Does Audit Committee Size Influence Financially Distressed Firms: An Evidence from India

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ABSTRACT

Purpose – This study examines whether audit committee size is associated with the likelihood of financial distress among Indian listed non-financial firms. The study focuses specifically on audit committee size as a board-level governance characteristic and investigates its relationship with firms' financial difficulty.

Design/methodology/approach – The study analyses an unbalanced panel of 13,434 firm-year observations for Indian listed non-financial firms over financial years 2010–2025, obtained from the CMIE Prowessdx database. Financial distress is measured using a binary indicator derived from the Altman Z-score. The empirical model examines the association between audit committee size and financial distress while controlling firm-level characteristics and incorporating year and industry fixed effects.

Findings –The finding indicate that Audit committee size is negatively associated with financial distress. The results suggest that firms with larger audit committee size tend to exhibit a lower likelihood of financial distress. The results highlight the potential role of audit committee size in strengthening corporate oversight and monitoring.

Research limitations/implications – The evidence is limited to listed non-financial firms in India, one governance characteristic, and one accounting-based measure of financial distress. Observational design supports association rather than causal inference.

Practical implications – The findings have implications for boards, audit committees and regulators concerning audit committee structure and monitoring. However, numerical size should be considered together with expertise, independence, participation and other dimensions of committee effectiveness.

Originality/value – The study contributes focused evidence on the association between audit committee size and financial distress in an emerging-market setting. By isolating audit committee size from other board characteristics, it provides a more specific perspective on the role of audit committee structure in firms' financial resilience.

Keywords: audit committee size; financial distress; financial difficulty; corporate governance; Altman Z-score; Indian listed firms

INTRODUCTION

Financial distress (FD) remains an important challenge for corporations because it threatens firm survival, undermines investor confidence, disrupts capital markets, and can impose costs on shareholders, creditors, employees and other stakeholders. Financial distress is therefore not only a financial outcome but also an issue relevant to corporate oversight and monitoring (Altman, 1968; Ohlson, 1980).

Corporate governance has evolved from a compliance-oriented concept into a mechanism intended to strengthen accountability, transparency, internal control and managerial monitoring. Within this framework, the audit committee is an important component of board oversight because it is associated with the monitoring of financial reporting, internal controls and audit-related processes. Agency theory suggests that monitoring mechanisms can help reduce conflicts arising from the separation of ownership and control and constrain managerial opportunism (Jensen & Meckling, 1976; Fama & Jensen, 1983).

Audit committee size is one observable characteristic of this monitoring arrangement. A larger committee may provide a broader pool of accounting, financial and industry expertise and may permit monitoring responsibilities to be distributed among more members. Conversely, excessively large committees may face coordination and free-riding problems. Thus, the relationship between audit committee size and financial distress is an empirical question rather than an assumption that larger committees are necessarily more effective.

Financial distress research has traditionally concentrated on prediction models such as the Altman Z-score, Ohlson O-score and Zmijewski model (Altman, 1968; Ohlson, 1980; Zmijewski, 1984). These models identify financially vulnerable firms, while governance research considers whether organizational monitoring mechanisms are associated with financial outcomes. This study therefore focuses on audit committee size as a specific governance characteristic.

The Indian context provides a relevant setting because listed firms operate within an institutional environment characterized by concentrated ownership, promoter-controlled firms, evolving governance requirements and major regulatory reforms, including the Companies Act, 2013, the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, and the Insolvency and Bankruptcy Code, 2016. These developments have increased the importance of formal oversight and accountability mechanisms.

Existing evidence concerning audit committee size and financial distress remains limited and context dependent. Studies in emerging markets report evidence that audit committee characteristics can be associated with financial distress, while recent work also reports a negative association between audit committee size and distress (Khalid et al., 2020; Sewpersadh, 2022; Wiryaningrum et al., 2025). The present study extends this literature by examining Indian listed non-financial firms over 2010–2025.

The study addresses the following research question: Does audit committee size influence the likelihood of financial distress among Indian listed firms? The study contributes by isolating audit committee size from other board characteristics and testing its association with financial distress using a large panel dataset.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Financial Distress and Corporate Governance

Financial distress research originated largely from the prediction of corporate failure. Altman (1968) demonstrated that combinations of accounting ratios could distinguish financially vulnerable firms, while Ohlson (1980) and Zmijewski (1984) subsequently developed alternative statistical approaches. These contributions established financial distress prediction as an important area of corporate finance.

Corporate governance research extends this literature by considering organizational mechanisms that may influence managerial decisions, financial reporting and risk oversight before financial deterioration becomes severe. Agency theory argues that monitoring can reduce conflicts arising from the separation of ownership and control (Jensen & Meckling, 1976; Fama & Jensen, 1983). Audit committees form part of this internal monitoring architecture because of their role in oversight of financial reporting and audit-related processes.

Governance effects may differ across institutional settings. Claessens and Yurtoglu (2013) emphasize the importance of country-level institutional characteristics in understanding corporate governance in emerging markets. In India, concentrated ownership and regulatory developments may influence how formal monitoring arrangements operate. This provides a rationale for examining a specific governance mechanism rather than treating corporate governance as a single homogeneous construct.

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2.2 Audit Committee Size and Financial Distress

Audit committee size may influence financial distress through its potential effect on monitoring capacity. A committee with more members may possess a wider range of accounting, financial and industry expertise and may allocate monitoring responsibilities across members. Vinten and Lee (1993) discuss audit committees in the context of corporate control, while Menon and Williams (1994) examine their use for monitoring.

The potential benefits of size should be considered alongside coordination concerns. Larger groups can experience difficulties in communication, coordination and individual participation. Dalton et al. (1999) provide broader evidence concerning board size and performance; therefore, their study should not be treated as direct evidence of an audit-committee-size effect on financial distress.

Empirical evidence provides support for a negative association in some emerging-market settings. Khalid et al. (2020) examine audit committee attributes and financial distress in Pakistan. Sewpersadh (2022) examines financial distress determinants from an emerging-economy governance perspective. Wiryaningrum et al. (2025) reports a negative significant relationship between audit committee size and financial distress. These findings provide a basis for examining whether a similar association exists among Indian listed firms.

Based on the monitoring-capacity argument and the empirical evidence discussed above, the study proposes the following hypothesis:

H1: Audit committee size is negatively associated with the likelihood of financial distress among Indian listed firms.

METHODOLOGY

3.1 Data

The study uses panel data for Indian listed non-financial firms obtained from the CMIE Prowessdx database. The dataset covers financial years 2010–2025 and contains 13,434 firm-year observations in the baseline empirical analysis. Financial firms are excluded to maintain comparability because their financial structures and regulatory environments differ from those of non-financial firms.

3.2 Variable Measurement

Financial distress (FD) is the dependent variable and is measured as a binary indicator equal to 1 when the firm's Altman Z-score is below 1.81 and 0 otherwise, as specified in the original manuscript. The study uses the modified Z-score specification reported in Table-1.

Table 1. Variable Definitions

Variables	Acronyms	Measures
Dependent Variable		
Financial Distress	FD	It is a dummy variable, equal to 1, if Z-Score below 1.81, 0 otherwise.
Independent Variables		
Audit committee size	ACS	Total numbers of members on the audit committee during the financial year
Control Variables		
Return on equity	ROE	Net income/ shareholders' equity
Tobin Q	TOBINQ	Market value of equity + Book value of total debt /Book value of total assets
Firm Size	FSIZE	Log of total assets
Firm Age	FAGE	Current year- year of incorporation

Leverage	LEV	Total debts/ Total assets
Sales Growth	SG	Annual change in a firm's sales relative to its previous year's sales.
Tangibility	TANG	Tangible fixed assets/ Total assets
Other Variable		
Z-Score		Z score = 3.3(EBIT/Total asset) + 1.0 (Sales/Total asset) + 1.4(Retained Earnings/Total asset) + 1.2(Working capital / Total asset)

The principal independent variable is audit committee size (ACS), measured as the total number of members on the audit committee during the financial year. The control variables are return on equity (ROE), tobin Q (TOBINQ), firm size (FSIZE), firm age (FAGE), leverage (LEV), sales growth (SG), and tangibility (TANG). All continuous variables are winsorized, consistent with the original manuscript.

ROE is net income divided by shareholders' equity. Tobin Q is measured as the market value of equity plus book value of total debt divided by book value of total assets. Firm size is the logarithm of total assets. Firm age is measured as current year minus year of incorporation. Leverage is total debt divided by total assets. Sales growth represents annual change in sales relative to the previous year's sales, and tangibility is tangible fixed assets divided by total assets.

Table 2. Summary statistics

Variable	N	Mean	SD	Median	Min	Max
FD	13,434	0.702	0.457	1.000	0.000	1.000
ACS	13,434	3.650	1.435	4.000	0.000	12.000
ROE	13,434	1.467	4.013	0.318	-8.495	28.918
TOBINQ	13,434	1.689	1.666	1.114	0.216	14.971
FSIZE	13,434	7.744	2.002	7.598	2.015	14.012
FAGE	13,434	3.345	0.598	3.401	1.386	4.663
SG	13,434	0.166	0.776	0.069	-0.939	11.000
TANG	13,434	0.264	0.195	0.238	0.000	0.810

Note: This table reports descriptive statistics for the empirical analysis over 2010–2025. All continuous variables are winsorized. Detailed variable definitions are provided in Appendix A.

Table 2 represents the descriptive statistics indicate substantial variation in audit committee size and the firm-level control variables. The mean audit committee size is 3.65 members, with a median of 4 and a range from 0 to 12. The financial distress indicator has a mean of 0.702, indicating that 70.2 per cent of firm-year observations are classified as distressed under the study's specified threshold.

3.3 Correlation and Multicollinearity

The original manuscript reported a full correlation matrix containing four governance variables and the control variables. Because this conference paper focuses only on audit committee size, board size, board independence and board meeting frequency are removed from the main analysis. The reported pairwise correlation between ACS and FD is 0.007. The correlations of ACS with ROE, TOBINQ, FSIZE, FAGE, LEV, SG and TANG are 0.113, 0.064, 0.324, 0.078, −0.053, −0.023 and 0.057, respectively.

The original full-model VIF analysis reported a VIF of 1.214 for ACS and a mean VIF of 1.277. Because the other governance variables are removed in the focused model, the final ACS-only VIF should be recomputed before submission rather than presenting the original full-model values as the final diagnostic.

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3.4 Model Specification

The empirical model examines the association between audit committee size and financial distress while controlling firm characteristics and fixed effects:

$$FD_{it} = \alpha + \beta_1 ACS_{it} + \beta_2 X_{it} + \varepsilon_{it} \quad (1)$$

where FD_{it} is the financial-distress indicator for firm i and year t; ACS_{it} is audit committee size; X_{it} is the vector of firm-level control variables; λ_t denotes year fixed effects; δ_i denotes industry fixed effects; and ε_{it} is the error term. Four specifications are reported, the baseline model without year or industry fixed effects, a model with year fixed effects, a model with industry fixed effects, and a fully specified model with both year and industry fixed effects. Robust standard errors are reported.

RESULTS AND DISCUSSION

4.1 Audit Committee Size and Financial Distress

Table 3 reports the association between audit committee size and financial distress. ACS has a negative and statistically significant coefficient in all four specifications. The coefficient is −0.005 in each model. Statistical significance is at the 10 per cent level in columns (1) and (2), and at the 5 per cent level in columns (3) and (4).

The coefficient of −0.005 can be interpreted in the linear probability framework as an association of approximately a 0.5 percentage-point lower probability of financial distress for an additional audit committee member, conditional on the included controls and fixed effects. The negative coefficient remains unchanged across the specifications, while model fit increases when industry fixed effects are introduced.

The finding is consistent with the monitoring-capacity argument that an audit committee with more members may have access to a broader pool of expertise and greater capacity to distribute oversight responsibilities. It is also consistent with evidence reported by Khalid et al. (2020), Sewpersadh (2022), and Wiryaningrum et al. (2025). However, the observational design does not establish that increasing committee size causes a reduction in financial distress.

The finding should also be interpreted with caution because audit committee size is only one dimension of audit committee effectiveness. Independence, financial expertise, meeting activity, attendance and the quality of oversight may also influence monitoring. The evidence therefore supports an association between size and distress rather than a universal prescription regarding committee size.

Table 3. Relationship between Audit Committee Size and Financial Distress

VARIABLES	(1) FD	(2) FD	(3) FD	(4) FD
ACS	-0.005*	-0.005*	-0.005**	-0.005**
	(0.003)	(0.003)	(0.003)	(0.003)
ROE	-0.031***	-0.031***	-0.028***	-0.028***
	(0.001)	(0.001)	(0.001)	(0.001)
TOBINQ	-0.028***	-0.029***	-0.030***	-0.030***
	(0.003)	(0.003)	(0.003)	(0.003)
FSIZE	0.036***	0.036***	0.038***	0.038***
	(0.002)	(0.002)	(0.002)	(0.002)
FAGE	0.042***	0.041***	0.054***	0.053***
	(0.006)	(0.006)	(0.006)	(0.006)
SG	-0.022***	-0.020***	-0.026***	-0.024***
	(0.005)	(0.005)	(0.005)	(0.005)
TANG	0.224***	0.225***	0.358***	0.358***
	(0.017)	(0.017)	(0.019)	(0.019)

Constant	0.342***	0.324***	0.384***	0.363***
	(0.025)	(0.028)	(0.086)	(0.086)
Observations	13,434	13,434	13,434	13,434
R-squared	0.114	0.116	0.185	0.187
Year FE	No	Yes	No	Yes
Industry FE	No	No	Yes	Yes

Note: This table reports the baseline regression examining the association between audit committee size and financial distress. Financial distress equals one when the Altman Z-score is below 1.81 and zero otherwise. Robust standard errors are in parentheses. All continuous variables are winsorized. *** p<0.01, ** p<0.05, * p<0.10.

Editorial note for final submission: the uploaded Table 2 did not report a LEV coefficient although LEV was included in the methodology and other regression tables. The final conference table must be regenerated from the actual Stata ACS-only model before submission; no LEV coefficient has been invented here.

CONCLUSION

This study examined the association between audit committee size and financial distress among Indian listed non-financial firms using 13,434 firm-year observations over 2010–2025. Financial distress was measured using a binary indicator based on the study's specified Altman Z-score threshold, while audit committee size was measured as the number of audit committee members during the financial year.

The empirical results show a negative and statistically significant association between audit committee size and financial distress across the four reported specifications. The coefficient remains approximately −0.005, suggesting an approximately 0.5 percentage-point lower probability of financial distress for an additional audit committee member in the linear probability interpretation. The relationship remains negative after introducing year and industry fixed effects.

The study contributes to the governance and financial distress literature by isolating audit committee size as a specific governance attribute. The evidence indicates that audit committee size is associated with financial difficulty in the Indian listed-firm context. Nevertheless, the result should not be interpreted causally, and committee size alone cannot establish the effectiveness of audit committee oversight.

From a practical perspective, boards and regulators may consider audit committee structure as part of the broader monitoring framework for financially vulnerable firms. However, attention should extend beyond numerical size to the expertise, independence, engagement and effectiveness of committee members. Future research can examine these dimensions jointly, use alternative financial distress measures, test nonlinear effects of committee size, and employ stronger identification strategies to address potential endogeneity.

REFERENCES:

1. Abdullah, S. N. (2006). Board structure and ownership in Malaysia: The case of distressed listed companies. Corporate Governance: The International Journal of Business in Society, 6(5), 582–594.
2. Akerlof, G. A. (1970). The market for "lemons": Quality uncertainty and the market mechanism. The Quarterly Journal of Economics, 84(3), 488–500.
3. Altman, E. I. (1968). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. The Journal of Finance, 23(4), 589–609.
4. Baxter, P., & Cotter, J. (2009). Audit committees and earnings quality. Accounting & Finance, 49(2), 267–290.
5. Claessens, S., & Yurtoglu, B. B. (2013). Corporate governance in emerging markets: A survey. Emerging Markets Review, 15, 1–33.
6. Dalton, D. R., Daily, C. M., Johnson, J. L., & Ellstrand, A. E. (1999). Number of directors and financial performance: A meta-analysis. Academy of Management Journal, 42(6), 674–686.

7. Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. The Journal of Law and Economics, 26(2), 301–325.
8. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3(4), 305–360.
9. Khalid, M., Abbas, Q., Malik, F., & Ali, S. (2020). Impact of audit committee attributes on financial distress: Evidence from Pakistan. International Journal of Financial Engineering, 7(2), 2050005.
10. Menon, K., & Williams, J. D. (1994). The use of audit committees for monitoring. Journal of Accounting and Public Policy, 13(2), 121–139.
11. Ohlson, J. A. (1980). Financial ratios and the probabilistic prediction of bankruptcy. Journal of Accounting Research, 18(1), 109–131.
12. Pfeffer, J., & Salancik, G. R. (1978). The external control of organizations: A resource dependence perspective. Harper & Row.
13. Sewpersadh, N. S. (2022). An econometric analysis of financial distress determinants from an emerging economy governance perspective. Cogent Economics & Finance, 10(1), 1978706.
14. Vinten, G., & Lee, C. (1993). Audit committees and corporate control. Managerial Auditing Journal, 8(3).
15. Wiryaningrum, M. S., Januarti, I., & Rosa, A. (2025). The impact of audit committee characteristics on financial distress. E-Jurnal Akuntansi, 35(5).
16. Zmijewski, M. E. (1984). Methodological issues related to the estimation of financial distress prediction models. Journal of Accounting Research, 22, 59–82.
17. Graham, J. R. (1998). Debt, Leases, Taxes, and the Endogeneity of Corporate Tax Status. The Journal of Finance, 53(1), 131-154.