

Gender Equality and Inclusion in the Life Sciences Industry: A Website Analysis

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Abstract

This work aims to investigate whether Italian life sciences companies strategically communicate their commitment to gender equality through their corporate websites. The analysis, based on 55 companies, verifies if contextual factors—such as company size, financial performance, leadership gender, and the presence of inclusive workplace policies—predict the existence of a dedicated web page on gender equality and inclusivity. Logistic regression analysis revealed that the presence of a female CEO is the only significant predictor. In contrast, company size, revenue, and internal D&I policies showed no significant influence, suggesting a gap between internal action and external communication.

Keywords: *Gender Equality; Women in Leadership; Inclusion and Diversity; Life Sciences Sector; Websites Analysis; Survey.*

1. Introduction

The life sciences industry, encompassing pharmaceuticals, biotechnology, and medical devices, is a pivotal driver of innovation and public health advancements. However, despite women constituting a considerable proportion of the workforce and often possessing higher educational qualifications, they remain underrepresented in executive leadership and corporate board positions. This gender imbalance can be attributed to a complex interplay of societal norms, organizational practices, and individual career trajectories (Rhoton, 2011). Structural barriers, including gender biases, limited mentorship opportunities, and challenges in balancing professional and personal responsibilities, further hinder women's progression into senior leadership roles. This underrepresentation has implications for organizational performance, innovation, and decision-making. Research has demonstrated that gender-diverse leadership teams tend to exhibit enhanced effectiveness and responsiveness to market demands, thereby underscoring the imperative to address this imbalance (Terjesen, Sealy, & Singh, 2009).

In response to the evident gender disparity, a number of countries have instigated gender quotas as a policy intervention to increase female representation in leadership positions. More than two decades after their initial implementation, debates surrounding their efficacy as a tool for promoting diversity at the top levels of organizations persist. Gender quotas mandate a minimum percentage of women in leadership roles, with the aim of counteracting systemic biases and accelerating gender parity. Proponents of gender quotas posit that they aid in the dismantling of the glass ceiling, provide role models for aspiring female leaders, and enhance organizational performance by incorporating diverse perspectives (Matsa & Miller, 2013). Critics, however, contend that quotas may lead to tokenism, undermine meritocracy, and result in the appointment of less qualified candidates based solely on gender (Ahern & Dittmar, 2012). Empirical research has provided mixed findings on the impact of gender quotas. For instance, Matsa and Miller's (2013) study revealed that Norway's implementation of a gender quota law resulted in alterations within board governance and established practices, including an increased focus on employee welfare and the facilitation of more productive board meetings. This initial outcome did, however, coincide with a brief decline in stock prices. Similarly, Ahern and Dittmar (2012) found a discernible market response to Norway's quota legislation, which they ascribed to the perception of newly appointed female directors as being less experienced. Nonetheless, over time, there was an increase in the diversity of the boards, and there was an argument that this may have led to better decision-making and a stronger focus on sustainability and corporate responsibility (Glass, Cook, & Ingersoll, 2016; Liao et al., 2015; Mallin & Michelon, 2011).

2. Corporate Communication on Gender Equality

Despite an increasing emphasis on gender diversity in the corporate sphere, the extent to which life sciences companies publicly communicate their commitment to gender equality remains unclear. Corporate websites serve as key communication platforms, reflecting an organization's values, priorities and strategic direction. The visibility and prominence of gender equality messaging on these websites therefore provide insights into how companies integrate diversity and inclusion into their organizational culture and operational strategies. While Environmental, Social, and Governance (ESG) principles have gained prominence in corporate policies, gender equality may not always be explicitly addressed in these frameworks. A lack of transparency in corporate communication can obscure the true extent of companies' diversity efforts and hinder external assessments of their commitment to gender inclusion. This study examined how life sciences companies presented and prioritized gender equality initiatives through their online presence. A similar research method has been applied, for example, by Yan, Sunindijo and Wang (2024) who analyzed Australian construction company websites to assess gender equality and career development initiatives.

3. The Study

To explore these challenges, a study was conducted in collaboration with HPS-AboutPharma and the Intersectoral Group of Personnel Directors (G.I.D.P. - H.R.D.A.), focusing on gender inclusion policies in Italian life sciences companies. The survey collected data on measures to promote female leadership and gender inclusion through a structured questionnaire comprising approximately thirty questions. The questionnaire analyzed the current representation of women in leadership roles, examining the number of female managers, their experience, and future forecasts. It also assessed the policies and initiatives adopted to promote gender equality, such as mentoring programs, flexible working tools like smart working and flexible hours, salary transparency, and minimum quota requirements. Additionally, awards, recognitions, and future improvement strategies were considered. It also focused on companies' organizational structures, investigating factors such as international relations, Board of Directors composition, and the presence of diversity and inclusion officers. Finally, the questionnaire examined how companies integrate diversity and inclusion into their strategic vision. The survey was distributed directly to human resources professionals in 1,090 life sciences companies across Italy through personalized invitation emails. It remained open for responses from May to October 2023, allowing recipients ample time to complete it at their convenience. By the conclusion of the survey period, the final sample comprised 55 companies.

Additional company-specific data were gathered from the Computerized Analysis of Italian Companies (AIDA) database, including annual turnover, and workforce size. Besides, an analysis of corporate websites assessed whether gender equality and inclusiveness were embedded in mission and vision statements, ESG values, and overall corporate governance.

4. Results

Following the Walk and Talk Theory (Schons and Steinmeier, 2016), which posits that companies may either integrate corporate social responsibility into their core strategy or merely engage in symbolic communication, we investigated whether businesses assign strategic value to diversity and inclusion (D&I) in their external communication: only 25% of the surveyed companies had a dedicated web page on gender equality.

We conducted a logistic regression analysis, evaluating the likelihood of having a dedicated web page on gender equality and inclusivity based on various independent variables. The dependent variable in our model was the presence (1) or absence (0) of such a web page. The explanatory variables included:

- Presence of a Female CEO
- Number of Employees
- Sales Revenue (in thousands of Euros)
- Number of Inclusive Workplace Policies – Measuring whether internal D&I practices translate into external visibility.

As shown by the results reported in Table 1, the presence of a female CEO is a strong and predictor of whether a company has a dedicated web page on gender equality and inclusivity. In this way, companies led by women are over 10 times more likely to publicly communicate their commitment to gender equality compared to those with male leadership. This finding suggests that female executives often champion diversity initiatives and advocate for greater visibility in corporate strategies. Neither the number of employees nor sales revenue significantly influenced the likelihood of having a gender equality web page: larger organizations or those with higher financial capacity are not necessarily more inclined to publicly communicate their D&I efforts. The lack of a significant relationship between the number of inclusive workplace policies and the presence of a dedicated web page suggests that organizations may adopt internal policies aimed at fostering inclusivity, but not necessarily these initiatives are translated into external communication. This finding suggests a potential “silent implementation” of D&I strategies, where companies focus on internal measures without explicitly promoting them to external stakeholders.

Table 1. Results of logistic regression (dependent variable: Web Page dedicated to gender equality and inclusivity).

Variable	β	S.E.	Wald	df	Sign.	Exp(β)
Constant	-2.941	1.009	8.496	1	0.004	0.053
Presence of a female CEO	2.390	1.042	5.256	1	0.022	10.911
Number of employees	0.001	0.002	0.081	1	0.776	1.001
Sales revenue (in 1.000 Euros)	0.002	0.002	0.958	1	0.328	1.002
Number of Inclusive Workplace Policies	0.245	0.351	0.486	1	0.486	1.277

5. Discussion and Conclusions

Diversity and inclusion are widely acknowledged as strategic assets, linked to innovation, improved governance, and responsiveness to societal needs. However, women remain underrepresented in executive roles, and gender equality often lacks prominence in corporate communication. This study examined how Italian life sciences companies present their commitment to gender equality online and what organizational factors influence this visibility.

This work suggests that while some companies integrate gender equality into their mission, vision, or ESG frameworks, this is not uniformly reflected in dedicated web content. The presence of a female CEO was the only significant predictor of having a gender equality web page, highlighting leadership as a key driver of transparent and proactive communication. In contrast, neither company size, financial capacity, nor the adoption of inclusive workplace policies predicted the presence of such communication. This disconnect points to a phenomenon of "silent implementation," where internal efforts are not clearly communicated externally. One possible explanation is that companies are concerned about the risk of being perceived as inauthentic or engaging in tokenistic behavior, particularly if their inclusion initiatives are still nascent or lack measurable impact. This fear of public scrutiny may lead organizations to communicate cautiously or avoid external messaging altogether. Additionally, smaller companies often lack the communication infrastructure or strategic resources necessary to highlight their internal D&I practices. In sectors like life sciences, which are traditionally focused on technical excellence and scientific innovation, there may be cultural norms that de-emphasize social responsibility in public communications. Furthermore, the absence of standardized metrics or benchmarks to evaluate the success of diversity initiatives may cause uncertainty about what to communicate and how, thus reinforcing this phenomenon of silent implementation. Together, these factors create a significant communication gap that raises concerns about corporate accountability and stakeholder trust. To ensure accountability and foster stakeholder trust, it is crucial for companies not only to implement inclusive policies but also to make them visible through coherent and strategic communication. Greater transparency

would strengthen the alignment between internal values and external representation, advancing gender equality both symbolically and structurally.

Our study presents some limitations. The sample is relatively small and focused only on Italy. Moreover, our analysis of website content may not fully capture the depth of a company's internal commitment to inclusion. While we used AIDA to collect financial data, we were not able to include all available information on gender composition in leadership roles due to incomplete data. Future studies should aim to incorporate these variables, as well as explore trends over time. Interviews with HR professionals or corporate leaders could also provide valuable insights into why companies choose to communicate or withhold information about their D&I efforts.

References

- Ahern, K. R., & Dittmar, A. K. (2012). The Changing of the Boards: The Impact on Firm Valuation of Mandated Female Board Representation. *The Quarterly Journal of Economics*, 127(1), 137-197.
- Glass, C., Cook, A., & Ingersoll, A. R. (2016). Do women leaders promote sustainability? Analyzing the effect of corporate governance composition on environmental performance. *Business Strategy and the Environment*, 25(7), 495–511. <https://doi.org/10.1002/bse.1879>
- Liao, L., Luo, L., & Tang, Q. (2015). Gender diversity, board independence, environmental committee and greenhouse gas disclosure. *The British Accounting Review*, 47(4), 409–424. <http://doi.org/10.1016/j.bar.2014.01.002>
- Mallin, C. A., & Michelon, G. (2011). Board reputation attributes and corporate social performance: An empirical investigation of the US best corporate citizens. *Accounting and Business Research*, 41(2), 119–144. <http://doi.org/10.1080/00014788.2011.550740>
- Matsa, D. A., & Miller, A. R. (2013). A Female Style in Corporate Leadership? Evidence from Quotas. *American Economic Journal: Applied Economics*, 5(3), 136-169.
- Rhton, L. A. (2011). Distancing as a Gendered Barrier: Understanding Women Scientists' Gender Practices. *Gender & Society*, 25(6), 696-716.
- Schons L., Steinmeier M., (2016) Walk the talk? How symbolic and substantive CSR actions affect firm performance depending on stakeholder proximity. *Corporate and social responsibility and environmental management*, 23 (6), 358-372.
- Terjesen, S., Sealy, R., & Singh, V. (2009). Women Directors on Corporate Boards: A Review and Research Agenda. *Corporate Governance: An International Review*, 17(3), 320-337.
- Yan, D., Sunindijo, R. Y., & Wang, C. (2024). Analysis of Gender Diversity Initiatives to Empower Women in the Australian Construction Industry. *Buildings*, 14(6), 1707.