

Women Directors and Corporate Reputation: Evidence from Indian Manufacturing Firms

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[10.5281/zenodo.18800769](https://doi.org/10.5281/zenodo.18800769)

Abstract:

This study examines the influence of women directors on corporate reputation of Indian manufacturing firms. The analysis is based on a sample of 253 manufacturing companies listed in the NSE 500 index in India during 2015-2024. Secondary data are retrieved from the ACE Equity database and the annual reports of the selected firms. A dynamic panel data approach is employed to assess the effect of female board representation on corporate reputation. The research outcomes state that reputation is negatively impacted by women directors, possibly due to the low participation of females on Indian boards. The study therefore underscores the importance of achieving a ‘critical mass’ of women directors on boards to move beyond symbolic compliance and obtain reputational benefits.

Keywords: Women directors, Corporate reputation, Indian companies, Dynamic panel data

1. Introduction

Historically, Indian corporate boards have been largely male dominated, with female participation remaining very limited. This imbalance is closely linked with the socio-cultural aspects of Indian society, where leadership roles in business have traditionally been occupied by men. Although the ‘Indian Constitution’ has guaranteed ‘gender equality’ in the preamble, female involvement in workforce and in corporate decision-making has remained relatively low.

Globally, several developed economies have taken strong regulatory policies to encourage gender diversity on boards. Norway, France, Iceland, Germany, and Belgium have introduced mandatory quotas requiring at least 40 percent female appointments on publicly listed companies’ boards. Similarly, Australia, the UK, and Sweden actively promote a balanced gender mix in company boards. Inspired by this, India has mandated the inclusion of ‘at least one woman director’ on the boards of every ‘publicly listed company’ through the new ‘Companies Act, 2013.’

While these regulatory initiatives aim to promote gender equality, it remains important to discover how women directors contribute to business reputation. Reputation is a valuable intangible asset that reflects stakeholders’ collective perceptions about a firm’s credibility, ethical conduct, and governance quality. Corporate governance mechanisms, especially the board composition, play a crucial role in shaping corporate reputation (Bravo et al., 2015; Kaur & Singh, 2018a; Eriqat et al., 2023). One important element of board composition is gender diversity, and numerous studies have explored its relationship with corporate reputation. However, the evidence remains mixed and inconclusive. Some studies found that gender diverse boards improve decision-making quality, ethical oversight, and stakeholder engagement, which may positively influence firm’s public image (Navarro-García et al., 2022; Brammer et al., 2009; Kaur & Singh, 2017). Conversely, other studies argue that symbolic appointments and lack of ‘critical mass’ of female directors on company boards may reduce their effectiveness, which leads to negative outcomes (Torchia et al., 2011; Lim et al., 2019).

Since researchers offer conflicting findings regarding the linkage between female directorship and company reputation, and there are few studies showing such relationship in the Indian setting, our study seeks to address this research gap by analysing the impact of female directorships on business reputation in Indian manufacturing companies.

2. Literature Review and Research Hypothesis

Previous empirical studies have identified gender diversity as a crucial factor influencing corporate reputation and highlight its role in effective board composition (Navarro-García et al.,

2022; Pinheiro et al., 2024; Brammer et al., 2009). Several empirical studies have explored the role of women directors in recent times, but their findings remain mixed. Some researchers, such as Kaur and Singh (2017) and Pinheiro et al. (2024), have noticed a positive response from stakeholders to the presence of women directors on company boards. Burke (1997) argues that female executives contribute valuable knowledge and experience to boards and are more sensitive to stakeholder concerns. Accordingly, firms that follow non-discriminatory and gender egalitarianism practices are likely to develop a stronger reputation (Brammer et al., 2009). Women directors are also expected to be more responsive to the needs of female customers and more considerate in addressing issues related to female employees, which can improve a firm's public image (Singh & Vinnicombe, 2004).

In contrast, other studies have documented negative reactions among stakeholders to the recruitment of females on company boards. For instance, Lee and James (2007) and Lim et al. (2019) have observed unfavourable responses from stakeholders regarding the inclusion of female board members. Judge (2003) has found that firms having female board members tend to poorly perform than those with all-male boards. Such outcomes are often explained by the perception that in most of the company, female directors are treated as mere tokens and are therefore unable to make meaningful contributions to firm success (Terjesen et al., 2009). It is argued that if members in a group lack majority, they may struggle to influence firm's decision-making process (Yang et al., 2019). According to critical mass theory, women begin to actively influence board discussions and decisions only when their number reaches a certain level, i.e., 'at least three' members (Torchia et al., 2011; Konrad et al., 2008), which may then have a positive effect on corporate reputation.

Another explanation could be the appointment of female members having familial ties with the founding family to the board to meet the legal requirements, even though they might not have the necessary qualifications (Samara et al., 2019). Because of limited expertise, they are unable to make significant contributions to the business.

Overall, the existing literature presents mixed and inconclusive evidence. In light of this research gap, the following hypothesis is proposed:

Alternative Hypothesis (H1): There is a significant role of female directorship in influencing corporate reputation.

3. Research Objective

This study aims to investigate the relationship between female directorship and corporate reputation in Indian manufacturing firms.

4. Research Methodology

4.1 Sample Design

The research sample consists of 253 Indian manufacturing firms that constitute the NSE500 index for the period 2015 to 2024. Data sources include companies' annual reports and the 'ACE Equity database.' The 'system GMM' based 'dynamic panel data' method has been applied to investigate the influence of percentage of female directorship on company reputation.

4.2 Details of Research Variables

4.2.1. Dependent Variable

Since this study aims to discover the impact of female directorship on company reputation, reputation is treated as a dependent variable, which is measured through a composite index based on three relevant proxies: market capitalisation (Kaur & Singh, 2018b), research & development intensity (Padgett & Moura-Leite, 2012), and CSR awards received (Kaur & Singh, 2017). This index has been constructed by applying a simple average method to avoid subjective bias (Baruah & Panda, 2020).

4.2.2. Independent Variable

In this study female directorship is introduced as the independent or explanatory variable, which is computed as the proportion of female directors on company's board (Bravo et al., 2015; Lim et al., 2019; Navarro-García et al., 2022).

4.2.3. Control Variables

Several control variables are incorporated into the dynamic model to isolate and more accurately capture the effect of the key explanatory variable. Consistent with prior research, firm leverage, measured using the debt-to-equity ratio, is included as a control variable. In addition, firm liquidity is also controlled for in the analysis, as it may influence corporate reputation. In general, strong liquidity is an indication of a financially stable and healthy business (Furqoni, 2019), and when this efficiency is publicly known, it emphasises corporate reputation. In addition, company size (Eriqat et al., 2023) and age (Baruah & Panda, 2024) are also supposed to have a favourable association with company reputation, so they are considered as control variables.

5. Empirical Results and Discussion

5.1. Descriptive Statistics

To learn about the basic data properties, the ‘summary statistics’ of all the study variables has been computed and tabulated in Table II. The results show that the average corporate reputation score of Indian firms is 0.15, with values ranging from 0 to 0.95, indicating noticeable variation across companies. The results also highlight that Indian corporate boards are largely male dominated, as the average female participation on boards is only 15.54%. In some firms, there is no female representation at all, as reflected by the minimum value of zero. Conversely, a few companies have made notable efforts to enhance gender diversity, with female representation reaching as high as 41.67%. Among the control variables, firm leverage indicates a mean value of 0.35 with an S.D. of 0.63. It suggests that nearly 35% of the company’s capital structure relies on debt financing. Firm liquidity shows an average value of 1.80. Although it is slightly below the ideal ratio of 2, it appears sufficient to maintain financial soundness. With respect to firm size, the average value is 8.36, with an S.D of 1.28. This implies that the firms in the sample are generally large and vary considerably in size. Finally, firm age shows an average of 43 years (approx.), which indicates that the sample includes both old and new firms.

5.2. Diagnostic Tests

To identify the presence of ‘multicollinearity’ among the research variables, the study employs both the ‘Pearson correlation matrix’ and VIF tests. Table III shows that the ‘correlation coefficients’ between most of the pairs are either moderate or low, the maximum being 0.3613 between leverage and liquidity. None of the values exceeds the cutoff at 0.70 (Tabachnick & Fidell, 2006), so here multicollinearity should not be a concern. Further, from Table IV, the maximum VIF coefficient is found to be 1.19. In general, ‘multicollinearity’ is not a serious issue until the VIF reaches 10 (Gujarati, 1980). Therefore, both tests confirm the nonexistence of ‘multicollinearity’ in the dataset.

For detecting heteroskedasticity, this research introduces the ‘Breusch-Pagan/Cook-Weisberg test’ (Het-test) and the ‘White’s test’ (IM-test), respectively, as presented in Table V. The result indicates the existence of heteroskedasticity in the dataset. To nullify this issue, the study has applied the GMM technique during the regression analysis.

5.3. Dynamic Panel Data Analysis

The results of the ‘two-step dynamic panel estimation’ (Table VI) show a ‘significant negative’ relationship between FD and CR, with a coefficient of -0.0312. This suggests that the existence of female directors in sampled companies is associated with a decline in firm reputation.

Regarding control variables, LEV reveals a ‘significant negative’ association with CR, whereas LIQ and SIZE demonstrate a ‘significant positive’ effect on it. However, AGE does not show a statistically significant relationship with corporate reputation.

5.4. Post-Estimation Tests

The ‘post-estimation’ tests, including the ‘Arellano-Bond AR (1) and AR (2) tests’ and the ‘Wald Chi-square test,’ provide evidence on autocorrelation and model adequacy. While the AR (1) result is significant in given model (Table VI), the insignificance of ‘AR (2)’ indicates the non-existence of ‘second-order residual serial correlation’ (Arellano & Bond, 1991). This confirms that the data are free from autocorrelation and that the GMM model is appropriate for drawing valid inferences (Chatterjee & Nag, 2022). In addition, the highly significant Wald Chi-square statistics support the overall reliability of the GMM model (Bunyaminu et al., 2025).

5.5. Discussion

Considering the outcomes of dynamic panel estimation, this study evidences a negative relationship between female directorships on corporate boards and firms’ corporate reputation, which is consistent with previous research findings of Lee and James (2007). One possible explanation for this adverse perception is the absence of a ‘critical mass’ of women directors on Indian boards, where at least ‘three women’ are required so that they can influence firms’ decision-making processes (Torchia et al., 2011). In India, boards on average include only 15% female directors, while most firms comply with the mandatory requirement of hiring at least one female director, this level of representation still reflects substantial gender inequality on boards. Thus, the negative effect of diverse boards on corporate reputation may be linked to factors such as ‘tokenism,’ ‘gender stereotypes,’ and the ‘glass ceiling’ (Lim et al., 2019). Another possible reason could be the appointment of female members having familial ties with the founding family to the board to meet the legal requirements, despite lacking necessary qualifications (Samara et al., 2019). Because of their lack of knowledge and experience, they are unable to make significant contributions to the business. All this could lead to a perception that a woman director is not as competent or influential, potentially affecting the corporate reputation.

Further, the results regarding control variables reveal a negative coefficient for leverage and positive coefficients for liquidity and firm size. A high degree of leverage can increase a firm’s vulnerability to financial risk, which may lead to reputational damage (Eriqat et al., 2023). In contrast, firm’s liquidity appears as a crucial determinant of corporate reputation, as financially stable firms are generally viewed more favourably (Roberts & Dowling, 2002). The positive influence of firm size on corporate reputation indicates that larger firms are highly appreciated in

terms of reputation, as they are comparatively more exposed and well recognised by the public (Kaur & Singh, 2018a; Pinheiro et al., 2024).

6. Conclusion

The present study examines the relationship between female representation on corporate boards and corporate reputation. To examine this association, the study employs the system GMM based dynamic panel data method, using the dataset from 253 manufacturing firms in India over the decade 2015 to 2024.

The research findings show that women directorship has a significant influence on corporate reputation in Indian manufacturing sector. However, the relationship is found to be negative during the study period. This result aligns with the earlier studies (Bravo et al., 2015; Lim et al., 2019; Pinheiro et al., 2024) and suggests that the current level of female representation on Indian boards may not be sufficient to positively influence stakeholders' perception. The adverse effect of female directorship is largely attributable to the minimal participation of women directors on boards. As suggested by Torchia et al. (2011), inclusion of female members will not be beneficial for firms until they reach the critical mass on the boards. Since the number of women is insufficient to form the 'critical mass' on Indian boards, it develops a negative perception among stakeholders.

In accordance with this result, the study suggests that Indian firms should take greater initiatives and develop policies to promote meaningful participation of women on boards by addressing tokenism and challenging gender stereotypes, which may help to improve board effectiveness and enhance corporate reputation.

However, it is acknowledged that the conclusions drawn from this study are exclusively applicable to the Indian manufacturing sector and cannot be generalized to every firm. In future, research may be conducted in other industries and other developing nations. Future research may also consider different aspects of women directors, such as their educational background, professional experience, age, and other demographic attributes, to gain deeper knowledge about the role of female directorship in developing company reputation.

References

1. Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58(2), 277. <https://doi.org/10.2307/2297968>

2. Baruah, L., & Panda, N. M. (2020). Measuring corporate reputation: a comprehensive model with enhanced objectivity. *Asia-Pacific Journal of Business Administration*, 12(2), 139–161. <https://doi.org/10.1108/apjba-10-2019-0215>
 3. Baruah, L., & Panda, N. M. (2024). Can different corporate social responsibility expenditure impact reputation of a company differently? *NMIMS Management Review*, 32(3), 174–184. <https://doi.org/10.1177/09711023241292184>
 4. Brammer, S., Millington, A., & Pavelin, S. (2009). Corporate reputation and women on the board. *British Journal of Management*, 20(1), 17–29. <https://doi.org/10.1111/j.1467-8551.2008.00600.x>
 5. Bravo, F., Navarro, M. C. A., & Briones, J. L. (2015). The board of directors and corporate reputation: an empirical analysis. *Academia*, 28(3), 359–379. <https://doi.org/10.1108/arla-07-2013-0096>
 6. Bunyaminu, A., Yakubu, I. N., & Oumarou, S. (2025). The impact of board attributes and ownership concentration on firm market value: empirical evidence from an emerging market. *Cogent Business & Management*, 12(1). <https://doi.org/10.1080/23311975.2024.2437147>
 7. Burke, R. J. (1997). Women Directors: Selection, acceptance and benefits of board membership. *Corporate Governance an International Review*, 5(3), 118–125. <https://doi.org/10.1111/1467-8683.00052>
 8. Chatterjee, C., & Nag, T. (2022). Do women on boards enhance firm performance? Evidence from top Indian companies. *International Journal of Disclosure and Governance*, 20(2), 155–167. <https://doi.org/10.1057/s41310-022-00153-5>
 9. Eriqat, I. O., Tahir, M., & Zulkafli, A. H. (2023). Do corporate governance mechanisms matter to the reputation of financial firms? Evidence of Emerging markets. *Cogent Business & Management*, 10(1). <https://doi.org/10.1080/23311975.2023.2181187>
 10. Furqoni, M. I. (2019). Implication of profitability, capital structure and liquidity to the value of the company. *IJBAM (Indonesian Journal of Bisnis Accounting and Management)/Indonesian Journal of Business, Accounting and Management (IJBAM)*, 2(01), 47–52. <https://doi.org/10.36406/ijbam.v2i2.597>
-

11. Gujarati, D. (1980). Basic Econometrics, 4th Edition. https://openlibrary.org/books/OL17075482M/Basic_econometrics
 12. Judge, E. (2003). Women on board: Help or hindrance. *The Times*, 11(21), 543-562.
 13. Kaur, A., & Singh, B. (2017). Construing Reputation from Gender Diversity on Boards. *Paradigm a Management Research Journal*, 21(2), 111–125. <https://doi.org/10.1177/0971890717736195>
 14. Kaur, A., & Singh, B. (2018a). Corporate reputation: Do board characteristics matter? Indian evidence. *Indian Journal of Corporate Governance*, 11(2), 122–134. <https://doi.org/10.1177/0974686218797758>
 15. Kaur, A., & Singh, B. (2018b). Measuring the immeasurable corporate reputation. *Metamorphosis*, 17(1), 53–64. <https://doi.org/10.1177/0972622518778210>
 16. Konrad, A. M., Kramer, V., & Erkut, S. (2008). Critical Mass:: The impact of three or more women on corporate boards. *Organizational Dynamics*, 37(2), 145–164. <https://doi.org/10.1016/j.orgdyn.2008.02.005>
 17. Lee, P. M., & James, E. H. (2007). She'-e-os: gender effects and investor reactions to the announcements of top executive appointments. *Strategic Management Journal*, 28(3), 227–241. <https://doi.org/10.1002/smj.575>
 18. Lim, K. P., Lye, C., Yuen, Y. Y., & Teoh, W. M. Y. (2019). Women directors and performance: evidence from Malaysia. *Equality Diversity and Inclusion an International Journal*, 38(8), 841–856. <https://doi.org/10.1108/edi-02-2019-0084>
 19. Navarro-García, J. C., Ramón-Llorens, M. C., & García-Meca, E. (2022). Female directors and corporate reputation. *Business Research Quarterly*, 25(4), 352–365. <https://doi.org/10.1177/2340944420972717>
 20. Padgett, R. C., & Moura-Leite, R. C. (2012). The impact of R&D intensity on corporate reputation: Interaction effect of innovation with high social benefit. *Intangible Capital*, 8(2). <https://doi.org/10.3926/ic.336>
 21. Pinheiro, A. B., Prado, N. B. D., De Moraes, G. H. S. M., & Carraro, W. B. W. H. (2024). Corporate reputation in Brazil: do board characteristics matter? *RAUSP Management Journal*. <https://doi.org/10.1108/rausp-01-2024-0002>
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22. Roberts, P. W., & Dowling, G. R. (2002). Corporate reputation and sustained superior financial performance. *Strategic Management Journal*, 23(12), 1077–1093. <https://doi.org/10.1002/smj.274>
23. Samara, G., Jamali, D., & Lapeira, M. (2019). Why and how should SHE make her way into the family business boardroom? *Business Horizons*, 62(1), 105–115. <https://doi.org/10.1016/j.bushor.2018.09.001>
24. Singh, V., & Vinnicombe, S. (2004). Why so few women directors in top UK boardrooms? Evidence and theoretical explanations. *Corporate Governance an International Review*, 12(4), 479–488. <https://doi.org/10.1111/j.1467-8683.2004.00388.x>
25. Tabachnick, B. G., & Fidell, L. S. (2006). *Using Multivariate Statistics* (5th Edition). In Allyn & Bacon, Inc. eBooks. <https://dl.acm.org/citation.cfm?id=1213888>
26. Terjesen, S., Sealy, R., & Singh, V. (2009). Women Directors on Corporate Boards: A review and research agenda. *Corporate Governance an International Review*, 17(3), 320–337. <https://doi.org/10.1111/j.1467-8683.2009.00742.x>
27. Torchia, M., Calabrò, A., & Huse, M. (2011). Women directors on corporate boards: From tokenism to critical mass. *Journal of Business Ethics*, 102(2), 299–317. <https://doi.org/10.1007/s10551-011-0815-z>
28. Yang, Y., Chawla, N. V., & Uzzi, B. (2019). A network's gender composition and communication pattern predict women's leadership success. *Proceedings of the National Academy of Sciences*, 116(6), 2033–2038. <https://doi.org/10.1073/pnas.1721438116>

Tables:

TABLE I: STUDY VARIABLES WITH MEASUREMENTS

Variables	Acronyms	Measurements
Corporate Reputation	<i>CR</i>	An index is formulated using three proxies, i.e., market capitalisation, research & development intensity, and CSR awards received
Female Directorship	<i>FD</i>	Proportion of women directors on the board
Leverage	<i>LEV</i>	Debt-equity ratio
Liquidity	<i>LIQ</i>	Current ratio
Firm Size	<i>SIZE</i>	Total years in operation since incorporation
Firm Age	<i>AGE</i>	Natural logarithm value of total assets

Source: Compiled by author

TABLE II: DESCRIPTIVE STATISTICS

Variable	Mean	Standard Deviation	Minimum	Maximum	Observations
<i>Dependent Variable:</i>					
CR	0.15	0.18	0	0.95	2600
<i>Independent Variable:</i>					
FD	15.54	7.66	0	41.67	2450
<i>Control Variables:</i>					
LEV	0.35	0.63	5.72	6.28	2550
LIQ	1.80	0.98	0.03	6.26	2520
SIZE	8.36	1.28	4.57	12.41	2535
AGE	43.98	22.38	-4	116	2579

Source: Calculated by author

TABLE III: PAIRWISE CORRELATION MATRIX

Variables	FD	LEV	LIQ	SIZE	AGE
FD	1				
LEV	-0.0429**	1			
LIQ	0.0429**	-0.3613***	1		
SIZE	0.0808***	0.0717***	-0.1946***	1	
AGE	0.0250	-0.1569***	0.0229	0.3051***	1

Notes: *** symbolises 1% significance level, and ** symbolises 5% significance level

TABLE IV: VIF STATISTICS

Variables	VIF	1/VIF (tolerance)
FD	1.01	0.9859
LEV	1.18	0.8471
LIQ	1.19	0.8384
SIZE	1.17	0.8564
AGE	1.12	0.8894
Mean VIF	1.14	

Source: Calculated by author

TABLE V: VERIFICATION OF HETEROSKEDASTICITY

Dependent Variable	Breusch-Pagan/Cook-Weisberg Test	White's Test
Corporate Reputation Index	$\chi^2 (1) = 101.77$	$\chi^2 (27) = 157.98$
	Prob > $\chi^2 = 0.0000$	Prob > $\chi^2 = 0.0000$

Source: Calculated by author

TABLE VI: REGRESSION RESULTS (DEPENDENT VARIABLE: CR)

Variables	Coefficient	Z-Score
LagCR	0.2062***	7.81
Constant	0.3918***	4.88
FD	-0.0312**	-2.36
LEV	-0.0129**	-2.01
LIQ	0.0121*	1.90
SIZE	0.0582***	5.93
AGE	-0.0003	-0.03
Wald-Chi ²	124.07 (p=0.0000)	
Post-Estimation Test:		
AR (1)	-9.4003 (p =0.0000)	
AR (2)	1.2959 (p =0.1950)	

Notes: *** symbolises 1% significance level, ** symbolises 5% significance level and * symbolises 10% significance level

Source: Calculated by author