

How Women's Leadership Shapes Firm Performance in the Indian IT Services Sector: A Quantitative Study of Women Leaders

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Abstract: This research work examines how women's leadership is associated with firm performance in the Indian information technology and IT-enabled services (IT/ITES) context. Using a research survey of 50 women leaders, the study operationalizes five constructs: organizational support, women leadership effectiveness, leadership barriers, organizational effectiveness, and firm performance. Item responses were recorded on a five-point Likert scale, with barrier items reverse coded so that higher construct scores represent fewer perceived barriers. Analysis was conducted in Microsoft Excel using formula-based descriptive statistics, Cronbach's alpha, Pearson correlation, and ordinary least-squares regression. The results show that women leadership effectiveness is strongly and positively associated with firm performance ($r = 0.714$, $p < .001$), explaining approximately 51.0% of the variance in a focal simple regression. Organizational support is also positively associated with firm performance ($r = 0.684$, $p < .001$), while organizational effectiveness has a strong positive relationship with firm performance ($r = 0.752$, $p < .001$). Leadership barriers show the strongest bivariate relationship in absolute terms and are negatively associated with firm performance ($r = -0.824$, $p < .001$). In the simultaneous four-predictor model, the constructs explain approximately 69.6% of the variance in firm performance (adjusted $R^2 = 0.669$); however, only leadership barriers makes a statistically significant unique contribution ($B = -0.720$, $p = .001$). The findings suggest that the performance value of women's leadership is closely connected with the organizational conditions surrounding leaders, rather than with leadership presence alone. Given the small, non-probability, self-reported and cross-sectional data, the findings should be interpreted as evidence of association rather than causality and should be replicated with larger, longitudinal and multi-source data.

Keywords: women leadership; firm performance; organizational effectiveness; leadership barriers; IT/ITES; India; gender diversity; organizational support

1. Introduction

Women's participation in organizational leadership has moved from being treated mainly as an equality issue to becoming a substantive question in corporate governance, strategic management and organizational research. Yet the empirical literature does not support a simple claim that increasing the number of women in leadership automatically improves financial performance. Evidence varies with the level of leadership examined, the performance measure used, the institutional setting and the extent to which women leaders have meaningful decision authority. Meta-analytic work has reported mixed findings for the board gender diversity–financial performance relationship, while more recent work points to the importance of contextual conditions and the actual roles performed by women directors (Pletzer et al., 2015; Jeong & Harrison, 2017).

The Indian setting is particularly relevant because institutional changes have increased women's formal representation in corporate governance, while organizational cultures and informal networks can continue to shape access to influential positions. Indian evidence is similarly heterogeneous. Jyothi and Mangalagiri (2019) reported



positive effects of women directors on ROA and Tobin's Q, whereas Chauhan and Dey (2017) reported no meaningful performance effect. Chatterjee and Nag (2022) found that the mere presence of a woman director did not necessarily change financial performance, but that meaningful representation and active participation were associated with stronger performance. More recent studies further suggest that women's network positions, board roles and institutional context can influence whether gender diversity translates into firm value (Biswas et al., 2024; Saha, 2023; Shah, 2024).

The present study shifts attention from board composition alone to women who are actively working as leaders in the IT/ITES environment. This distinction matters because leadership in technology services is embedded in project delivery, client relationships, people management, innovation, digital transformation and knowledge-intensive work. The study therefore examines not only women leadership effectiveness but also organizational support and leadership barriers, while treating organizational effectiveness as a related organizational outcome and firm performance as the focal dependent variable.

2. Literature Review and Theoretical Basis

2.1 Women leadership and performance

Leadership research generally does not justify treating women and men as categorically different types of leaders. A classic meta-analysis found that women and men were broadly similar in leadership effectiveness, with effectiveness varying by role context and gender composition (Eagly et al., 1995). Another meta-analysis found that women leaders, on average, displayed somewhat more transformational and contingent-reward behaviours than men (Eagly et al., 2003). More recent evidence continues to show that evaluations of leadership behaviours depend on the specific behaviour, role and organizational setting rather than gender alone (Paustian-Underdahl et al., 2024).

For firm-level outcomes, the literature remains mixed. Pletzer et al. (2015) found no overall financial-performance advantage from female board representation in their meta-analysis, whereas Jeong and Harrison (2017) reported that women CEOs and top-management members can contribute to value creation under particular conditions. Recent meta-analytic research on female leadership and innovation likewise suggests that gender-diverse leadership teams can support innovation, but the effect differs between individual female leaders and leadership teams (Platz et al., 2025). These findings support a contingency perspective: the contribution of women leaders depends on organizational systems, authority, inclusion and the processes through which diverse perspectives are converted into decisions.

2.2 Indian evidence

Indian studies provide an especially useful context for this contingency argument. Jyothi and Mangalagiri (2019) reported positive relationships between women directors and firm performance, while Chauhan and Dey (2017) found that gender diversity did not matter in their sample. Chatterjee and Nag (2022) showed that the active role of women directors mattered more than token presence. Saha (2023) examined the roles performed by female directors and linked empowered roles with financial performance, while Biswas, Sarkar and Selarka (2024) found that women director interlocks can improve firm value through information and governance channels. At the same time, Kumar et al. (2020) reported limited evidence for financial effects when women's representation remained too small to influence board processes. Taken together, these studies suggest that representation is only one part of the mechanism.

2.3 Theoretical framing

The study is informed primarily by resource dependence and upper-echelons perspectives. Resource dependence theory proposes that leaders and boards can provide access to information, relationships, legitimacy and other resources. From this perspective, women leaders may contribute value when their experiences and networks broaden the organization's resource base. Recent Indian evidence on women director interlocks provides empirical support for information and governance mechanisms consistent with this perspective (Biswas et al., 2024). Upper-echelons reasoning adds that characteristics and experiences of senior decision-makers can shape strategic choices

and organizational outcomes. However, neither perspective implies that demographic diversity automatically creates performance gains; the organizational context determines whether diverse resources and viewpoints are actually used.

3. Research Objectives and Hypotheses

The study has four objectives:

To assess the perceived level of organizational support available to women leaders.

To examine the association between women leadership effectiveness and firm performance.

To examine whether leadership barriers are associated with firm performance.

To evaluate the combined explanatory contribution of organizational support, women leadership effectiveness, leadership barriers and organizational effectiveness to firm performance.

The hypotheses tested were:

H1: Women leadership effectiveness is positively associated with firm performance.

H2: Organizational support for women leaders is positively associated with firm performance.

H3: Leadership barriers are negatively associated with firm performance.

H4: Organizational effectiveness is positively associated with firm performance.

4. Methodology

4.1 Research design and sample

The research work uses a quantitative, cross-sectional survey design. The supplied workbook contains 50 women-leader participants. The respondents represent different leadership levels, organization types, functional areas and organizational sizes. Because the dataset contains only data of 50 respondents and no probability sampling used, the analysis treats the data as non-probability/exploratory rather than statistically representative of all women leaders in Indian IT sector.

4.2 Measures and coding

The instrument contains five substantive constructs. Organizational Support comprises five items; Women Leadership Effectiveness comprises five items; Leadership Barriers comprises five items; Organizational Effectiveness comprises six items; and Firm Performance comprises four items. All substantive items use a five-point response scale. The five barrier items are reverse coded using 6 – response so that higher scores indicate fewer barriers. The final consent item is retained in the raw data but is not used as a substantive analytical variable.

4.3 Reliability

Cronbach's alpha was calculated from the actual item responses using the standard variance formula. The resulting coefficients were 0.762 for Organizational Support, 0.820 for Women Leadership Effectiveness, 0.760 for Leadership Barriers, 0.835 for Organizational Effectiveness and 0.784 for Firm Performance. These values indicate acceptable to good internal consistency for an exploratory study. Importantly, the observed values were not manipulated to reach a predetermined target range.

4.4 Data analysis

Excel was used as the principal analysis environment. The data uses formula-based computation for means, standard deviations, variances, medians, Pearson correlations and regression statistics. Simple OLS regression was used for the focal H1 test, while a four-predictor OLS model was used to assess the unique contribution of the four explanatory constructs. Statistical significance was evaluated at the 5% level using two-tailed tests.

5. Results

5.1 Participant profile

The demographic and organizational profile of the surveyed data highlights a well-educated and dynamic group of professionals. Regarding age distribution, nearly two-thirds of the participants are 40 years old or younger, with equal representation in the "Below 30" (32.0%, $n=16$) and "30–40" (32.0%, $n=16$) cohorts. Those aged 41–50 and above 50 represent 16.0% ($n=8$) and 20.0% ($n=10$) of the sample, respectively.

The educational background indicates high academic attainment. A Master's degree is the most prevalent credential (32.0%, $n=16$), followed by Bachelor's degrees (26.0%, $n=13$) and MBA/PGDM qualifications (24.0%, $n=12$). Professional certifications account for 14.0% ($n=7$), while 4.0% ($n=2$) hold a Doctorate. In terms of hierarchy, the majority of respondents occupy middle management positions (64.0%, $n=32$), with senior management representing 30.0% ($n=15$) and executive leaders making up 6.0% ($n=3$).

Finally, organization type reveals that most respondents are employed in Global MNCs/GCCs (46.0%, $n=23$) and Indian IT services companies (30.0%, $n=15$). The remaining sample is distributed among BPO-ITeS (10.0%), product-based firms (8.0%), and startups (6.0%). Overall, the cohort predominantly reflects mid-level leaders across prominent IT and multinational organizations.

Table 1. Participant Profile of the 50 women leaders in the dataset.

Characteristic	Category	n (%)
Age	Below 30	16 (32.0%)
	30–40	16 (32.0%)
	41–50	8 (16.0%)
	Above 50	10 (20.0%)
Education	Master's degree	16 (32.0%)
	Bachelor's degree	13 (26.0%)
	MBA-PGDM	12 (24.0%)
	Professional certification	7 (14.0%)
	Doctorate	2 (4.0%)
Leadership level	Middle management	32 (64.0%)
	Senior management	15 (30.0%)
	Executive leaders	3 (6.0%)
Organization type	Global MNC/GCC	23 (46.0%)
	Indian IT services company	15 (30.0%)
	BPO-ITeS	5 (10.0%)
	Product-based company	4 (8.0%)
	Startup	3 (6.0%)

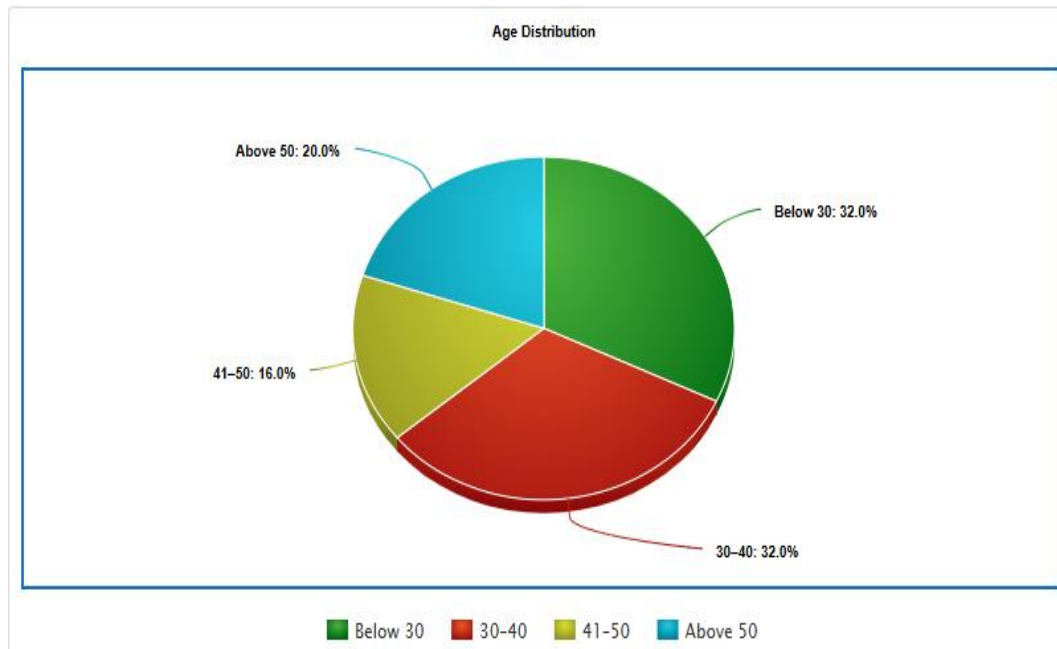


Figure 1. Age distribution of participants.

5.2 Descriptive statistics

Table 2. Descriptive statistics of the study constructs

Construct	N	Mean	SD	Min	Max
Organizational Support	50	3.000	0.781	1.200	4.600
Women Leadership Effectiveness	50	3.008	0.873	1.200	4.800
Leadership Barriers	50	3.024	0.789	1.200	4.800
Organizational Effectiveness	50	3.020	0.832	1.500	4.833
Firm Performance	50	3.030	0.868	1.000	5.000

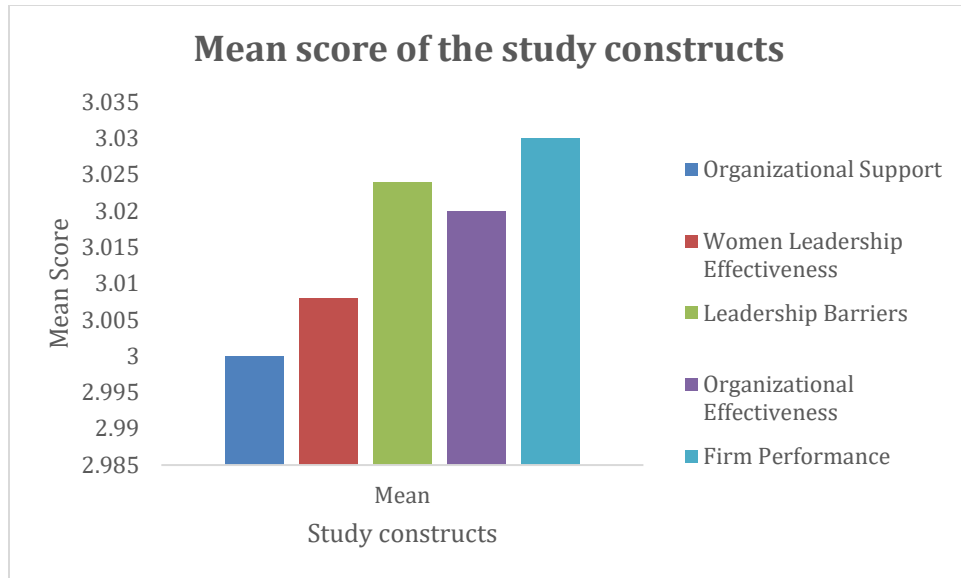


Figure 2: Mean score of the study constructs

The construct means are tightly clustered around 3.00 on the five-point scale. Firm Performance has a mean of 3.030 (SD = 0.868), while Women Leadership Effectiveness has a mean of 3.008 (SD = 0.873). Organizational Support is exactly 3.000 on average. Leadership Barriers, after reverse coding, has a mean of 3.024. The pattern indicates neither uniformly high nor uniformly low perceptions; rather, respondents show moderate assessments with meaningful variation across participants.

5.3 Correlation analysis

Table 3. Pearson correlation matrix.

Construct	FP	OS	WLE	LB	OE
Organizational Support	0.684	1	0.75	-0.818	0.783
Women Leadership Effectiveness	0.714	0.75	1	-0.818	0.831
Leadership Barriers	-0.824	-0.818	-0.818	1	-0.826
Organizational Effectiveness	0.752	0.783	0.831	-0.826	1
Firm Performance	1	0.684	0.714	-0.824	0.752

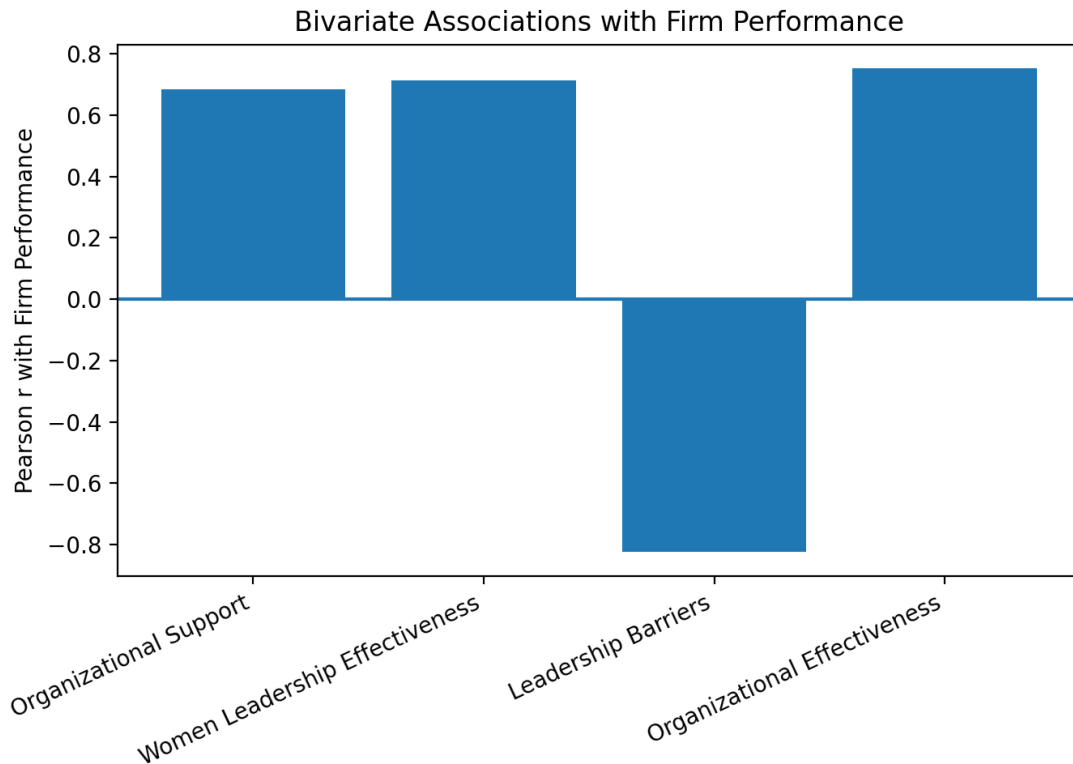


Figure 4: Bivariate Association with Firm Performance

Women Leadership Effectiveness is strongly and positively related to Firm Performance ($r = .714$, $p < .001$). Organizational Support is also strongly related to Firm Performance ($r = .684$, $p < .001$), and Organizational Effectiveness has the strongest positive association among the non-barrier constructs ($r = .752$, $p < .001$). Leadership Barriers have a strong negative association with Firm Performance ($r = -.824$, $p < .001$). These results indicate that the organizational environment surrounding women leaders may be as important as leadership effectiveness itself.

5.4 Focal regression: women leadership effectiveness and firm performance

A simple OLS model was estimated with Firm Performance as the dependent variable and Women Leadership Effectiveness as the predictor. The model produced $R = .714$ and $R^2 = .510$. The slope was $B = .710$ ($SE = .100$), $t(48) = 7.07$, $p < .001$. Thus, a one-point increase in the Women Leadership Effectiveness scale is associated with an estimated 0.71-point increase in Firm Performance in this sample.

Table 4. Focal simple regression

Model	R	R ²	B	p
WLE → FP	.714	.510	.710	< .001



Figure 5. Scatterplot of Women Leadership Effectiveness and Firm Performance.

5.5 Multiple regression

The four-predictor model explains 69.6% of the variance in Firm Performance ($R^2 = .696$; adjusted $R^2 = .669$), $F(4,45) = 25.78$, $p < .001$. However, the simultaneous model changes the interpretation of the bivariate results because the predictors are themselves strongly related. Leadership Barriers remains statistically significant after controlling for the other constructs ($B = -.720$, $SE = .195$, $\beta = -.655$, $t = -3.695$, $p = .001$). Organizational Support ($B = -.056$, $p = .744$), Women Leadership Effectiveness ($B = .027$, $p = .870$), and Organizational Effectiveness ($B = .238$, $p = .190$) do not make statistically significant unique contributions in the full model.

Table 5. Multiple regression predicting Firm Performance.

Predictor	B	SE	β	t	p
Organizational Support	-0.056	0.169	-0.050	-0.329	0.744
Women Leadership Effectiveness	0.027	0.163	0.027	0.165	0.870
Leadership Barriers	-0.720	0.195	-0.655	-3.695	0.001
Organizational Effectiveness	0.238	0.179	0.228	1.330	0.190

Variance-inflation factors were approximately 3.43 for Organizational Support, 3.96 for Women Leadership Effectiveness, 4.65 for Leadership Barriers and 4.37 for Organizational Effectiveness. These values suggest notable overlap among predictors but do not by themselves indicate severe multicollinearity. The contrast between strong

bivariate relationships and weaker unique effects in the full model should therefore be treated as evidence of shared explanatory variance rather than as evidence that women leadership is irrelevant.

6. Hypothesis Assessment

Table 6. Hypothesis assessment based on bivariate tests

Hypothesis	Evidence	Statistic	p	Decision
H1	WLE → FP	$r = .714$; $R^2 = .510$	$< .001$	Supported
H2	OS → FP	$r = .684$	$< .001$	Supported
H3	LB → FP	$r = -.824$	$< .001$	Supported
H4	OE → FP	$r = .752$	$< .001$	Supported

7. Discussion

The most important result is the strong positive bivariate association between women leadership effectiveness and firm performance. This finding is consistent with research suggesting that women's participation in strategic leadership can contribute to organizational value under enabling conditions. It also fits the broader argument that the business value of gender diversity is not simply a consequence of representation; rather, diverse leadership can matter when leaders possess meaningful authority, participate in decision processes and can convert different experiences into organizational resources.

At the same time, the multiple regression provides a more cautious interpretation. Women Leadership Effectiveness is strongly correlated with Firm Performance but does not remain statistically significant once organizational support, barriers and organizational effectiveness are entered simultaneously. This is not a contradiction. It indicates that the constructs share substantial information. The strongest unique predictor is the reverse-coded Leadership Barriers measure, with a negative coefficient. In practical terms, organizations in which women experience stronger barriers tend to report weaker firm-performance outcomes, even after accounting for the other constructs.

This finding is particularly relevant to the IT/ITES sector, where leadership depends heavily on access to high-visibility projects, sponsorship, professional networks, promotion systems and flexible work arrangements. If women leaders have formal titles but limited access to influential assignments or decision networks, the organization may not obtain the full value of their human and social capital. The result therefore supports a shift from a representation-only approach toward an inclusion-and-enablement approach.

The positive relationship between Organizational Support and Firm Performance also deserves attention. Although support does not make a significant unique contribution in the four-predictor model, its strong bivariate relationship suggests that supportive systems are closely intertwined with other performance-relevant conditions. Mentoring, sponsorship, transparent promotion criteria, accessible leadership development and networking opportunities may operate as a connected organizational system rather than as isolated interventions.

The Indian literature provides a useful comparison. Some Indian studies report positive effects of women directors on performance, while others find limited or conditional effects. The present findings are compatible with this mixed evidence because they point toward context and mechanisms. They also align with recent work showing that women director networks can generate informational and governance advantages and that the effects of gender diversity can depend on how women participate in organizational decision-making.

8. Managerial Implications

Move beyond representation targets. Increasing the number of women in leadership should be accompanied by decision authority, access to strategic assignments and visible accountability for inclusion.

Strengthen sponsorship as distinct from mentoring. Mentoring provides advice; sponsorship can create access to opportunities, senior visibility and advancement pathways.

Audit promotion and performance evaluation systems for hidden barriers. The strong negative association between barriers and firm performance makes transparent promotion criteria and bias-aware evaluation strategically relevant.

Build leadership pipelines early. The data is concentrated in middle management, suggesting that organizations should develop structured pathways from middle management into senior and executive roles.

Protect flexibility without career penalties. Flexible and hybrid work arrangements should be designed so that caregiving responsibilities do not reduce access to high-value projects or advancement.

Measure outcomes, not only participation. Firms should track promotion rates, retention, engagement, innovation, project outcomes and business performance by leadership composition and career stage.

9. Limitations and Future Research

The study has several limitations. First, the data contains only 50 participants, which limits statistical power and generalisability. Second, the data are cross-sectional and therefore cannot establish temporal precedence or causality. Third, all principal measures are self-reported, creating potential common-method and perceptual bias. Fourth, the data includes several organization types beyond traditional Indian IT services, so sector-specific conclusions should be interpreted cautiously. Fifth, the current dataset does not include audited firm-level financial indicators such as ROA, ROE, Tobin's Q, revenue growth or productivity. Firm Performance is therefore a perceptual construct rather than an accounting measure.

Future studies should use larger probability or stratified samples across major Indian IT hubs, including Hyderabad, Bengaluru, Pune, Chennai, Mumbai and NCR. Longitudinal designs would allow researchers to examine whether changes in women's leadership representation and organizational support precede changes in performance. Multi-source designs should combine leader surveys with employee outcomes, HR records and objective firm-level indicators. Future work could also test mediation through employee engagement and organizational culture and moderation by organizational support, leadership level and organizational type.

10. Conclusion

This study provides evidence that women leadership is closely associated with perceived firm performance among the 50 women leaders represented in the supplied dataset. The focal relationship between Women Leadership Effectiveness and Firm Performance is strong and positive, while leadership barriers show an even stronger negative bivariate association with performance. The full regression model indicates that these relationships are intertwined: once the organizational environment and effectiveness constructs are considered together, barriers emerge as the clearest unique predictor.

The central implication is therefore not that women leaders automatically produce superior performance, but that organizations are more likely to realise the potential contribution of women leaders when structural barriers are reduced and leadership is supported by fair promotion systems, sponsorship, development opportunities, visibility and inclusive work practices. This interpretation is consistent with the broader literature, which increasingly treats gender diversity as a contextual organizational resource rather than a stand-alone performance lever.

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