decades that focus in whole or in part on board diversity. Most show that board diversity is either positively correlated with better financial performance or not correlated — a smaller number of studies suggest that diverse boards detract from financial performance.[1]

This literature and data spans several decades. Most of these studies focus on gender diversity. This is largely because racial diversity datasets are much more difficult to create than datasets on gender diversity. Also, the definition of 'diversity', in terms of race and ethnicity, varies from country to country, such that a global racial diversity dataset is more difficult to construct. Finally, while some countries do mandate diversity disclosures on racial and ethnic (or other) bases, others prohibit it.

Correlation is not the same as causality. While a lot of quantitative work demonstrates the relationship between board diversity and performance, very little of it shows causality.[2] There are a few studies that do examine causality, however, and all find that there is financial value in diverse boards.[3] These studies span developed market geographies in North America, Europe and Asia, showing that the effect of diversity isn't restricted to any single culture or locality.

The board diversity literature has broadened throughout the last two decades to look beyond gender to include other measures of diversity, such as race, and measures of performance beyond strictly financial metrics. The focus has also expanded beyond the board: between 2000 and 2010, only three studies looked at leadership diversity including both the board and the executive suite; since 2010, there have been 20 studies looking at the entire leadership team. Most of the studies on executive diversity find positive correlations between executive diversity and financial performance.

1 It should be noted that many studies find no impact or positive correlations for only one kind of diversity. For example, gender diversity may be correlated with better financial outcomes, but not racial diversity.

2 The typical board diversity study is a regression analysis of some type, measuring the degree of conformity between board diversity and some financial measure: Tobin's Q, return on equity (ROE), turnover, stock price, sales, return on assets (ROA), and various measures of risk (such as volatility or insolvency) are common metrics.

3 For example, see:
- Bernile, G., Bhagwat, V., and Yonker, S., 2017: Board Diversity, Firm Risk, and Corporate Policies, *Social Science Research Network*
- Ali, S., Liu, B., and Jen-Je Su, 2018: Women on board: Does the gender diversity reduce default risk?
- Nadaraja, S., Huang, A., Liu, B. and Ali, B.S., 2020: Does Board Gender Diversity Reduce Default Risk? A Global Analysis, *Academy of Management Journal*
- Maghin, H., 2019: Cracks in the Boards: The Opportunity Cost of Homogeneous Boards of Directors, *Social Science Research Network*
- Bao, Y. and Lu, D., 2019: Board Gender Diversity and Firm Performance: Evidence from Supply-Side Shocks in China, *Social Science Research Network*
- Cassells, R. and Duncan, A., 2020: Gender Equity Insights 2020: Delivering the Business Outcomes, *BCEC|WGEA Gender Equity Series*
- Kuzmina, O. and Melentyeva, V., 2020: Gender Diversity in Corporate Boards: Evidence from Quota-Implied Discontinuities, *CEPR Discussion Paper No. DP14942*

Executive diversity

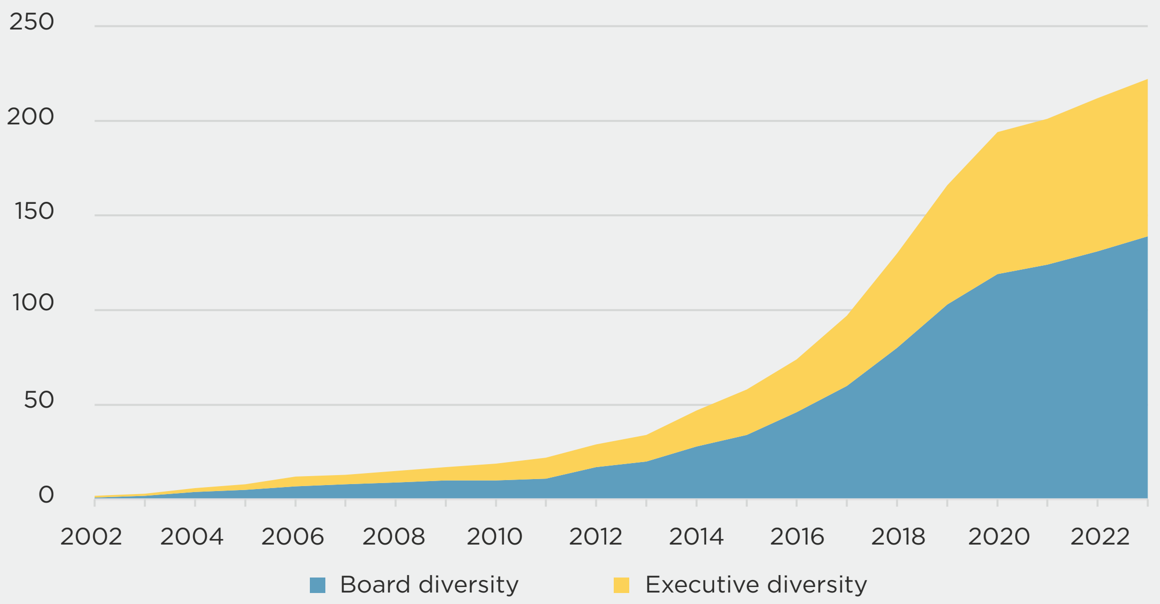
While the literature on the connection between board diversity and financial performance is mixed, it is much more consistent in finding positive connections between executive diversity and performance.

Overall, we found 81 studies that examine the impact of executive diversity, of which all but seven were published since 2010. Here too, the focus is more often on gender: only eight of these papers looked at other forms of diversity, and only three of those included racial diversity. Most studies looked at the entire executive suite, but some looked only at certain roles, usually either the chief executive (CEO) or chief financial officer (CFO).[4] For example, one 2019 paper found that firms with female CEOs have stronger diversity and inclusion (D&I) cultures, and more gender-diverse boards.[5]

In contrast to the board diversity literature, studies on executive diversity mostly conclude that it is positively correlated with better financial results.[6] This also comports with Impax's own research, which shows a much stronger relationship between executive diversity and fund performance than board diversity.[7] Our research only spans the last three years, but its similarities with the broader literature are worth noting.

Diversity and performance: connecting the dots

Cumulative number of studies examining relationships between board and executive diversity and company performance, 2002 to 2023



Source: Impax analysis of published literature, June 2023

4 For example, see Lee, P.M. and James, E.H., 2007: She'-E-Os: Gender Effects and Investor Reactions to the Announcements of Top Executive Appointments, *Strategic Management Journal*
5 Sandberg, D.J., 2019: When Women Lead, Firms Win, S&P Global
6 Studies measuring investor sentiment about executive diversity are often different: investor reactions to executive diversity are found to be mostly negative, at least in the short term. These were almost all event studies, which looked at what happened to stock prices in a few days following some event (like the appointment of a woman as a CEO). See, for example, Lee, P.M. and James, E.H., 2007: She'-E-Os: Gender Effects and Investor Reactions to the Announcements of Top Executive Appointments, *Strategic Management Journal*
7 Impax, 2023: Identifying and measuring sources of alpha in gender factors

Women executives, risk and accounting

A fascinating sub-theme that emerges from the research is the impact of the gender of specific leaders, like CEOs and CFOs, on two performance parameters: risk and accounting. Several studies find that firms with women CEOs or greater gender diversity in the executive suite have better risk management, as measured by things like leverage, earnings volatility, stability (as indicated by lower rates of non-performing loans among banks, for example) and rates of company survival.[8]

Diversity is also associated with better accounting. While corporate accounting and financial reporting are usually viewed as rules-based and factual, there has been increased focus on what we might call 'creative' accounting and its link to financial scandals and crises. Following the governance crisis and recession in the early 2000s, investors have been paying more attention to high-quality accounting and forensic accounting. Research suggests that women can bring more credibility to accounting and financial reporting: several studies have noted that women CEOs and CFOs are correlated with higher-quality accounting and less earnings management.[9, 10]

Research suggests that women can bring more credibility to accounting and financial reporting: several studies have noted that women CEOs and CFOs are correlated with higher-quality accounting and less earnings management.[9, 10]

8 For example, see:
- Faccio, M., Marchica, M-T. and Mura, R, 2016: CEO Gender, Corporate Risk-Taking, and the Efficiency of Capital Allocation, *Social Science Research Network*
- Sahay, R. et al, 2017: Banking on Women Leaders: A Case for More? *Social Science Research Network*
- Zeng, Y. and Li, Y., 2019: The Impact of Top Executive Gender on Asset Prices: Evidence from Stock Price Crash, *Social Science Research Network*
- Palvia, A.A., Vähämaa, E. and Vähämaa, S., 2020: Female Leadership and Bank Risk-Taking: Evidence from the Effects of Real Estate Shocks on Bank Lending Performance and Default Risk, *Journal of Business Research*
- Miah, M.S., 2019: Does Female Representation in Top Management Affect Cost of Debt? A Study of Australian CEO Gender Perspective, *Bank Parikrama: A Journal of Banking and Finance*
- Chen, J., Leung, W.S., Song, W. and Goergen, M., 2018: Why female board representation matters: The role of female directors in reducing male CEO overconfidence in corporate decisions
- Aguir, I., Boubakri, N., Marra, M. and Zhu, L., 2022: Gender Diversity in Leadership: Empirical Evidence on Firm Credit Risk, *Social Science Research Network*
- Adhikari, B.K., Agrawal, A. and Malm, J., 2015: Do Women Stay Out of Trouble? Evidence from Corporate Litigation

9 For example, see:
- Belot, F. and Serve, S., 2015: Do women engage in less earnings management than men? The case of privately held French SMEs, *Social Science Research Network*
- Lakhal, F., Aguir, A., Lekhal, N. and Nalek, A., 2015: Do Women on Boards and In Top Management Reduce Earnings Management? Evidence in France, *Journal of Applied Business Research*
- De Amicis, C., Falconiere, S. and Tastan, M., 2020: Sentiment Analysis and Gender Differences in Earnings Conference Calls
- Parsons, L. and Krishnan, G.V., 2006: Getting to the Bottom Line: An Exploration of Gender and Earnings Quality
- Francis, B.B., Hasa, I., Park, J.C. and Wu, Q, 2014: Gender differences in financial reporting decision-making: Evidence from accounting conservatism, *Contemporary Accounting Research*

10 One study found that accounting quality improved when the gender of the auditor switched from male to female: Francis, B., Hasan, I., Park, J.C. and Wu, Q., 2014: Gender differences in financial reporting and decision-making: Evidence from accounting conservatism, *Bank of Finland Research Discussion Papers*

Diversity and innovation

We have collected 26 papers over the past two decades that linked greater diversity with more, or more productive, innovation.

Investors often look at more innovative companies as better long-term growth prospects, although some sectors and industries depend on innovation more than others. In keeping with the long history of academic literature showing that diverse groups tend to make better decisions than homogeneous groups, diversity is often associated with innovation.

This research, most of it since 2010, takes many forms. Some studies look at a particular demographic and its association with innovation,[11] while others look at the association between the diversity within various corporate groups — such as boards, executives, research and development (R&D) teams, or the entire workforce — and innovation, measured by things like number of patents, patent citations, R&D spending and profits from new products. Across the studies, diversity and innovation are positively correlated.

Diversity and sustainability

Hundreds of studies link corporate sustainability practices with better financial outcomes. Much of this research shows that environmentally damaging activities can destroy financial value and undermine financial performance.

Over the past two decades we've collected 18 papers that link corporate diversity - most often gender diversity — with better environmental performance. The performance measures examined by these studies vary widely, including links between diversity and proactive environmental policies, such as reporting on greenhouse gas emissions, adopting emissions reduction targets, or committing to source renewable energy. The research results include:

- Companies with more gender-diverse boards are more likely to provide information on climate risks and opportunities, including disclosure to the CDP, which collects company information on climate policies, emissions, and exposure to both transition and physical climate risks.[12]
- Companies with more gender-diverse boards tend to have higher environmental, social and governance (ESG) scores, as awarded by third parties, and better sustainability reporting.[13] Notably, ESG scores include not only environmental measures but social and governance aspects of sustainability.
- Companies with more women in leadership have stronger environmental performance and are less likely to be subject to environmental lawsuits.[14]
- Greater gender diversity in leadership is positively correlated with renewable energy consumption and investments in social and ecological improvements.[15]

11 For example, see Gao, H. and Zhang, W., 2014: Does Workforce Diversity Pay? Evidence from Corporate Innovation. This study looked at the impact of state laws that prohibit discrimination based on sexual orientation and gender identity

12 See:
- Hossain, M., Farooque, O., Momin, M.A. and Aimotairy, O., 2017: Women in the boardroom and their impact on climate change related disclosure, *Social Responsibility Journal*, October 2017
- Daromes, F.E. and Monica, "Women on Boards and Greenhouse Gas Emission Disclosures: How Their Impact on Corporate Reputation

13 See:
- Banahan, C. and Hasson, G., 2018: Across the Board Improvements: Diversity and ESG Performance, *Harvard Law School Forum on Corporate Governance*,
- Downing, N., Paterlini, S. and Paiella, M., 2022: The Importance of Board Diversity and Network Centrality in ESG Scores

14 See:
- Liu, C., 2018: Are women greener? Corporate gender diversity and environmental violations, *Journal of Corporate Finance*
- Adhikari, B.K., Agrawal, A. and Malm, J., 2019: Do Women Managers Keep Firms out of Trouble? Evidence from Corporate Litigation and Policies, *Journal of Accounting and Economics*
- Wang, Z. and Yu, L., 2019: Are Firms with Female CEOs More Environmentally Friendly?
- Hsu, P-H., Li, L. and Pan, Y., 2022: The Eco Gender Gap in Boardrooms, *European Corporate Governance Institute-Finance Working Paper*

15 See:
- Atif, M., Hossain, M., Alam, M.S. and Goergen, M., 2021: Does Board Gender Diversity Affect Renewable Energy Consumption? *Journal of Corporate Finance*
- Theis, J. and Nipper, M., 2021: Who Saves Our World? The Impact of Executives' Gender on Corporate Social and Ecological Investments, *Schmalenbach Journal of Business Research*
- Khatri, I., 2022: Dynamic relationship between board gender diversity and renewable energy

Fairness and equitable treatment are valuable and foster greater productivity and satisfaction.

Corporate culture, HR policies and productivity

Corporate culture may be difficult to define but refers to values, norms, shared beliefs and other intangible factors that collectively describe how people work together to achieve shared goals. It can describe positive aspects of corporate life that foster satisfaction, achievement and effort, as well as behaviors that may be hostile or corrosive.

Since corporate culture has no precise definition, it can sometimes be difficult to distinguish 'good' cultures from 'bad' ones, except after a public controversy like findings of sexual harassment.[16] Outside observers can spot some aspects of corporate culture through companies' human resource (HR) policies. Companies that have HR policies aimed at creating a sustainable work-life balance, like hybrid or remote work opportunities, flexible work hours, opportunities for training and advancement, parental leave and family-friendly benefits are often highly valued. The ability of employees to engage productively with management and colleagues is also crucial.

Fairness and equitable treatment are valuable and foster greater productivity and satisfaction. Additional aspects of culture involve relationships between people and reflect the tone set by corporate leaders and managers for how business is conducted. Others are about corporate purpose and its relevance to employees' own aspirations and values.

We have reviewed over 50 studies linking culture and its parameters - wellness, productivity, satisfaction and controversies - to financial performance.

One emerging strain of literature focuses on corporate wellness programs. For example, recent research suggests that firms less capable of shifting resources and workers in response to temporary shocks, like seasonal influenza outbreaks, may suffer financially. Since smaller firms are more likely to lack the flexibility to shift resources, the researchers suggest that wellness programs, like subsidizing vaccination, might improve resilience.[17]

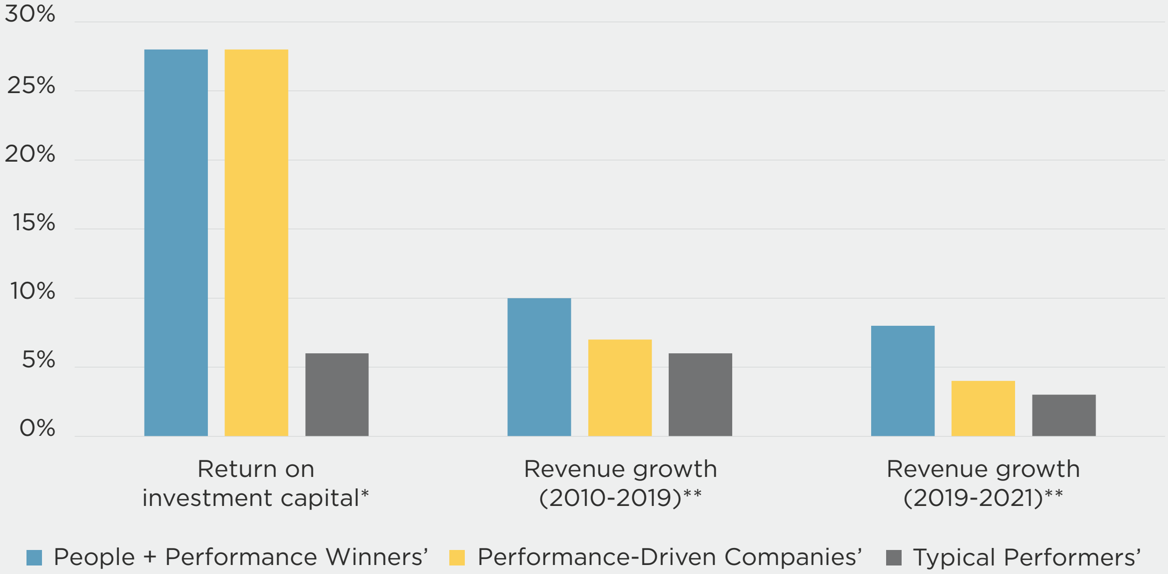
16 One recent article listed the 10 most important elements of corporate culture as follows: respect for employees; supportive leaders; leaders live core values; toxic managers; unethical behavior; benefits; perks; learnings and development; job security; reorganizations. Sull, D., and Sull, C., 2021: 10 Things Your Corporate Culture Needs to Get Right, *MITSloan Management Review*

17 Rettl, D.A., Schandlbauer, A. and Trandafir, M., 2022: Employee Health and Firm Performance

Past performance does not predict future returns.

People policies pay off

Performance-driven companies that also focus on their workers have outperformed



Figures refer to the past and that past performance is not a reliable indicator of future results.

Source: McKinsey Global Institute, 2023: Performance through people: transforming human capital into competitive advantage
* 2010-2019 average
** Compounded annual growth rate

Wellness is one way to create resilience to some kinds of outside shocks, but the topic is bigger than wellness alone. Corporate resilience has been a new focus in the literature, especially in the wake of the COVID-19 pandemic.[18] For example, McKinsey's work on human capital found that companies that rank well on developing human capital tend to do better financially in several ways, including profitability, return on capital, attrition and revenue growth (see chart above).[19]

Other research focuses on human resource management more broadly. The importance of human resources and culture to financial performance has become a more prominent theme over the last couple of decades. An early paper noted that a portfolio of companies included in Fortune's 'Best Companies to Work For' in America' had substantially outperformed the stock market between the mid-1980s and 2010, suggesting that financial markets may not have been adequately pricing in the importance of employee satisfaction.[20] More recent work concluded similarly, finding that a hypothetical portfolio of companies that treated employees best outperformed the overall stockmarket.[21]

Another recent paper notes that companies whose employees rate them more highly on Glassdoor, a website that allows employees to rate their

18 For example, see:
- MSCI, 2015: Human Capital and Employee Performance? The Invisible Hand or the Extended Hand
- Madgavkar, A. et al., 2023: Performance through people: Transforming human capital into competitive advantage, *McKinsey Global Institute*

19 McKinsey Global Institute, 2023: Performance through people: transforming human capital into competitive advantage

20 Edmans, A., 2010: Does the Stock Market Fully Value Intangibles? Employee Satisfaction and Equity Prices, *Journal of Financial Economics*

21 Boustanifar, H., and Kang, Y.D., 2022: Employee Satisfaction and Long-Run Stock Returns, 1984-2020, *Financial Analysts Journal*

employers, tend to deliver better risk-adjusted returns.[22] The research found that stocks in the highest quintile of overall employee ratings would have outperformed those in the lowest quintile by almost five percentage points a year, between 2013 and 2018. The categories of employee satisfaction that were most strongly correlated with excess returns, when comparing top and bottom quintile stocks, were ratings for compensation, culture and outlook.

More recent research increasingly demonstrates the value of family-friendly HR policies. One study, for example, establishes a causal link between the provision of paid family leave and higher productivity.[23]

Even with evidence that parental leave can improve workers' motivation and productivity, there are still concerns that it can create resource imbalances or other costly impacts for firms. There is at least some evidence that those concerns are overblown. Research in Denmark, where family leave allowances are on average 9.5 months long, showed that there was no net effect on labor costs, output, profitability or survival.[24]

Another emerging focus in the literature is on employee satisfaction, which comes from many places, including skills training and employee development, corporate purpose, diversity and inclusion initiatives and employee engagement.[25]

It should also be noted that corporate culture can act like a ball and chain on financial performance when it goes wrong. It is logical to assume that when employees don't like their working conditions or the direction of the business their productivity tends to suffer, but quantitative confirmation is always valuable. Several researchers focused on the '#MeToo' movement and sexual harassment, which provided a useful case study into what effect toxic cultures can have on financial results.One study found that in companies whose CEOs and senior executives were involved in misconduct, the financial consequences tended to be both immediate and significant. On average, the stocks of these companies dropped by 4% when the CEO was involved and continued to underperform for at least another year, with overall average losses amounting to between 12% and 14% of firm value.[26]

22 Subramanian, S. et al., 2019: Signal over noise: Extracting Alpha from Glassdoor," Bank of America Merrill Lynch. Analysis cited is based on back-tested performance which is hypothetical in nature and reflects application of a screen. It is not intended to be indicative of future performance

23 Bennett, B., Erel, I., Stern, L.H. and Wang, Z., 2023: Paid Leave Pays Off: The Effects of Paid Family Leave on Firm Performance

24 Brenøe, A., Canaan, S., Harmon, N.A. and Royer, H., 2020: Is Parental Leave Costly for Firms and Coworkers?

25 For example, see:
- Balakrishnan, K., Copat, R., De la Parra, D. and Ramesh, K., 2023: Racial Diversity Exposure and Firm Responses Following the Murder of George Floyd
- Juca, M. and Fishlow, A., 2022: The Impact of Social Capital on Firm Value, *Contemporary Economics*
- Welch, K. and Yoon, A., 2020: Do high-ability managers choose ESG projects that create shareholder value? Evidence from employee opinions

26 For example, see:
- Cline, B.N., Walkling, R.A. and Yore, A.S., 2018: The Market Price of Managerial Indiscretions, *Applied Corporate Finance*
- Cici, G., Hendriock, M., Jaspersen, S. and Kempf, A., 2021: #MeToo Meets the Mutual Fund Industry: Productivity Effects of Sexual Harassment, *Finance Research Letters 2021*

Summary

It is increasingly clear that the trajectories of companies are shaped significantly by their people and their wellbeing — for better and for worse. The literature that plumbs the quantitative connections between human resources and financial value is substantial, and growing richer and more nuanced, shedding further light on some of the historical correlations that have been found between diversity and financial outcomes.

The literature is beginning to provide actionable insights into the many ways that companies can harness human skill, talent, experience and knowledge to create value. It suggests that people and corporate culture matter — companies that understand this will surely be better positioned for success as the transition to a more sustainable economy continues.

Important information

Important Information (continued)

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