

AN EMPIRICAL STUDY ON LEADERSHIP COMPETENCIES THAT HELP WOMEN TO BREAK THROUGH THE GLASS CEILING IN THE INDIAN IT SECTOR

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Abstract: -

The Indian IT sector is the major contributor to the country's economy. Despite of this fact, women in the Indian IT sector face various barriers and challenges in their career advancement. The main focus of the study is to investigate the role of leadership competencies to break the glass ceiling in the Indian IT sector. For this purpose, a 5-point Likert scale questionnaire was designed using Google Forms. Through online platforms wide and easy access is possible. The data was collected from 431 working women in the Indian IT sector. The questionnaire is designed to know the perception of females on the importance of leadership competencies ranging from strongly disagree to strongly agree. The reliability of the questionnaire was measured using Cronbach's Alpha method and a value of $\alpha = 0.796$ is the outcome, indicating a high degree of internal consistency. The data analysis is done through descriptive statistics where mean and standard deviation are calculated and competencies are ranked based on high mean score and low standard deviation. The ranked competencies from 1 to 11 show their relative importance from most to least important. The findings identify Fostering team unity, gathering technical and leadership skills, Work-Life Equilibrium, Taking Initiative and being assertive, Emotional Intelligence, and a Robust professional network are most important for breaking the glass ceiling in the Indian IT sector. The study concluded that empowering women with these competencies will help them break the glass ceiling in the Indian IT sector and also bring gender parity.

Keywords: - Females, Empowerment, Leadership Styles, Competencies, Skills, Inequality.

JEL Classifications: - J16, J24, M12, M14

1. Introduction: -

The leadership competencies are the set of skills, attitudes and behaviour of individuals that guide and manage people and groups (Avolio et al., 2009) in a professional setting. There are two concepts, one is leadership competency and the other is leadership style, both are related but distinct concepts in the field of leadership development and management (Mumford et al., 2000).

1.1 Leadership Competencies

Leadership competencies include abilities of a leader such as strategic thinking, decision-making, emotional intelligence, team building, effective communication, and network building (Boyatzis, 2008). These are known as skills, specific behaviours and attitudes required for managing and guiding oneself and a group of people in an organisation. These leadership competencies can be developed and enhanced over time through training and development (Day et al., 2014).

1.2 Leadership Style

Leadership style is described as the approach a leader follows to provide direction, implement plans, and motivate people (Goleman, 2000). Common leadership styles are: -

1. Autocratic: Decisions are unilaterally taken by leaders and followed by a team without much input taken from them.
2. Democratic: - Decisions are based on the input taken from the team (Gastil, 1994; Van Vugt et al., 2004).
3. Transformational: - Leader inspires and motivates team for more innovative and creative ideas.
4. Transactional: - The leader uses reward and punishment to motivate employees (Judge & Piccolo, 2004; Bass & Avolio, 1993).

Leadership competencies are about a leader's capabilities and skills, whereas leadership style is about how these competencies are applied to lead others. For instance, a leader strong in emotional intelligence may naturally adopt a more democratic and transformational leadership style as these styles are all about understanding, motivating and influencing the emotions of others (Goleman, 2000).

1.3 Intersecting Concept

Therefore, while leadership competency and leadership styles do intersect, they are not the same. Competencies can be a tool and style is about how these tools can be used (Boyatzis, 2008). To empower women, Leadership competencies might act as tools for their development. Competencies are the tools and leadership style is a way to apply these tools to lead others.

1.4 The focus of the Study

The focus of the previous studies was on the leadership styles employed by leaders and less on competencies. The focus of this study is on leadership competencies. These competencies are essential for anyone in a leadership position and generally include several key areas:

1. Communication: - The primary leadership competency is communication. Communication is the backbone of the organisation. A leader can become an effective leader only if he/she is having the ability to communicate clearly and persuasively goals, standards, results and feedback, both in writing and verbally (Barrett, 2006; Mayfield & Mayfield, 2002).
2. Decision Making: The ability to make well-informed decisions in a timely manner, taking into account both short-term and long-term implications, is a crucial aspect of effective leadership. This capability is honed over time through experience and the assessment of various alternatives (Yukl, 2013). A leader's effectiveness is greatly influenced by their capacity to weigh options and make the best decisions for the present and the future.
3. Strategic thinking: -A leader must plan short-term and long-term goals by understanding the broader context and its operations (Goldman et al., 2015).
4. Emotional Intelligence: - Emotional intelligence is one of the important qualities expected from a leader. It teaches a leader to effectively manage one's own emotions and understand and influence the emotions of others. The emotional state of employees can significantly impact their decision-making and productivity (Goleman, 1998). Therefore, leaders need to be emotionally intelligent and capable of controlling their own emotions when interacting with others
5. Team Building: - A leader is responsible for guiding a group and inspiring them to work toward a shared objective. An effective leader fosters a supportive environment, resolves conflicts, and supports relationship building (Katzenbach & Smith, 1993) within the organisational setting.

1.5 Development of Competencies

These competencies can be developed and improved through experience, training, feedback, and reflective practice and are crucial for effective leadership. The leadership competencies required to break through the glass ceiling in the Indian IT sector are consistent with those identified in general leadership research.

1.6 Focus on the Indian IT sector

Previous studies showcase some of the competencies within the Indian and Indian IT sectors. These include

- Team-building, Innovation Management and implementing disciplinary Action (Bhatnagar,2014),
- Effective communication & interpersonal skills, Acquiring Pertinent Technical and Leadership Skills, and Allocate Resources, Monitor Performance, and Make Corrective Measures (Sanghi, 2016; Mayfield & Mayfield, 2002),
- Decision-making, and delegating responsibility according to a Rigid Structure and Never Deviating (Ghosh,2016),
- Strategic Thinking (Chandra, 2018; Goldman et al., 2015)
- Emotional intelligence and Conflict resolution (Rao, 2017),
- Mentoring and coaching, taking initiative and being assertive (Gupta & Singhal,1993; Gopalan & Rivera, 1997)
- Self-motivation (Kumar & Saha, 2017)
- Establishing robust professional network (Ghosh, 2016)
- Managing work-life equilibrium (Mishra & Sinha, 2014), and
- Continuous learning and skill development (Chandra, 2018)

In conclusion, understanding the differences in leadership competencies and leadership styles is crucial for leadership development and management. While the competencies are the tools and skills, styles determine how these tools are applied to guide and inspire others. The focus of the study is to identify the essential leadership competencies required in Indian IT sector to break the barrier of the glass ceiling. By focusing on competencies over style, this study aims to provide deeper insight into the foundational elements that contribute to successful leadership in the dynamic and evolving industry.

2. Literature Review

The Glass ceiling is a metaphor, a barrier to the growth and career advancement of women. These barriers can be tackled in the growth phase or the initial years of services by practising various skills. Various studies have different opinions on this subject.

Rosener (1990) in their study identifies four distinct leadership styles: Interactive, Transformational, democratic and inclusive. The study highlighted leadership style exhibited by women are collaboration, communication, consensus building, participative decision- making, motivate teams and also value diversity. Women often demonstrate transformational leadership, Characterized by idealized influence, inspirational motivation, intellectual stimulation and individual consideration (Bass & Avilio, 1994). Women also found more effective in attracting higher work satisfaction and motivating subordinate to put in extra efforts (Bass & Avilio,1994). Women are found to be more transformational and men are

more transactional, although equally effective, but transformational leadership positively correlates with satisfaction and performance (Eagly et al., 2003).

Transformational leadership is important in breaking the glass ceiling and promoting gender equality (Thakkar, 2018; Unal & Klinic, 2019). There is huge impact of ownership on women's leadership style, suggesting that ownership enhances leadership behaviour (Tibus, 2010). The Indian IT sector is very dynamic, requiring flexible and adaptive approaches to drive organisational performance (Kaur & Arora, 2010). There is an influence of leadership style on the performance of the Indian IT sector necessitating an examination between transformational, and transactional leadership styles and organisational effectiveness, to identify the importance of leadership approaches to the dynamic nature of the IT industry (Deshpande & Joseph, 2011).

There are many misconceptions about women's roles and challenges in leadership. eliminating gender stereotype and empowering women by providing challenging assignments can foster their advancement (Kulkarni & Bakhare, 2011). Some leadership styles are influenced by cultural and organisational factors in the Indian IT sector which underscores the need for unique leadership competencies (Srinivas & Rangawamy, 2012). The nature of the leadership skills of males and females are complementary and diverse leadership skills may benefit risk management and socially responsible decisions-making (Mishra, 2013).

Gender stereotypes and women's representation in board provoke women to adapt or establish their unique leadership style. Moving beyond traditional comparison with male leadership traits and self-empowerment can help women in breaking the glass ceiling (Baker, 2004). A collective effort from both organisations and women can break down the barrier and promote gender diversity (Nandy et al., 2014). Women often face challenges like gender bias and networking issues which act as a bias in women's advancement. Family support and self-motivation are found as major support systems for women's career advancement (Gupta & Mittal, 2016).

There is a need to frame policies to promote gender diversity and support women's leadership development (Manasa & Subramanian, 2016; Sharma & Bhatnagar, 2019; Chakraborty & Bose, 2020). Organisations can empower women by introducing some gender-sensitive policies and including women at all levels (Sahoo & Lanka, 2016; Bansal & Sinha, 2020). There might be a correlation between leadership competencies and the glass ceiling. The more the skills and behaviour changes are introduced to women less likely to experience the glass ceiling by women. These leadership competencies can be improved over time by organisational support through training programs and supportive public policies (Saleem et al., 2017; Kumar & Sahay, 2019).

Skills such as effective communication and team work will help women advance in their careers (Ahmed & Umadevi, 2017). Networking, Mentorship and guidance, and skill development are essential competencies to lead in the Indian IT sector (Chatterjee & Mukherjee, 2018; Singh & Kapoor, 2020; Vij & Shukla, 2021). Flexible working hours are one of the major demands by women to balance work and life (Sharma & Bhatnagar, 2019).

The literature review covers the studies on leadership styles and leadership competencies. Women working at lower and middle levels must work with these competencies to improve their chances of being promoted to higher positions. These studies provide valuable insights into the various leadership competencies required by women to break the glass ceiling across various cultures and various

industries.

3. Objective of the Study

The objective of the study is:-

To identify the leadership competencies required by women working in the Indian IT sector to break through the glass ceiling.

4. Methodology: -

4.1 Research Design: -This study employs a quantitative research design to evaluate the leadership competencies that empower women to break the glass ceiling in the Indian IT sector.

4.2 Data collection: - Data was collected using a structured questionnaire with a 5-point Likert scale ranging from “strongly disagree” to “Strongly agree”. The questionnaire was designed to record the perception of women in the Indian IT sector regarding the importance of various leadership competencies. To ensure the reliability of the questionnaire, Cronbach's Alpha was calculated.

4.3 Sample: - The study sample consisted of 431 women working in the Indian IT sector. The data was collected using convenience sampling technique, targeting women in lower and middle-level positions in the Indian IT sector.

4.4.Data analysis: - Means score and standard deviations were calculated to determine the importance of perceived leadership competencies. Additionally, a rank order was assigned to the competencies to understand their distribution from most to least important.

5. Data Analysis

5.1 Reliability Analysis

Table:1

Case Processing Summary			
		N	%
Cases	Valid	431	100.0
	Excluded ^a	0	.0
	Total	431	100.0
a. Listwise deletion based on all variables in the procedure.			

Reliability Statistics	
Cronbach's Alpha	N of Items
.796	14

In testing the reliability, Cronbach's Alpha is the good method of measuring internal consistency. This indicate how closely are the set of items in a group related to each other. It is a measure of checking scale reliability. The value of 0.796 is above the accepted threshold of 0.7, which suggests that the items have high internal consistency and the scale is reliable.

5.2 Descriptive Statistics

The questionnaire was based on a 5-point Likert scale ranging from Strongly Disagree to Strongly Agree

(1-5). An evaluation criterion for judging the respondent's score (Leadership Competencies that help women to break through the Glass Ceiling in the Indian IT sector) was taken from one study Hilali and Shaker (2021). The evaluation criteria used for the measurement is:

1. Strongly Disagree (Mean score between 1-1.79) - Very low
2. Disagree (Mean score between 1.80-2.59) – Low
3. Neutral (Mean score between 2.60-3.39) – Medium
4. Agree (Mean score between 3.40-4.19) - High
5. Strongly Agree (Mean score between 4.20-5)- Very High

Table:2

The Statement Code	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	S.D.	Decision	Order
LC1	39.7%	18.3%	7.9%	21.3%	12.8%	2.49	1.497	Low	9
LC2	46.2%	25.3%	8.6%	13.0%	7.0%	2.09	1.300	Low	11
LC3	46.3%	25.5%	9.5%	11.1%	7.7%	2.09	1.299	Low	11
LC4	40.1%	22.0%	7.9%	18.3%	11.6%	2.39	1.452	Low	10
LC5	3.5%	3.7%	7.4%	33.4%	52.0%	4.27	0.993	Very High	8
LC6	0.5%	0.9%	7.0%	31.6%	60.1%	4.50	0.708	Very High	7
LC7	0.9%	0.5%	5.3%	31.6%	61.7%	4.53	0.705	Very High	6
LC8	0.2%	0.9%	5.1%	32.5%	61.3%	4.54	0.660	Very High	5
LC9	0.5%	1.2%	4.2%	28.8%	65.4%	4.58	0.674	Very High	3
LC10	0.7%	0.2%	4.9%	30.4%	63.8%	4.56	0.665	Very High	4
LC11	0.5%	0.7%	4.4%	28.3%	66.1%	4.59	0.655	Very High	2
LC12	0.5%	0.5%	4.2%	28.1%	66.8%	4.60	0.638	Very High	1
LC13	0.5%	0.9%	4.9%	26.7%	67.1%	4.59	0.672	Very High	2
LC14	0.2%	0.7%	4.9%	26.9%	67.3%	4.60	0.638	Very High	1
Average	0.128786	7.24%	6.16%	25.86%	50.61%	3.887143	89.69%	High	

The correlation coefficient between mean score and their order is -0.853 with p value 0.0001. A negative value indicates an inverse relation between the mean score and their rank order. A coefficient close to -1 indicates a strong negative relation. The P value is very low significantly less than 0.005. We can reject the null hypothesis.

5.3 Interpretation: -

1. LC12 Fostering team-unity by effectively managing teams and work-groups

Table:3

LC12[Fostering team-Unity by effectively managing teams and work-groups]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	.5	.5	.5
	disagree	2	.5	.5	.9
	neutral	18	4.2	4.2	5.1
	agree	121	28.1	28.1	33.2
	strongly agree	288	66.8	66.8	100.0
	Total	431	100.0	100.0	

A total of 94.9% of respondents shows agree and strongly agree view towards the leader's ability to manage teams and work groups to foster unity. Team management and unity prominent strength of the leader as underline by significant majority of respondents. These results shows that a leader should be highly effective in fostering team unity, managing group dynamics, and ensuring teamwork.

- Mean score: - 4.60
- Standard Deviation: - 0.638
- Order rank: - 1
- Decision: - Very High
- Distribution: - A very high percentage of respondents show their view as “Agree” (28.1%) and “Strongly Agree” (66.8%).
- Interpretation:** - The competency of Team unity and the ability to manage a work group is perceived as the most important for breaking the glass ceiling. The low Standard Deviation suggests strong agreement among respondents.

2. LC14 Acquiring Pertinent technical and leadership skills

Table: 4

LC14[Acquiring pertinent technical and leadership skills]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	.2	.2	.2
	disagree	3	.7	.7	.9

	neutral	21	4.9	4.9	5.8
	agree	116	26.9	26.9	32.7
	strongly agree	290	67.3	67.3	100.0
	Total	431	100.0	100.0	

A total of 94.2% respondents view is lying towards agree and strongly agree in terms of acquiring pertinent technical and leadership skills. This overwhelming majority marked that a leader should be highly effective and active in acquiring the necessary technical and leadership skills to perform their roles effectively. This competency is crucial as it suggest to continually updating and expanding skill set and staying relevant and effective in leadership position.

- i. Mean Score: 4.60
- ii. Standard Deviation: 0.638
- iii. Order rank: 1
- iv. Decision: Very High
- v. Distribution: A very high percentage of respondents show their view as “Agree” (26.9%) and “Strongly Agree” (67.3%).
- vi. **Interpretation:** The competency of Acquiring Pertinent technical and leadership skills is critical for breaking the glass ceiling as it supports continuous learning and acquiring relevant skills. The mean and S.D. are identical to LC12 showing high importance and consensus.

3. LC11 Managing Work-Life Equilibrium

Table:5

LC11[Managing work-life equilibrium]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	.5	.5	.5
	disagree	3	.7	.7	1.2
	neutral	19	4.4	4.4	5.6
	agree	122	28.3	28.3	33.9
	strongly agree	285	66.1	66.1	100.0
	Total	431	100.0	100.0	

A total of 94.4% respondents show their view as agree and strongly agree regarding management of work-life balance. This competency believe that a leader is effective when they balance professional responsibility and personal life to maintain both productivity and overall well-being. A leader is supposed to foster a culture of work-life balance within the organisation for employee satisfaction and retention.

- i. Mean Score: 4.59
- ii. Standard Deviation: 0.655
- iii. Order: 2
- iv. Decision: Very High
- v. Distribution: A very high percentage of respondents show their view as “Agree” (28.3%) and “Strongly Agree” (66.1%).

- vi. **Interpretation:** Managing work-life balance is crucial at personal and organisational levels to break the glass ceiling, reflecting its high rank and low variability in responses.

4. LC13 Taking Initiative and being assertive

Table:6

LC13[Taking Initiative and being assertive]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	.5	.5	.5
	disagree	4	.9	.9	1.4
	neutral	21	4.9	4.9	6.3
	agree	115	26.7	26.7	32.9
	strongly agree	289	67.1	67.1	100.0
	Total	431	100.0	100.0	

A total of 93.8% respondents shows their views as agree and strongly agree on the competency in terms of their ability to take initiative and be assertive. The results suggest that a leader should be highly effective at taking initiative and being assertive, essentially that involves proactive decision-making ability, stepping up to challenges and confidently asserting one's ideas.

- Mean Score: 4.59
- Standard Deviation: 0.679
- Order: 2
- Decision: Very High
- Distribution: A very high percentage of respondents show their view as “Agree” (26.7%) and “Strongly Agree” (67.1%).
- Interpretation:** The competency of taking initiative and being assertive is perceived as the most important for breaking the glass ceiling in Indian IT sector. The low Standard Deviation suggests strong agreement among respondents.

5. LC9 Emotional Intelligence

Table:7

LC9[Emotional intelligence]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	.5	.5	.5
	disagree	5	1.2	1.2	1.6
	neutral	18	4.2	4.2	5.8
	agree	124	28.8	28.8	34.6
	strongly agree	282	65.4	65.4	100.0
	Total	431	100.0	100.0	

A total of 94.2% of respondents show their views as agree and strongly agree towards leadership

competency emotional intelligence. The results suggest that being emotionally intelligent is an essential leadership trait for managing one's own emotions and those of others. This skills is essential in managing conflicts, building relationships and for fostering effective communication.

- i. Mean score: - 4.58
- ii. Standard Deviation: - 0.674
- iii. Order rank: - 3
- iv. Decision: - Very High
- v. Distribution: - A very high percentage of respondents show their view as “Agree” (28.8%) and “Strongly Agree” (65.4%).
- vi. **Interpretation:** - The competency of Emotional intelligence is perceived as one of the important for breaking the glass ceiling in Indian IT sector. The low Standard Deviation suggests strong agreement among respondents.

6. LC10 Establishing robust professional network

Table:8

LC10[Establishing robust professional network]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	3	.7	.7	.7
	disagree	1	.2	.2	.9
	neutral	21	4.9	4.9	5.8
	agree	131	30.4	30.4	36.2
	strongly agree	275	63.8	63.8	100.0
	Total	431	100.0	100.0	

A Combined total of 94.2% respondents view the competency establish professional network as important. The results indicate that a leader should be highly effective in establishing professional network. This is a key competency and involves connecting peers, Industry leaders and other stakeholders to foster relationship, share knowledge, and build alliances.

- i. Mean score: - 4.56
- ii. Standard Deviation: - 0.665
- iii. Order rank: - 4
- iv. Decision: - Very High
- v. Distribution: - A very high percentage of respondents show their view as “Agree” (30.4%) and “Strongly Agree” (63.8%).
- vi. **Interpretation:** - The competency of Establishing a professional network is perceived as one of the important for breaking the glass ceiling in the Indian IT sector. The low Standard Deviation suggests strong agreement among respondents.

7. LC8 Self-Motivation

Table:9

LC8[Self-Motivation]

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	.2	.2	.2
	disagree	4	.9	.9	1.2
	neutral	22	5.1	5.1	6.3
	agree	140	32.5	32.5	38.7
	strongly agree	264	61.3	61.3	100.0
	Total	431	100.0	100.0	

A total of 93.8% of respondents show their view as agree and strongly agree towards the competency of Self-Motivation. The results suggests that a leader should be effective in demonstrating self-motivation that also involve initiative, drive, and a proactive approach to both personal and organisational challenges.

- i. Mean score: - 4.54
- ii. Standard Deviation: - 0.660
- iii. Order rank: - 5
- iv. Decision: - Very High
- v. Distribution: - A very high percentage of respondents show their view as “Agree” (32.5%) and “Strongly Agree” (61.3%).
- vi. **Interpretation:** - The competency of Self-Motivation also is perceived as one of the important for breaking the glass ceiling in the Indian IT sector. The low Standard Deviation suggests strong agreement among respondents.

8. LC7 Effective communication and interpersonal skills

Table:10

LC7[Effective communication and interpersonal skills]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	4	.9	.9	.9
	disagree	2	.5	.5	1.4
	neutral	23	5.3	5.3	6.7
	agree	136	31.6	31.6	38.3
	strongly agree	266	61.7	61.7	100.0
	Total	431	100.0	100.0	

A total of 93.3% of participants agreed and strongly agreed to have competencies like communication and interpersonal skills. The results suggest that effective communication and interpersonal skills are the strong areas for a leader should have. The ability to communicate effectively and interpersonal skills are fundamental for leadership success, as it involves for conveying messages clearly, engaging with diverse groups, building relationships and fostering a cooperative work environment.

- i. Mean score: - 4.53
- ii. Standard Deviation: - 0.705
- iii. Order rank: - 6
- iv. Decision: - Very High
- v. Distribution: - A very high percentage of respondents show their views as “Agree” (31.6%) and “Strongly Agree” (61.7%).
- vi. **Interpretation:** - The competency of effective communication and interpersonal skills are important to breaking through the glass ceiling in the Indian IT sector. The low standard deviation suggests strong agreement among respondents.

9. LC6 Seeking mentorship and guidance

Table:11

LC6[Seeking mentorship and guidance]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	.5	.5	.5
	disagree	4	.9	.9	1.4
	neutral	30	7.0	7.0	8.4
	agree	136	31.6	31.6	39.9
	strongly agree	259	60.1	60.1	100.0
	Total	431	100.0	100.0	

A total majority of 91.7% of respondents share their views as agree and strongly agree in terms of seeking mentorship and guidance. The results suggest that leaders should be highly effective in seeking mentorship and guidance. This is known as a key aspect of leadership that involves recognizing the value of continuous learning and development through others' experiences and wisdom.

- i. Mean score: - 4.50
- ii. Standard Deviation: - 0.708
- iii. Order rank: - 7
- iv. Decision: - Very High
- v. Distribution: - A very high percentage of respondents show their views as “Agree” (31.6%) and “Strongly Agree” (60.1%).
- vi. **Interpretation:** - The competency of seeking mentorship and guidance is crucial for personal growth and effective decision making which ultimately helps to break through the glass ceiling in Indian IT sector. The low standard deviation suggests strong agreement among respondents.

10. LC5 Continuous learning and skill development

Table:12

LC5[Continuous learning and skill development]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	15	3.5	3.5	3.5

	disagree	16	3.7	3.7	7.2
	neutral	32	7.4	7.4	14.6
	agree	144	33.4	33.4	48.0
	strongly agree	224	52.0	52.0	100.0
	Total	431	100.0	100.0	

A total of 85.4% of participants marked as agree and strongly agree view the leader in terms of encouraging continuous learning and skill development. The results suggest that a leader should be effective in promoting continuous learning and skill development. The respondents agreed that one who can prioritise and implement strategies that support professional development can make a skilled and professional workforce.

- i. Mean score: - 4.27
- ii. Standard Deviation: - 0.993
- iii. Order rank: - 8
- iv. Decision: - Very High
- v. Distribution: - A very high percentage of respondents show their views as “Agree” (33.4%) and “Strongly Agree” (52.0%).
- vi. **Interpretation:** - The competency of promoting continuous learning and skill development really helps in breaking through the glass ceiling in the Indian IT sector. The low standard deviation suggests strong agreement among respondents.

11. LC1 Make strategic decision and clear expectation towards work

Table:13

LC1[Make Strategic decision and clear expectation towards work.]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	171	39.7	39.7	39.7
	disagree	79	18.3	18.3	58.0
	neutral	34	7.9	7.9	65.9
	agree	92	21.3	21.3	87.2
	strongly agree	55	12.8	12.8	100.0
	Total	431	100.0	100.0	

Out of 431 respondents, a majority of 58% respondents are either disagree or strongly disagree with the statement "making strategic decisions and setting clear expectations". The results suggest that there should be open communication, and feedback mechanisms to ensure alignment and satisfaction with leadership practices.

- i. Mean score: - 2.49
- ii. Standard Deviation: - 1.497
- iii. Order rank: - 9
- iv. Decision: - Low
- v. Distribution: - A very high percentage of respondents show their views as “Disagree” (18.3%) and “Strongly Disagree” (39.7%).

- vi. **Interpretation:** - This competency is perceived as less important, with a significant portion of respondents disagreeing with its importance. The high Standard deviation also suggests strong disagreement among respondents.

12. LC4 Allocate resources, monitor performance and make corrective measures

Table:14

LC4 [Allocate resources, monitor performance and make corrective measures]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	173	40.1	40.1	40.1
	disagree	95	22.0	22.0	62.2
	neutral	34	7.9	7.9	70.1
	agree	79	18.3	18.3	88.4
	strongly agree	50	11.6	11.6	100.0
	Total	431	100.0	100.0	

A major portion of respondents i.e. 62%, strongly disagree with the effectiveness of leader on how resources are allocated, performances monitored, and how corrective actions are managed. The results indicate that there might be issues with this type of competency on resource utilization and management, performance evaluation and corrective measures to be taken.

- Mean Score: 2.39
- Standard Deviation: 1.452
- Order rank: 10
- Decision: Low
- Distribution: A very high percentage of respondents show their views as “Disagree” (22.0%) and “Strongly Disagree” (40.1%).
- Interpretation:** The competency of Resource allocation and performance monitoring are seen as moderately important but not as critical as other competencies. The high standard deviation also suggests strong disagreement among respondents.

13. LC2 Implement disciplinary action

Table:15

LC2[Implement disciplinary action]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	199	46.2	46.2	46.2
	disagree	109	25.3	25.3	71.5
	neutral	37	8.6	8.6	80.0
	agree	56	13.0	13.0	93.0
	strongly agree	30	7.0	7.0	100.0
	Total	431	100.0	100.0	

A major portion of respondents i.e. 71.5% express their disagreement with the leadership competency to implement disciplinary action. The result indicates the perception of how these disciplinary actions are taken and implemented. The high level of disagreement suggest issue related to unfairness, transparency and inconsistency.

- i. Mean Score: 2.09
- ii. Standard Deviation: 1.300
- iii. Order rank: 11
- iv. Decision: Low
- v. Distribution: A very high percentage of respondents show their views as “Disagree” (25.3%) and “Strongly Disagree” (46.2%).
- vi. **Interpretation:** This competency is perceived as less important as also can be seen with the high standard deviation that a significant portion of respondents disagree.

14. Delegating responsibility according to rigid structure and never deviates

Table:16

LC3[Delegating responsibility according to rigid structure and never deviates]					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	199	46.2	46.2	46.2
	disagree	110	25.5	25.5	71.7
	neutral	41	9.5	9.5	81.2
	agree	48	11.1	11.1	92.3
	strongly agree	33	7.7	7.7	100.0
	Total	431	100.0	100.0	

A total of 71.8% of respondents show their disagreement to the competency of rigid and unchanging approach. A high level of disagreement shows how rigidity in work will be perceived as a negative trait in a leader.

- i. Mean Score: 2.09
- ii. Standard Deviation: 1.299
- iii. Order rank: 11
- iv. Decision: Low
- v. Distribution: A very high percentage of respondents show their views as “Disagree” (25.65%) and “Strongly Disagree” (46.3%).
- vi. **Interpretation:** Similar to LC2, this competency is also seen as less critical, with a high standard deviation and large disagreement among respondents.

6. Findings of the Study

The study disclosed various leadership competencies required to break the glass ceiling in the Indian IT sector. The key findings are:-

6.1 High-Importance Leadership Competencies: The competencies with higher mean score and low standard deviation are the competencies marked by the respondents as highly important. These are

- Fostering team unity
- Acquiring pertinent technical and leadership skills
- Managing work-life balance
- Taking initiative and being assertive
- Emotional intelligence, establishing a robust professional network
- Effective communication and interpersonal skills
- Seeking mentorship and guidance, and
- Continuous learning and skill development.

6.2 Low-Importance Leadership Competencies: The competencies with low mean scores and high standard deviations are marked by respondents as less important or not important at all. The competencies are

- Making strategic decision and setting clear expectations
- allocating resources, Monitoring performance, and making corrective measures,
- Implementing disciplinary action, and
- Delegating responsibility according to rigid structure.

This indicates different opinions on their relevance to breaking the glass ceiling In the Indian IT sector. The findings of the study suggest to empower women to break through the glass ceiling, there should be a focus on developing high-important competencies through training and development programs. Organisations must create a supportive environment for women to advance to leadership positions.

7. Conclusion

This study identified leadership competencies required to break the glass ceiling in the Indian IT sector focusing on the skills, attitudes and behaviours women must practice and adopt to achieve a leadership positions. The finding suggested that certain competencies are crucial for achieving leadership positions in the Indian IT sector. The most important competency include acquiring technical and leadership skills, fostering team unity, managing work-life balance, taking initiative and being assertive, emotional intelligence, and establishing a robust professional network.

Working women can empower themselves by developing these skills throughout their careers. Organisations can provide training and development programs to enhance individual capacities and create a more supportive environment. Organisations can also provide opportunities for development by indulging women in more challenging and decision-making tasks.

Family is the major factor which holds women back from taking challenging assignments. There is a huge urge for women to support policies that help work-life equilibrium. Women found that family responsibility and lack of organisational support restrict their learning capability. They found that family support, continuous learning, skills development, proper guidance and mentoring will surely help them break the glass ceiling in the Indian IT sector.

This study provided a detailed understanding of the leadership competencies women must learn to lead in the Indian IT sector. Organisations must promote a culture of value diversity and further encourage women to attain leadership roles. This can be done by promoting gender equality and leadership diversity by addressing these competencies. A collective effort from both organisations and women can dismantle barriers and promote gender diversity in leadership roles with in Indian IT sector.

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