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Leveraging AI for Inclusion of Gender Non-Conforming Employees at The Workplace

Shoma Bakre*[1], Dr. Jireh H.I. Seow[2], Dr. Shital Vakhariya[3]

[1*]Research Scholar, S P Jain School of Global Management, Mumbai, Maharashtra, India
Email ID: shoma.dm22dba014@spjain.org
[2]Associate Professor, S P Jain School of Global Management, Singapore
Email ID: jireh.seowhi@spjain.org
[3]Sr. Manager - Industry Interface Projects, S P Jain School of Global Management, Dubai, UAE.
Email ID: shital.vakhariya@spjain.org

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KEYWORDS

Gender diversity, diversity and inclusion, DEI, gender bias, artificial intelligence, AI, gender nonconforming, GNC

ABSTRACT

Gender non-conforming (GNC) employees face unique challenges, including bias, lack of representation, and inadequate workplace policies. As workplaces strive to foster diversity, equity, and inclusion (DEI), it is imperative to design policies and interventions based on industry best practices so that perpetuation of harmful biases against marginalised groups such as GNC individuals is curbed. This study examines current trends in application of artificial intelligence (AI) in DEI – AI's role in eliminating bias, challenges, and opportunities in creating inclusive environments for GNC individuals in organisations. A literature review of scholarly articles, industry reports and grey literature was done to examine how organisations can eliminate bias in their talent management processes by harnessing the power of AI. The study finds that despite its potential, use of AI technology in DEI initiatives faces serious challenges due to bias in AI algorithms, flawed training datasets, and lack of gender diversity in AI developer teams. Although AI can enhance gender DEI, it can also perpetuate systemic inequities. This makes adoption of AI tools for DEI in organisations potentially more harmful to the prospects of inclusion of GNC individuals. Addressing these challenges is essential for ensuring that technological advancements in AI truly benefit all and remain aligned with the inclusionary goals of gender DEI. AI offers transformative potential and can play a pivotal role in shaping the future of DEI. AI's future in gender equity depends on collaboration among policymakers, technologists, industry and civil society to ensure inclusive and sustainable progress. However, its implementation must be carefully managed to avoid exacerbating inequalities. Stakeholders must prioritize equity and ethics in AI development to harness its full potential for achieving gender equality, which in turn will also ensure equity and inclusion for GNC employees at the workplace.

1. INTRODUCTION

Gender refers to the socially constructed roles, behaviours, and identities associated with being female, male, gender-diverse or gender nonconforming (GNC). It affects how individuals view themselves and others, their interactions, and the allocation of power and resources within society. Although gender is often incorrectly viewed as a binary concept (female/male), it actually encompasses a broad spectrum of identities and expressions that reflect how individuals identify and present their gender (Heidari et al., 2016). This may or may not conform to the sex attributed to them at birth. While many MNCs in India have established DEI policies as part of their mandate, globally it is seen that both implicit and explicit bias of employees strongly impact the acceptance of GNC employees in the workplace (Dray et al., 2020).

AI is reshaping the global economy, decision-making, and daily life through applications in healthcare, education, finance,

and more. The United Nations Sustainable Development Goals (UNSDGs), particularly SDG 5, which emphasize achieving gender equality by 2030, highlights AI as a critical tool for advancing equity in all dimensions (UNSDG, 2024). Despite its potential, AI often inherits and amplifies societal inequalities, including gender bias. Gender DEI aims to create equitable environments, particularly in technology, where women and non-binary individuals are historically underrepresented. With the evolution of hiring practices, businesses are increasingly turning to AI to streamline recruitment processes (Bradford, 2024). However, this transition has also inadvertently created obstacles to diversity, equity, and inclusion. To foster a more inclusive workplace, organizations must emphasize transparency, accountability, and ethical considerations when developing and adopting hiring algorithms. While technological advancements play a crucial role, they alone may not be sufficient to address these challenges.

AI technology plays a dual role in shaping gender DEI: as a tool for advancement and as a challenge to inclusivity (Milne, 2024). AI driven gender-neutral recruitment tools help reduce bias by anonymizing resumes and providing skill-based hiring criteria to ensure equitable hiring processes that focus on merit rather than gender (Gada, 2024). However, these tools also may have in-built algorithmic biases that can lead to the exact opposite outcome (Chen, 2023).

2. RESEARCH PROBLEMS AND QUESTIONS

Through a rapid review of literature, research gaps were identified, from which the following research problems and questions were developed:

Research Questions

- What role can AI play in gender DEI?
- What are the challenges at the AI-DEI nexus?
- What are the opportunities for alignment of AI and DEI?

Research Objectives

- The following objectives have been detailed to answer the above research questions for this study:
- To explore the role that AI can play in gender DEI.
- To identify the challenges at the AI-DEI nexus.
- To ascertain the opportunities for alignment of AI and DEI.

3. SCOPE OF THE STUDY

AI and Gender Bias

This study is concerned with ‘gender’ bias and its impact on inclusion of GNC employees at the workplace and how AI can be leveraged to promote their inclusion. The study is mainly limited to exploring the use of AI for inclusion of GNC individuals in the hiring and talent management process.

The study adopts the World Health Organization's definition of gender as "the socially constructed characteristics of women and men—such as norms, roles, and relationships between groups of women and men," and distinguishes this from 'sex,' which pertains to "the biological and physiological differences between males and females, including reproductive organs, chromosomes, hormones, and other factors" (WHO, n.d.).

4. SIGNIFICANCE OF THE STUDY

The intersection of AI and gender DEI is underexplored in academic research and policy. This study bridges interdisciplinary research, highlighting the implications of AI on sustainable gender equity at the workplace. It offers actionable insights for policymakers, industry leaders, and global organizations aiming to align technological innovation in AI with ethical and inclusive practices.

5. LITERATURE REVIEW

Impact of Bias on inclusion of GNC employees at the workplace

Over the past two decades, empirical psychology research has demonstrated the widespread presence of implicit biases. These biases are generally described as unconscious associations that occur automatically, often beyond our awareness. They can be challenging to regulate and may sometimes contradict an individual’s stated beliefs and values (Holroyd et al., 2017). Studies in empirical psychology have revealed that implicit biases are pervasive. Implicit biases manifest as automatic associations, of which we may be unaware, and hence are difficult to control and may be in variance with our professed world view (Brownstein, 2019).

Colleague perceptions, attitudes, behaviours towards gender nonconforming employees – all influence inclusion of GNC

individuals at the workplace. GNC employees, those who do not identify or express themselves as exclusively male or female, often face significant challenges in the workplace due to the biases and stereotypes held by their colleagues. These biases can manifest in a variety of ways, including negative perceptions, discriminatory attitudes, and exclusionary behaviours (Dray et.al., 2020). Addressing these biases and increasing awareness of GNC identities may be key to creating a more inclusive and supportive workplace for all employees. One study found that GNC employees are often perceived as less competent and less committed to their jobs compared to their cisgender counterparts. The study also found that

GNC employees were more likely to experience discrimination and harassment in the workplace. These biases stem from societal norms and expectations around gender and can have significant negative consequences for GNC individuals' career prospects and overall wellbeing (Davidson & Halsall, 2016). Another study examined the experiences of GNC employees in the tech industry. The study found that GNC individuals often face exclusionary behaviours in the workplace, such as being left out of team activities or being denied promotions or other opportunities. The authors suggest that these behaviours are rooted in implicit biases around gender and may be more common in industries that are traditionally male dominated (Gibson & Fernandez, 2018). The most recent AnitaB.org Technical Equity Experience Survey (TechEES) report found that while the conversation around increased diversity in the technology industry is voluble, the fulfilment of those assurances and claims has been very unsuccessful. Women and GNC technologists and people in the global IT industry continue to have to deal with harassment and discrimination at a significantly disturbing rate (Wilkerson, 2022).

In 2019, landmark amendments were made to the Transgender Persons (Protection of Rights) Act of India that established the constitutional rights of GNC people in the country. It recognised their gender identity and provided for non-discrimination laws across the spectrum of institutional and societal spaces including the family, workplace and education. However, the Act falls short as it discusses legal rights in isolation without any structural support to access them. It lacks the much-required guidelines for substantively accessing these stated rights. This disconnect demotes human rights to purely theoretical legal changes with very limited practical utility. This makes it difficult for GNC individuals to access legal protections against discrimination in the workplace (Bhattacharya et al., 2022).

Advent of AI in the field of DEI

Artificial Intelligence (AI) is revolutionizing various sectors, offering innovative solutions to complex societal challenges including DEI. However, as a reflection of human decision-making, AI systems often inherit biases embedded in their design and application, leading to unintended consequences (UNESCO, 2024). Gender diversity, equity, and inclusion are increasingly recognized as critical to ethical and effective AI development. Simultaneously, the United Nations Sustainable Development Goals (UNSDGs) provide a framework for global equity, with SDG 5 specifically targeting gender equality. Understanding how AI intersects with gender DEI and contributes to achieving the SDGs is a pressing concern for researchers, developers, and policymakers (Buolamwini & Gebru, 2018; Lainjo, 2024).

AI and Gender Bias

One grave issue observed is that AI systems frequently exhibit gender bias due to flawed training data and development processes. For instance, hiring algorithms trained on historical data have disproportionately favoured men, while facial recognition tools often misidentify women and individuals of colour (Buolamwini & Gebru, 2018; Gada, 2024; Albaroudi et al., 2024; Lytton, 2024). The root causes of these biases include underrepresentation in datasets and a lack of diversity among AI developers themselves.

Gender DEI in Tech Development

The tech industry has long struggled with gender disparity, which is mirrored in AI development teams (Gada, 2024; Albaroudi et al., 2024). Diverse teams are shown to produce more inclusive and less biased AI systems. Increasing representation of women and non-binary individuals in AI research is essential to achieving equitable outcomes. The rapid growth of artificial intelligence has led to remarkable advancements, but it has also exposed a critical challenge—the underrepresentation of women and GNC individuals in AI development - creating a significant gender gap in development teams. As AI continues to influence various industries and daily life, incorporating diverse perspectives is not just an ethical responsibility but a technical requirement. Without deliberate efforts toward inclusion, AI systems may reinforce existing biases, hinder innovation, and fail to serve all communities equitably (Bradford, 2024). Diverse teams foster inclusivity and reduce algorithmic bias by introducing varied perspectives during development (Wiggers, 2020). AI systems used in hiring and promotions can perpetuate historical biases if not carefully designed. For instance, datasets reflecting previous male-dominated hiring trends could result in discriminatory recommendations against women and GNC individuals (Milne, 2024).

Challenges in Achieving Gender DEI through Technology

The ethical concerns surrounding AI—such as fairness, trust, bias, and transparency—are critical issues that cause concern. Studies have shown that AI systems can reinforce and even amplify existing biases, particularly in hiring practices. To address these concerns, researchers and policymakers have advocated for the use of “fairness-aware” algorithms that consider demographic diversity and enhance transparency in decision-making (Shams et al., 2023).

Algorithmic bias in artificial intelligence (AI) is an increasing concern, particularly in the employment sector, where it can have profound consequences for both individuals and society. One of the most prevalent forms of algorithmic bias is gender discrimination, which affects various industries, including technology. The underrepresentation of women and GNC individuals in the field of information technology is a well-documented issue, prompting many organizations to prioritize diversity and inclusion efforts (Chang, 2023). However, concerns remain that algorithmic bias in recruitment tools and processes may contribute to gender-based discrimination (Gada, 2024). Historical examples, such as the ones listed below, illustrate the risks of gender bias:

Recruitment Algorithms: As one of the world's leading technology companies, Amazon had taken significant steps to promote inclusivity in the industry. Amazon's hiring tool however exhibited bias against female applicants due to training on predominantly male resumes and was finally discarded (Chang, 2023).

Facial Recognition: Systems from companies like IBM had higher error rates for women and people of colour, reflecting biased datasets. IBM's tool was eventually abandoned due to these alarming issues (Allyn, 2020).

Root causes for such embedded algorithmic errors include incomplete or skewed training datasets and lack of diversity in AI tools development teams, leading to blind spots in design. Forward-thinking businesses are leveraging AI to drive equity, diversity, and inclusion, accelerating gender equality and reducing structural inequities (Munshi & Wakefield 2024). Some key pathways through which AI is supporting inclusion comprise:

Fairer Talent Management – AI, with proper safeguards, helps reduce biases in hiring, promotion, and career mobility by focusing on future potential rather than past experience or career breaks.

Personalized Skill Development – AI-driven learning systems, including generative AI, provide tailored reskilling and upskilling opportunities, addressing skill gaps for underrepresented groups.

Immersive Learning Experiences – AI combined with virtual reality (VR) fosters empathy by allowing individuals to experience the challenges faced by marginalized groups. An example is PwC UK's *In My Shoes* VR training for racial awareness and inclusive leadership.

6. RESEARCH METHODOLOGY

This study employs a qualitative research methodology. Industry reports, academic articles, and pertinent media articles from reputed sources, documenting AI's societal impacts and relevance to gender DEI, were gleaned from EBSCO, Proquest and Google Scholar. Secondary data was collected through a literature review using the rapid review approach, focusing on high-quality, relevant, and up-to-date sources from academic journals, scholarly articles, and grey literature. Influential but older scholarly articles on D&I were included for their enduring insights, theories, and models that contribute valuable perspectives to the research. Grey literature was also incorporated for its current relevance. Additionally, reputable industry reports from respected organizations like Mercer, PWC, McKinsey, IBM, BCG and others were reviewed. Relevant information from annual reports and publications by leading companies in DEI and AI tools providers was also examined for this study.

7. RESEARCH FRAMEWORK

This research evaluates the dual role of AI in promoting and hindering gender diversity, equity and inclusion in MNCs across industry. Based on the research questions and objectives listed in Section 2 above, the following research framework depicted in Figure 1 below, was developed for this study.

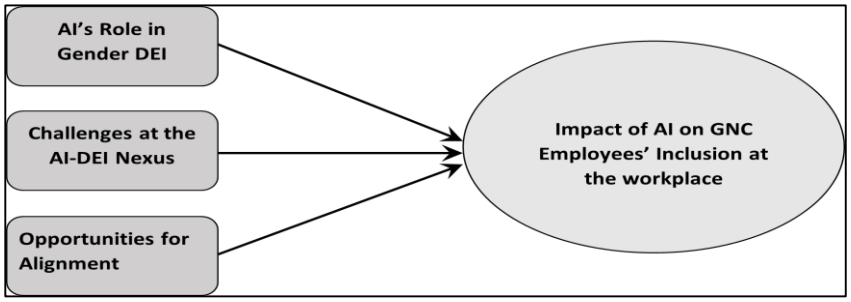

Figure 1. Research Framework

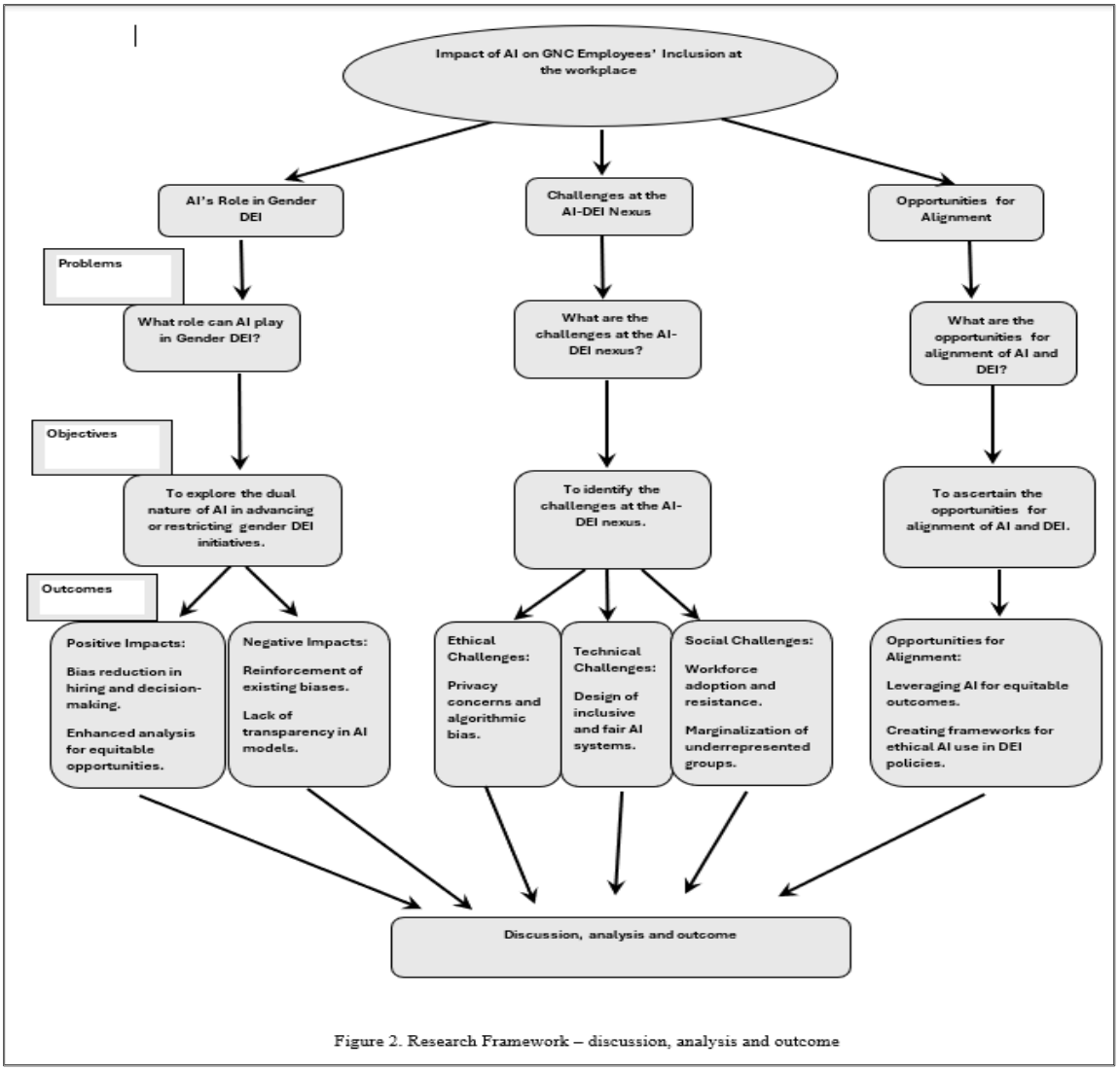

Figure 2. Research Framework – discussion, analysis and outcome

8. DISCUSSION, ANALYSIS AND OUTCOMES

8.1 AI's Role in Gender DEI

AI is increasingly being utilized to address challenges in promoting DEI, especially relating to gender equity in organizational settings. While AI holds promise for advancing gender DEI, by removing bias in areas such as recruiting, evaluation, and promotion decisions, it also introduces risks that must be carefully managed (Gallego et al., 2019). Below is a detailed exploration of the positive and negative impacts of AI on gender DEI.

8.1.1 Positive Impacts

Bias Reduction in Hiring and Decision-Making

One of the most significant contributions of AI to gender DEI is its potential to reduce bias in hiring and workplace decision-making. AI systems can anonymize applicant data by removing personally identifiable information, such as names or gendered pronouns, that might trigger unconscious bias in recruiters or managers. For example, platforms like HireVue use AI to facilitate blind hiring processes, ensuring candidates are evaluated solely based on their skills and qualifications (Raghavan et al., 2020).

Moreover, AI algorithms can screen job descriptions and suggest neutral language to avoid discouraging women or non-binary individuals from applying. Research has shown that women are less likely to apply for positions with gendered or overly aggressive language, such as "competitive" or "dominate". AI tools such as UInclude, Gender Decoder, Ongig, and Applied help check for gender-coded words in job descriptions and suggest neutral synonyms (Derecho, 2024). Textio helps organizations craft inclusive job postings, enhancing the diversity of applicant pools (Curtis, 2019).

Enhanced Analysis for Equitable Opportunities

AI-powered analytics can uncover patterns of inequality within organizations by identifying disparities in pay, promotions, and performance evaluations. By analysing large datasets, AI tools can detect trends that might otherwise go unnoticed, such as women receiving fewer promotions despite similar qualifications or performance compared to their male colleagues (Vorecol, 2024). AI used in tools such as Glassdoor can also help analyse large amounts of data to find gender pay gaps in the workforce. These insights allow organizations to design targeted interventions to close gender gaps (UN WOMEN, 2025).

AI can also assist in tracking the effectiveness of DEI initiatives, providing metrics on inclusivity efforts and their impact on workforce demographics. For example, AI systems can measure employee sentiment through natural language processing (NLP) tools, identifying concerns about workplace inclusivity in real time (Grensing-Pophal, 2024).

8.1.2 Negative Impacts

Reinforcement of Existing Biases

While AI has the potential to reduce bias, it can also unintentionally reinforce existing societal and organizational biases if not properly designed and monitored. AI models are typically trained on historical data, which may reflect inequities such as gender imbalances in hiring, promotion, or pay. For example, Amazon developed an experimental hiring tool that utilized artificial intelligence to evaluate job candidates, assigning them ratings from one to five stars, similar to how customers rate products on its platform. Over time, the system learned to favour male candidates. It reportedly downgraded resumes that included the term "women's", such as in "women's chess club captain," and also lowered the rankings of graduates from two all-women colleges. Amazon discontinued its AI hiring tool after it was found to penalize resumes due to biased training data (Dastin, 2018).

Bias can also manifest in recommendation systems, where algorithms may suggest roles or opportunities to individuals based on traditional gender norms, thereby perpetuating stereotypes. For instance, women may be recommended for administrative or caregiving roles rather than leadership positions, further entrenching occupational segregation (Mehrabi et al., 2021).

Lack of Transparency in AI Models

There is growing public and academic concern about the potential for machine learning systems to reinforce social inequalities and biases. Recent research has increasingly focused on developing algorithmic solutions to evaluate and reduce such biases. However, for these tools to effectively influence industry practices, their design must be guided by a clear understanding of real-world requirements (Holstein et al., 2019).

A critical challenge in using AI for gender DEI is the "black box" nature of many AI models, which makes it difficult to understand how decisions are made. This lack of transparency can erode trust among employees and stakeholders, particularly if AI decisions appear to be biased or unfair (Shin & Park, 2019). For example, if an AI-powered performance review system assigns lower scores to women or GNC employees due to subtle biases in its training data, employees may perceive the system as unfair, undermining its credibility.

The opacity of AI systems also makes it challenging to audit and identify issues, such as biased outcomes or discriminatory practices, in real-time. This can delay corrective action and exacerbate inequalities, particularly for underrepresented groups (Holstein et al., 2019). Ensuring interpretability and accountability in AI models is critical to addressing this issue.

Outcome

The widespread adoption and diverse applications of artificial intelligence (AI) highlight the importance of incorporating inclusivity and diversity into its design and implementation to tackle key concerns such as fairness, trust, bias, and transparency. However, diversity, equity and inclusion are often overlooked in the development and deployment of AI systems. Failing to integrate DEI principles can result in digital redlining, discrimination, and algorithmic oppression, ultimately causing AI systems to be viewed as biased, untrustworthy, and unfair (Shams et al., 2023).

AI plays a dual role in influencing gender DEI, offering both opportunities to advance equity and risks of reinforcing bias (Chen, 2023); Lytton, 2024). While AI can support blind hiring, identify disparities, and measure inclusivity efforts, its effectiveness depends on how it is designed, implemented, and governed. Organizations must adopt ethical frameworks, diverse datasets, and transparent algorithms to maximize AI's positive impacts while minimizing unintended harm.

8.2 Challenges at the AI-DEI Nexus

The intersection of AI and DEI presents unique challenges that must be addressed to harness AI's potential for creating inclusive work environments. These challenges, which are discussed below, span ethical, technical, and social domains, requiring careful consideration to mitigate risks and maximize opportunities.

8.2.1 Ethical Challenges

Privacy Concerns and Algorithmic Bias

AI systems often rely on vast amounts of data to make decisions, raising significant privacy concerns (Taddeo & Floridi,

2018). For example, sensitive information such as gender, ethnicity, or sexual orientation may be inadvertently exposed or misused in algorithmic processes, leading to breaches of confidentiality. Employers must balance the need for data to improve DEI outcomes with respecting employees' right to privacy, which is often complicated by unclear or insufficient data governance frameworks and divergence in interpretation and implementation of ethical principles (Gillham & Spratt, 2023).

Another critical ethical issue is algorithmic bias, where AI systems can replicate and amplify existing societal biases. This occurs when training datasets reflect historical inequities, such as gender imbalances in hiring or wage disparities, resulting in discriminatory outcomes (IBM Data and AI Team, 2025). For instance, recruitment algorithms trained on historical data may favour male candidates for technical roles due to prior hiring patterns, inadvertently undermining gender DEI efforts (Raghavan et al., 2020). Addressing algorithmic bias requires robust mechanisms to identify and rectify discrimination in AI models.

8.2.2 Technical Challenges

Design of Inclusive and Fair AI Systems

Creating AI systems that promote fairness and inclusivity is a complex technical challenge. A significant obstacle is the lack of diverse datasets that accurately represent marginalized groups, leading to models that perform poorly for underrepresented populations (Holstein et al., 2019). For example, facial recognition systems have been shown to exhibit higher error rates for women and individuals with darker skin tones due to imbalanced training datasets (Buolamwini & Gebru, 2018).

Furthermore, fairness in AI often requires trade-offs between competing objectives, such as accuracy versus equity. Designing systems that account for such trade-offs demands interdisciplinary collaboration among data scientists, ethicists, and DEI experts (Fazelpour, 2025). Tools and techniques for bias mitigation, such as re-weighting data or post-hoc fairness adjustments, are available but require careful application to avoid unintended consequences, such as reducing opportunities for certain groups (Mehrabi et al., 2021).

8.2.3 Social Challenges

Workforce Adoption and Resistance

As algorithm-based services increase, social topics such as fairness, transparency, and accountability (FAT) are becoming increasingly important subjects of research in this area (Shin & Park, 2019). AI-driven DEI initiatives often encounter resistance from employees due to concerns about transparency, accountability, and job displacement. Employees may view AI as a "black box" that makes decisions without clear justification, leading to mistrust in its ability to support equitable outcomes. Resistance is particularly pronounced when employees fear that AI may replace their roles or undermine their expertise, creating friction in the adoption process (Huang & Rust, 2018).

To overcome resistance, organizations must foster a culture of transparency by providing employees with clear explanations of how AI systems work and ensuring their voices are included in the design and implementation processes. Building trust in AI models and implementations is critical for achieving workforce buy-in and realizing the potential benefits of AI in DEI (Sanders & Commisso, 2024).

Marginalization of Underrepresented Groups

AI systems can inadvertently marginalize underrepresented groups if their specific needs and experiences are not adequately considered during development. For instance, AI-powered performance management tools may overlook the unique challenges faced by individuals from marginalized communities, such as microaggressions or lack of access to mentoring opportunities. Similarly, AI systems designed without input from diverse stakeholders may reinforce existing inequities, further alienating these groups (Anderson et al., n.d.).

To address this challenge, organizations must adopt participatory design approaches that actively involve underrepresented groups in the development and evaluation of AI systems. This ensures that their perspectives are reflected in AI models and prevents the perpetuation of structural inequities (IBM Data and AI Team, 2025).

Outcome

Addressing the ethical, technical, and social challenges at the AI-DEI nexus requires a multi-faceted approach that combines robust data governance, inclusive AI design, and transparent implementation strategies. By proactively tackling these challenges, organizations can leverage AI to advance gender DEI while minimizing risks and fostering trust among all stakeholders (Anderson et al., n.d.).

Opportunities for Alignment

8.3.1 Leveraging AI for Equitable Outcomes

AI has the potential to significantly enhance gender DEI by reducing bias and promoting equitable outcomes across

organizational processes. For instance, AI-powered recruitment tools can anonymize candidate information to prevent gender bias in hiring decisions, ensuring a fairer evaluation process (Albaroudi et al., 2024). Machine learning algorithms can also identify disparities in employee compensation, promotion rates, and performance evaluations, enabling organizations to address systemic inequities. Additionally, AI can provide real-time feedback and personalized recommendations for employees, fostering inclusive practices and equitable professional development opportunities (Munshi & Wakefield 2024).

By leveraging predictive analytics, organizations can proactively address trends that may negatively impact gender diversity, such as attrition among underrepresented groups, thus creating more supportive environments (O'Connor, 2024). However, the success of these applications depends on the design, training, and governance of AI systems to minimize unintended biases. To sum up, there is a lot of work to do and a clear call to action to get more women and gender diverse individuals involved in AI and more leaders involved in the opportunities AI offers to accelerate their inclusion and progression.

8.3.2 Creating Frameworks for Ethical AI Use in DEI Policies

To align AI development with DEI objectives, it is essential to create robust frameworks for ethical AI implementation. Such frameworks must prioritize transparency, accountability, and inclusivity in the design and deployment of AI systems. Transparency involves making AI decision-making processes interpretable and accessible to all stakeholders, ensuring that outcomes are explainable and justifiable (Floridi et al., 2018).

There is a global convergence emerging around five ethical principles namely - transparency, justice and fairness, non-maleficence, responsibility and privacy (Jobin et al., 2019; Binns, 2018). Accountability requires mechanisms to audit and monitor AI systems for compliance with ethical and DEI standards, such as periodic bias assessments and fairness evaluations. Integrating these principles into DEI policies and establishing clear guidelines for the ethical use of AI in workforce planning, talent management, and decision-making are imperative. These frameworks not only enhance organizational fairness but also build trust among employees and stakeholders, strengthening the overall impact of DEI initiatives. Furthermore, inclusivity in AI development demands diverse datasets and collaborative approaches involving stakeholders from underrepresented groups to mitigate the risks of bias and exclusion (Mehrabi et al., 2021).

Outcome

The integration of AI into gender DEI initiatives presents a powerful opportunity to drive equitable outcomes across organizations. As stated earlier, by leveraging AI-driven tools, companies can reduce bias in recruitment, compensation, and professional development, fostering more inclusive workplaces. However, the effectiveness of AI in DEI depends on responsible design, governance, and ongoing oversight to minimize unintended biases (Munshi & Wakefield 2024).

Establishing ethical AI frameworks that prioritize transparency, accountability, and inclusivity is essential for aligning AI with DEI objectives. Organizations must adopt rigorous monitoring mechanisms and engage diverse stakeholders in AI development to ensure fairness and mitigate risks of exclusion (O'Connor, 2024). By embedding ethical AI principles into DEI policies, organisations can not only enhance workplace equity but also build trust and strengthen their broader commitment to diversity, equity, and inclusion.

Key challenges include addressing algorithmic transparency, mitigating biased outputs, and ensuring that AI systems respect human rights. Designing gender-sensitive AI systems and increasing stakeholder collaboration offer pathways to equitable and sustainable AI deployment (Munshi & Wakefield 2024).

9. THEORETICAL CONTRIBUTION AND PRACTICAL IMPLICATIONS

This study makes a theoretical contribution by adding to the body of knowledge in the field of DEI. It highlights the existence of gender bias in organisations in India and globally and explores the role and impact of AI in eliminating bias when used in DEI tools. This study has explored the dual nature of AI in advancing or restricting gender DEI initiatives. It has analysed specific mechanisms through which AI impacts gender inclusion, equity, and diversity. It investigates the broader implications of AI adoption on ethical decision-making, technical implementation, and social equity. The study reveals that despite its potential, technology in DEI initiatives faces challenges, such as bias in AI algorithms, digital access inequalities, and the potential for surveillance or breach in DEI data collection, to name a few. It highlights that addressing these issues is essential to ensure that technological advancements truly benefit all segments of society and remain aligned with the goals of DEI.

The study also reiterates the need for policymakers to develop global standards for equitable AI, implement regulatory frameworks to prevent bias in AI systems, and incentivize gender-diverse teams in tech development. This study further demonstrates the need for industry to integrate diverse voices into AI development teams and leadership roles, adopt DEI best practices in AI design processes, and regularly audit AI tools for unintended biases. Finally, the study highlights the need for academia to expand interdisciplinary research on AI ethics, gender equity, and societal impact; promote partnerships between universities, industries, and advocacy organizations; and collaborate with industry and policymakers to address research gaps.

10. LIMITATIONS AND FUTURE SCOPE OF RESEARCH

This study relies only on secondary data, which is a limitation. This study has also taken a generalised approach to analyse the role and impact of AI on DEI and inclusion of GNC individuals at the workplace. Future studies could further augment and corroborate the findings of this study through quantitative research on the same topic. Future studies could focus on the use of AI for the purpose of inclusion of GNC employees at the workplace and pursue in-depth research on one or more specific areas such as recruitment, hiring, retention, assimilation, career development and advancement in a specific industry or geography. Future research should also look at the changes that industry will adopt due to the recent stance taken by the USA under the leadership of President Donald Trump, on recognising only two genders and withdrawing support to DEI initiatives (Ostrager et al., 2025). Big technology companies such as Meta and Amazon have already disbanded their DEI teams. The ripple effects of these developments need to be carefully studied to understand the ensuing repercussions on DEI and GNC employees in workplaces in India and across the globe.

11. CONCLUSION

AI will play a pivotal role in shaping the future of equity and sustainability. Ethical AI development, coupled with targeted policies, can help achieve inclusive and equitable progress. AI is a double-edged sword, while it can enhance gender DEI and support SDG 5, it can also perpetuate systemic inequities. It is important to explore the scale of concerns about AI that need to be addressed before it can be considered an optimal tool in the quest for greater workplace inclusion of GNC employees. Some of the problems in AI are so fundamental that, if not addressed urgently, there is a risk that they could contribute more toward gender inequity. If AI is to truly meet the future needs of society, more balanced gender representation in its design will be critical to mitigating the perpetuation of unintended and embedded biases. Lack of transparency and accountability is another critical problem. AI algorithms depend on the quality of data used to train the AI model. All too often, AI models effectively operate as a “black box” whose decisions are not widely understood. This makes bias much harder to spot and address, and results in a serious trust deficit. Research has shown that AI systems can entrench and even exacerbate existing biases in areas such as criminal justice and recruitment, which can have dangerous consequences.

AI's future in gender equity depends on collaboration among policymakers, technologists, and civil society to ensure inclusive and sustainable progress. Stakeholders must prioritize equity and ethics in AI to harness its full potential for achieving gender equality, which in turn will also ensure equity and inclusion for GNC employees at the workplace. While AI offers transformative potential, its implementation must be carefully managed to avoid exacerbating inequalities.

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