

Male-Dominated vs Gender-Inclusive Workplaces: A Systematic Review

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ABSTRACT

Gender-based discrimination remains a pervasive issue across various professional sectors, often manifesting through wage disparities, limited career advancement, and biased perceptions particularly in male-dominated industries. Despite strides toward gender equality, women continue to face systemic obstacles that hinder their professional growth and productivity. These challenges are exacerbated by cultural norms, institutional biases, and limited access to support networks. A systematic literature search was conducted using the following academic databases: PubMed, Scopus, Web of Science, and Google Scholar. The search was limited to peer-reviewed articles published between 2015 and 2025. Search queries were constructed using Boolean operators (AND, OR) to combine key terms. The analysis focused on identifying recurring themes and patterns across diverse organizational contexts. Studies were grouped based on industry type, workplace gender composition (male-dominated vs. gender-inclusive), and key outcome measures. This study highlights the pervasive gender biases that female workers and students encounter in male-dominated industries, such as construction, automotive, STEM, and IT. These biases adversely affect women's emotional well-being, motivation, productivity, and career advancement. Despite systemic challenges, women employ diverse coping strategies including emotional resilience, skill enhancement, rhetorical adaptation, and identity management to navigate exclusionary environments. This study examines gender bias faced by women in male-dominated industries. These biases impact women's motivation, emotional well-being, and career progress. Many cope by improving their skills, adapting behavior, or downplaying gender differences.



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1. INTRODUCTION

Discrimination is a widespread issue where individuals are judged based on their gender, ethnicity, religion, sexual orientation, and race. Gender is a fundamental category people use to classify others and shape their experiences. Gender-based discrimination manifests in various forms, including the wage gap, challenges for women in career advancement, stereotypes of women in leadership roles, and sexual harassment. Issues related to gender often arise when people work in fields where the majority of employees belong to the opposite gender. For instance, women working in male-dominated professions often face gender bias that hinders their career progress (Mañebo et al., 2024).

In industrial sectors, women struggle to secure jobs as some employers prioritize hiring skilled men to strengthen their teams. Despite apparent equal opportunities, women regularly encounter biases that affect their work experiences and professional outcomes. These negative biases impact the well-being and productivity of female employees. While research has addressed the influence of gender bias on women's career growth and well-being, there is a gap in studies that examine how this bias affects the productivity of female workers in male-dominated industries. Consequently, the researchers focused on investigating gender bias in male-dominated sectors in the Science City of Muñoz, Philippines, to assess how it impacts the productivity of female workers and propose a sustainable framework to support women in thriving within these industries (Mañebo et al., 2024).

There are a variety of reasons that disable women from participating in male-dominated careers: lack of awareness, performance settings, backgrounds, and their ultimate priorities in their lives. Throughout history, most notable scientists were always predominately male. These preconceived notions that women receive at a young age may minimize their participation or interest in science and engineering fields and lead them to more female-dominated roles such as teaching. In addition, a person's career may be determined by his or her experiences and/or his or her biological nature (nature versus nurture). There are cultural implications that enable or disable female participation in male-dominated fields. For instance, parental and mentor support are large factors in sustaining women in male majority fields (Gaines, 2017).

Companies, especially with a male majority focus could ensure their career counselors are emphasizing to their women employees the availability of women's groups and available networks for women. This can help advise

women that they are not alone in the company and there are many role models to learn from on their path to success (Gaines, 2017).

Particularly in STEM (science, technology, engineering, and mathematics) education, the presence of gender stereotypes and biases in textbooks can significantly influence how children perceive gender roles in these fields. Studies have shown that textbooks often reinforce traditional gender norms, contributing to the underrepresentation of women in STEM professions and maintaining existing inequalities. Given their impact on identity formation and cultural perception, school textbooks—especially at the primary level—are instrumental in either challenging or perpetuating gender bias. Addressing these issues is essential for creating an inclusive learning environment where students of all genders can envision themselves pursuing STEM careers (Nandi et al., 2025).

In today's rapidly evolving digital era, the field of Information Technology (IT) continues to shape global economies and societal functions. Despite significant progress in technological innovation and increased awareness around workplace diversity, a persistent gender gap remains evident—particularly in leadership roles within IT project teams. Women, though increasingly present in the IT workforce, are frequently underrepresented in senior positions and often encounter systemic barriers that hinder their career progression. These challenges are magnified in male-dominated environments, where gender-based biases, discrimination, and cultural stereotypes continue to affect professional dynamics and leadership effectiveness (Himanshu and Kumar, 2024).

2. SYSTEMATIC REVIEW

MALE DOMINATED ENVIRONMENTS

Male-dominated environments are characterized by a significant gender imbalance, where men occupy the majority of positions of power and influence, often resulting from entrenched societal norms and organizational practices that favor men over women. This imbalance can create barriers for women in terms of career advancement and equitable treatment (Himanshu and Kumar, 2024).

DEFINITION OF GENDER INCLUSIVE IN THE WORKPLACE

Gender inclusive in professional settings involves unequal treatment of people based on their gender. This discrimination can surface in areas like

recruitment, pay, advancement, or work conditions, often affecting both men and women differently despite similar abilities. Factors like test design or environment may skew outcomes, leading to random errors. To fully grasp this bias, it's essential to understand the distinction between gender and sex. Gender relates to the socially constructed roles and expectations for individuals based on identity, which is fluid and exists on a spectrum. In contrast, sex refers to biological traits such as hormones and anatomy, usually classified as male or female. Gender bias is reinforced by societal norms that expect women and girls to be feminine and men and boys to be masculine (Mañebo et al., 2024).

GENDER INCLUSIVE WORKPLACES

Gender Inclusive Workplace Framework designed to reduce or eliminate gender discrimination against women in male-dominated fields. Structured around the Input-Process-Output (IPO) model, the framework outlines a progression of the input Phase which focuses on women in male-centric industries and the discrimination they encounter. Process Phase involves three core elements approaches to confronting discrimination, practical strategies aligned with those approaches, and the application of intellectual, technical, and social skills. Output Phase that aims to result in empowered women, contributing to decreased gender bias in the workplace. The double-edged nature of the digital revolution can either foster gender equality or exacerbate existing inequalities. To prevent the latter, the authors emphasize the need for comprehensive policies and proactive regulations that safeguard women's rights and promote equity in the digital age. The framework aligns with global development goals by advocating for sustainable, inclusive growth and using digital tools such as e-learning resources, webinars, and virtual consultations to empower women. In doing so, it aims to ensure women are not left behind in technological advancement and are fully included in economic, political, and social innovation (Alves and English, 2018).

INFLUENCE OF GENDER INCLUSIVE IN THE WORKPLACE

Gender inclusive in the workplace can have several detrimental effects on individuals, especially concerning their mental health, self-esteem, career progression, and work relationships. Mental Health Issues is exposure to persistent gender bias that can harm an individual's mental well-being, leading to problems like anxiety, depression, and self-doubt, which affect both professional and personal life. Lowered Self-Esteem and Confidence: Gender bias can cause people to question their own worth and abilities, leading to decreased self-esteem and confidence. This, in turn, prevents them from reaching their full potential and achieving their career goals. Career

Advancement Barriers that gender bias can create obstacles for career growth, making it harder for individuals to receive promotions, salary increases, or key opportunities. Discrimination based on gender often impacts hiring and selection processes, with women sometimes seen as less capable or less dedicated because of stereotypes about their roles in caregiving or perceived lack of ambition. This results in qualified women being passed over in favor of men. Job Dissatisfaction that experiencing gender bias can lead to dissatisfaction with the workplace, particularly when employees feel treated unfairly. This reduces motivation and engagement, making work feel less fulfilling. Strained Social Relationships which gender bias can also lead to social exclusion or strained relationships with colleagues and superiors, contributing to a toxic or isolating work atmosphere. Gender bias in the workplace undermines not just individual well-being but also affects overall work culture, team dynamics, and productivity. It is essential to reduce or eliminate this bias to create a healthier, more inclusive, and efficient work environment.

3. METHODS

A systematic literature search was conducted using academic databases such as PubMed, Scopus, Web of Science, and Google Scholar to identify relevant studies on male-dominated versus gender-inclusive workplaces. The search included articles published between 2015 until 2025 using combinations of the following keywords: "gender-inclusive workplace", "male-dominated industry", "gender diversity", "workplace outcomes", "gender balance in organizations", and "organizational performance and gender". Boolean operators (AND, OR) were applied to refine the results.

A total of 90 articles were identified through the initial search process. After removing duplicates and screening titles and abstracts based on the inclusion and exclusion criteria, 35 articles remained for full-text review. Following full-text assessment, 15 studies were selected for final inclusion in the systematic review.

Key data from the included studies were extracted using a standardized data extraction form.

4. RESULTS AND DISCUSSION

This table presents a collection of research studies that examine the experiences, challenges, and strategies employed by women in male-dominated industries and educational fields. The focus of these studies spans across various sectors, from the workplace to education, and provides insight into the systemic gender biases that persist despite ongoing efforts to create more equitable environments. Each study highlights the unique strategies women use to navigate these environments, the importance of gender-inclusive policies, and the need for organizational and cultural shifts to support gender equality. These findings emphasize the role of both individuals and institutions in fostering more inclusive and supportive settings for women, ensuring equal opportunities, and ultimately dismantling gender stereotypes.

Table 1. Sampling Process

Author (Year)	Research Context	Finding and Result
Mañebo et al. (2024)	Gender-based biases experienced by female workers in male-dominated industries	The persistent gender biases that female workers face in male-dominated industries. While these biases impact their emotions, motivation, and productivity, women employ various coping mechanisms such as ignoring discrimination, enhancing their skills, or using it as motivation. The research emphasizes the need for systemic change, supportive policies, and the adoption of a gender-inclusive framework backed by digital resources to foster a more equitable workplace.
Alves dan English (2018)	Female students' experiences in the male-dominated property and construction industry, focusing on insights gained through vacation work	Deeply entrenched patriarchal culture in property and construction fields, where female students feel marginalised, patronised, and undervalued. Their efforts to navigate this landscape often involve personal compromises and emotional labour, highlighting the need for curricular reform, more female role models, systemic support mechanisms, male allyship, and a shift in organisational culture toward genuine inclusion.
Wang, S. (2024)	The creation of an equitable and inclusive work environment where women can access the same opportunities as men, advance in their careers, and contribute to organizational success.	A multifaceted approach to combat gender bias in the workplace. By adopting comprehensive policies, providing training and mentorship, and fostering inclusive leadership, organizations can create a more equal work environment. The active involvement of both companies and government policies will be essential in ensuring gender equality and improving overall business performance.
Ferm et al. (2021)	The study was conducted at six Swedish upper secondary schools offering the	Female vocational students navigate and gain acceptance in male-dominated industrial workplaces. It identifies three main strategies the girls used to become part of these communities and shape their vocational identities: acting like

Author (Year)	Research Context	Finding and Result
	industrial programme, which is male-dominated, with less than 11% female participation.	gender does not matter, acting like boys (not like drama queens), acting tough and joking around. Despite their efforts to fit in, the girls often faced contradictions—minimizing gender while still encountering gender-based differences. Their strategies reflect both a response to gender prejudice and a desire to construct a strong vocational identity.
Aleksander et al (2023)	Women's Attrition from Male-Dominated Workplaces in Norway	This study reveals that high female attrition rates contribute significantly to labor market sex segregation, even in welfare states with strong support for work-family balance. By using fixed effects models, it rigorously examines key explanations for women's attrition from male-dominated occupations across different occupational classes.
Chieh Ting (2019)	A Case Study Of Feminist Rhetorical Practices In Professional Email Communication In The Automotive Industry	This research explores how women in the male-dominated automotive industry adapt their communication styles to attain leadership roles, blending masculine and feminine rhetorical strategies. It emphasizes the importance of self-discovery in leadership communication and highlights the need for further research to better understand the complexities of women's rhetorical practices in such environments.
Karin et al (2020)	Conditions for workplace learning in gender segregated workplaces in the public sector	The study identifies two distinct and gendered workplace learning environments: a male-dominated setting with supportive conditions that enable learning, and a female-dominated homecare setting with poor conditions that hinder it. These differences reflect underlying gendered power relations and cultural expectations that contribute to unequal opportunities for professional development.
Ankur et al (2025)	Gender Stereotypes and Bias as Depicted in STEM	A systematic literature review on gender stereotypes in STEM textbooks reveals a significant gender imbalance, with consistent underrepresentation of women reinforcing traditional gender roles and limiting student engagement with STEM subjects. While the study highlights the need for inclusive educational materials, its scope is limited by language, database selection, and educational level focus, potentially overlooking culturally specific or emerging insights.
Kumar et al. (2024)	Causes and forms of discrimination experienced by women leading IT projects, and a comparison of their experiences with those of men.	There are five main themes of discrimination experienced by women leading IT projects: gender Bias in Task Assignment, microaggressions and Toxic Work Culture, unequal Access to Resources, micromanagement and Communication Gaps, career Advancement Barriers and Growth Strategies

Author (Year)	Research Context	Finding and Result
Moser (2019)	The presence of male allies can reduce the negative effects of tokenism on women working in male-dominated environments, particularly in the STEM fields (science, technology, engineering, and mathematics).	The presence of male allies significantly reduces the negative effects of tokenism: it enhances perceptions of inclusion, support, and respect, while reducing expectations of stereotype-based evaluation. Male allies are more effective than female allies or non-ally friends. Female allies or friends do not offer significant protective effects.
Iftakhar et al. (2022)	To analyze and document the efforts of the Pakistan Nuclear Regulatory Authority (PNRA) in creating a gender-inclusive work environment, particularly for women working in the nuclear field.	PNRA has demonstrated that highly technical organizations such as nuclear regulators can effectively implement gender inclusion in practice. Women have proven capable of making significant contributions in the nuclear field when provided with support, a safe environment, and equal access to opportunities.
Anwar et al (2021)	The Effects of Harassment of Working Women at Male Dominated Workplace	Results of the Chi-square test show that there is a significant association between harassment and male dominance at workplace. Women's basic rights are exploited due to males' sovereignty in labor markets. Harassment affects the performance of working women and intensifies job dissatisfaction among female workers.
Gaines Janelle (2017)	Women in Male-Dominated Careers	There are various actions companies can take to reduce women's feelings of inequality. One example is to let women manage their own schedules, which can facilitate women's balancing act between work and home. Companies can be more proactive to properly create a system in which women are comfortable and valued in their male-dominated careers. By incorporating some of these measures, women will feel more balanced with their male counterparts in the workplace, thus helping them be more productive to the company, creating a more satisfying and successful workplace experience for all employees.
Jenni Jones (2016)	How can mentoring support women in a male-dominated workplace? A case study of the UK police force	There is little academic research in relation to mentoring, learning and women, particularly in the male-dominated organizational context of the UK Police force. Currently, there is a Home Office drive to address inequality within the UK Police with a number of initiatives proposed including mentoring interventions, flexible working arrangements and positive-action recruitment initiatives. The purpose of this study

Author (Year)	Research Context	Finding and Result
		is to investigate what policewomen mentees and mentors perceive they are learning through formal mentoring over time and how this makes a difference for them in the workplace.
Grace Anak Guri et al (2022)	Female Language Used in a Male-Dominated Workplace in Malaysia	In the modern society today, women are now more progressive and hold a significant role in society due to their contributions. However, several studies have indicated that women are still being looked down upon in the workplace setting due to gender biasness. The paper analyses whether the patriarchal system prevalent in Malaysia had an impact on the language used by females.

Source: data processed, 2025

The research presented in this table sheds light on the complex and often difficult experiences women face in male-dominated spaces. While significant progress has been made in some areas, the persistence of gender biases and the marginalization of women highlight the continued need for proactive measures. The studies underscore the importance of mentorship, inclusive leadership, systemic support, and cultural change in creating environments where women can thrive without having to navigate gendered expectations. Moving forward, these insights call for continuous efforts to break down the barriers of gender inequality, promote gender-inclusive frameworks, and ensure that the next generation of women in these industries and fields have the resources and support they need to succeed.

5. CONCLUSION

This research underscores the deep-rooted gender biases and systemic barriers that women face in male-dominated industries. Despite demonstrating resilience and adaptability, female workers and students continue to be marginalized through discriminatory practices, unequal access to opportunities, and exclusionary workplace cultures. While individual coping mechanisms help navigate these challenges, they are insufficient to drive long-term change without structural support. The evidence calls for a comprehensive and intersectional approach to workplace reform, one that includes inclusive policy-making, organizational culture shifts, stronger representation of women in leadership roles, and the active participation of male allies. Educational reforms, mentorship programs, and access to digital resources are also vital in shaping more inclusive vocational and professional environments. Ultimately, creating gender-equitable workplaces is not only a

matter of fairness but also a strategic imperative that enhances innovation, collaboration, and overall organizational performance.

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