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University Road, Kolhapur - 416004, Maharashtra State, India.

website : www.siberindia.edu.in

E-mail : editorsajmr@siberindia.edu.in

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Website: www.siberindia.edu.in
Email: csiberpress@siberindia.edu.in
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Identifying Barriers to the Glass Ceiling in the Indian Information Technology sector: A Confirmatory Factor Analysis and Structure Equation Modelling Approach

Swati

Assistant Professor, Department of
Commerce, Govt. College Hathin, Palwal,
Haryana, India

Dr. Manisha Arora

Associate Professor, Department of
Management Studies, Deenbandhu Chhotu
Ram University of Science and Technology,
Murthal, Haryana, India

Abstract

The glass ceiling is a metaphor used to express an artificial but real discriminatory barrier for working women. These barriers occur from various sources. They may arise from personal boundaries, from societal or cultural restrictions, from family or organisation itself. The personal barrier arises when women doubt themselves of the competencies required to achieve higher positions and when women restrict themselves from being promoted because of various unavoidable responsibilities apart from work. Family acts as a barrier when the family itself is responsible for keeping her restricted to a low-profile job. The societal and cultural barrier also plays a major role in restricting women at lower levels because of stereotypes and prejudices. Organisations act as a barrier when there are no clear policies about promotion and even if there is transparency, some things restrict women. This study is about identifying these barriers and how these restrict women from being promoted. For this purpose, a sample size of 500 working women in the Indian IT sector is taken. But a total number of 431 responses returned. Exploratory Factor analysis was performed on 51 variables and 10 constructs were identified. Further, to develop and validate the model confirmatory factor analysis and Structure equation modelling were done. The findings of the study states that there are significant barriers that significantly impact the women in Indian IT sector.

Keywords: Women, Inequality, Organisation, Family barriers, Differential behaviours.

Introduction:

The Indian IT sector plays a crucial role in economic growth and is known for its global presence. However, despite the progress recorded, there is a significant gender disparity in the number of women who are promoted to higher positions. Historically, the Indian IT sector is male-dominated, like many other countries. A report by NASSCOM reported that women make up a considerably high percentage of the workforce at the entry level, and declines at the senior management level (NASSCOM, 2020). The variance indicates the systematic challenge that goes beyond recruitment practices (Kumar & Maiti, 2019). The low and minimal representation of women in senior roles raises concern about equality, equal opportunities, inclusivity, and underutilisation of workforce's full potential (Srivastava & Chandra, 2018). This chapter delves into the various obstacles that restrict women to be promoted in Indian IT sector, Focusing on Individual barriers, organisational barriers, Societal and cultural barriers, and Family barriers.

Individual Barriers:

Women often encounter obstacles in the workplace due to perceived gender norms and self-doubt. There is another phenomenon called imposter syndrome, where women often doubt their abilities, despite evident success (Clance & Imes, 1978). This phenomenon is especially prevalent in the IT industry, which is primarily male-dominated. Women also undervalue their worth and achievements, which raises the issues of self-doubt and self-sufficiency. The problem of self-doubt hinders women's career advancement by accepting low-value tasks and declining high-value tasks (Babcock et al., 2017). Such challenges can hinder women's confidence in seeking promotion.

Organizational Barriers:

The organizational barriers represent gender bias in recruitment and promotion processes, unequal pay, and lack of representation in leadership positions which create an unfavorable environment for females working in the Indian IT sector. This all based on the perception of female gender roles and leadership roles (Eagly & Karau, 2002). Moreover, lack of transparency in career progression path also puts women at disadvantage. These deep-rooted barriers in workplace culture and practice needs to be addresses to create equitable and inclusive environment (Ibarra et al., 2013).

Societal and Cultural Barriers:

Sometimes external pressure also plays a major role in the overall development. Societal and cultural barriers encompass such pressure and norms that influence women's career progression. In India, traditional gender roles are deeply ingrained, leading to societal expectations that prioritise family responsibilities over professional growth for women (Bombuwela & Chamru, 2013). These cultural norms discourage women from achieving leadership roles, as they are perceived as incompatible with family obligations.

Family Barriers:

Family is the major and unavoidable factor that affects the women in Indian IT sector. Women experience "double burden syndrome", and try to balance their career and domestic responsibilities. Women are supposed to take maternity and childcare leave, which disrupts their career continuity and also affects their chances of promotion. Further, women are more likely to quit jobs and stay back at home for children and parental care. This shows lack of support from family and spouse (Verma, 2011; Bindu, 2022; Bombuwela, and Chamru, 2013). The women working in the Indian IT sector faces multiple set of barriers that prevent them from reaching higher positions. In this chapter, we try to delineate various barriers women experience.

Literature review:

The "glass ceiling" term was first originally used by Marilyn Loden in 1978 in a speech (Nair, 2023). In 1979, this term was used by Marianne and Katherine Lawrence as per the newspaper The Wall Street Journal at Hewlett Puckered. They defined the glass ceiling as a discriminatory promotion pattern where there is no specification about discrimination in written promotional policies but in practice qualified women are denied promotion. The glass ceiling is not just a term but a worldwide issue, it is evident by the wage gap in the US workforce, which ranges from \$5,035 to \$9,577 (Alkadry, 2006.). This wage gap varies across employers and occupations. The situation is worse in Asian Countries where this gender wage gap is more viable and visible. The pay discrimination based on gender is more prevalent in self-financing institutions than in govt. institution in India (Sharma et al., 2011). In addition to the workplace gender wage gap, numerous factors are responsible for such kind of discrimination. Working Indian women face various discrimination throughout their lives. They often encounter Social, cultural, organizational, personal and family-related barriers in pursuing their career. These are deeply rooted internal belief systems that prevent female employees from reaching their full potential (Sud & Amanesh, 2019). The glass ceiling hypothesis states that, although it is harder for a woman to be promoted, it is way harder for a woman to move up in a hierarchy once they promoted (Baxter & Wright, 2000). Four characteristics need to be examined to determine whether glass ceiling existed in an organization. The four characteristics are: "1) a gender or racial difference that cannot be explained by job-relevant characteristics, 2) a gender or racial difference that is more pronounced at higher levels than at lower levels, 3) a gender or racial inequality in the chances of advancement into higher levels, and 4) a gender or racial inequality that increases over the course of a career" (Cotter et al., 2001). The four stated variables can be used to check the existence of the glass ceiling in any organisation. Identifying the presence of the glass ceiling and working out ways to remove such practices from the organisation can contribute to fading the glass ceiling. One of the ways is by increasing the number of females in higher positions may significantly reduce these forms of barriers (Bell et al., 2002). But women do not get equal opportunities and resources to reach to top-level. It is evident that women get more chances of promotion in times of crisis than prosperity (sun et al., 2014), even then women perform better than men. Moreover, women often face difficulty due to lack of support, guidance and Authority to achieve their targets (Glass & Cook, 2016). Women face difficulty in leading also as they face resistance from their subordinates. Furthermore, men and women and men employ different leadership philosophies, where men lead their subordinates and women facilitate (Jarmon, 2014). From previous studies various glass ceiling barriers were identified. These barriers are further categorized as individual barriers, Organisational barriers, Societal and cultural barriers, and Family barriers. Individual barriers were identified from previous studies as lack of communication skills (Datta & Aggarwal, 2017), Lack of problem-solving skills (Sahoo & Lenka, 2016), Lack of networking skills (Verma, 2011; Gupta & Mittal, 2016), Lack of guidance and support (Verma, 2011), More emotional and family oriented (Bombuwela & Chamu, 2013), lack of proper career planning (Mishra, 2013), Women avoid taking extra responsibility (Azeez & Priyadarshni, 2018), Motherhood over career development (Bindu, 2020), less concerned about promotion, less ambitious than men, lack of self-assurance, lack of interest in undertaking important & difficult assignment (Datta & Aggarwal, 2017), don't want to hold position of power (Eagly & Carli, 2007). In the same way Organisational barriers were identified as lack of policies to support women's career progression (Bhatnagar & Jain, 2012; Bombuwela & Chamru, 2013; Umadevi, 2015), lack of appropriate counsellors and managers (Verma, 2011), lack of encouragement to women (Madhulata, 2016; Manasa & Subramanian, 2016), get limited decision-making power (Sahoo & Lenka, 2016; Chatterjee & Mukherjee, 2018; Bindu, 2020), women must perform better than men to be promoted (Umadevi, 2015; Datta & Aggarwal, 2017; Chatterjee & Mukherjee, 2018), lack of participation in boardrooms (Sahoo & Lenka, 2016; Bindu, 2020), Organizational hierarchies are more likely to promote men for managerial positions

(Umadevi, 2015; Manasa & Subramanian, 2016; Datta & Agarwal, 2017), Management lacks genuine commitment to gender equality and advancement of women (Bombuvela & Chamru, 2013; Umadevi, 2015), Lack of mentoring and management training (Verma, 2011, Michailidis et al., 2012; Manasa & Subramanian, 2016), lack of enough female role models at the highest levels (Verma, 2011, Michailidis et al., 2012; Jonge, 2014), Insufficient general management and/or line experience of women (Budhwar, 2005; Datta & Agarwal, 2017), Top positions are predominantly held by men (Chatterjee & Mukherjee, 2018; Mishra & Banerjee, 2019), Men perceptions that they make better managers than women (Budhwar, 2005; Bhatnagar & Jain, 2012; Michailidis et al., 2012; Hill & Catherine, 2016; Singh & Kapoor, 2020), Sexual and mental harassment at their workplace (Bhatnagar & Jain, 2012; Madhulata, 2016; Hill & Catherine, 2016), Men do not accept female as a leader (Budhwar, 2005; Bhatnagar & Jain, 2012; Bombuvela & Chamru, 2013), Unwillingness of women to make the sacrifices required to obtain higher positions (Mate et al., 2018; Chatterjee & Mukherjee, 2018; Unal & Klinik, 2019; Azeez & Priyadarshni, 2018), Women have to make too many compromises to gain highly paid positions (Mate et al., 2018; Chatterjee & Mukherjee, 2018), Women are not assigned challenging task and kept at entry level (Datta & Aggarwal, 2017; Saleem et al., 2017; Chatterjee & Mukherjee, 2018; Bindu, 2022), Male employees have strong networks than female employees (Budhwar, 2005; Verma, 2011; Chatterjee & Mukherjee, 2018), Women are considered as less competitive and less superior (Bhatnagar & Jain, 2012; Datta & Aggarwal, 2017; Chatterjee & Mukherjee, 2018; Bindu, 2022). The Societal and cultural barriers identified as Stereotype belief about women as homemaker and men as bread earner (Verma, 2011; Bombuwela & Chamru, 2013; Hill & Catherine, 2016; Datta & Aggarwal, 2017; Azeez & Priyadarshni, 2018), Lack of participation and social inclusion due to family background (Budhwar, 2005), Conflict between different group and communities (Unal & Klinik, 2019), Stereotype about community, group, culture and gender (Eagly & Carli, 2007; Azeez & Priyadarshni, 2018; Unal & Klinik, 2019; Verma, 2011), Child bearing and caring forces women to quit job (Bindu, 2020), Women are found more against women because of queen bee syndrome (Rudman & Glick, 2001; Eagly & Carli, 2007), Competitiveness in women is perceived as a negative (Bhatnagar & Jain, 2012; De Klerk & Verryne, 2017), Progressive behaviour of women is seen as different and inappropriate (Bhatnagar & Jain, 2012; De Klerk & Verryne, 2017), Employer perceives women may leave for family reasons (Bindu, 2022), Employees resistance to mentoring by women employee (Budhwar, 2005; Bhatnagar & Jain, 2012). The Family related barriers identified as Women have dual work pressure (Budhwar, 2005, Eagly & Carli, 2007; Verma, 2011, Michailidis et al., 2012; Subramaniam et al., 2014; Hill & Catherine, 2016; Manasa & Subramanian, 2016), Women cannot work on holidays because of family restrictions (Bhatnagar & Jain, 2012; Bombuvela & Chamru, 2013, Bindu, 2020), Women don't prefer travelling away from home for work related assignments (Bindu, 2020), Women are found unable to stay for extra working hours (Bhatnagar & Jain, 2012; Subramaniam et al., 2014), Family is the important factor due to which women avoid travel and transfers (Ismail & Ibrahim, 2008), Women supposed to take break in service than men (Bindu, 2020), The marital status of women is a hindrance in career progress (Ismail & Ibrahim, 2008; Subramaniam et al., 2014), Child care and Parental care responsibilities is supposed to be with women only (Buddhapriya, 2009; Bombuwela & Chamru, 2013; Subramaniam et al., 2014; Unal & Klinik, 2019). The barriers identified are from various national and international studies and tested in different industries. It is crucial to thoroughly test the presence of these barriers in the Indian IT sector. This will enable us to gain valuable insights and address any existing challenges head-on. So, this study is meant to identify the barriers that prevent women from being promoted to the Indian IT sector.

Objectives of the study:

- To identify the barriers that prevent women from being promoted to higher positions in the Indian IT sector.
- To Test and validate the Glass Ceiling model using Path analysis.

Research Methodology:

This section is meant to outline the methodology used to identify the barriers to the glass ceiling in the Indian IT section. The study examines the underlying construct and relationship contributing to these barriers by employing Confirmatory factor analysis and Structural equation modelling.

Research Design:

This is a cross-sectional and quantitative study aimed at identifying and analysing the factors hindering women's advancement to higher positions in the Indian IT sector.

- Research Objective: the main objective of the research is to identify the key barriers to women's career advancement in the Indian IT sector. Moreover, the objective is to validate the construct through confirmatory factor analysis and to examine the structural relationship between identified barriers using Structural Equation Modelling.

- **Population and Sample:** - The population for the study consists of female employees working in Indian IT sector. A purposive sampling technique was used to select sample of 431 female employees from different IT companies across India. This sample size ensures sufficient statistical power for CFA and SEM analysis.
- **Instrument:** -A structured questionnaire was developed through comprehensive review of the literature. The questionnaire includes a demographic profile, and 4 sections of barriers bifurcated into Personal, organisational, cultural and Family related barriers. The questionnaire was administered online to ensure high response rate. The participation was voluntary and confidentiality was assured to all respondents.
- **Data Analysis:** -
- **Reliability and validity testing:** - To test the reliability Cronbach's alpha was used to assess the internal consistency of the scales. Composite reliability and average variance were extracted to ensure convergent and discriminant validity.
- **Confirmatory factor analysis:** - CFA was conducted to validate the measurement model and confirm the factor structure of the identified barriers. Model fit indices such as chi-square/df, CFI, GFI, and RMSEA are used to assess the goodness of fit.
- **Structural equation modelling:** - SEM was employed to examine the structural relationship between the identified constructs. Further, path analysis was conducted to test the hypothesised relationship and determine the significance of the barriers in contributing the glass ceiling effect.

Data Analysis:

Reliability statistics:

Cronbach's Alpha is used to check the internal consistency. A value of 0.891 as per table 7.1 indicates a high level of internal consistency among the 51 items in the questionnaire. This suggests that the items in the construct measure the same underlying construct. This high reliability is crucial for the validity of the subsequent analysis, confirmatory factor analysis and structural equation modelling, ensuring that the findings are based on dependable and consistent measurements.

Factor Analysis

• **KMO and Bartlett's Test**

The KMO value in of 0.863 in table 7.2 is considered very good and indicates a high level of sampling adequacy. This value above 0.8 suggest that sample is suitable for factor analysis. Bartlett's Test of Sphericity tests the null hypothesis that the original correlation matrix is an identity matrix, which would indicate that variables are unrelated and unsuitable for factor analysis. A significance level of .000 ($p < .05$), indicating that the variables are related and that the data set is suitable for factor analysis.

• **Rotated Component Matrix**

The rotated component matrix shown in table no. 7.3 shows that the statements have a positive loading on 10 components. All the constructs have high factor loading. These factors are labelled as (i) Gender Leadership Gap (ii) Barriers to Women's Career Advancement (iii) Bias in Promotion and Advancement (iv) Work-Life Balance (v) Societal Stereotypes and Constraints (vi) Societal Perceptions of Women's Roles (vii) Lack of Ambition and Self-Assertion (viii) Perceived Deficiencies in Women's Professional Skills (ix) Societal Stereotypes and Cultural Barriers (x) Family and Marital Factors.

Empirical Results of Path Analysis: -

- **Confirmatory factor analysis** (figure no. 7.3.1) applied to these ten factors i.e. Gender Leadership Gap, Barriers to Women's Career Advancement, Bias in Promotion and Advancement, Work-Life Balance, Societal Stereotypes and Workplace Constraints, Societal Perceptions of Women's Roles, Lack of Ambition and Self-Assertion, Perceived Deficiencies in Women's Professional Skills, Societal Stereotypes and Cultural Barriers, and Family and Marital Factors.
- **The model fit Indices**
CMIN/DF (Chi-Square Minimum divided by Degrees of Freedom): This is an index for assessing the model fit (Table 7.3.1), with lower values generally indicating a better fit. The ratio is 1.932 in the default model, suggesting an acceptable fit according to common guidelines (values less than 3). CFI values closer to 1 indicate a better fit (Table 7.3.2). A value of 0.930 suggests a fairly good fit. RMSEA values less than 0.05 indicate a close fit, values up to 0.08 represent a reasonable error of approximation, and values above 0.10 suggest a poor fit. A value of 0.047 falls within the range considered reasonable, indicating that the model fit is acceptable in terms of RMSEA.

The confirmatory factor analysis model also evaluates the significance of the regression weights, which represent the influence of each independent variable on the dependent variable. Below is a table that details the significance of these unstandardized regression weights:

Validity Statistics of the First-Order Confirmatory Analysis

The validity of the model is checked by the convergent validity and discriminant validity as in table no 7.3.5. If the value of AVE > 0.50 then the model is valid. In the table there is no convergent validity issue as all the values are greater than 0.5. Secondly, the value of MSV and ASV is less than AVE. So, there is no discriminant validity issue.

Overall Reliability Analysis

Generally, Cronbach's Alpha values range from 0 to 1, with higher values indicating greater internal consistency among items in the scale. In This study (table no. 7.3.6), most scales have high alpha values, suggesting that the items within each scale reliably measure the same underlying construct.

Findings and Discussion: -

The key findings from the study are as follows: -

- High internal consistency: - The study showed high level of internal consistency among 51 variables in the questionnaire, with Cronbach's Alpha 0.891.
- Factor Analysis: - Exploratory factor analysis revealed 10 constructs out of 51 variables and these constructs are: Gender Leadership Gap, Barriers to Women's Career Advancement, Bias in Promotion and Advancement, Work-Life Balance, Societal Stereotypes and Constraints, Societal Perceptions of Women's Roles, Lack of Ambition and Self-Assertion, Perceived Deficiencies in Women's Professional Skills, Societal Stereotypes and Cultural Barriers, Family and Marital Factors.
- Model fit: - The confirmatory factor analysis and structural equation modelling revealed that model fit were within acceptable range. The indices data as below: -
 - CMIN/DF: 1.932 (value less than 3 indicate acceptable value)
 - CFI: 0.930 (Value closer to 1 indicate a better fit)
 - RMSEA: 0.047 (Value less than 0.05 indicate a close fit)
- Reliability and validity: - The construct showed high reliability with Cronbach's Alpha values for different scales ranging from 0.805 to 0.930. Moreover, the composite reliability and average variance explained values indicated no issue with convergent and discriminant validity.
- Barriers identified: - The study identified that there are significant barriers that impact the career advancement of women in Indian IT sector, including: -
 - Personal barriers: - Self-doubt and self-assertion
 - organisational barriers: - Gender bias in promotion and promotion-based opportunities.
 - Societal and cultural barriers: Stereotype and societal perception about women's role.
 - Family barrier: Marital responsibility and childbearing duties.
- Path analysis: - The path analysis confirmed the structural relationship between the construct and validated the barrier's contribution to the glass ceiling effect.

The findings highlighted the barriers women faced in the Indian IT sector and provided a comprehensive understanding of how these barriers impeded their career advancement. The study highlighted the need for intervention of government and Institutions to address these barriers and promote gender equality in the workplace.

Discussion:

The finding of the empirical study aligns with numerous previous studies that explored the barriers to women career advancement in various sectors including IT sector. The construct Gender leadership gap documented by numerous studies the gender gap specifically at leadership positions in various industries including Indian IT sector. For instance, a study by Kumari and Pradhan (2014) found that women remain underrepresented at every level, with a significant drop at the senior level (Kumari & Pradhan, 2014). Bias in promotion and advancement construct is about biases in promotion opportunities, which hinder their career as documented by Bhatnagar and Mishra, 2010. The study found that women are less likely to be promoted to higher roles compared to male counterpart (Bhatnagar & Mishra, 2010). The construct of Work-Life balance is about the dual responsibility of women unshared and uncontributed acts as a critical barrier for women in India. It is emphasized that the lack of support for work-life balance can lead to career stagnation (Rajadhyaksha & Smita, 2004). Societal Stereotype and Constraints construct is about traditional gender roles and stereotypes about women's capabilities which acts as a hurdle in their professional lives (Sharma & Bhatnagar, 2016). Another construct Family and Marital status is about family responsibility and marital status which often limiting women's opportunities for advancement (Nath, 2000). Perceived Deficiencies in Women's Professional Skills construct highlights that women often face biases regarding their professional skills and are perceived as inferior to of men (Kumari & Pradhan, 2014). Societal Perception of women's roles is about primary role of women as caregivers significantly influence their

choices and opportunities (Das & Mishra, 2015). Lack of ambition and self-assertion can hinder women's career growth. Societal conditioning often discourages women from pursuing leadership roles (Eagly & Carli, 2007). Mentoring and networking opportunities, where women often lack access to the same quality of mentorship and networking opportunities as men, which hinders their career growth (Ibarra et al., 2010). By validating the findings of the study with existing literature, it is evident that the identified constructs are consistent with broader trends observed in various industries. The study's results are robust and supported by previous research, highlighting the pervasive nature of these barriers and the need for targeted intervention to promote gender equality in the workplace. Additionally, longitudinal studies can be done in future that could contribute on how these barriers evolve overtime and the long-term impact of implemented policies. Finally, this study contributes valuable insights into glass ceiling in Indian IT sector and offers a strong foundation for future research and practical initiatives to foster more equitable and inclusive environment.

Conclusion:

The study "Identifying barriers to the glass ceiling in the Indian IT sector: A confirmatory factor analysis and structural equation modelling approach" provided a comprehensive analysis of the barriers that affect women's career advancement in the Indian IT Sector. Through statistical methods like confirmatory factor analysis and structure equation modelling, the study identified and successfully validated key constructs contributing the glass ceiling effect. The study offers a robust framework for understanding the complex interplay of factors that contribute to the glass ceiling in the Indian IT sector. The identification of 10 key constructs provides valuable insights to organisations and policy makers to address and mitigate the gender inequality in the workplace. The study's findings identified the importance of a multi-pronged approach to breaking the glass ceiling and promoting women's advancement in the Indian IT sector. By addressing these barriers, the Indian IT sector can utilize the full potential of its female workforce. To foster a more equitable and inclusive work environment, target intervention must be needed. These could include developing gender-sensitive policies, providing work-life balance, challenging societal stereotypes, and creating family-friendly practices.

References:

- Alkadry, M. G., & Tower, L.E. (2006).** Unequal pay: The Role of Gender. *Public Administrative Review*, 66(6), 888-898.
- Azeez, P.V., Nilufer, & Priyadarshini, R.G. (2018).** Glass ceiling factors affecting women career advancement in the IT industry in India. *SCMS Journal of Indian Management*, 15(3), 101-111.
- Babcock, L., Recalde, M. P., Vesterlund, L., & Weingart, L. (2017).** Gender differences in accepting and receiving requests for tasks with low promotability. *American Economic Review*, 107(3), 714-747. <https://doi.org/10.1257/aer.20141734>.
- Baxter, J., & Wright, E. O. (2000).** The Glass Ceiling Hypothesis. *Gender & Society*, 14(2), 275–294.
- Bell, M.P., McLaughlin, M.E., & Sequeira, J.M. (2002).** Discrimination, harassment and the glass ceiling: Women executives as change agents. *Journal of Business Ethics*, 37, 65-76.
- Bhatnagar, S. & Jain, P. K. (2012).** Career development of women executives in the information technology sector. *International journal of service and research*. 3(5).277-280.
- Bhatnagar, D., & Mishra, P. (2010).** Organizational culture: Effects on gender disparities in promotion. *Gender in Management: An International Journal*, 25(3), 123-139. doi:10.1108/17542411011036497.
- Bindu, H.N. (2022).** A study on glass ceiling and its impact on the career development of women at workplace. *IJIRT* .8(8). 94-98.
- Bombuvela, P.M. and Chamaru, A.A. (2013).** Effects of glass ceiling on women career development in private sector organization- case of Sri Lanka. *Journal of Competitiveness*. 5(2). 3-19.
- Buddhapriya, S. (2009).** Work-Family Challenges and Their Impact on Career Decisions: A Study of Indian Women Professionals. *Vikalpa: The Journal for Decision Makers*, 34(1), 31-46.
- Budhwar, P., & Varma, A. (2010).** Indian Women in the IT Sector: Personal and Professional Perspectives. *Gender in Management: An International Journal*, 25(6), 444-460.
- Chatterjee, D., & Mukherjee, S. (2018).** Women in Leadership in Indian IT Industry: Challenges and Strategies for Success. *South Asian Journal of Management*, 25(1), 68-83.
- Clance, P. R., & Imes, S. A. (1978).** The impostor phenomenon in high achieving women: Dynamics and therapeutic intervention. *Psychotherapy: Theory, Research & Practice*, 15(3), 241–247.
- Cotter, D. A., Hermsen, J. M., Ovadia, S., & Vanneman, R. (2001).** The glass ceiling effect. *Social Forces*, 80(2), 655-681.
- Datta, S., & Agarwal, U. A. (2017).** Factors Effecting Career Advancement of Indian Women Managers. *South Asian Journal of Business Studies*, 6(3), 314–336.
- Das, S., & Mishra, P. (2015).** Societal perceptions and their impact on women's career choices. *Gender in Management: An International Journal*, 30(5), 315-334. doi:10.1108/GM-01-2015-0001.
- De Klerk, S., & Verreynne, M.-L. (2017).** The networking practices of women managers in an emerging economy setting: negotiating institutional and social barriers. *Human Resource Management Journal*, 27(3), 477–501
- Eagly, A. H., & Carli, L. L. (2007).** Women and the labyrinth of leadership. *Harvard Business Review*, 85(9), 62-71.
- Eagly, A. H., & Karau, S. J. (2002).** Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3), 573-598.
- Glass, C., & Cook, A. (2016).** Leading at the top: Understanding women's challenges above the glass ceiling. *The Leadership Quarterly*, 27(1), 51–63.
- Gupta, N., & Mittal, S. (2016).** Women in Leadership Roles in Indian IT Industry: A Study on Challenges and Enablers. *International Journal of Advanced Research in Computer Science and Software Engineering*, 6(9), 199-204.
- Hill, Catherine (2016).** “Barriers and bias: the status of women in leadership, AAVW.
- Ibarra, H., Carter, N. M., & Silva, C. (2010).** Why men still get more promotions than women. *Harvard Business Review*, 88(9), 80-85.

- Ismail, M. and Ibrahim, M. (2008).** Barriers to career progression faced by women, *Gender in Management: An International Journal*, 23(1), 51 – 66.
- Jarmon, L. (2014).** Cracking the glass ceiling: A phenomenological study of women administrators in higher education.
- Jonge, A.J. (2014).** The Glass Ceiling that Refuses to Break: Women Directors on the Boards of Listed Firms in China and India. *Women's Studies International Forum*, 47(2), 326-338.
- Kumar, P., & Maiti, R. (2019).** Challenges and barriers for women in the Indian information technology (IT) sector: An analysis. *Gender, Technology and Development*, 23(2), 123-144. <https://doi.org/10.1080/09718524.2019.1650754>.
- Kumar, P., & Maiti, R. (2019).** Challenges and barriers for women in the Indian information technology (IT) sector: An analysis. *Gender, Technology and Development*, 23(2), 123-144. <https://doi.org/10.1080/09718524.2019.1650754>
- Kumari, S., & Pradhan, R. K. (2014).** Women in leadership: Barriers to their advancement. *International Journal of Management Research and Reviews*, 4(6), 730-735.
- Oakley, J. G. (2000).** Gender-based barriers to senior management positions: Understanding the scarcity of female CEOs. *Journal of Business Ethics*, 27(4), 321-334. doi:10.1023/A:1006226129868
- Madhulata. (2016).** Existence of glass ceiling and factors affecting women in reaching top positions. *IJAR*. 4(12). 1448-1460.
- Manasa, K., & Subramanian, N. (2016).** Barriers and Strategies for Women Leadership in the IT Sector in India. *International Journal of Advanced Research in Computer Science*, 7(5), 91-95.
- Mate, Susan Elizabeth; McDonald, Matthew; Do, Truc (2018).** The barriers and enablers to career and leadership development. *International Journal of Organizational Analysis*, IJOA(07)1475.
- Michailidis, M. P., Morphetou, R. N., & Theophylatou, I. (2012).** Women at work equality versus inequality: barriers for advancing in the workplace. *The International Journal of Human Resource Management*, 23(20), 4231–4245.
- Mishra, S. (2013).** Women on corporate boards: Supply and demand issues. *International Journal of Human Resource Management*, 24(5), 845-862. <https://doi.org/10.1080/09585192.2012.720186>
- Mishra, P., & Banerjee, A. (2019).** Glass ceiling in Indian IT sector: A study on career barriers for women. *International Journal of Advanced Research and Development*, 4(5), 60-64.
- Nair, V. (2023).** Barriers to Career Progression of Women to Senior Leadership Positions: Indian Scenario. *International Journal of Innovative Science and Research Technology*. 11(3),1018-1028.
- NASSCOM. (2020).** Women and IT Scorecard – India. NASSCOM. retrieved from <https://www.nasscom.in/knowledge-center/publications/women-and-it-scorecard-india#:~:text=Key%20Findings&text=Men%20and%20women%20start%20their,women%20at%20a%20similar%20level.&text=Women%20are%20concentrated%20at%20lower,in%20IT%20companies%20in%20India>.
- Nath, D. (2000).** Gently shattering the glass ceiling: Experiences of Indian women managers. *Women in Management Review*, 15(1), 44-52. doi:10.1108/09649420010310191
- Rajadhyaksha, U., & Smita, D. (2004).** Work-life balance in South East Asia: The Indian experience. *South Asian Journal of Management*, 11(1), 18-37.
- Rudman, L. A., & Glick, P. (2001).** Prescriptive gender stereotypes and backlash toward agentic women. *Journal of Social Issues*, 57(4), 743-762.
- Sahoo, D.K. and Lenka, U. (2016),** "Breaking the glass ceiling: opportunity for the organization", *Industrial and Commercial Training*, 48(6), 311-319.
- Saleem, Sharjeel; Rafiq, Asia; Yusaf, Saquib; Gopalakrishnan, Shanthi; Syed, Jawad (2017).** Investigating the glass ceiling phenomenon: an empirical study of glass ceiling's effects on selection - promotion and female effectiveness. *South Asian Journal of Business Studies*. 6(1).
- Sharma, M. A., Sharma, S., & Kaushik, D. N. (2011).** An Exploratory Study of Glass Ceiling In Indian Education Sector. *International Journal of Multidisciplinary Research*, 1(8), 73-82.

- Sharma, R., & Bhatnagar, D. (2016).** Factors influencing career advancement of Indian women managers. *Gender in Management: An International Journal*, 31(4), 276-296. doi:10.1108/GM-10-2015-0097.
- Singh, R., & Kapoor, R. (2020).** Women Leadership in Indian IT Organizations: A Study of Challenges and Strategies. *International Journal of Advanced Research in Computer Science and Software Engineering*, 10(2), 156-161.
- Srivastava, S., & Chandra, A. (2018).** Women in leadership positions: A study of the barriers and enablers in the Indian IT sector. *Journal of Human Resource and Sustainability Studies*, 6(4), 237-250. <https://doi.org/10.4236/jhrss.2018.64039>
- Subramaniam, I. D., Arumugam, T., Akeel, A. B. A. A. B. (2014).** Demographic and family related barriers on women managers' career development. *Asian Social Science*, 10(1), 86–94.
- Sud, S. and Amanesh, A. (2019).** Breaking Glass Ceiling In Leadership Roles, SHRM India, Retrieved from <https://www.shrm.org/shrm-india/pages/breaking-glass-ceiling-in-leadership-roles.aspx>.
- Sun, S. L., Zhu, J., & Ye, K. (2014).** Board Openness during an Economic Crisis. *Journal of Business Ethics*, 129(2), 363-377.
- Umadevi, K. (2015).** Glass ceiling among women employees in IT sector. *International Journal of business and administration research review*, 1(8), 22-27.
- Unal, Aslıhan & Kılınç, İzzet. (2016).** Transformational leadership versus glass ceiling effect: a theoretical model from turkish IT sector. *Journal of Global Strategic Management*. 10. 135-150.
- Verma, M. (2011).** Barriers to Career Advancement of Women in Indian IT Industry - A Conceptual Framework. *Metamorphosis: A Journal of Management Research*, 10(1), 29–36.