



DO THE AUDIT COMMITTEE CHARACTERISTICS BEGET CAPITAL STRUCTURE? EVIDENCE FROM LISTED PUBLIC SECTOR ENTERPRISES OF INDIA

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ABSTRACT

Determination of capital structure is a financing decision of strategic importance for managers. Capital structure pertains to the combination of debt and equity used to finance a firm's assets. The decision on capital structure influences its operational capabilities, and companies worldwide have been grappling with the challenge of finding an optimal capital structure that ensures decrease in cost of capital and increase in shareholder value, a puzzle that both practitioners and academics have been working to solve. This paper investigates the impact of audit committee characteristics on capital structure of listed public sector enterprises during the period of ten years from 2012-13 to 2021-22. Financial data has been collected from Prowess database and committee characteristics data from annual report of respective companies. Using regression analysis, it found from the result that there was significant relation of presence of audit committee, its size and meeting on capital structure of the companies.

Keyword: Audit committee size, audit committee meeting, capital structure

INTRODUCTION

Corporate governance refers to the mechanisms utilized by financiers or stakeholders of a company to guarantee that they will obtain a return on their financial investment (Sheikh, 2019). The progression of corporate governance systems can be attributed to the emergence of contemporary corporations, particularly joint stock companies, which introduced a distinct group of professionals separate from the owners. These professionals, known as managers, were granted authority to oversee the daily operations of the companies. The separation of ownership from management resulted in the removal of the oversight and control previously exercised by owners over management. Additionally, managers gained increased authority and were positioned in a way that allowed them to prioritize their personal interests over those of the owners, primarily because of their reduced accountability. As a result, advanced nations like the United States, the United Kingdom, Australia, Italy, Switzerland, and numerous other economies experienced a wave of corporate scandals during the late 1980s and early 1990s (Subramanian, 2016). In response, governmental agencies and international organizations have established guidelines to safeguard the rights of shareholders. An economy can achieve sustainable development in its corporate sector and attract increased foreign investment when it embraces effective corporate governance practices. Adhering to corporate governance regulations enables organizations to become competitive on a global scale. It also aids in the creation and preservation of an organizational culture that encourages managers to make decisions that improve shareholder wealth, subsequently boosting the organization's performance and overall value.

The choice of a firm's capital structure represents a strategically significant financial decision for managers. Capital structure pertains to the mix of debt and equity used to finance the assets of the firm. The decision about capital structure has an impact on the operational performance of a company, and corporations worldwide, along with academic experts, have been grappling with the challenge of finding an optimal capital structure that minimizes the cost of capital and maximizes shareholder wealth. Modigliani-Miller's theory asserts that any conceivable combination of debt and equity is



equally valid (Sheikh, 2019). In simpler terms, the value of a firm is not affected by alterations in its capital structure; instead, it is determined by the income generated by its assets and its free cash flow (Modigliani & Miller, 1958). Despite the abundance of research dedicated to the theory of capital structure, scholars have not arrived at a unanimous agreement regarding definitive proof for the optimal blend of debt and equity. However, a significant body of evidence has demonstrated the impact of the debt-to-asset ratio on a company's performance and its overall value. Scholars have put forth various theories offering different viewpoints on the factors that can drive the decision regarding capital structure, such as agency theory, pecking order theory, and trade-off theory. Academics have presented a range of theories that provide diverse perspectives on the factors influencing the choice of capital structure, including agency theory, pecking order theory, and trade-off theory. According to agency theory, debt serves as a mechanism for imposing discipline, as lenders oversee the actions of managers (Ganguli, 2013). Fulfilling obligations to debt holders and complying with debt agreements helps to reduce agency problems (Rani, Yadav, & Tripathy, 2020). The pecking order theory suggests that firms give precedence to internal funding over external sources. If internal financing proves insufficient, companies then choose debt as their preferred option and resort to issuing equity only as a last resort. The trade-off theory proposes that a company should increase its debt levels up to a point where there is an equilibrium between the advantages of the interest tax shield and the potential costs of financial distress (Jensen & Meckling, 1976). Additionally, it suggests that in the absence of taxes, employing debt financing can enhance the firm's value by reducing overall agency costs.

This research study combines insights from agency theory, pecking order theory, and trade-off theory to examine how audit committee characteristics impact capital structure. This research study contributes theoretically by combining agency, pecking order theory, and trade-off theory, offering support for their perspectives on the boards and board-level committees of Public-sector companies. It also adds to the literature by emphasizing the importance of presence of risk management committee and number of committees as effective monitors and critical resources. This study made an attempt to fill a gap in the existing literature by presenting the evidence related to audit committee attributes on long, short and total debt position of Indian public-sector companies.

LITERATURE REVIEW

Board committees are established to aid the board in fulfilling its functions, particularly when the board faces increased duties and pressures. Furthermore, these committees enhance the credibility and accountability of an organization by allowing directors to concentrate on specific areas of responsibility, thereby increasing their engagement in board and committee activities. Previous research has shown that effective governance is achieved by delegating responsibilities from the board to these committees. For instance, the audit committee is empowered to select external auditors, oversee internal audit functions, and safeguard the auditors' independence. On the other hand, the risk management committee advises the board on managing current risk exposure and devising strategies for future risks. It also assesses the extent of risk the firm faces while considering the objective of maximizing returns. Özer & Merter (2023) investigated the influence of audit committee attributes on capital structure decisions using a sample of 1638 firm year observations of listed companies of Turkey from 2009-2019 and found that lower financial leverage is associated with presence of



financial expertise on audit committee and longer tenure of audit committee members. Dang & Nguyen (2022) examined the impact of audit committee characteristics on tax avoidance using a sample of listed companies of Vietnam from 2010-19. It identified that audit committee size has positive relation with tax avoidance. Also, proportions of women directors, presence of financial expertise on the audit committee compel tax avoidance behaviour. Singhania, Singh, & Aggrawal (2024) concluded that gender diversity has favourable effect on market based performance measures but insignificant effect on accounting based measures. Al-Musali et al. (2019) examined the impact of ownership structure on audit committee effective using the sample 119 companies of GCC nations. It found from the study that family shareholding, government shareholding, institutional shareholding and board independence have positive impact on audit committee effectiveness. Rahman & Ali (2006) investigated the relation of board directors, audit committee and concentrated ownership with earning management using a sample of 97 listed companies of Malaysia during the period of 2002-03 and concluded that board independence and audit committee have insignificant relation with earning management. Talpur et al. (2018) investigated the influence of audit committee characteristics on voluntary corporate governance disclosure using a sample of top 100 listed companies of Malaysia during 2012-2015 and found that level of voluntary corporate governance disclosure is influenced by the audit committee size, audit committee independence and audit committee meetings. Agyemang-Mintah & Schadewitz (2018) examined the effect on firm value of audit committee adoption by 63 financial institution of UK during the period of 12 years (2000-2011) and concluded that there is positive relation of audit committee adoption on firm value, that in case of pre crisi period, however, no relation during post-crisis period. Detthamrong, Chancharat & Vithessonthi (2017) investigated the relation of corporate governance with capital structure using a sample of 493 listed companies of Thailand from 2001-14 and concluded that there is no association of corporate governance including audit committee size with capital structure. Singhania & Panda (2024) identified that absence of executive director on audit committee has highest weight in positively influencing financial performance of companies compared to size and gender diversity. Kalita & Tiwari (2023) documented that audit committee meeting has significant negative effect on firm performance, on the other hand, audit committee strength and independence have no significant effect on firm performance. In summary, previous empirical research on the relationship between committees and capital structure has produced varying results. These inconsistencies have highlighted the need for this current empirical study.

RESEARCH METHODOLOGY

Data: Secondary data were used to achieve the objective of the present study. Data for the capital structure variables were obtained from CMIE Prowess database and committees variables from annual reports of the respective companies.

Sample: The present study began with the non-financial companies listed on BSE PSU index for a period of 10 years from 2012-13 to 2021-22.

Model: Following equation represents the model of the study:

$$LTD\ ratio_{it} = \beta_0 + \beta_1 AC_{it} + \beta_2 ACsize_{it} + \beta_3 ACmeetings_{it} + \beta_4 RMC_{it} + \beta_5 NOC_{it} + \beta_6 Firm\ size_{it} + \beta_7 ROA_{it} + \beta_8 FATA_{it} + \varepsilon_{it}$$

$$STD\ ratio_{it} = \beta_0 + \beta_1 AC_{it} + \beta_2 ACsize_{it} + \beta_3 ACmeetings_{it} + \beta_4 RMC_{it} + \beta_5 NOC_{it} + \beta_6 Firm\ size_{it} + \beta_7 ROA_{it} + \beta_8 FATA_{it} + \varepsilon_{it}$$

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Here, LTD ratio is long term debt ratio, STD ratio is short term debt ratio, TD is total debt ratio, AC is presence of audit committee, ACsize is audit committee size, ACmeetings is audit committee meetings, RMC is presence of risk management committee, NOC is number of committees, ROA is return on assets, CR is current ratio, FATA is ratio of fixed assets to total assets.

In the present study, the key predictor variables are, audit committee, audit committee size, audit committee meetings, risk management committee, number of committees and includes capital structure variables such as long-term debt ratio, short term debt ratio and total debt ratio. Apart from its committee's variables, the corporate performance is influenced by other explanatory variables and to avoid any spurious relationship between committee and corporate structure, it is customary in literature to control the effect of these explanatory variables such as return on assets, current ratio, fixed assets to total assets and firm size.

ANALYSIS AND INTERPRETATION

Table 1- Descriptive Statistics

Variable	Mean	Median	S.D.	Min	Max
LTDratio	0.168	0.147	0.138	0.00106	0.714
STDratio	0.344	0.347	0.209	0.0215	0.951
TDratio	0.511	0.537	0.205	0.0473	0.959
ACSize	3.83	4	1.07	0	9
ACMeetings	6.58	6	2.73	0	19
RMC	0.649	1	0.478	0	1
NOC	6.98	6	2.96	2	18
Fsize	9.63	9.53	1.54	6.33	12.9
ROA	6.86	5.82	9.44	-18.3	77.6
FATA	0.338	0.334	0.247	0.00053	0.901

Sources: Authors' calculation

Table 1 reported the descriptive statistics of selected variables undertaken and computed for the listed public sector undertaking. Most notably, the average total debt ratio is 51.1 per cent, reflecting the percentage of total assets financed by the firms through total liabilities. The average long-term debt ratio is 16.8 per cent, while the short-term debt ratio stands at 34.4 per cent. India being a bank-oriented economy, firms primarily depend on bank financing rather than other debt or equity instruments, due to the country's limited and underdeveloped bond and equity markets.

Notably, firms prefer short-term debt over long-term debt. This reliance on short-term debt may be driven by its lower costs and lenders' preference for offering short-term loans on favorable terms. Typically, the long-term debt ratio is viewed as the most suitable measure of capital structure. However, both short-term and total debt ratios are also considered. The average value of audit committee size is 3.83 with maximum of 9 members present on committee. Also, average value of audit committee meetings is 6.58 with maximum of 19 meetings held of committee. 64.9 per cent companies have risk management committee and sampled companies have average 6 board committee. Average return on assets is 6.86 per cent and firm size is 9.63 per cent, as measured by natural log of total assets.

Table 2- Correlation Matrix

LTDratio	STDratio	TDratio	ACSize	RMC	ACM	NOC	Fsize	ROA	FATA	
1	-0.36	0.31	-0.10	0.08	0.32	0.21	0.57	-0.12	0.57	LTDratio
	1	0.78	-0.15	-0.14	-0.19	-0.04	-0.23	-0.33	-0.43	STDratio
		1	-0.22	-0.08	0.03	0.10	0.15	-0.42	-0.05	Tdratio
			1	-0.08	0.18	0.03	0.05	0.25	0.03	ACSize
				1	0.09	0.25	0.24	0.06	0.04	RMC
					1	0.28	0.50	0.13	0.31	ACM
						1	0.46	0.01	0.17	NOC
							1	-0.02	0.58	Fsize
								1	-0.20	ROA
									1	FATA

Sources: Authors' calculation

Correlation measures the direct relationship between the variables and table 2 depicted the relationship among the selected variables. Long term debt ratio has inverse relationship with audit committee size and ROA, however, positive relation with audit committee meetings, risk management committee, number of committees, firm size and ratio of fixed assets to total assets. Similarly, short term debt ratio has inverse relationship with all variables. Total debt ratio has positive relation with audit committee meetings, number of committees and firm size. While, negative relation with audit committee size, risk management committee, ROA and ratio of fixed assets to total assets. When the correlation value exceeds 0.90, a strong correlation between variables can result in multicollinearity issues. As per table, there is no multicollinearity problem in the present study.

Table 3- Regression Analysis

	STD ratio		LTD ratio		TD ratio	
	<i>Coefficient</i>	<i>p-value</i>	<i>Coefficient</i>	<i>p-value</i>	<i>Coefficient</i>	<i>p-value</i>
const	-0.339987	0.0507*	-0.143169	0.0011***	-0.416423	0.0182**
ACSiz e	-0.00651891	0.0665*	-0.0174138	0.001***	-0.0144710	<0.0001** *
RMC	-0.00303541	0.7636	-0.00715133	0.5443	-0.00339777	0.7394

ACM	-0.00024547 6	0.8788	0.00350534	0.1316	0.00045514 6	0.78
NOC	-0.00067775 8	0.7392	-0.001106 10	0.5949	-0.00393 195	0.057*
Fsize	0.10091	<0.0001** *	0.0314815	<0.0001** *	0.120024	<0.0001** *
ROA	-0.00345332	<0.0001** *	-0.000147 397	0.8182	-0.00523 319	<0.0001** *
FATA	-0.387121	<0.0001** *	0.197177	<0.0001** *	-0.05890 69	0.3286
dt_2	-0.00073121 5	0.956			-0.00990 663	0.4605
dt_3	-0.0236488	0.0985*			-0.03349 70	0.021**
dt_4	-0.0392278	0.007***			-0.05548 63	0.0002***
dt_5	-0.0371504	0.0121**			-0.06395 57	<0.0001** *
dt_6	-0.0405267	0.0081***			-0.05978 76	0.0001***
dt_7	-0.0419383	0.0097***			-0.05526 43	0.0008***
dt_8	-0.0557410	0.001***			-0.06318 18	0.0002***
dt_9	-0.0667854	0.0001***			-0.07050 04	<0.0001** *
dt_10	-0.0607307	0.0007***			-0.06634 39	0.0003***
	Adjusted R-square	0.418692		0.423629		0.418692
p-value	F-statistics	1.50E-165		4.96E-43		1.50E-165
	Durbin-Watson	0.896988		0.261744		0.705744

Sources: Authors' calculation

Regression analysis is used to examine the relationship between committee variables and capital structure. Pooled and fixed effect regression results are presented in table 3. The findings from the regression analysis denote that the explanatory variables explain the total debt, long-term and short-term ratio determination of the firm at 41 per cent, 41 per cent and 42 percent, respectively. F-statistics provide evidence of validity of the estimated model. Audit committee size is negatively but significantly correlated with short term, long term and total debt ratio. Audit committee meeting is negatively related with short term debt and positively related with long term debt and total debt but insignificantly. Presence of risk management committee is negatively and insignificant related with all capital structure variables. Number of board committees has negative relation with short term and long-term debt ratio but significant with total debt ratio. Firm size has shown consistent results and is significantly related with all measures of capital structure. Profitability is negatively correlated with long term debt but significantly with short term and total debt ratio. Ratio of fixed to total debt is negatively correlated with short term debt and total debt ratio but positively and significantly with long



term debt. In brief, results indicates that committees' variables significantly affect the capital structure decisions.

CONCLUSION

This study examines the relationship between committees and different measures of capital structure such as total debt ratio, long term debt ratio and short-term debt ratio using a sample of top 39 BSE listed public sector undertaking for a period of ten years (2012-13 to 2021-22). Committees' variable used for this study include audit committee size, audit committee meetings, risk management committee and number of committees. The empirical results show that audit committee size has significant negative relation with total debt ratio, long term debt ratio and short-term debt ratio. However, presence of risk management committee, audit committee meetings have no significant relation. On the other hand, number of committees has significant relation with total debt ratio.

Our findings make key contributions by exploring the link between audit committee size, meetings, and capital structure decisions. The study highlights the critical role of audit committees in shaping capital structure in developing countries, where higher capital costs make these decisions crucial. In regions with weaker governance, audit committees help align decisions with company and shareholder interests. Lastly, the study offers insights for policymakers, suggesting that audit committees tend to reduce leverage, supporting the appropriate composition and meetings of its members.

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