CORPORATE GOVERNANCE AND FINANCIAL DISTRESS: EVIDENCE FROM INDIAN COMPANIES

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Abstract: There is no business without ups and down, even well-established firms will fail if they delay in responding changes in business environment effectively. It becomes very difficult to defend themselves against competitors' new products, mode of services, or strategies, they watch their sales and profits erode, their best people leave, and their stock valuations tumble. Few firms ultimately manage to recover gradually after painful rounds of downsizing and restructuring but many wont. Why do successful companies will fail? It's often assumed that the problem is paralysis. Confronted with a disruption in business conditions, companies freeze; they're caught like the proverbial deer in the headlights. But that explanation doesn't fit the facts. In studying once-thriving companies that have struggled in the face of change, study found little evidence of paralysis. Quite the contrary. The frustrating truth is that we don't comprehend corporate breakdowns nearly as well as we understand other crises, such as human disease.

The paper examines certain aspects of corporate governance in the Indian listed companies and their impact on financial distress using a sample of 350 Indian listed companies for a period of 2010 – 2014 using matched pair research design. The industry, total assets and the accounting period was taken into consideration to match the non-distressed firms to the distressed firms. Similar with earlier research, the study indicates that board size, proportion of independent directors to total directors and non-institutional investors are major governance factors which influence the company's distress level.

Keywords: corporate governance, business failure, financial distress, logistic regression

Corporate Governance and Financial Distress: Evidence from Indian Companies

INTRODUCTION

One of the most common business phenomena is also one of the most perplexing: when well established companies face huge changes in their business environment, they often fail to respond effectively. It becomes very difficult to defend themselves

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against competitors new products, services or technologies, they watch their sales and profits erode, their best people leave, finding highly difficult to meet payment obligations and their stock valuations tumble. Studies onsuch corporate failure or its prediction have been very prevalent among the academicians, financial practitioners, and watchful economic bodies. Although there are enough evidences or tools to forecast this trend, an accurate and a reliable method for predicting failure is yet to be found. The financial distress very likely may tend to Bankruptcy. This may lead to some serious problems to shareholders, creditors, investors, employers, other stakeholders or economy in general. Any company is said to be financially distressedwhen it is not able to meet its financial obligations and reflects it inability to meet in the near future. Financial distress refers to a period when a borrower (either individual or institutional) is not capableof meeting financial obligation offinanciers and other creditors.

Foretelling corporate financial distress has been a vibrant topic in business and finance because of its importance to creditors. Although models for detection of bankruptcy are developed from the sixties (Beaver, 1967; Altman, 1968), the many of them (Attaran et al., 2012; Fijorek & Grotowski, 2012) consider accounting and financial data only as major factors. Few authors (Gilson, 1990; Hambrick & D'Aveni, 1988, 1992; Gales & Kesner, 1994; Daily & Dalton, 1994) started to study the association betweencorporate governance and financial distress since the late 1980s through to the mid-1990s. Outcome of these studies justifies that corporate governance variables considerablystrengthens the predictive power of commonly used bankruptcy forecast models. Explanatory or predictive variables used for prediction are usually from financial statements (Bonfim, 2009), market capitalisation (Charitou et al., 2013), macroeconomy (Carling et al., 2007). As indicated by previous research such as Daily et al. (2003), corporate governance is also connected with the likelihood of financial distress or bankruptcy. Corporate governance is the system by which companies are directed and controlled. In a narrow sense, corporate governance includes a set of relations amongst the management, board of directors, shareholders, auditors and other stakeholders. These relationships, involving various policies and procedures, provide the framework through which the objectives of the company are set, and the means of attaining these objectives as well as monitoring performance are determined. Good corporate governance aims to fulfil the long-term strategic goals of company owners, satisfy the interests of employees, show consideration for the environment and the local community, maintain relationships with customers and suppliers and meet applicable legal and regulatory requirements. Effective corporate governance can improve corporate performance by optimising the total cost of manager and shareholder incentives and avoiding self-interested managerial behaviour (Jensen and Meckling, 1976). Contrarily, poor corporate governance can adversely affect the interests of shareholders, and may result inmeagre performance and even breakdown. The purpose of this study is to ascertain the influence of corporate governance factors on the level of financial distress.

REVIEW OF LITERATURE ON CORPORATE GOVERNANCE

Over the last two decades, corporate governance has become a noticeable theme. The reason for such prominence are the result of number of happenings like worldwide wave of privatization of the past two decades, pension fund reform and the growth of private savings, the takeover wave of the 1980s, deregulation and the integration of capital markets, the 1998 East Asia crisis, which has put the spotlight on corporate governance in emerging markets, a series of recent USA scandals and corporate failures of the late 1990s (Becht et al., 2002). The association of governance issues and company failure is an interesting matter to different stakeholders. Academic research in corporate governance observed an outburst in theearlier decade.Agency issues, optimal financial and compensation contracts, accounting transparency, insider trading and so on were researched upon. Initially, Chaganti et al. (1985) exploredthe relationship between board size, outsiders on a board, the number of CEO offices and the chances of failure. This work was followed by Hambrick and D'Aveni (1992), Daily and Dalton (1994a, b), Simpson and Gleason (1999), Fich and Slezak (2008), Platt and Platt (2012).

Ownership Concentration

There arises difference of opinion between management and other shareholders in situations of financial distress. Due to insecurity of their jobs, management could take decisions leading to short-term individual benefits rather than reducing the distress level (Donker et al., 2009). Issues related to concentration of ownership (free ride and expropriation) have been extensivelydealt in earlierstudies (Shleifer and Vishny, 1986;La Porta et al., 2000 and Claessens et al., 2002). However, when the effect of ownership concentration on corporate failure is analysed, the situation is different. In this situation, participation in a financially distressed company would lead to great losses to large shareholders. In this sense, large shareholders have sufficient incentives to maximize firm value by reducing information asymmetries and helping to overcome the agency problems and, ultimately, to the company recovery (Claessens et al., 2002).Further, Xu and Wang (1997) opined that there is a positive influence of ownership concentration on firm's performance. Wu and Wu and Wu (2005) also drew the same conclusion with their empirical study about Chinese listed companies.

Further, the effect of institutional investors (banks, insurance firms, pension funds, mutual or trust funds) on firm survival are highlighted in few studies. These studies point out their effectiveness as corporate governance mechanism to monitor management (Blair, 1995 and Daily, 1995) and their focus on long-term performance rather than the short-term or annual term as management does (Donker et al., 2009).

A large set of business problems arisesdue to less amount of shares held by the board members in that company(Jensen, 1993). This inturn negatively influences managers in taking decisions in maximizing the share value, and further has a negative influence in the creation of business value. This argument is proved in a study by Fich and Slezak (2008) who examined an inverse relationship between the amount of shares

held by the board and the incidence of business failure. In continuation, Wang and Deng (2006) and Liu, Uchida, and Yang (2012)claimed that share possession by the management is connected to long-term value generation.

Board Size

The outcomes on the influence of size of the board on corporate distress are indecisive. On one hand, there is an argument that companies are unlikely to fail if they have a with a larger board size due to greater director's accountability (Lamberto and Rath, 2008) and the extensive range of opinions and wide networks (Pfeffer and Salancik, 1978). Evidence to prove this argument is observed in an empirical study by Chaganti, Mahajan and Sharma (1985), who found that non-distressed retailing firms had bigger boards than distressed ones. On the other hand, some researchers opined that small boards can help to improve firm performance while large boards are ineffective because of the coordination and process problems that often exist when there are many directors involved in taking company's decisions (Lipton and Lorsch, 1992; Jensen, 1993).

CEO Duality

It is more difficult to evaluate the managers and also increases agency costs and risks if both the role of CEO and chairman of the board of directors are possessed by the same person. (Fama & Jensen, 1983;Jensen, 1993; Lipton & Lorsch, 1992). This is due to the reason that the board being in principle the organ in charge of controlling the actions of the managers, is headed by the very object of this overseeing. CEO duality unifies the decision-making process (Anderson & Anthony, 1986; Brickley, Coles, & Jarrell, 1997) but exacerbates the rigidity of the company and limits the organization's adaptive abilities, and thus, its ability to respond to crises (Daily & Dalton, 1994). Moreover, duality role of CEO may lead to important risk taking that may result into bankruptcy (Eisenhardt, 1989).

Number of Independent Directors

Mentoring and controlling potential opportunism and avoiding selfish behaviours of management in order safeguard the interests of shareholders and take consistent decisions is the work of outside directors (Jensen and Meckling, 1976; Fama and Jensen, 1983; Jensen, 1993). Chang (2009) also pointed out that the companies tend to create efficient activities which would avoid failure in business in the long run due to the presence of independent directors on the board. In the meantime, Chaganti et al. (1985), Lajili and Zéghal (2010) and Simpson and Gleason (1999) found there was lack of any association with the proportion of independent directors on the board and business failure. Elloumi and Gueyié (2001) showed that management of financially distressed firms have lesser independent directors on board. Krivogorsky (2006) foundthat there is a strong positive relation between the profitability ratios and portion of outside members on the board in European companies.

However, these empirical studies have failed to agree on how individual corporate governance variables actually determine financial distress. The present study discusses on some mechanisms of corporate governancein select Indian companies and their impact on the company's failure.

METHODOLOGY OF THE STUDY

For the purpose of study, both default and some healthy Indian companies are considered. The data pertaining to defaulters list is obtained from Reserve Bank of India. All listed companies who are defaulters for consecutive three years are considered for the purpose. Matched-pair research design which was also adopted by Elloumi and Gueyie in their study in 2001was used for creating the sample of healthy listed companies. All the companies that had a situation of financial distress for the period 2010–2014 were considered and among which 175companies with complete corporate governance and financial data available were selected as financial distressed. According to earlier studies, for each of these financial distressedcompanies, companies which were not financially distressedand were having similar size (total asset), coming from the same industry and from the same accounting period (Beasley, 1996,Peasnell et al., 2001and Mangena and Chamisa, 2008) were matched.

The matched pair process resulted in an overall sample of 350 paired observations where 175 are distressed and 175 non-distressed companies. Data pertaining to the select companies for the time period from 2010-2014 with panel data and conditional logistic regression, was conductedfor the purpose of the study. Two logistic regression models were used for this purpose. Paired *t*-test was also conducted whose results show a correct matching-pair.

(1) Model based on Financial Data (Pindado et al., 2008):

$$FD = \beta_0 + \beta_1\ PROF/TA + \beta2FE/TA + \beta3RE/TA + dt + çit + uit$$

(2) Model based on Financial Data and Corporate Governance Variables:

$$FD = \beta_0 + \beta_1 EBIT_{it}/RTA_{it-1} + \beta_2 FEit/RTA_{it-1} + \beta_3 RE_{it}/RTA_{it-1} + \beta_4\ OWNERCON_t + \beta_5 OWNERSIG1_{it} + \beta_6 OWNERSIG2_{it} + \beta_8 CEOD_{it} + \beta_9 PID_{it} + \beta_{10} BS_{it} + \beta_t + n_i + u_{it}$$

where: FD = Financial distress (measured as a dummy variable coded one for distressed and zero for non distressed companies); PRO = Profitability (earnings before interest and taxes to total assets); FE = Financial expenses to total assets); RE = Retained earnings of a firm to total assets;OWNERCON = Board ownership which is measured as a percentage of shares owned by members of the board of directors. OWNERSIG1 = non institutional ownership and OWNERSIG2 is institutional ownership concentration. CEODt = duality in CEO (measured as a binary variable which takes value 1 when Chair and Chief Executive Officer are the same person and 0, when they are not); PIDt = Proportion of independent outside directors to the number of members in the board; BSt = number of board members; dt = Time effect; n_i = Individual effect; u_{it} = Random disturbance.

Hypotheses

H1. Firms with high board ownership have less chances of financial distress.

H2a. There is significant difference between non-institutional ownership concentration and chances of financial distress

H2b. There is significant difference between institutional ownership concentration and chances of financial distress

H3. Companies with duality inCEO have greater chances of financial distress.

H4. Companies with high proportion of independent directors have less likelihood of financial distress.

H5. Companies with high board size have less likelihood of financial distress.

H7. The level of accuracy of financial distress prediction models are improved with the help of corporate governance variables

DATA ANALYSIS

Descriptive Statistics

Table 1 displays the summary of the variables for all the selected companies. The results in table 1 specifies that non-institutional and institutional investors possess a similarity in mean (OWNERSIG 1, 8.95; OWNERSIG 2, 8.25). Theaverage of proportion of outside directors to total directors is around 31% and average size of the board is around 6 members. The CEO duality is hardly 11.4% of the analyzed companies.The average board ownership indicated 24% which highlights the inclination of interests between board of directors and ownership.

Table 2 gives the result of mean comparison test for the companies selected for the study. Distressed companies have smaller profitability having a mean of 8.6% when compared to12% ofnon-distressed companies.

Table 1
Sample statistics summary

Variables	Mean	25th	75th	Std. dev.
PRO	.1055	-.0051	.1010	2.04824
FE	0.010	0.005	0.039	0.028
RE	-1.109	-.0492	.3055	17.01
PID	.3181	.00	.6	.33286
BS	5.3762	3	7	3.40186
OWNERCON	0.242	0.008	0.483	0.240
OWNERSIG1	8.95	.00	37.57	60.01
OWNERSIG2	8.25	.00	5.25	17.17
CEOD	Coded 1		11.4%	
	Coded 0		88.6%	

Retained earnings shows negative for distressed companies, while it is positive in case of non-distressed companies. The financial expenses are more in the case of distressed companies with a meanof 3.3% compared to 1.9% for non-distressed companies.

In case of non-financial variables, the participation of non-institutional investors was greater for distressed companies compared to non-distressed companies. The mean of non-distressed companies was higher in case of institutional investors. Further, the proportion of independent directors in the board are more in case of distressed companies (58.7% of member of the board). 86.8% of the companies did not have duality in CEO in distressed companies, which was slightly larger from the non-distressed companies. Thecomposition ofownership concentration is higher in the case of non-distressed companies with an average of 27% when compared to the distressed firms with an average of 23%.

Further, it could be observed from t test that there are differences between the distressed and non-distressed companies with respect to earnings in terms of profitability, financial expenses, concentration of non-institutional ownership, retained earnings, concentration of ownership, and proportion of independent directors to total directors in the board.

Further, Spearman's Correlations between all the variables incorporated in the model are stated in table 3. The possible existence of multicollinearity between the variables in the studied model and its impact on regression is ruled out, because even though there are some significant correlations, almost all are below 0.4 (Tabachnick and Fidell, 1996).

Table 2
Mean Comparison Test for Select Companies

Variables	Distressed Companies				Non-Distressed Companies					Sig
	Mean	25th	75th	SD	Mean	25th	75th	SD	Test Z value	
PRO	.0865	-.05	.083	2.683	.1242	.0053	.1123	1.117	1.887*	.059
FE	.033	.005	0.041	.026	.019	.004	.029	.015	-2.21***	.001
RE	-2.5090	-.4261	.2044	24.02517	.2684	.0378	.4040	1.721	-2.389**	.017
OWNERCON	0.226	0.009	0.495	0.237	0.269	0.009	0.551	0.352	1.86	0.057
OWNERSIG1	21.1178	.00	42.57	25.32753	16.8294	0	17.97	80.6248	11.583	. 000
OWNERSIG1	4.4640	.00	4.7225	.36746	11.9638	0	24.96	21.64341	17.620	. 000
BS	6.2102	4	7.25	2.86293	4.5582	2	7	3.68074	57.959***	. 000
PID	.5876	.4520	.7500	.24619	.0538	0	0	.1374	35.052	. 000

Categorical Variable		
CEOD	Coded 1 13.2%	9.6%
	Coded 0 86.8%	90.4%

Table 3
Spearman's Correlation Matrix of Selected Variables

Variables	FD	PRO	FE	RE	CEOD	BS	PID	OWNER-SIG1	OWNER-SIG2	OWNER-CON
FD	1									
PRO	-.009	1								
FE	0.14	-0.11**	1							
RE	-.082**	.060*	-0.13	1						
CEOD	.057*	-0.01	0.030	.020	1					
BS	.243**	-.004	0.06	-.004	.241**	1				
PID	.802**	-.009	0.05	-.65*	.108**	.281**	1			
OWNERSIG1	.036	.010	0.07	.012	.118**	.120**	.064*	1		
OWNERSIG2	-.218**	-.007	.18	.032	.282**	.330**	-.047	.163**	1	
OWNERCON	-.05	-.02	0.09	-.11**	0.07	-0.06	-.11**	-0.12**	-0.08**	1

Note: **, * Correlation is significant at 1 and 5 percent.

LOGISTIC REGRESSIONS

The results of logistic regression is shown in Table 4. Two models were built depending on the variables included. Model 1 includes control variables and to thatthe corporate governance variables are included in Model 2.

The results derived after the application of the conditional logistic-regression analysis is stated in Table 4. Two main models are presented (Models 1 and 2). The

Table 4
Logistic Regression Models.

Variable	Model 1			Model 2		
	Beta	Sig	Odds ratio	Beta	Sig	Odds ratio
PRO	-.115	0.007	0.891	-.169	0.066	0.845
FE	9.842	0.008	44.612	15.455	0.005	2.317
RE	-1.982	0.195	103.119	-1.809	.000	0.164
OWNERCON				0.462	0.135	1.677
OWNERSIG1				-0.007	0.367	0.993
OWNERSIG2				-.163	0.000	0.850
CEOD				-.305	0.616	0.737
PID				18.07	0.000	0.339
BS				-1.048	0.004	1.953
Constant				4.49	0.017	-
-2 Log Likelihood		1248.909			255.571	
De Nagalkerke		0.285			0.912	
McFadden R^2		.016			.121	
Chi2		29.90***			50.40***	
Prediction Accuracy		65.35%			94.4%	

results of Model 2 support the hypothesis of relationship between financial distress likelihood and ownership concentration, institutional and non-institutional investors, proportion of outside directors to total board members (PID) and board size (BS).

The study states that concentration of ownership (OWNERRD) and CEO duality (CEOD) are not significant, and thus the hypotheses H1 and H3 are not accepted. With respect to concentration of ownership, there is a positive coefficient signifying that the probability of financial distress tends to increase with high concentration of ownership. This indicates that large shareholders are submissive and as a result they do not have enough reasons to hold back the distress level. Hence, this result is in line with earlier studies explained by Mangena and Chamisa, 2008;Elloumi and Gueyie, 2001;Parker et al., 2002; Lee and Yeh, 2004. In terms of duality in CEO (CEOD) there is positive value of coefficient even though results are not significant as stated in the works of Mangena and Chamisa (2008). This result is also in line with the studies ofHiu and Jing-Jing (2008) and Daily and Dalton (1994a).

The coefficient specifies that institutional ownership (OWNERSIG2) has aninverseeffect on likelihood of financial distress, which is also specified in the outcome derived by Deng and Wang (2006) for the Chinese market. There was altogether a refuting outcome given by Mangena and Chamisa (2008). These results could be contradictory to the fact that there is no incentives for the institutional investors to make the firms perform better (Fich and Slezak, 2008 and Edelen, 2001 ;). Hence, H2b is accepted.

In case of independent directors (PID), the relationshipobtained is positive and is significant which makes H4 to be accepted. The likelihood to suffer financial distress is high with companies having more proportion of independent directors to total directors in the board. This result is almost in line with Wang and Deng (2006), Mangena and Chamisa (2008) and Hiu and Jing-Jing (2008),stressing the role of independent boards to monitor and control management decisions, particularly those that affect survival of the company.

The effect of Board size (BS) on probabilityof financial distress is negative, which in turn supports the hypothesis H5. But, this result is unlike to that obtained by Lajili and Zéghal (2010), who did not find any association between size of the board and distressed companies. This is in accordance with the Resources Dependency Theory (Pfeffer, 1972; Pearce and Zahra, 1992), according to which firms with large number of board of directors tend to have the ability to control management. Further, the board of directors wouldcontribute a broad range of interests and point of view thereby reducing the financial distress likelihood.

The results of non-institutional shareholders show that they are not significant in the study. This is conflicting to the previous empirical evidence (Mangena and Chamisa, 2008;Lee and Yeh, 2004). Institutional investors appear to be passive in monitoring the management activities; thus, the hypotheses H2a is not supported by the results.

However, on the one hand, although the square of R in McFadden Nalgerkerke indicate an acceptable overall fit, it is slightly higher for the model that includes the variables of corporate governance (FDLGC) than for the model which has only economic and financial variables.

Further, comparing the two models, improvements are observed. Indeed, the model Chi-Square value is improving between Model 1 and Model 2 (Model 1: Wald Chi2 = 29.9, p <.001; Model 2: Wald Chi2 = 50.40, p <.001). The prediction accuracy is also better in Model 2 (prediction accuracy = 94.4%) than in Model 1 (65.35%).

CONCLUSION

The present study tries to empirically examine the relationship between financial distressand corporate governance. For this purpose a variety of firm specific variables on corporate governance were taken and conditional logistic regression was applied. The results state that board size, non-institutional investor'sand proportion of outside directors do influence the distress level. However, the ownership concentration in the board and duality in CEO had no significant influence on the company financial distress.Further, based on the analysis, it is proved that corporate governance variables in addition to the financial factors do influence the business failure prediction. The results of this study lead us to conclude that board configuration do, in fact, contribute to explain the incidence of financial distress.

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