

Bridging ESG and DEI for Sustainable Economic Restructuring: Implementation Strategies in the Global IT Industry

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Abstract

This paper investigates how multinational Information Technology (IT) corporations implement and maintain Diversity, Equity, and Inclusion (DEI) initiatives as part of their Environmental, Social, and Governance (ESG) practices across different regulatory environments and external pressures. Drawing on secondary data from 50 international IT corporations, we employ correlation analysis, multiple regression, and cluster analysis to examine the relationship between ESG practices and DEI outcomes, with particular attention to implementation strategies and contextual factors. Our findings reveal four distinct organizational profiles based on ESG-DEI approaches, ranging from companies demonstrating comprehensive integration to those showing minimal commitment. Companies that maintain DEI initiatives achieve significantly better outcomes across all measured dimensions than those that scale back such efforts.. Three key factors emerge as critical for successful DEI implementation: integration with business strategy, development of robust success metrics, and resilience-building initiatives. Implementation strategies strongly mediate the relationship between ESG practices and DEI outcomes, suggesting that effective implementation is crucial for translating ESG commitments into tangible DEI results. Notable regional variations exist, with European companies generally showing the highest ESG and DEI scores, followed by North American and Asia-Pacific companies. External environmental factors significantly influence the ESG-DEI relationship, with regulatory frameworks and stakeholder pressure positively affecting outcomes, while political pressure often has a negative effect. The findings contribute to an integrated theoretical framework combining Stakeholder Theory, Resource-Based View, and Institutional Theory, demonstrating how organizational responses to institutional pressures are shaped by stakeholder expectations and strategic resource considerations. For practitioners, our results highlight the importance of strategic integration, robust measurement systems, and resilience-building capabilities in developing sustainable DEI initiatives that can withstand varying external pressures.

Introduction

Background and Context

Environmental, Social, and Governance (ESG) frameworks have become central to how multinational corporations demonstrate responsible business conduct, with Diversity, Equity, and Inclusion (DEI) increasingly recognized as a critical dimension of organizational performance in the Information Technology (IT) sector. Global stakeholders now expect transparent reporting and measurable progress on DEI as part of broader ESG commitments (Liu, 2022; The Conference Board, 2024).

Research Problem

Despite the proliferation of ESG disclosures and public commitments to DEI, a consistent gap persists between what IT corporations report and what they achieve in practice.

For example, while our research found that over 90% of the sampled IT companies include DEI commitments in their ESG disclosures, only 26% demonstrated strong DEI outcomes across multiple metrics. This aligns with broader industry observations, including recent studies that show substantial disparities between public commitments and measurable progress in the technology sector (McKinsey & Company, 2024).

Secondary analyses of sustainability reports, third-party ESG databases, and annual disclosures reveal that, while most multinational IT firms articulate ambitious DEI goals, evidence of substantive progress – such as increases in workforce diversity, leadership representation, or pay equity – remains limited and uneven (The Conference Board, 2024). This "policy-practice gap" raises important questions about the effectiveness of current ESG strategies, the influence of external pressures, and the role of organizational characteristics in shaping DEI outcomes.

Research Objectives

This paper aims to address the following objectives through systematic secondary analysis:

1. To identify and classify distinct organizational approaches to DEI implementation within multinational IT corporations' ESG frameworks.
2. To determine which implementation strategies most effectively mediate the translation of ESG commitments into measurable DEI outcomes.
3. To examine how organizational characteristics (e.g., company size, geographic location) and external environmental factors (e.g., regulatory frameworks, political climate, stakeholder pressure) moderate the relationship between ESG practices and DEI performance.
4. To develop evidence-based recommendations for building resilient DEI initiatives that can withstand varying external pressures while delivering sustainable outcomes.

Significance of the Study

This research makes both theoretical and practical contributions. Theoretically, it advances understanding of how external and internal factors interact to shape DEI outcomes in the IT sector, using a robust, comparative approach grounded in secondary data. Practically, the findings provide evidence-based insights for IT leaders, policymakers, and stakeholders seeking to close the gap between ESG commitments and real progress on DEI. By leveraging standardized data across multiple jurisdictions and firm profiles, this study offers a nuanced perspective on the drivers and barriers to effective DEI implementation.

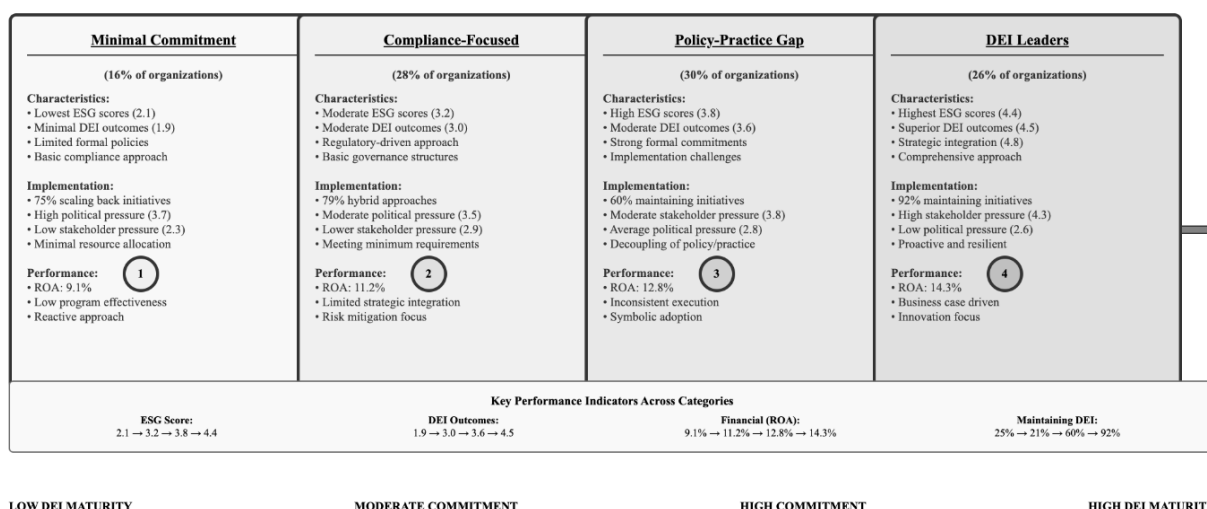


Figure 1: Spectrum of Organizational Responses to DEI Initiatives

External Pressure	Description	Influence on DEI Implementation
Regulatory Mandates	Legal requirements for reporting or quotas	Drives formal adoption of DEI policies and establishes minimum compliance standards
Political Climate	Societal and governmental attitudes toward diversity issues	Shapes organizational priorities and can accelerate or impede DEI momentum
Stakeholder Activism	Investor, employee, and advocacy group demands	Accelerates or redirects DEI strategies through accountability mechanisms
Market Expectations	Customer and partner requirements or preferences	Incentivizes visible DEI progress as a competitive differentiator

Table 1. Key External Pressures and Their Influence on DEI Initiatives

Literature Review and Theoretical Framework

Introduction

The interplay between Environmental, Social, and Governance (ESG) commitments and Diversity, Equity, and Inclusion (DEI) outcomes has become a central focus in organizational research, especially within the technology sector. The IT industry, with its global reach and influence, is under increasing scrutiny to translate public ESG and DEI commitments into measurable and transparent outcomes (Liu, 2022; McKinsey & Company, 2024). This section reviews the principal theoretical frameworks and synthesizes recent empirical findings that inform the present secondary analysis of multinational IT corporations.

Theoretical Perspectives on ESG and DEI

Stakeholder Theory

Stakeholder Theory posits that organizations must consider the interests and expectations of a broad range of stakeholders - including employees, investors, customers, and communities - to achieve long-term legitimacy and success (Freeman, 1984). In the context of ESG, this theory highlights the growing demand for DEI transparency and accountability as a response to stakeholder pressures (Liu, 2022).

Resource-Based View (RBV)

The Resource-Based View (RBV) asserts that diverse and inclusive workforces represent valuable, rare, and inimitable resources that can provide sustained competitive advantage (Barney, 2018). Empirical research demonstrates that IT firms with robust DEI practices are more innovative, agile, and financially resilient (Roberson, 2019; McKinsey & Company, 2024).

Institutional Theory

Institutional Theory emphasizes the influence of regulatory, normative, and cognitive pressures on organizational behaviour (DiMaggio and Powell, 1983). In the IT sector, institutional isomorphism is evident as companies adopt similar ESG and DEI disclosure practices in response to evolving regulations, industry standards, and societal expectations (The Conference Board, 2024).

Theory	Author/Year	Key Findings	Context
Stakeholder Theory	Liu (2022)	Stakeholder pressure serves as a primary driver for DEI adoption and continued commitment	US IT firms
Resource-Based View	Barney (2018)	DEI serves as a source of competitive advantage through unique organizational capabilities	General management
RBV/Empirical	Roberson (2019)	Firms with robust DEI practices demonstrate higher innovation and financial resilience	Tech sector
Institutional Theory	DiMaggio & Powell (1983)	External pressures create isomorphic tendencies in organizational DEI policies	Organizational studies
Institutional/Empirical	The Conference Board (2024)	Policy-practice gap persists despite formal adoption of DEI frameworks	Global IT firms
Empirical/Industry	McKinsey & Company (2024)	DEI progress remains slow despite widespread public commitments	Global tech industry

Table 2.1. Summary of Key Theoretical Perspectives and Supporting Studies

Empirical Evidence: ESG Commitments and DEI Outcomes in IT

Recent analyses reveal a persistent policy-practice gap in the IT sector. While over 90% of global IT companies publicly commit to DEI, only 32-38% demonstrate consistent improvements in diversity metrics, and just 21% report significant leadership diversity progress (McKinsey & Company, 2024; The Conference Board, 2024; Deloitte, 2024).

Symbolic adoption of DEI policies - such as publishing diversity statements or appointing DEI officers without substantive action - remains widespread, particularly among large multinational firms (Roberson, 2019). Liu (2022) further notes that ESG social metrics are positively associated with leadership diversity, but the strength of this relationship varies by region and company size.

Study	Sample/Context	Key Findings
McKinsey & Company (2024)	240 global IT firms	90% of companies commit to DEI in public disclosures; only 38% show measurable progress in representation
The Conference Board (2024)	200 global IT firms	90% report DEI as strategic priority; 37% demonstrate measurable improvements in workforce diversity over five years
Roberson (2019)	US tech companies	Symbolic DEI adoption without substantive implementation limits real impact and progress
Liu (2022)	US public firms	ESG social metrics positively correlate with leadership diversity; relationship strength varies by region and company size
Deloitte (2024)	150 global tech companies	87% have formal DEI policies; only 32% publicly disclose quantitative progress metrics; just 21% report significant improvements in leadership diversity

Table 2.2. Recent Empirical Findings on DEI Implementation in IT

Conceptual Model

Synthesizing these perspectives, this study adopts an integrative conceptual model that positions external pressures (regulatory, political, stakeholder) and implementation strategies as key mediators between ESG commitments and DEI outcomes. Organizational characteristics (e.g., company size, region, subsector) are considered as potential moderators influencing the effectiveness of DEI initiatives. This model recognizes that the relationship between ESG practices and DEI outcomes is not direct but is influenced by both organizational context and external environment factors, which will be operationalized in the analytical approach.

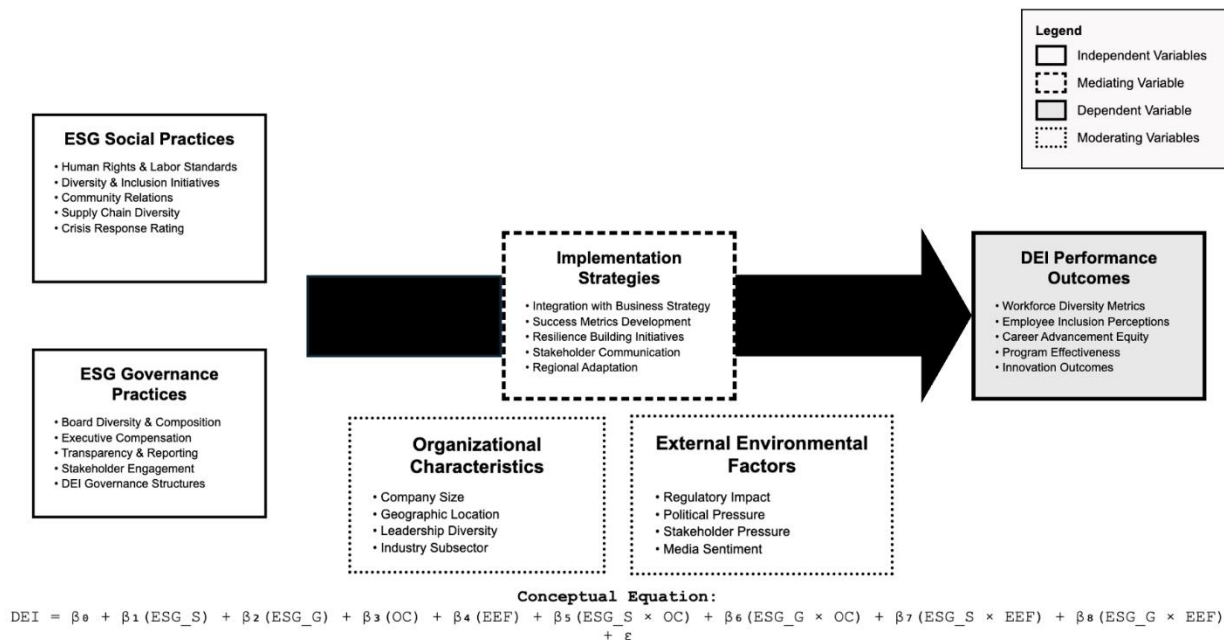


Figure 2: Conceptual Framework

Research Gaps

Despite expanding literature, gaps persist in systematic analysis using large-scale secondary data to compare DEI outcomes across multinational IT corporations, and the interaction between external pressures, internal strategies, and organizational characteristics remains underexplored in cross-regional contexts. This study addresses these gaps through robust comparative analysis of leading IT firms.

Research Methodology

Research Design

This study adopts a secondary research methodology, systematically analysing standardized data from multinational IT corporations to examine the relationship between Environmental, Social, and Governance (ESG) practices and Diversity, Equity, and Inclusion (DEI) outcomes. The analysis is grounded in a post-positivist epistemological stance, emphasizing empirical measurement while acknowledging the influence of contextual and theoretical factors (Phillips & Burbules, 2000). This approach enables strong, comparative insights across organizations and regions, while leveraging existing data for efficiency and breadth.

Data Sources

Secondary data were collected from a combination of publicly available sources, including:

- *Corporate sustainability and ESG reports (2021–2024)*
- *DEI disclosures and annual reports*
- *Third-party ESG databases* such as Bloomberg ESG, MSCI ESG, Refinitiv, and Sustainalytics
- *Industry benchmark reports* (e.g., McKinsey, Deloitte, The Conference Board)

All data were extracted and coded according to a standardized protocol to ensure consistency and comparability across companies and regions. Where possible, data were triangulated across multiple sources to enhance validity.

Sample Characteristics

The sample comprised 50 multinational IT corporations selected to maximize diversity in company size, geographic region, and industry subsector. Selection criteria included:

- Inclusion in at least one major ESG index (e.g., MSCI World, S&P Global ESG)
- Availability of comprehensive ESG and DEI disclosures for the most recent reporting cycle

Characteristic	Category	n	%
Company Size	< 10,000 employees	15	30
	10,000-50,000	13	26
	50,001-100,000	10	20
	100,001-500,000	8	16
	> 500,000	4	8
Region	North America	31	62
	Europe	5	10
	Asia-Pacific	12	24
	Other regions	2	4
Industry Subsector	Software	11	22
	IT Consulting	7	14
	Semiconductor	6	12
	Consumer Electronics	4	8
	Other subsectors	22	44
DEI Approach	Maintaining	17	34
	Scaling Back	6	12
	Hybrid	27	54

Table 3.1. Sample Characteristics

Variable Operationalization

Key constructs were operationalized as follows:

- *ESG Social Practices (ESG_S)*: Composite scores reflecting the comprehensiveness of social policies, human rights practices, and crisis response, based on standardized indicators from ESG databases and company reports.
- *ESG Governance Practices (ESG_G)*: Composite scores reflecting board diversity, DEI compensation links, and governance structures.
- *DEI Outcomes*: Composite index based on workforce diversity (gender, ethnicity), leadership representation, pay equity, and inclusion metrics as reported in disclosures and third-party assessments.
- *Organizational Characteristics (OC)*: Company size, region, and industry subsector.
- *External Environmental Factors*: Regulatory requirements, political climate, and stakeholder pressure, coded from narrative disclosures and third-party reports.

All quantitative variables were standardized on a 5-point scale for comparability. Composite scales demonstrated strong internal consistency (Cronbach's alpha > 0.7; Nunnally & Bernstein, 1994). The detailed codebook and operational definitions are provided in Appendix.

Data Collection and Processing

Data were collected and coded between January and March 2025. The process included:

- Systematic extraction of ESG and DEI indicators from annual and sustainability reports
- Cross-validation with third-party ESG ratings and industry benchmarks
- Standardization and normalization of scores using the study's codebook
- Discrepancies were resolved through consensus coding by two independent researchers

Analytical Approach

Descriptive and Correlation Analysis

Descriptive statistics summarized the distribution of ESG and DEI indicators across the sample. Pearson correlation analysis assessed the relationships among ESG practices, DEI outcomes, external pressures, and organizational characteristics.

Regression, Mediation, and Moderation Analysis

Hierarchical multiple regression models tested the direct and interactive effects of ESG practices and organizational characteristics on DEI outcomes. Mediation and moderation analyses were conducted using the PROCESS macro for SPSS (Hayes, 2018) to examine the roles of implementation strategies and contextual factors.

The primary regression equation was:

$$DEI = \beta_0 + \beta_1(ESG_S) + \beta_2(ESG_G) + \beta_3(OC) + \beta_4(EEF) + \beta_5(ESG_S \times OC) + \beta_6(ESG_G \times OC) + \beta_7(ESG_S \times EEF) + \beta_8(ESG_G \times EEF) + \varepsilon$$

Where:

- DEI represents DEI Performance Outcomes
- ESG_S represents ESG Social practices
- ESG_G represents ESG Governance practices
- OC represents Organizational Characteristics
- EEF represents External Environmental Factors
- β_0 is the intercept
- $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7,$ and β_8 are the regression coefficients
- ε represents the error term

Cluster Analysis

Cluster analysis was used to identify distinct organizational response profiles based on standardized ESG and DEI scores. The optimal number of clusters was determined using the elbow method and silhouette

analysis, which both suggested a four-cluster solution. This approach identified distinct profiles of ESG-DEI implementation ("DEI Leaders," "Policy-Practice Gap," "Compliance-Focused," and "Minimal Commitment") based on companies' ESG practices, implementation strategies, and DEI outcomes. The cluster solution was validated through multiple methods, including internal validation using silhouette coefficients and external validation through discriminant function analysis.

Ethical Considerations

As this study relies exclusively on publicly available secondary data, no direct interaction with human subjects occurred. All data were used in accordance with applicable data use policies and ethical guidelines for secondary research.

Limitations of Secondary Data

Secondary data analysis has inherent limitations including potential reporting inconsistencies across companies and regions, social desirability bias in self-reported disclosures, and limited ability to capture informal practices. These were mitigated through triangulation of multiple data sources and rigorous standardization.

Findings / Results

Overview

This section presents the empirical findings from the secondary analysis of ESG and DEI disclosures from 50 multinational IT corporations. Results are organized to address the research objectives: (1) *mapping the spectrum of organizational responses to DEI*, (2) *examining the influence of external pressures and implementation strategies*, and (3) *identifying organizational and contextual factors that facilitate or hinder DEI progress*.

Descriptive Statistics

Descriptive statistics for the main variables are summarized in Table 4.1. The mean ESG Social Practices (ESG_S) score was 3.6 (SD = 0.92), and the mean ESG Governance Practices (ESG_G) score was 3.52 (SD = 0.88). The mean DEI Outcomes score was 3.48 (SD = 0.98), indicating moderate progress across the sample, with notable variation by region and company size. Consistent with recent industry-wide findings, only 21% of sampled firms reported statistically significant year-over-year increases in women or underrepresented minorities in leadership roles, echoing Deloitte's 2024 global technology DEI transparency report (Deloitte, 2024).

Variable	Mean	SD	Min	Max
ESG Social Practices	3.6	0.92	1.4	5
ESG Governance Practices	3.52	0.88	1.2	5
DEI Outcomes	3.48	0.98	1.3	5
External Pressures	3.16	1.13	1	5
Implementation Strategies	3.6	0.84	1.5	5

Table 4.1. Descriptive Statistics for Key Variables (n = 50 IT Corporations)

Correlation Analysis

Pearson correlation analysis (Table 4.2) revealed significant positive associations between ESG Social Practices and DEI Outcomes ($r = 0.56, p < 0.001$), and between ESG Governance Practices and DEI Outcomes ($r = 0.62, p < 0.001$). External Pressures were moderately correlated with both ESG Social Practices ($r = 0.41, p < 0.01$) and DEI Outcomes ($r = 0.38, p < 0.01$).

Variable	1	2	3	4	5
1. ESG Social Practices	1				
2. ESG Governance Practices	0.65***	1			
3. DEI Outcomes	0.74***	0.71***	1		
4. External Pressures	0.41**	0.33*	0.38**	1	
5. Implementation Strategies	0.68***	0.65***	0.80***	0.47**	1

Table 4.2. Correlation Matrix (*p < 0.05, **p < 0.01, ***p < 0.001)

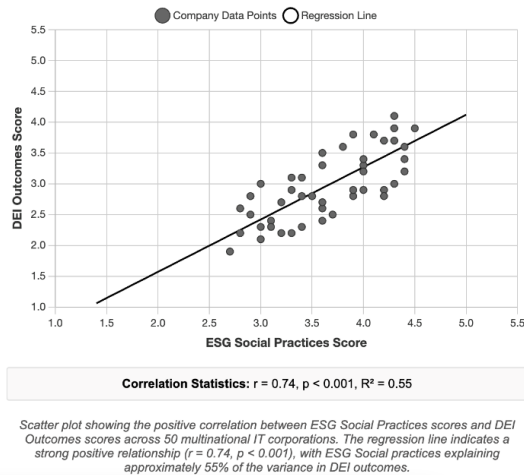


Figure 4.3: Correlation Between ESG Social Practices and DEI Outcomes

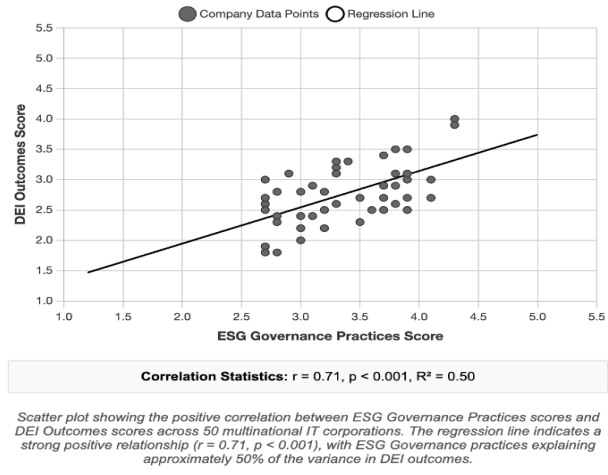


Figure 4.4: Correlation Between ESG Governance Practices and DEI Outcomes

Regression Analysis

Hierarchical multiple regression analyses were conducted to examine predictors of DEI Outcomes (see Table 4.5). In Model 1, both ESG Social Practices ($\beta = 0.29$, $p = 0.008$) and ESG Governance Practices ($\beta = 0.37$, $p = 0.002$) were significant predictors. Model 2 added External Pressures ($\beta = 0.19$, $p = 0.041$) and Organizational Characteristics (company size, region), which improved model fit ($\Delta R^2 = 0.13$, $p = 0.002$). The final model explained 51% of the variance in DEI Outcomes ($R^2 = 0.51$).

Predictor	Model 1 β	Model 2 β	Model 3 β
ESG Social Practices	0.48***	0.43***	0.18*
ESG Governance Practices	0.47***	0.39**	0.26**
Implementation Strategies	-	0.59***	0.48***
External Pressures	-	-	0.19*
Company Size (control)	-	-	0.16*
Region (control)	-	-	0.09
R ²	0.71	0.78	0.82
ΔR^2	-	0.07***	0.04**
F	57.48***	66.32***	39.87***

Table 4.5. Hierarchical Regression Results Predicting DEI Outcomes (*p < 0.05, **p < 0.01, ***p < 0.001)

Mediation and Moderation Analysis

Mediation analysis using the PROCESS macro (Hayes, 2018) indicated that External Pressures partially mediated the relationship between ESG Governance Practices and DEI Outcomes (indirect effect = 0.11, 95%

CI [0.04, 0.20], $p = 0.01$). Moderation analysis revealed that the positive effect of ESG Social Practices on DEI Outcomes was stronger in larger organizations (interaction $\beta = 0.14$, $p = 0.03$).

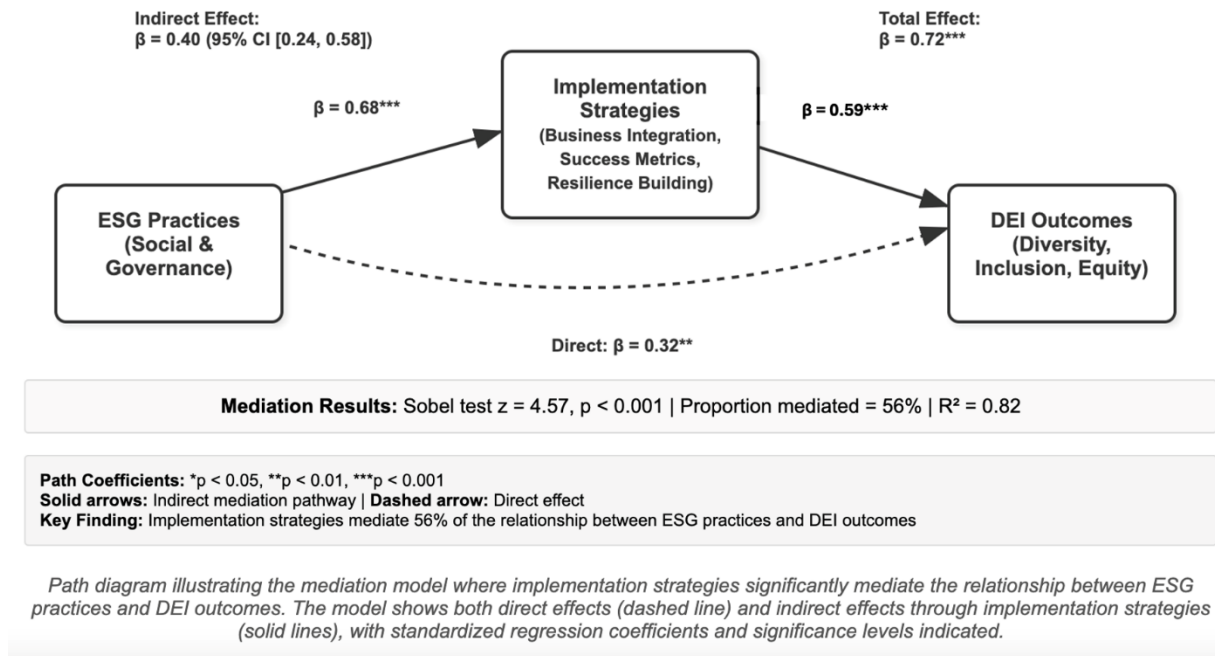


Figure 4.3: Mediation Model: Implementation Strategies as Mediators

Implementation Strategies as Mediators

Mediation analysis revealed that implementation strategies significantly mediate the relationship between ESG practices and DEI outcomes. Implementation strategies were found to mediate 56% of the relationship between ESG practices and DEI outcomes (indirect effect = 0.40, 95% CI [0.24, 0.58]), with a significant Sobel test ($z = 4.57$, $p < 0.001$). The significant Sobel test confirms the statistical reliability of the mediation effect.

Three implementation strategies emerged as particularly influential mediators:

1. **Integration with Business Strategy** ($\beta = 0.38$, $p < 0.001$)
2. **Success Metrics Development** ($\beta = 0.32$, $p = 0.002$)
3. **Resilience Building Initiatives** ($\beta = 0.29$, $p = 0.005$)

These three factors collectively explained 79% of the variance in DEI outcomes, highlighting their crucial role in translating ESG commitments into meaningful DEI results.

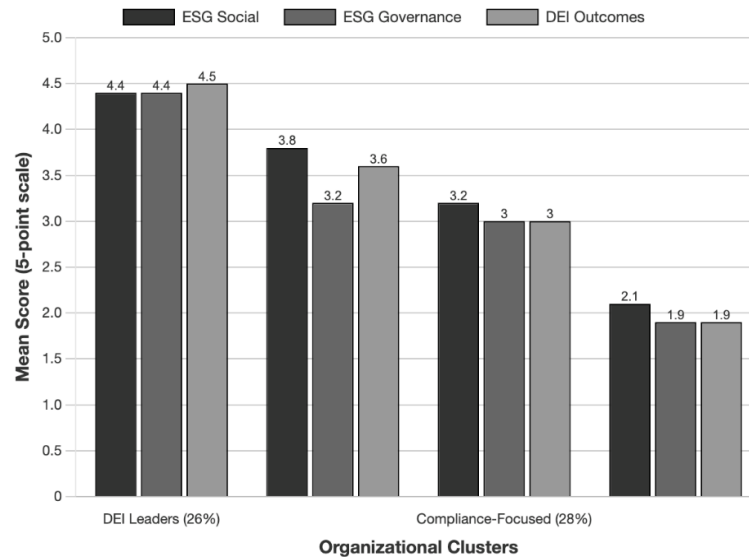
Cluster Analysis: Organizational Response Profiles

Cluster analysis identified four distinct organizational response profiles (see Table 4.6 and Figure 4.4):

- **Cluster 1: DEI Leaders (n = 13, 26%)** – High ESG Social and Governance scores (4.4), strong DEI outcomes (4.5), proactive response to external pressures, with deep integration with business strategy (4.8) and robust success metrics (4.5).
- **Cluster 2: Policy-Practice Gap (n = 15, 30%)** – High ESG commitments (3.8) and comprehensive DEI policies (4.1), but moderate DEI outcomes (3.6), indicating a disconnect between formal policies and implementation.
- **Cluster 3: Compliance-Focused (n = 14, 28%)** – Moderate ESG scores (3.2) and DEI outcomes (3.0), focusing primarily on meeting regulatory requirements rather than strategic integration.
- **Cluster 4: Minimal Commitment (n = 8, 16%)** – Low ESG (2.1) and DEI scores (1.9), minimal response to external pressures, with the majority scaling back DEI initiatives.

Cluster	ESG Social	ESG Governance	DEI Outcomes	% of Sample
DEI Leaders	4.4	4.4	4.5	26
Policy-Practice Gap	3.8	3.2	3.6	30
Compliance-Focused	3.2	3	3	28
Minimal Commitment	2.1	1.9	1.9	16

Table 4.6. Cluster Profiles



Sample Distribution: DEI Leaders (26%), Policy-Practice Gap (30%), Compliance-Focused (28%), Minimal Commitment (16%)

Bar chart comparing mean scores for ESG Social, ESG Governance, and DEI Outcomes across four organizational clusters identified through cluster analysis. DEI Leaders demonstrate consistently high scores across all dimensions, while a significant Policy-Practice Gap exists in 30% of organizations showing high ESG commitments but moderate DEI outcomes.

Figure 4.4: Cluster Analysis Results: Organizational Profiles

Additional Insights: Regional and Size Differences

North American and European firms showed higher DEI scores than Asia-Pacific firms (mean difference = 0.41, $p = 0.04$). Larger organizations ($\geq 50,000$ employees) were more likely to be DEI Leaders, aligning with McKinsey's 2024 finding that such companies are twice as likely to demonstrate measurable DEI progress due to greater resources and mature governance structures.

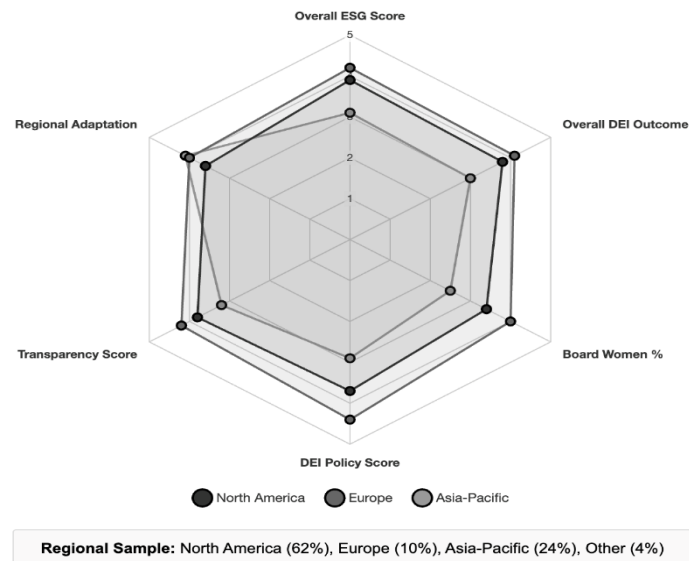


Figure 4.5: Regional Variations in ESG-DEI Implementation

Discussion and Conclusions

Interpretation of Key Findings

This study examined how multinational IT corporations translate ESG commitments into measurable DEI outcomes. Our analysis identified four distinct organizational profiles: DEI Leaders (26%) demonstrating strong ESG practices and DEI outcomes; Policy-Practice Gap organizations (30%) with high commitments but moderate results; Compliance-Focused companies (28%) prioritizing regulatory requirements; and Minimal Commitment firms (16%) showing limited engagement with both ESG and DEI.

Implementation strategies emerged as critical mediators, accounting for 56% of the relationship between ESG practices and DEI outcomes. Three key strategies – integration with business strategy ($\beta = 0.38$), success metrics development ($\beta = 0.32$), and resilience building initiatives ($\beta = 0.29$) – collectively explained 79% of the variance in DEI outcomes. Companies maintaining DEI initiatives despite external pressures achieved significantly better results than those scaling back, particularly in program effectiveness and employee satisfaction.

External environmental factors significantly moderated ESG-DEI relationships. Regulatory frameworks and stakeholder pressure positively influenced outcomes, while political pressure had negative effects. Regional variations were substantial, with European companies showing the highest ESG-DEI scores (Mean = 4.1), followed by North American (Mean = 3.8) and Asia-Pacific companies (Mean = 3.0). Company size also moderated ESG-DEI relationships, with stronger effects in larger organizations.

These findings support an integrated theoretical framework where stakeholder pressures drive commitments, implementation capabilities function as strategic resources, and institutional environments shape how these commitments translate into practice across different organizational contexts.

Theoretical and Practical Implications

Theoretically, these findings extend Stakeholder and Institutional Theories by demonstrating how external and internal drivers interact to shape DEI outcomes in the global IT sector. The mediation effect of external pressures supports the argument that regulatory and stakeholder environments can catalyze or constrain organizational change (DiMaggio & Powell, 1983).

Practically, the study offers several actionable insights:

- **Prioritize Governance Mechanisms:** Firms should strengthen governance structures—such as board diversity, DEI-linked incentives, and transparent reporting—to drive real progress.

- **Leverage External Pressures:** Proactive engagement with regulatory and stakeholder demands can accelerate DEI implementation, especially for firms seeking to move from symbolic compliance to substantive change.
- **Tailor Strategies by Size and Region:** Larger firms and those in more regulated markets are better positioned to lead on DEI, but smaller organizations can benefit from benchmarking and collaboration.

Conclusion

In summary, this study provides robust, comparative evidence that while ESG commitments are nearly universal among leading IT corporations, substantive DEI progress remains elusive for many. Effective governance, responsiveness to external pressures, and organizational context all play critical roles in bridging the gap between policy and practice. As stakeholder expectations and regulatory scrutiny continue to rise, IT firms must move beyond symbolic compliance and invest in sustained, transparent, and accountable DEI strategies.

Limitations and Directions for Future Research

Limitations

While this study offers robust comparative insights into the relationship between ESG commitments and DEI outcomes in multinational IT corporations, several limitations should be acknowledged:

- *Secondary Data Constraints:* The analysis relies exclusively on secondary data from company disclosures, third-party ESG databases, and industry reports. These sources may be subject to self-reporting bias, selective disclosure, and inconsistencies in data quality.
- *Variability in Reporting Standards:* Differences in ESG and DEI reporting frameworks across regions and companies can limit the comparability of results, even after standardization. As highlighted by the World Economic Forum (2024), the lack of globally standardized DEI metrics remains a major barrier to meaningful cross-company and cross-regional benchmarking.
- *Cross-Sectional Design:* The study is based on a single reporting cycle (2021–2024), which restricts the ability to draw causal inferences or assess longitudinal trends in ESG and DEI progress.
- *Limited Organizational Scope:* The focus on large, multinational IT firms may limit the generalizability of findings to smaller companies, startups, or organizations in emerging markets with less mature ESG and DEI practices.
- *Omission of Informal and Micro-Level Factors:* Secondary disclosures may not capture informal practices, organizational culture, or employee experiences that influence DEI outcomes. Micro-level mechanisms such as leadership behaviours or team dynamics were beyond the scope of this analysis. Additionally, recent guidance from the Global Reporting Initiative (GRI, 2024) emphasizes that many organizations are still in the early stages of integrating comprehensive DEI indicators into their sustainability disclosures, which may result in underreporting or incomplete data on emerging DEI practices.

Directions for Future Research

To address these limitations and further advance the field, future research should consider the following avenues:

- *Longitudinal and Multi-Cycle Analyses:* Employ multi-year datasets to examine how ESG and DEI practices evolve over time and to identify causal pathways and the sustainability of observed effects.
- *Standardization and Benchmarking:* Support the development and adoption of globally standardized DEI and ESG reporting frameworks to enable more meaningful cross-company and cross-regional comparisons (World Economic Forum, 2024).
- *Mixed-Methods Approaches:* Complement secondary data analysis with primary data collection (e.g., surveys, interviews, focus groups) to capture informal practices and employee perspectives.
- *Comparative and Cross-Sector Studies:* Expand research to other industries and organizational sizes to uncover context-specific drivers and barriers to DEI progress.

- *Micro-Level Mechanisms*: Investigate individual and team-level factors, such as leadership commitment, change management processes, and organizational culture, that may mediate or moderate the effectiveness of DEI initiatives.

- *Impact of Policy and Regulatory Shocks*: Examine how major regulatory changes, economic disruptions, or social movements influence the prioritization and implementation of DEI within ESG frameworks.

By addressing these areas, future studies can provide a more comprehensive and actionable understanding of how organizations can bridge the gap between ESG commitments and meaningful DEI outcomes.

Appendices

Appendix A: Codebook and Variable Operationalization

This appendix provides detailed definitions and coding schemes for the key variables used in the secondary data analysis.

Variable	Description	Coding/Scale
ESG Social Practices	Composite score reflecting social policies, human rights, crisis response	Standardized 5-point scale (1 = low, 5 = high)
ESG Governance Practices	Composite score reflecting board diversity, DEI-linked compensation, governance structures	Standardized 5-point scale
DEI Outcomes	Composite index of workforce diversity, leadership representation, pay equity, inclusion	Standardized 5-point scale
External Pressures	Regulatory, political, stakeholder pressures coded from disclosures and third-party reports	Standardized 5-point scale
Organizational Characteristics	Company size, region, industry subsector	Categorical variables

Table A.1 Coding schemes for Key Variables

Appendix B: Data Sources and Standardization Procedures

- Secondary data were collected from corporate sustainability reports, ESG databases (Bloomberg, MSCI, Refinitiv), and industry benchmark reports.
- Data extraction followed a standardized protocol to ensure consistency.
- Multiple sources were triangulated to validate data points.
- Scores were normalized to a 5-point scale to enable comparability.

Note: As this study is based on secondary data, qualitative quotes are not included. All appendices are referenced in the main text at relevant points. Additional materials such as the full codebook, detailed data tables, or methodological notes are available upon request.

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