THE GENDER PAY GAP IN THE TECHNOLOGY SECTOR IN THE UK : **A SYSTEMATIC LITERATURE REVIEW**

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INTRODUCTION

The gender pay gap is a problem across the world, even in the UK. This indicates structural inequalities in pay and career advancement (World Economic Forum, 2023; Office for National Statistics, 2023). This gap is evident in the UK's technology sector, an evolving field where diversity plays a crucial role. Despite efforts to foster inclusion, women remain underrepresented in technical and leadership roles, and wage disparities persist (Tech Nation, 2022; WISE, 2023).

This literature review critically examines the gender pay gap in the UK tech industry, focusing on occupational segregation, leadership barriers, and the effectiveness of organisational and legislative strategies. It also explores how these dynamics intersect with diversity and inclusion efforts in high-value and senior roles (WISE, 2023).

The review consists of a methodology section, a Literature Review, a critical analysis of the Literature, future directions, and a Conclusion. This focused analysis examines the persistent gender gap in the UK tech sector, aiming to raise awareness of ongoing gender inequality and inform future research and policy.

METHODOLOGY

This literature review adopts a systematic literature review (SLR) approach guided by Boza's (2022) six-step framework:

(1) defining the research scope,
(2) identifying relevant literature,
(3) coding the data,
(4) developing a conceptual schema,
(5) analysing research, and
(6) writing the review.

This review only uses secondary sources and publicly available data on the gender pay gap in the UK technology sector, ensuring methodological transparency, consistency, and replicability throughout the process.

Key search terms included: "Gender Pay Gap UK", "Women in Tech UK", and "Pay Inequality in Technology". Sources were retrieved from academic databases, including Google Scholar, JSTOR, and the ACM Digital Library, as well as grey literature and reports from the Office for National Statistics (ONS), Tech Nation, and WISE.

Inclusion criteria: peer-reviewed studies and credible industry reports (2015 and 2024) written in English and focused on the UK tech sector. Exclusion criteria: non-UK studies, non-technology sectors, and opinion pieces lacking empirical evidence.

Data related to occupational segregation, leadership disparities, and organisational interventions were analysed thematically. This method provides analytical depth and rigour, thus enabling a focused and critical exploration of the literature (Paul and Criado, 2020).

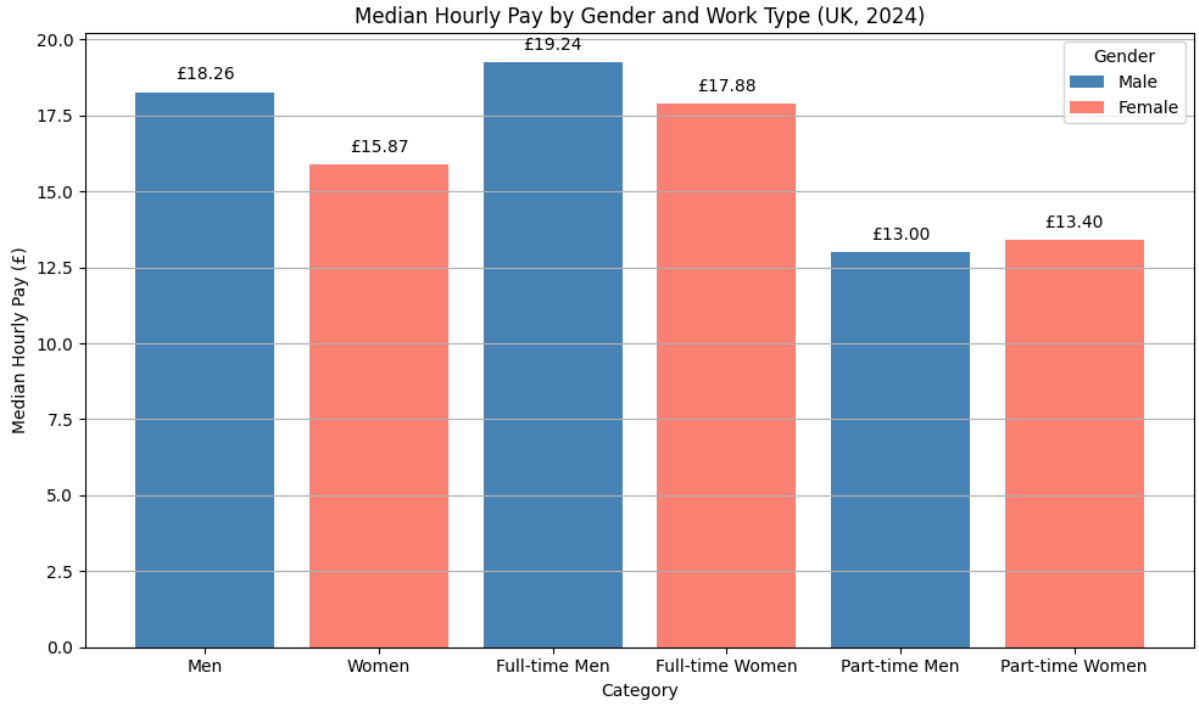
LITERATURE REVIEW / KEY IDEAS

1. UNDERSTANDING THE GENDER PAY GAP

The gender pay gap is the difference in average pay between men and women, typically expressed as a percentage of men's earnings. It is measured in several ways; the Office for National Statistics (2023) uses both mean and median hourly pay to identify systemic differences.

The UK's median gender pay gap was 14.3% in 2023, highlighting ongoing disparities despite legislative efforts like the Equality Act 2010 and mandatory gender pay reporting introduced in 2017. Over time, the gap impacts women's total earnings, their financial stability and pension contributions (Fawcett Society, 2023).

Globally, progress remains slow. At current rates, closing the gender gap may take over a century to achieve. The UK fares moderately well in global rankings but continues to lag in gender equity in high-growth, high-income sectors such as technology (World Economic Forum, 2023).



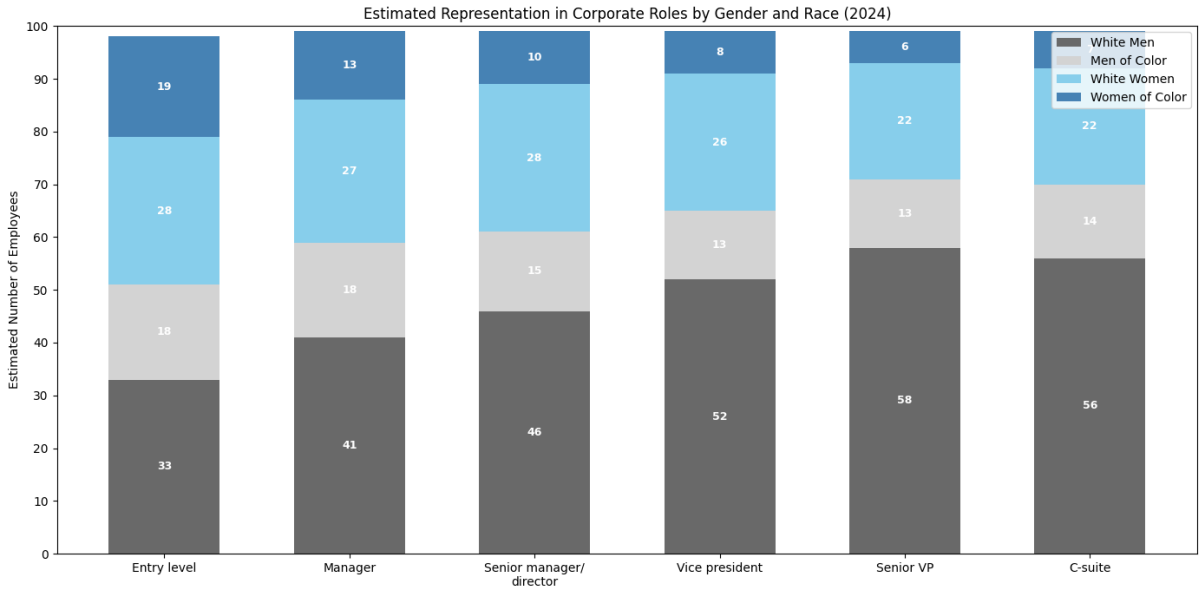
Source: Office for National Statistics (ONS), 2024.

The chart depicts wage discrepancies between full-time and part-time employment categorised by gender. The data indicates that the median hourly wages for males are £19.24, but for women, they are £17.88.

Women who work part-time earn more than men. This requires further investigation, as it may reflect women in high-paid part-time roles in healthcare, education, specialised consulting, etc., or seniority within these part-time roles (ONS, 2024).

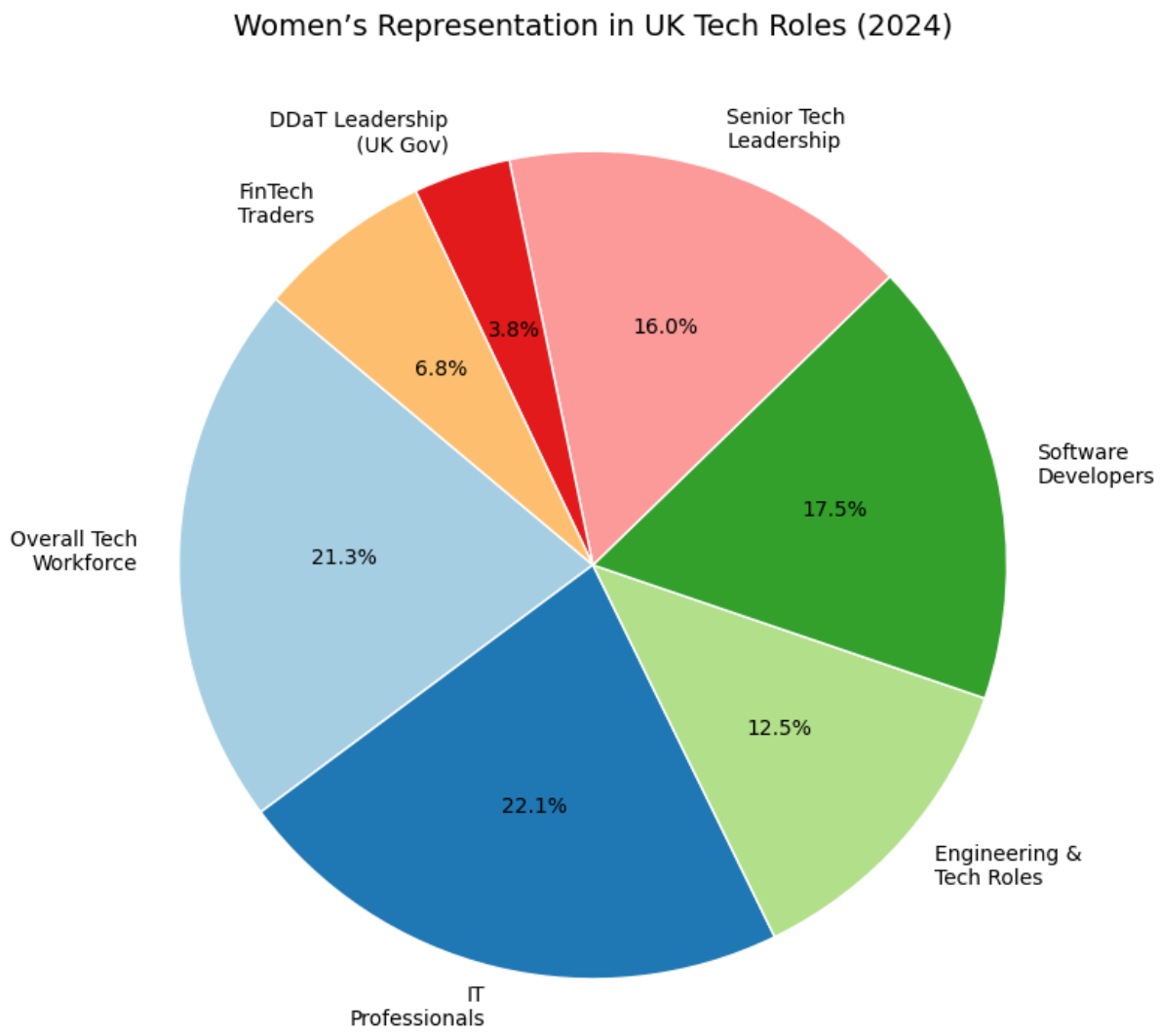
2. OCCUPATIONAL SEGREGATION AND LEADERSHIP DISPARITIES IN UK TECH

There is a gender gap in the UK's technology sector, which is a key part of the country's innovation. Women only make up 26% of the tech workforce, and their representation in leadership and key technical roles is even lower, according to Tech Nation (2022). WISE (2023) continues to reveal an underrepresentation of women in the engineering and computing sector.



Source: Adapted from McKinsey & Company, Women in the Workplace 2024.

A stacked bar chart showing the drop-off in the number of women – and particularly women of colour – as corporate status rises. Though entry-level jobs are balanced, white men outnumber women at more advanced ranks, including vice president and C-suite. The figure highlights the persistent challenges faced by women and ethnic minorities in advancing through the corporate pipeline.



Source: *Compiled from WISE (2023), Tech Nation (2022), and UK Gov DDaT data.*

This pie chart illustrates the percentage of women in various technical jobs in the UK, indicating that women are underrepresented. Women make up 22.1% of IT workers and 21.3% of all tech workers. However, involvement decreases substantially in senior leadership (16%), FinTech trading (6.8%), and DDaT leadership roles in government (3.8%).

These variations indicate systemic barriers to entry, retention, and advancement. Women, particularly those in technical and leadership positions, are systematically excluded from strategic activities and decision-making processes that are critical for career advancement.

Occupational segregation contributes to this disparity by channelling women into lower-paid, non-technical roles such as HR and marketing rather than core engineering or data roles. This horizontal and vertical segregation restricts career progression and earnings (Paul & Criado, 2020; McKinsey & Company, 2020).

Barriers to leadership are caused by a lack of role models, unconscious bias in promotion, and a narrow network. Unconscious bias may influence promotion decisions, considering women as less technically proficient or less dedicated after maternity leave (McKinsey & Company, 2020). Tech Nation (2022) reported that just 19% of tech leadership roles are held by women, even considering the increasing realisation of the importance of gender diversity.

Structural and cultural impediments perpetuate this cycle, which drives down the visibility, sponsorship, and advancement of women at the senior leadership level. For women, this means higher dropout rates and reduced access to leadership, especially at the junction of their identities (McKinsey & Company, 2020).

3. CONSEQUENCES OF THE GENDER PAY GAP

- **Individual Impact:** Women in technology often face long-term financial disadvantages, as well as higher rates of burnout and career stagnation (McKinsey & Company, 2020).
- **Organisational Impact:** According to McKinsey & Company (2020), companies with low gender representation have lower levels of creativity and higher rates of attrition.
- **Societal Impact:** In addition to the individual and institutional relevance, the continued presence of the gender pay gap affects society more broadly, hindering efforts to achieve overall equity (World Economic Forum, 2023) and reducing economic efficiency.

4. ORGANISATIONAL AND LEGISLATIVE STRATEGIES

- **Pay Transparency:** Although required reporting has raised awareness, its efficacy is constrained in the absence of enforcement (Paul and Criado, 2020).
- **Gender Pay Reporting:** These mechanisms highlight disparities, but without clear leadership accountability or legal enforcement, they often fail to drive meaningful change (Paul & Criado, 2020; McKinsey & Company, 2020). Voluntary schemes tend not to have teeth, so progress is slow. Instead, mandatory reporting with enforcement and fines, such as Iceland's law requiring a legally binding pay equity certification, has proved more effective. The UK does not have an equivalent, which could restrict the impact of its existing policy measures.
- **Mentorship and Sponsorship:** Evidence shows that these strategies can improve progression, yet access remains unequal (McKinsey & Company, 2020; WISE, 2023).
- **Diversity and Inclusion Policies:** Tech Nation (2022) highlights significant variation in firms' approaches to D&I, which suggests that inconsistent organisational commitment may contribute to uneven outcomes across the sector.

LITERATURE CRITICAL EVALUATION

1. STRENGTHS IN CURRENT LITERATURE

The literature review revealed a substantial depth in exploring gender inequality at larger tech firms, grounded in the ONS, Tech Nation, and McKinsey datasets. These resources are helpful for salary ranges, management ratios, and the role balance of women (ONS, 2023; Tech Nation, 2022; McKinsey & Company, 2020).

One asset here lies in the growing attention to intersectionality, although this remains underdeveloped. Paul & Criado (2020) emphasise the importance of multilevel analysis, yet many studies continue to report data in the aggregate, which often provides only a superficial understanding.

2. MIXED EFFECTIVENESS OF ORGANISATIONAL INTERVENTIONS

Research shows interventions vary in effectiveness. McKinsey & Company (2020) argues that mentorship is an effective technique, especially when combined with sponsorship. Other studies suggest that these programs often fail to work effectively in places where leaders are not held accountable for ensuring inclusive participation (WISE, 2023). These programs are particularly vulnerable in environments where leadership lacks accountability, which limits their long-term impact.

Mandatory pay transparency has also made people more aware, although its results in closing the gap between fundamental wage differences have been mixed. Some academics argue that transparency alone may reveal problems without addressing them unless accompanied by legally mandated action plans or penalties (Paul & Criado, 2020).

3. GAPS IN SECTOR COVERAGE AND ORGANISATIONAL CULTURE

Most of the literature focuses on large firms rather than small and medium-sized enterprises (SMEs), which are still under-researched. This significant gap raises concern about generalising findings because larger firms are more likely to have formalised HR structures and D&I policies that may fail to capture informal cultures, resource constraints, and agility in smaller tech scale-ups or startups. It is crucial to gain insights into how gender equity programmes operate or fail to operate in these smaller environments for sector-wide change.

Additionally, we lack many studies that critically examine how company culture, informal networks, or performance evaluation criteria may disadvantage women. These less quantifiable variables are often overlooked but have a significant impact on promotions. The absence of these domains highlights an important area of the evidence base that requires further exploration by future research.

4. POST-PANDEMIC WORK AND THEORETICAL UNDERPINNING

There is also limited exploration of the impact of pandemic-driven hybrid and remote work on gendered career trajectories. Initial evidence suggests that hybrid arrangements offer increased flexibility but reduce the number of women in core decision-making spaces, especially where cultures prioritise presenteeism.

In addition, despite the abundance of empirical accounts, most of the evidence is theoretically tacit. The addition of Human Capital Theory would facilitate the examination of whether differences in ability, experience, or structural bias contribute to inequality.

Alternatively, Feminist Organisational Theory or Glass Ceiling Theory could offer radical theories through which systemic exclusion from leadership flows could be addressed. Adding such models would not only explain the persistence of inequity but also aid in the formulation of more effective interventions.

FUTURE DIRECTIONS

Future work should investigate longitudinal data to examine the longer-term effects of pay transparency, gender reporting, and cultural interventions in the UK tech industry. Monitoring career progress, attrition, and promotions over time will provide concrete evidence of which tactics yield systemic change (McKinsey & Company, 2020).

There is also a need for a more granular, intersectional analysis. Research must go beyond gender binaries and include dimensions such as race, disability, sexual orientation, and socioeconomic background to produce more inclusive policy insights. The literature offers limited insight into SMEs and startups, despite their significant presence in the UK tech sector. Future studies should focus on these organisations to understand how limited resources and informal cultures affect pay equity efforts (Tech Nation, 2022). Future studies could also explore the role of emerging technologies such as artificial intelligence, in recruiting and their capacity to either alleviate or exacerbate wage gaps.

Furthermore, there is a need for more qualitative research that will better inform us about the everyday life experiences of women in tech, particularly in the context of workplace cultures, career barriers, and informal power structures. By supplementing numbers with narratives, organisations can gain a deeper understanding of systemic inequities and develop more nuanced and adaptive organisational practices.

Policy development should be accompanied by evaluation tools to assess the actual impact of diversity and inclusion (D&I) strategies. Drawing on insights from the literature, key policy recommendations include stricter enforcement of pay reporting rules, publicly funded mentorship schemes, and rewards for companies that demonstrate sustained progress (WISE, 2023).

By focusing and refining the analysis along these dimensions, new research can better inform inclusiveness in growth, public policy, and evidence-based industry strategies.

CONCLUSION

This literature review examines the gender pay gap within the UK tech sector, occupational segregation, barriers to leadership, and the role of organisational and legislative interventions. These discrepancies are only compounded by cultural prejudices and the lack of mentorship that restricts women from high-end roles.

The literature reviewed here offers strong descriptive insights, particularly for large firms, providing a sharp contrast to theoretical development, intersectional analysis, and the representation of small and medium-sized enterprises (SMEs). Although current interventions offer potential, they present a disparate and incompletely assessed impact across different organisational sizes, structures, and sectors within the broader tech ecosystem.

Gender pay parity is crucial for promoting fairness and equity for both individuals and businesses, as well as for enhancing national productivity and innovation. In closing, fostering a gender-equitable tech sector is not only a moral imperative but also essential for sustained innovation, productivity, and long-term economic resilience.

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