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A Quantitative Analysis of DEI Program Strength and Female Executive Representation in Fortune 500 Companies

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ABSTRACT

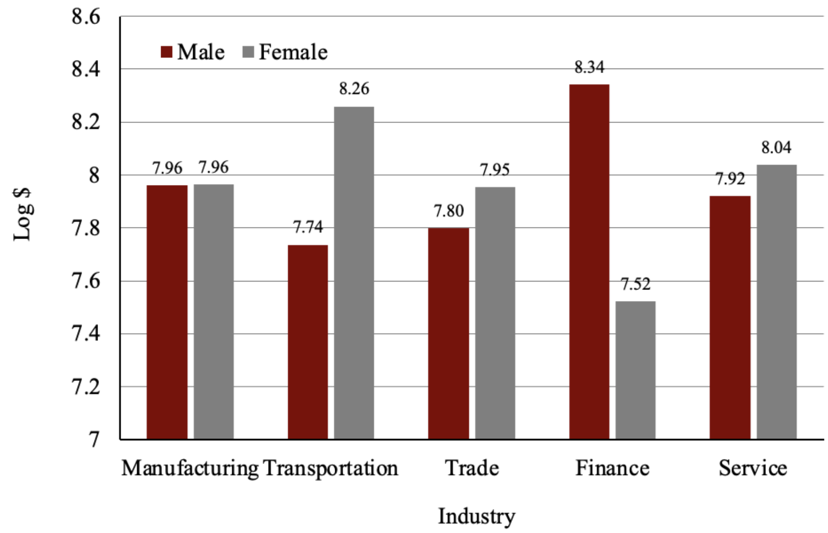
Despite decades of public DEI commitments, women remain underrepresented in executive-level leadership within Fortune 500 companies. This study uses a quantitative analysis to investigate if improved DEI initiatives correlate with increased female representation in executive and C-suite roles in seven general merchandisers. Companies were assigned DEI Program Strength Scores (1-5) based on mentorship, training, and promotion transparency activities and benchmarked against weighted representation scores targeted at C-suite levels. Results indicated no relationship between DEI scores and female leadership representation (R^2 = 0.04, p = 0.66), suggesting that publicly stated DEI programs by themselves are weak indicators of advancement outcomes. Instead, variation between companies implies that structural and cultural factors—i.e., levels of mentorship access, leadership accountability, and organizational bias—are more likely to have a profound impact. These findings support the continued gap between DEI rhetoric and representation outcomes and affirm the need for systemic, measurable change toward facilitating equal opportunity for women to advance in corporate leadership roles.

INTRODUCTION

While women make up almost half of the workforce, 11% of Fortune 500 CEOs are women, and only three of them are women of color (Kpakima). This staggering disparity reflects the barriers and obstacles women, especially women of color, face in attempting to obtain higher-level executive positions. Over the past decade, Fortune 500 companies have made public commitments to advancing diversity, equity, and inclusion (DEI) by launching initiatives and publishing annual diversity reports. Yet these efforts have yielded limited results in helping minorities advance to executive and C-suite level positions. Though many firms appear progressive by policy and campaign, the leadership structures remain largely white and male. This disparity between DEI rhetoric and reality indicates that more deep-seated institutional problems cannot be solved by policy. Despite formal DEI policies, most Fortune 500 companies fail to support the advancement of minorities into executive leadership due to lack of mentorship, unclear promotion pathways, inherent bias, and inadequate leadership accountability.

BACKGROUND

Although the statistics surrounding the representation and diversity of Fortune 500 companies may seem unimpressive, these are still record-breaking numbers. Historically, executive roles at most companies have been predominantly held by white men, with Kathrine Graham becoming the first female Fortune 500 CEO in 1972 (The Washington Post). A few years later, Marion Sandler became co-CEO of Golden West Financial with her husband, but it wasn't until over a decade later when Linda Wachner became the third female Fortune 500 CEO. Then, in 1999, Andrea Jung became the first woman of color to be the CEO of a Fortune 500 company. At this point, female Fortune 500 CEOs began to be more common, with over two dozen women becoming CEOs of these companies between 2000-2010 (Salter).



Source: Susan M. Adams et al., "Gender Differences in CEO Compensation: Evidence from the USA," (2007)

Figure 1: Gender Differences in Executive Compensation

The percentage of female executives at Fortune 500 companies has steadily increased over time, from below 10% in 1995 to over 30% in 2023. On the other hand, the share of women Fortune 500 CEOs has increased at a slower rate and just crossed the 10% threshold in 2023 (Schaeffer). These figures display clear inequality in the representation of female CEOs and executives, specifically in high-level companies. Greater gender diversity in executive positions could potentially increase company performance and could lead to broader changes in gender equality across various sectors, as shown in Fig. 1 (*Gender Differences in Executive Compensation*).

Despite considerable disparities in diversity at the executive level, the representation of female executives, especially at the CEO level, can be extremely valuable in determining a company's potential performance. For example, a McKinsey & Company study showed that companies with more than 30% female executives were more likely to outperform companies with 10-30%, and those companies were more likely to outperform companies with fewer or no female executives. The study also found 48% difference in the likelihood of outperformance between the most and the least gender-diverse companies (Dixon-Fyle et al.). These trends reflect the value of diversity in leadership, not just in the workplace.

LITERATURE REVIEW AND KEY BARRIERS

One of the most commonly cited barriers across multiple studies is the lack of mentorship and sponsorship for minorities. The lack of diversity in Fortune 500 companies results mainly from the limited changes made in policies, recruitment and promotion procedures, networking and mentorship channels and opportunities. Regardless of education and professional experience, minorities, especially female minorities, are becoming stagnant in their careers in Fortune 500 companies. Generally, advancement to executive positions occurs internally. A number of people vying for the same job or promotion might have the same or equivalent education, but if one of them has a recommendation from within the company, they will most likely be employed ahead of the other candidate. For minorities to be considered as serious prospects for future C-suite appointments, they must build links through networking and sponsorship by the current leadership. Women may have a difficult time ensuring the success of mentorship or networking due to diversity concerns in executive leadership and top leadership. Gaining these critical connections is significant and has the potential to alter careers; thus the importance of proper mentorship within corporate settings in establishing that mentorship not only effective for acquisition of knowledge but also building credibility and validity (Taylor). Having someone who is able to speak on your behalf regarding your skills and experience helps to alleviate anxiety and uncertainty during times of change, which can be incredibly valuable to someone advancing to an executive-level position (Chemmanur et al.). A lack of mentorship and networking opportunities can negatively impact a person's career growth and development.

Additionally, even when minorities are qualified, unconscious biases and microaggressions can influence perceptions and decisions. Women face explicit and implicit bias in the workplace, which can hinder career advancement due to tainted perceptions. In fact, the intersection of race and gender creates distinctive challenges for women of color. A Pew Research survey found that women are four times as likely as men to say they've been seen as incompetent because of their gender, and 42% have said they've experienced some time of discrimination in the workplace (Parker and Funk). Comparably, implicit bias can be seen through less overt forms and reflect negative stereotypes based on gender, race, or ethnicity. Implicit bias can be commonly seen through letters of recommendation and resume selection. Often, peers and supervisors use undermining language to describe a female colleague's qualifications. Women are often described with words like "friendly" or "nice" and words that demonstrate uncertainty such as "might" and "could." Men, on the other hand, are often described with terms such as "leader," "outstanding," and "competent." Since hiring and promotion rely heavily on recommendation letters, this invalidation of qualification is damaging to women's career advancement (Espinosa). Both implicit and explicit bias create work environments where individuals are denied fair opportunities at various stages of their careers, leading to stagnation and limiting their potential for growth and advancement within the workplace.

GAPS IN EXISTING LITERATURE

Many existing studies examine the barriers that hinder the advancement of minorities to executive level positions using a qualitative and phenomenological approach. For instance, Taylor (2024) offers a compelling exploration into the actual experiences of African-American men and women. The study used interviews with professionals in various C-suite positions where they discussed the challenges they faced, as well as their advice for overcoming them. By using a phenomenological approach, concerned with coming to know people's everyday experiences in and of themselves, the study explores how individuals live and experience the barriers that hinder their professional development on an individual basis. While the phenomenological approach provides valuable personal insights into the challenges faced by minority professionals, there remains a lack of quantitative and comparative analyses. However, this paper aims to take a more quantitative approach to analyze how DEI programs are enforced and if they are evaluated for impact, specifically examining if such initiatives effectively support the advancement of women into executive leadership roles in Fortune 500 companies.

METHODOLOGY

This study uses a quantitative design through an analysis of corporate diversity data. By using this method, this study intends to measure the relationship between DEI program strength and representation of women in executive roles.

The quantitative component will analyze the relationship between the strength of a company's DEI program and the representation of women, and women of color, in executive leadership. Data will be gathered from Fortune 500 companies in the General Merchandisers industry (due to the expansive employment numbers in the industry), including proxy statements, diversity reports, and corporate responsibility statements. Each company will be assigned a "DEI Program Strength Score" from 1 to 5 (1 being very poor, with 5 being excellent). This score will be based on the presence and scope of initiatives like mentorship and sponsorship programs, bias training, and transparent promotion pathways. These scores will then be compared against representation statistics for female executives in those industries, based on the percent of female executives, with a higher weight being assigned to higher-level C-suite positions including CEO, CFO, and COO. A simple linear regression will be used to determine whether higher DEI Program Strength scores predict greater representation of women in executive roles. Tangible quantitative results will allow for a robust evaluation of whether Fortune 500 Initiatives are effective in practice or merely symbolic in nature.

RESULTS

This study examined the relationship between DEI Program Strength Scores and the representation of women in executive and C-Suite positions among seven Fortune 500 general merchandisers.

Company	Mentorship	Training	Transparency	Final Score
Walmart	3.5	3	3	3.167
Target	2.5	2.5	2	2.333
Nordstrom	4	4	3	3.667
Macy's	4	3.5	4	3.833
Kohl's	4	2	2	2.667
Costco	5	4	5	4.667
BJ's	2.5	1	2	1.833

Figure 2: DEI Program Strength Scores by Category

Fig. 2 presents the DEI Program Strength Scores, which ranged from 1.83 (BJ's) to 4.67 (Costco), with an average score of 3.167. The final score is the average of the Mentorship, Training, and Transparency categories.

Company	Score (1-5)	# of Executives Female	# of Executives Total	C-Suite Female	C-Suite Total	% Female Executives	% Female C-Suite	Weighted % Female
Costco	4.667	12	45	2	10	26.667	20	24.667
Macy's	3.833	6	11	0	2	54.545	0	38.182
Nordstrom	3.667	6	12	3	5	50	60	53
Walmart	3.167	18	56	2	9	32.143	22.222	29.167
Kohl's	2.667	6	11	1	2	54.545	50	53.182
Target	2.333	9	14	0	3	64.286	0	45
BJ's	1.833	3	11	1	3	27.273	33.333	29.091

Figure 3: Female Leadership Representation in Executives and C-Suite

Fig. 3 summarizes the percentage of women in executive roles, C-Suite positions, and a weighted percentage that assigns greater weight to higher-level roles. Percentages of female executives ranged from 26.7% (Costco) to 64.3% (Target), while female C-Suite representation ranged from 0% (Macy's, Target) to 60% (Nordstrom). Weighted representation scores reflected these differences, with values ranging from 24.667% (Costco) to 53.182% (Kohl's). The weighted representation score was calculated by assigning 70% weight to the percentage of women in C-suite positions and 30% weight to the percentage of women in executive positions, then combining the two into a single score for each company.

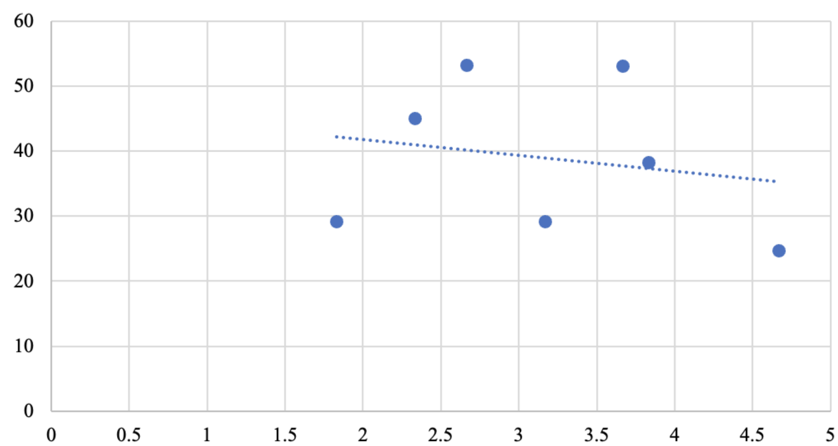


Figure 4: Weighted % of Female Executives vs. DEI Program Strength Scores

To assess whether DEI scores predicted greater female representation, a simple linear regression was conducted. The model did not reach statistical significance, $F(1,5) = 0.214$, $p = 0.66$, and explained only 4% of the variance in women's executive representation ($R^2 = 0.04$). The regression coefficient was negative ($B = -2.46$), indicating that for each one-point increase in DEI score, female executive representation decreased by approximately 2.5 percentage points. However, this effect was not significant ($p = 0.66$).

Fig. 4 displays the scatterplot of DEI Program Strength Scores and the percentage of female executives, along with the fitted regression line. The distribution of points shows no clear trend, supporting the statistical results.

DISCUSSION

The outcomes of the current study reveal the continuation of women's underrepresentation in executives and C-suite positions in leading retail Fortune 500 firms despite DEI initiatives. While some firms such as Nordstrom and Kohl's exhibited relatively high weighted percentages of females in top positions (50% and over), others such as Costco, Walmart, and BJ's were behind with weighted representation of approximately 25-30%. These variations indicate that there is uneven progress and that the effectiveness of DEI interventions varies widely across firms.

The scoring mechanism also reinforces this reality. Whereas Costco had the highest overall score (4.67) based on its structural initiatives and portrayal, the weighted percentage of females within its top leadership still remained one of the lowest, showing that a company's stated DEI policies or symbolic initiatives do not necessarily have to translate into meaningful representation at the executive levels. Meanwhile, Nordstrom, with a slightly lower ranking, demonstrated strong female representation in its C-suite, which may indicate that actual structural changes along promotion paths may be more significant than bureaucratically mandated DEI initiatives.

The regression analysis provided more information. There was a low, statistically insignificant correlation between DEI scores and weighted female proportion ($R^2 = 0.04$, $p = 0.66$). This means that the presence of DEI initiatives or higher policy scores in themselves are not reliable predictors of women advancing to senior leadership. Instead, outcomes appear to be influenced by more fundamental organizational cultures, mentoring opportunities, and leadership accountability systems, the same hurdles found in existing literature. These findings align with previous studies that demonstrate the limited success of surface DEI initiatives. For example, Taylor (2024) highlights how sponsorship and mentorship remain crucial to advancement but are sporadically used across organizations. Similarly, implicit bias, as documented by Parker and Funk (2017) and Espinosa (2021), continues to drive promotion and evaluation decisions in ways that undermine declared equity policies. The disconnect between DEI marketing by companies and leadership populations at large constitutes a lack of alignment between policy and practice, emphasizing that organizational rhetoric without systemic change is insufficient. Importantly, the findings also suggest that a few of these comparatively smaller executive pools (e.g., Macy's, Nordstrom) can get higher representation than Walmart, a comparatively larger corporation. This suggests that size is not the only driver and structural and cultural forces likely power the influences more. In line with McKinsey & Company's research on the diversity-firm performance relationship, these results also suggest that advancing women to leadership positions requires not only formal DEI structures but quantifiable accountability and intentional career trajectories for promotion. Overall, the data indicate that while progress is being made, it is highly inconsistent, and current DEI initiatives are insufficient in ensuring equitable representation of women in senior leadership roles. For genuine change, companies have to move beyond tokenistic gestures and genuinely address structural barriers, mentorship deficits, and ingrained biases that continue to limit women's advancement to higher leadership roles.

CONCLUSION

This study confirms that while DEI programs have become more prominent in the Fortune 500 companies, their impact on women's representation at executive and C-suite levels remains negligible. The absence of a statistically significant correlation between DEI Program Strength Scores and leadership results suggests that symbolic commitments do not guarantee structural change. Some companies, like Costco, had high DEI scores yet low female representation, while Nordstrom and Kohl's, slightly lower, had improved representation, illustrating that progress depends on more than codified practices. Instead, mentorship, sponsorship, open channels for promotion, and mechanisms of accountability appear to be most significant in surmounting entrenched cultural and structural barriers. For DEI to gain true momentum in championing women into leadership, businesses will need to move beyond surface-level initiatives and embrace strategies that intentionally counteract unconscious bias, create internal pipelines, and aim to measure success through representation metrics as opposed to policy visibility. Broader systemic change—founded on accountability and leadership commitment—will be required in order to align corporate diversity rhetoric with experience-based workplace realities.

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