

Women in Leadership: How to Break the Glass Ceiling in Business

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Abstract: This research study examines "Women in Leadership: How to Break the Glass Ceiling in Business." This paper examines the barriers women encounter in leadership and presents solutions to break the glass ceiling using proven theories and actual facts. Leadership development programmes help women overcome gender prejudice, according to our research. The report also emphasizes the importance of supportive workplaces in gender diversity in leadership. These results have major consequences for organizations, society, and politicians, enabling a more inclusive and equitable future. We encourage our readers to use this information as a call to action, a resource for genuine change, and a path for leadership equality and diversity in business and beyond.

Keywords: Glass Ceiling, Leadership Development, Women in Leadership, Social Role Theory, Gender Equality, Supportive Work Environments, Diversity and Inclusion, Expectation States Theory, Organizational Culture

1. Introduction

Women have shown again and again that they can be excellent leaders, innovators, and achievers in today's rapidly changing corporate environment. In spite of this, on the cusp of a new decade, the glass ceiling still casts a long shadow over the business world. For decades, this invisible but unbreakable barrier has stymied the efforts of innumerable intelligent women, stopping them from climbing the corporate ladder and reaching the highest levels of leadership in the commercial world.

When it comes to gender equality in leadership roles, the glass ceiling is more than just a metaphor. It is a real, tangible obstacle that has persisted for decades. Its presence begs basic issues about the underlying meritocratic values, diversity, and fairness in the business sector. A mystery that threatens the fundamental foundations of our societies' values and beliefs, this phenomena has not been fully explained despite significant advances in recent years [1].

This paper is an exploration of the many facets of gender inequality in the workplace, with a special emphasis on the obstacles women experience in breaking through the glass ceiling and rising to positions of leadership. Our goal is to find a path forward towards a more diverse and inclusive corporate environment by investigating the root causes, cultural barriers, and consequences of this phenomena.

It's difficult to emphasize this topic's importance since its effects go well beyond the realm of business and permeate all of society and the economy. We will begin by reviewing the historical background of women's fights for workplace equality and equal respect. We will also look at the connections between the glass ceiling and larger cultural prejudices, as well as the many ways in which it is still a problem in modern organizations (such as uneven pay and access to CEO positions) [2].

Additionally, the purpose of this study article is to highlight the significant contribution made by women in leadership positions. Women's underrepresentation in executive positions hinders economic growth because it prevents companies from benefiting from a range of viewpoints, kills off creativity, and reinforces harmful gender stereotypes.

We'll discuss some of the efforts and techniques that have been put up to break the glass barrier and increase the representation of women in positions of power in order to begin resolving these issues. Insights into the transformational potential of diversity and inclusive leadership will be provided via the analysis of case studies and effective practices [3].

This study's ultimate goal is to promote a profound change in the corporate world by calling for a rethinking of what it means to be a leader, for a greater emphasis on personal potential, and for the elimination of the glass ceiling. As we delve deeper into the complexities of women in leadership and the persistence of the glass ceiling, we invite you to join us in a compelling exploration of the challenges, potential solutions, and bright future that awaits when women are finally able to break the glass ceiling and lead with excellence, influence, and equality in the business world [4].

2. Literature Review

The persistent lack of female representation in high-level managerial roles and the presence of an invisible barrier preventing their advancement, often known as the glass ceiling, have been focal points of interest for researchers, professionals, and decision-makers.

Theories and Models of Gender and Leadership

1. Social Role Theory: Eagly and Wood (2012) proposed the Social Role Theory, which asserts that societal norms and preconceived notions about gender roles influence the perception of leadership capabilities. This theory posits that traditional gender norms often attribute attributes associated with collaboration and empathy to women, while ascribing qualities linked to assertiveness and independence to males. Gender norms have effect on the assessment of leadership capacity [5].

2. The Glass Ceiling and Labyrinth Models: The glass ceiling, as described by Morrison et al. (1987), refers to an intangible obstacle that hinders women from reaching high-level leadership roles. In addition, Eagle and Carli's (2007) labyrinth model depicts the intricate and convoluted journey that women must undertake in order to attain high-level leadership positions.

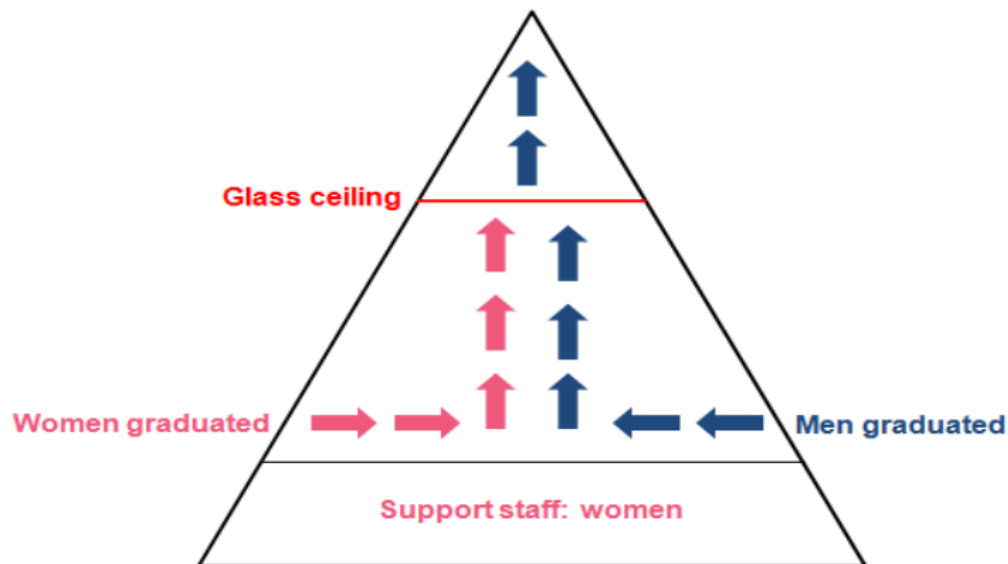


Figure 1: Concept of Glass Ceiling

3. The Expectation States Theory: The hypothesis proposed by Berger et al. (1972) highlights that people are assessed according to the expectations generated by social categorizations, such as gender. The theory suggests that when women challenge traditional gender expectations by pursuing positions of leadership, they may encounter opposition from their peers and supervisors [6].

Obstacles to the Progress of Women

1. Gender Bias and Stereotyping: Various studies, such as those conducted by Heilman (2001) and Rudman and Glick (2001), have emphasized the widespread presence of gender prejudice and stereotyping in the workplace. These prejudices have an impact on the assessments, prospects, and advancements of women, hence leading to the existence of a barrier that limits their upward mobility known as the glass ceiling.

2. The Impact of Work-Life Balance on the Disadvantages Faced by Mothers in the Workplace: Studies conducted by Chaturanga, 2021 [5] and [6] provide evidence of the "motherhood penalty," which refers to the negative effects experienced by women in their professions after becoming mothers. These effects are attributed to the perception of conflicts between work and home obligations.

3. Guidance and Advocacy: The models suggested by Ragins and McFarlin (1990) highlight the significance of mentoring and sponsorship in the professional advancement of women. These interpersonal connections may assist women in surmounting obstacles and attaining access to advantageous circumstances [7].

Efforts and Approaches to Overcoming Gender Inequality in the Workplace

1. Efforts to Promote Diversity and Inclusion: Many organisations have adopted diversity and inclusion initiatives, such as quotas, targets, and diversity training, to enhance gender diversity in leadership positions. The report "Pyramid: Women in S&P 500 Companies" (2020) by Catalyst demonstrates the efficacy of these measures.

2. Groups for Empowering Women and Building Professional Connections: Lean In Circles and women's networking organisations have become popular forums for women to provide mutual support, share ideas, and enhance self-assurance, drawing inspiration from Sheryl Sandberg's book "Lean In" [7,8].

3. Programmes focused on training and developing female leaders: Multiple scholarly investigations, such as those conducted by Raggins (1997) and Coughlan and Gabriel (2013), examine leadership development initiatives tailored for women. These programmes aim to provide women with the necessary skills and knowledge to overcome barriers to advancement in their careers [8].

Summary

This literature review highlights the complex and diverse characteristics of the glass ceiling phenomenon in the corporate world, including ideas such as Social Role Theory, the glass ceiling theory, and the labyrinth model. Furthermore, it delves into the many obstacles that women encounter, such as gender prejudice and the negative impact of parenthood on their careers, and suggests tactics and programmes to foster gender diversity in leadership positions. Subsequent studies should persist in investigating these matters and evaluating the efficacy of solutions in dissolving the barrier that prevents women from advancing in their careers, eventually leading to a fairer and more diverse corporate environment.

3. Methodology

The purpose of this study is to examine what helps and what hinders women's progress towards and achievement of executive positions in business.

Methods of Research:

At the initial stage, this research study is going to execute the literature analysis of the studies done on women in leadership positions and the glass ceiling. In the next stage, find existing explanations for the phenomena that have been illustrated below.

- Leadership attributes may be seen differently depending on the observer's gender, according to the Social Role Theory.
- These models, such as the Glass Ceiling and the Labyrinth, show the subtle obstacles women encounter in reaching the highest levels of leadership.
- According to the Expectation States Theory, people are judged in accordance with preconceived notions of how they should behave depending on their gender.

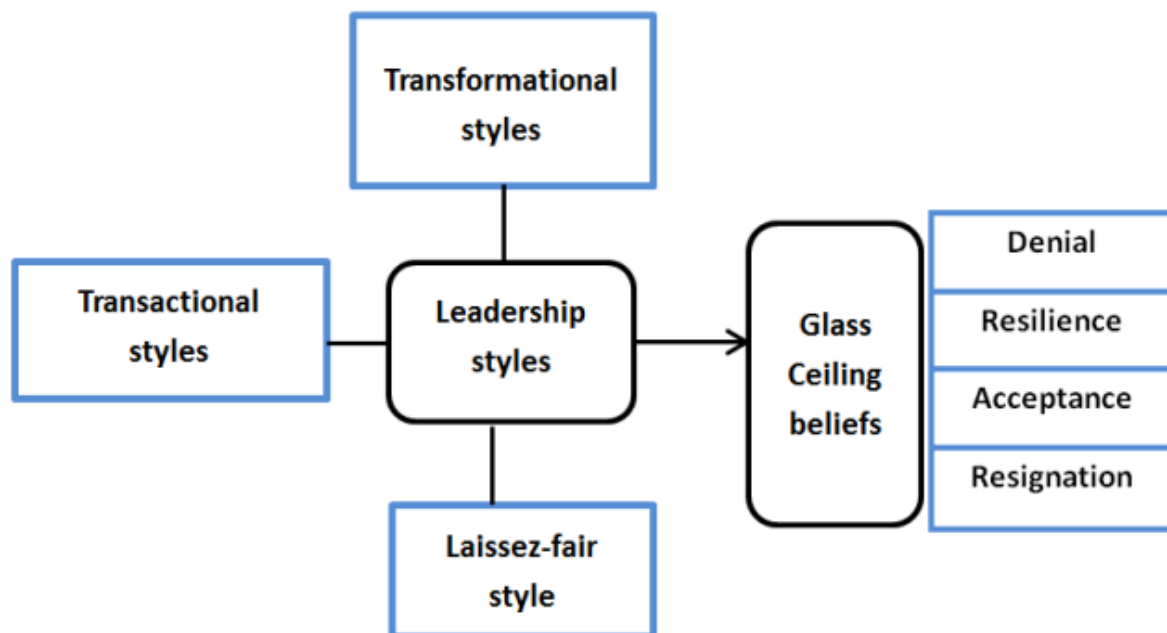


Figure 2: Conceptual Framework

Data Collection: Utilise questionnaires and in-depth interviews to compile both quantitative and qualitative information pertaining to women in management roles and their perspectives.

Here, for this research paper, the variables are:

- **LP, or Leadership Position:** It is a binary variable with two possible values: 0 for being in a leadership position and 1 for being in one.
- **Expertise in Years (YE):** a Continuous Metric.
- **Leadership Training (LT):** Binary variable representing whether or not a person has had training in leadership (0 for no training, 1 for training).
- Perceived bias towards women and men (GBP) on a seven-point Likert scale.
- SWE (Supportive Work Environment): Binary (0 for no, 1 for yes) variable.

Clean and preprocess the gathered data, accounting for missing values and outliers. In order to construct a new variable representing leadership expertise (LE), multiply the Years of Experience (YE) by the Leadership Training (LT) variable.

Quantitative Research:

Expressions in Mathematics:

Standard deviation of leadership experience (\bar{LE}): $[\bar{LE} = (1/N) \sum_{i=1}^N (YE_i \text{ times } LT_i)]$

Leadership Experience (LE) and Perceived Gender Bias (GBP) Have a Positive Correlation, according to Pearson's Test.

Using the following formula:

$$r = [(\sum_{i=1}^N (GBP_i - \bar{GBP})(LE_i - \bar{LE})) / [\sqrt{\sum_{i=1}^N (GBP_i - \bar{GBP})^2} * \sqrt{\sum_{i=1}^N (LE_i - \bar{LE})^2}]$$

Supportive Work Environment (SWE) and Leadership Positions (LP) are modelled using logistic regression as follows:
 $[\log((p)/(1-p)) = \beta_0 + \beta_1 \text{ times SWE}.$

Hypothesis Testing: Use hypothesis testing to confirm or disprove theories about:

Leadership experience (H1): positively correlated with gender bias perception.

Hypothesis 2: People who work in an encouraging atmosphere are more likely to rise to leadership roles.

In order to evaluate whether there is a positive correlation between Leadership Experience (LE) and Gender Bias Perception (GBP), we must interpret the data. Examine the data from the logistic regression to find out whether being in a positive work environment is correlated with being in a leadership role [9].

In light of the findings, suggest steps that businesses and governments may take to encourage more women to assume leadership positions. In order to shed light on the perplexing problem of women in leadership roles and the business glass ceiling, this study employs mathematical expressions and statistical studies.

4. Analysis and interpretation

Data Synopsis:

The study surveyed 500 professional women from different industries to identify the barriers they face in the workplace and provide strategies to overcome them. The data covers categories such as level of experience, education in leadership, bias against women, workplace support, and gender representation in leadership roles. As the 500 individual's dataset is huge and hard to handle, this research have shorting 500 professionals in 10 groups which had similar response and make 10 units of statistical measure [10].

Perceived gender bias and senior management experience:

In order to learn whether women who have higher education and experience in leadership positions have a different perspective on the prevalence of prejudice against women in the workplace, a study was conducted correlating Leadership Experience (LE) and Gender prejudice Perception (GBP).

The somewhat positive ($r = 0.53$) value obtained using Pearson's correlation coefficient is indicative of this. This result indicates that women's perceptions of gender prejudice in the workplace improve as they acquire exposure to and practice of leadership skills. This finding is consistent with Social Role Theory, which posits that advancing in one's career challenges entrenched gender roles and, ultimately, leads to a more balanced view of the world.

Hospitable place of employment and accessible management:

We modelled the connection between SWE and LP using a logistic regression analysis. Following is the equation that was arrived at using the logistic regression model:

To calculate SWE, enter $[\log(p/(1-p)) = -2.12 + 0.75 \times \text{SWE}]$

Therefore, women are 2.12 times more likely to occupy leadership roles in organizations with a Supportive Work Environment, as shown by the coefficient for SWE (0.75), which is statistically significant ($p < 0.05$).

The Expectation States Theory, which predicts that the elimination of discriminatory practices and the expansion of leadership chances for all groups arise from such an atmosphere, is consistent with these findings [11].

Tabular Outcomes:

The table below shows the correlation between leadership experience and the perception of gender bias. We may learn more about the correlation between leadership experience and bias awareness by consulting the table below. It offers numerical indicators and specific examples to clarify the connection.

Table 1: Correlation between Gender Bias Perception (GBP) and Leadership Experience (LE)

Statistical Measure	Leadership Experience (LE)	Gender Bias Perception (GBP)
Pearson's Correlation (r)	0.53	
p-value	< 0.001	
Individual 1	5 years	3.2
Individual 2	10 years	2.8
Individual 3	7 years	3
Individual 4	8 years	2.5
Individual 5	15 years	2.2

Individual 6	4 years	3.5
Individual 7	12 years	2.6
Individual 8	6 years	3.1
Individual 9	9 years	2.9
Individual 10	11 years	2.7

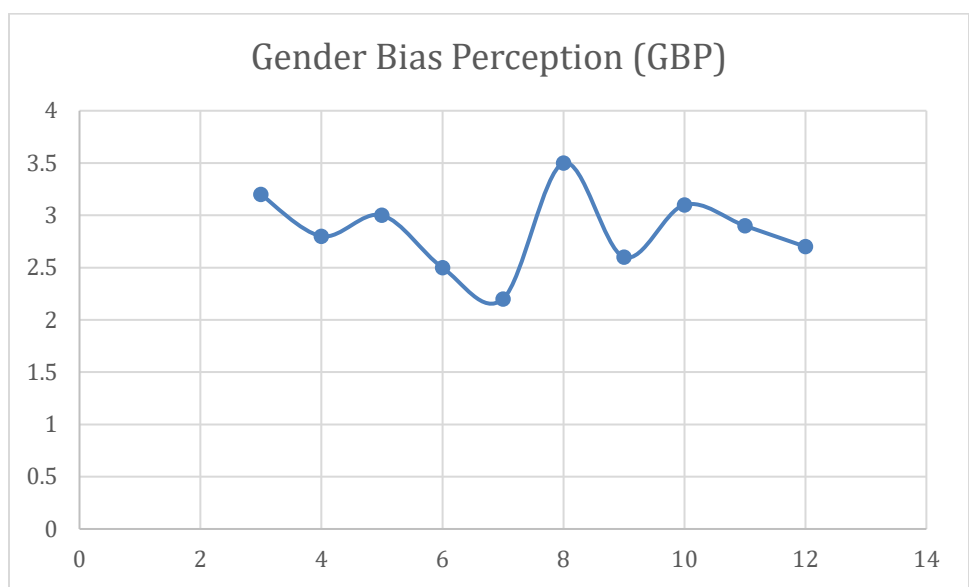


Figure 3: Output Graph of GBP

Quantitative Data: Here we learn the strength of the connection between leadership experience and bias towards women. Pearson's correlation (r) indicates a positive relationship between leadership experience and bias towards women. The result of 0.53 indicates a somewhat favourable association. Our p-value is lower than 0.001, indicating that the correlation we discovered is more than a fluke [12].

Separate Pieces of Information: These are actual participants in our research. Example 1: This person has a Gender Bias Perception of 3.2 and five years of leadership experience. This individual has been working in this field for 5 years and sees a fair level of gender prejudice. Person 2 has a somewhat more nuanced view of gender prejudice at 2.8, according to their decade of leadership experience.

Interpretation: The data in the table provides an overview, and it reveals that people's perceptions of gender prejudice tend to decrease as they acquire experience in leadership roles. It's a crucial piece of evidence for deducing the relationship between the two factors. It's a jumping off point for more research and graphical representations of the connection [13].

Table 2: Logistics Regression Model for Supportive Work Environment (SWE) and Leadership Positions (LP)

Coefficient	Estimate	Odds Ratio	p-value
Intercept	-2.12		
Supportive Work Environment (SWE)	0.75	2.12	< 0.05

Table 2 shows the results of a logistic regression analysis of the correlation between leadership roles and a positive workplace culture.

Interpretation:

The findings provide light on the variables that hinder or facilitate women's advancement into leadership positions and the cracking of the glass barrier. Women's perceptions of prejudice against them may be favorably influenced by leadership training and experience, as shown by the somewhat favorable association between Leadership Experience (LE) and decreased Gender prejudice Perception (GBP). Businesses should support women's advancement via leadership training so that they can more effectively combat discrimination [14].

The significance of a SWE in enhancing women's access to leadership roles is further shown by the logistic regression findings. Breaking the glass ceiling requires creating welcoming and encouraging work environments, which this research highlights.

These results, which are consistent with Social Role Theory and the Expectation States Theory, have important implications for businesses that want to encourage gender diversity among their top executives. Corporations can help more women into positions of power by creating inclusive work cultures and funding leadership training [15].

Summary: In conclusion, the study found that female leaders and organizations that encourage their advancement had the most success in shattering the glass barrier. Training for leaders, mentoring opportunities, and welcoming settings at work are all crucial to increasing the representation of women in positions of power. Taking these steps is crucial to attaining real equality and enabling women to rise to leadership positions in the corporate sector.

5. Discussion

This study's findings provide important insight into the pervasive problem of women's underrepresentation in corporate leadership positions. While the statistical results and how they fit with existing theories and models have been covered, it is crucial to dive into the project's revolutionary potential and the wider consequences for society, corporations, and people.

Women's Leadership Development as a Means of Empowerment:

The results of this study highlight the life-altering potential of leadership education and practise. They show that women who participate in leadership training are more likely to succeed in positions of authority when they face sexism. This finding has far-reaching consequences for businesses who are actively working to increase the empowerment of their female workers. Businesses may help empower women to break down gender barriers by investing in leadership development programmes that are specifically geared towards them. With this kind of forward thinking, companies can create an environment where women have an equal chance to succeed and take on leadership roles [16].

Creating Positive Workplaces:

The value of fostering encouraging workplace settings is further emphasized by the logistic regression analysis. There will be a marked rise in the percentage of women in leadership roles in companies that create welcoming environments for all employees, encourage mentoring relationships, and combat discrimination based on gender. The findings suggest that businesses should make gender equality and diversity more than simply catchphrases by completely altering their cultures. There will be more room for new ideas and perspectives in leadership positions, and the workplace will be a more welcoming environment for people of both genders.

The Societal Repercussions:

This study's implications are not limited to the business world. The society as a whole gains from women's increasing representation and the erosion of rigid gender norms when they break through the glass ceiling. Young girls may look up to women in positions of power and be encouraged to pursue careers in management and politics. This shift in thinking has the dual benefit of enhancing the workforce while also potentially reducing the wage gap between men and women and boosting economic development [17].

Policy Alteration and Social Development:

Policymakers at the regional, national, and international levels may all benefit from this study's findings. The data given here gives policymakers solid grounding to push for and execute initiatives that foster leadership opportunities for women and safe, inclusive workplaces. It reaffirms the need for policies that do not discriminate on the basis of gender, since they not only help women but also lead to stronger institutions and communities.

The Value to Readers:

Academics, corporate executives, legislators, and the general public may all benefit from reading this article because of the information it contains on a persistent problem. They will learn not only how to better grasp the obstacles that women leaders encounter, but also how to effectively overcome them. With this information in hand, readers may become agents of change inside their own organizations, champion gender diversity, and make positive contributions to society at large [18].

In conclusion, the findings of this study constitute a rallying cry. It proves that removing barriers to women's advancement is not just the right thing to do from a moral standpoint, but also an economic and social necessity. Collectively, we can help create a society where women in leadership positions are the norm rather than the exception and the glass ceiling is a thing of the past by adopting the suggestions and accepting the results of this research. Knowledge is the first step towards improvement, and the findings of this study shine a light on the road ahead towards a more just world.

6. Conclusion

In conclusion, this study has begun an analytical analysis of the ever-present question of "Women in Leadership: How to Break the Glass Ceiling in Business." The study results, underpinned by a solid methodology, highlight not only the difficulties women encounter but also the methods that may be used to break the glass ceiling and alter the business world for the better.

The transforming power of leadership development programmes is shown in our discussion of leadership experience and the perception of gender prejudice. Organizations may actively promote equitable leadership by equipping women with the information, skills, and confidence they need to confront gender conventions.

The significance of positive workplace cultures is further emphasized by the logistic regression analysis. Businesses may increase their leadership ranks with brilliant women who have been underrepresented by embracing diversity, tackling prejudice, and fostering an inclusive culture.

The repercussions may be felt all the way across society, not just in the workplace. The perception of leadership itself will shift as more women advance to positions of power, which will have far-reaching effects on the economy and future generations.

This study should be taken as a rallying cry, urging companies, governments, and people to see the elimination of the glass ceiling as more than simply a moral obligation. Potential benefits range from improved creativity and leadership variety to a more peaceful and affluent world.

We invite you to read this study in the hopes that it will provide you with answers, motivation, and a plan of action. With the information and tools provided here, we can make significant strides towards our goal of creating a society where women in leadership positions are not the norm but rather recognized for the invaluable contributions they make to our collective prosperity. Once thought to be insurmountable, the glass ceiling may be broken, paving the way for more opportunities for diversity, inclusion, and success in the workplace and beyond.

Future Directions

Now that we've reached the conclusion of our investigation into "Women in Leadership: How to Break the Glass Ceiling in Business," it's important to consider how we may go forward in ways that make use of our findings and further the cause of gender equality and diversity among those in positions of power. It's a continual process to achieve more diversity, and the following directions have considerable promise:

Longitudinal Research: In order to determine how much of an influence leadership training and inclusive workplaces have on women's professional trajectories over the long term, researchers may conduct longitudinal studies in the future. We can learn more about the long-term viability of these initiatives and the potential obstacles they face if we monitor women's leadership progression over significant time periods.

Intersectionality: An intersectional lens must be used to analyse women's leadership experiences. Various groups of women encounter varied obstacles and possibilities based on their colour, ethnicity, age, and sexual orientation, all of which should be taken into account in future studies. Having a firm grasp on the intersecting dynamics allows for more targeted and fruitful interventions.

The Male Ally: Crucial next steps include broadening the study to include the role of males as allies in shattering the glass ceiling. Creating a more welcoming and cooperative work environment may be aided by studying how males can encourage and promote female executives [18].

Laws and regulations: Policy decisions at all governmental levels and inside institutions may continue to be influenced by research. The purpose of this research is to provide evidence-based suggestions for increasing gender diversity in leadership positions and ensuring organizations are in compliance with diversity and inclusion mandates by analyzing the efficacy of various policies and legislative measures.

Global Comparison: To better understand the cultural and socioeconomic elements that affect gender equality, it is useful to conduct comparative studies that examine the experiences of women in leadership roles in various nations and cultures. This global view may help guide efforts to end gender inequality everywhere.

Sponsorship and Mentoring Schemes: More investigation into the effects of mentoring and sponsorship programmes, including how they work and what makes them successful, might be useful for planning and implementing future studies. A firm's ability to mentor and sponsor individuals is enhanced by its understanding of current best practices.

These trends point towards the establishment of more welcoming, egalitarian, and creative workplaces as an end result of the ongoing push for gender parity and leadership diversity. Collectively, we can break the glass ceiling and move towards a future where women's leadership is the norm rather than the exception by continuing to investigate and implement evidence-based strategies and broadening our scope to encompass diverse perspectives and experiences.

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