

**Department of Economics and Marketing  
Discussion Paper No.41**

**Corporate Governance  
and Corporate Failure**

*Mark A. Fox*

**November 1997**

Department of Economics and Marketing  
PO Box 84  
Lincoln University  
CANTERBURY

Telephone No: (64) (3) 325 2811

Fax No: (64) (3) 325 3847

E-mail: [Foxm@lincoln.ac.nz](mailto:Foxm@lincoln.ac.nz)

ISSN 1173-0854  
ISBN 1-877176-18-4

# *Table of Contents*

List of Tables	(i)
1. Introduction	1
2. Literature Review	1
2.1 Corporate Governance and Corporate Failure	2
2.1.1 Board Size	2
2.1.2 CEO Duality	4
2.1.3 Outside Directors	6
2.1.4 Interaction Effects of Governance Variables	8
2.1.5 Ownership	9
2.2 Other Factors that May Lead to Corporate Failure	10
2.2.1 Company Size	10
2.2.2 Industry	12
2.2.3 Protection	13
2.2.4 Strategy	14
2.2.5 Structure	14
2.2.6 Strategy-Structure Fit	15
3. Sample	16
4. The Variables	17
5. Results and Discussion	19
5.1 Introduction	19
5.2 Majority of Outside Directors	23
5.3 Not Having a Divisional Structure	24
5.4 CEO Duality	24
5.5 Board Size	24
5.6 Proportion and Number of Outsiders	25
5.7 Interaction Effects	26
5.8 Ownership	26
5.9 Protection	26
5.10 Strategy	27
5.11 Other Variables	27
6. Conclusions	27
References	28

## *List of Tables*

1.	Previous Studies of Corporate Governance and Corporate Failure	3
2.	Governance Variables and Their Measurement	17
3.	'Fit' and 'Non-Fit' Combinations of Strategy and Structure	18
4.	Other Independent Variables	19
5(a).	Correlation Matrix - Control Variables	20
5(b).	Correlation Matrix - Governance Variables	21
5(c).	Correlation Matrix - Other Variables	21
6.	Results of Logistic Regression Analysis	22

# 1. Introduction

Numerous studies have explored the relationship between corporate governance and corporate financial performance - see Zahra and Pearce (1989) for a review. In contrast, only a few studies have looked at corporate governance and corporate failure (Daily and Dalton, 1994a, 1994b; Gales and Kesner, 1994; Sheppard, 1994b; Hambrick and D'Aveni, 1992; Chaganti, Mahajan and Sharma, 1985). It is surprising that more studies have not examined the governance-failure relationship, especially when I consider the often equivocal results of the governance-performance literature. Such equivocal findings may, in part, be attributable to problems in the definition and measurement of performance. In this regard, corporate failure can be seen to provide a more useful measure of a company's ultimate performance.

By looking at companies at two extremes - those that survive and those that fail - we may gain greater insights into which, if any, governance variables are important in avoiding corporate failure. Increasing our understanding of the relationship between corporate governance and corporate failure is the purpose of this paper.

In the next section I review, first the literature relating to corporate governance and corporate failure and, then, the literature relating to other causes of corporate failure. In section three I discuss the sample used to test various hypotheses generated in the literature review. I then proceed, in section four, to present the operationalisation of the variables of interest. Section five presents the results of my analysis and a discussion. Finally, section six concludes this paper.

## 2. Literature Review

The role of corporate governance in corporate failure has been largely neglected, with previous studies of corporate failure invariably seeking to create financial models using financial ratios of liquidity, leverage and profitability, among others (Ohlson, 1980; Moyer, 1977; Altman, 1973). Several authors highlight the shortcoming of these financial models. Take, for example, the following comments:

Going bust is a financial phenomenon - plainly so, painfully so - but failure does not start this way, it only becomes financial as it moves to the penultimate phase (Argenti, 1986a, p.157).

Despite the accuracy that can be achieved with these models, the financial approach has been criticised for its inability to predict failure in sufficient time to prevent bankruptcy ... In essence, this approach begs the issue of how the firm got into financial trouble in the first place (Daily, 1994, p.270).

Deficiencies in the governance of corporations may well provide one possible explanation for corporate failure. In fact, previous research lends some support to there being a corporate governance-failure relationship - see Table 1.

In the following sections of this paper I examine various governance variables and role they may play in determining corporate failure. I then turn look at several other factors that may contribute to corporate failure.

## **2.1 Corporate Governance and Corporate Failure**

In this section I examine the major corporate governance variables that may contribute to corporate failure. These factors include, board size, representation by non-executive (outsider) directors on boards, CEO duality and ownership.

### **2.1.1 Board Size**

Two explanations have been given to explain why board size may be related to corporate performance. The first explanation takes a resource dependence view, whereby directors are seen to link the company with resources from its environment. This role is seen to be particularly important in times of corporate decline, when the necessity for corporations to co-opt resources from their environments is inevitably heightened. Companies with smaller boards are seen as being more likely to fail; a small number of board members is believed to indicate an inability - or lessened ability - by a firm to co-opt resources from its environment that are necessary for survival.

The second explanation for a board size-corporate performance relationship concerns centralisation of control. Here, an important factor is the extent to which the CEO can influence the board. In this regard, it has been proposed that "larger boards are not as susceptible to managerial domination as their smaller counterparts" (Zahra and Pearce, 1989, p.309) and, in particular, that CEOs are more likely to dominate smaller boards (Chaganti *et al*, 1985). Hence, we can expect that a company with a smaller board is more likely than one with a larger board to fail. This is because the CEO and/or other executives may have more scope to pursue strategic decisions which go unchecked by directors having some degree of impartiality. The strategic decisions adopted by dominating, or autocratic, CEOs have been shown to - in some instances - lead to corporate failure (Miller, 1990). The reason for this is typically viewed to lie in the personality of such dominating CEOs. For example, Kets de Vries and Miller (1985) talk about narcissistic CEOs who pursue corporate strategies in an effort to satisfy their own egos, but at the expense of the companies they manage.

**Table 1**  
**Previous Studies of Corporate Governance and Corporate Failure**

<i>Study</i>	<i>Sample</i>	<i>Board size</i>	<i>CEO Duality</i>	<i>#_OUT</i>	<i>P_OUT</i>	<i>P_AFFIL</i>	<i>M_OUT</i>	<i>Dual x #_OUT</i>	<i>Dual x %_OUT</i>
Chaganti, Mahajan and Sharma (1985)	21 matched pairs of failed and not failed retailing firms	-	none		none		none		
Hambrick and D'Aveni (1992)	57 matched pairs of <i>Dun and Bradstreet</i> companies in three industry sectors (manufacturing, retailing and transportation)			-					
Gales and Kesner (1994)	127 matched pairs of bankrupt and non-bankrupt firms	-		none	none				
Sheppard (1994b)	Matched pairs of 23 failed and 23 surviving firms for each of the five years preceding bankruptcy				none				
Daily and Dalton (1994a)	50 publicly held firms that filed for bankruptcy during 1990 and 50 matching non-bankrupt firms		none	none	none			none	+
Daily and Dalton (1994b)	As for Hambrick and D'Aveni (1992)		+			+			+

*Note:* + denotes positively associated with failure; - denotes negatively associated with failure; *none* denotes not associated with failure.

N\_OUT=number of outsiders; P\_OUT=Percentage, or proportion of outsiders; M\_OUT=majority of outsiders on board; Dual x OUT=interaction effect of CEO duality and number of outsiders on board; Dual x P\_OUT = interaction effect of proportion of outsiders and CEO duality; P\_AFFIL=proportion of affiliated directors

Each of the above theories points to the following hypothesis:

*H1:* Companies with smaller boards will be more likely to fail than will companies with larger boards.

Board size is a proxy for intangible variables such as CEO influence and resource dependence. As such, it is possible that board size may not adequately capture the richness of these intangible variables it seeks to represent, however, it is hoped that the use of this proxy variable - and the others discussed below - will give some indication of the variables of interest.

### **2.1.2 CEO Duality**

CEO duality is usually deemed to occur when the board chair of a company is also its chief executive officer. Those arguing in favour of CEO duality adopt the argument that duality leads to increased effectiveness, which will be reflected in improved company performance. CEO duality is seen to result in a situation where there is a clear leader of the organisation and where there is no room for doubt as to who has authority or responsibility over a particular matter (Donaldson and Davis, 1991, Anderson and Anthony, 1986). Given this, it has been proposed that separation of board chair and CEO roles "is guaranteed to produce chaos both within the organization and in relationships with the board" (Anderson and Anthony, 1986, p.54). In the event that such "chaos" does ensue, it would be likely that this would have a detrimental effect upon the formulation of corporate strategy and the responsiveness of the company to changes in the external environment. Both of these factors could potentially contribute to corporate failure.

In comparison to arguments in favour of CEO duality, more compelling and numerous arguments have been proposed against this structure. In particular, those arguing against CEO duality typically propose that it leads to a situation where the governance role of the board of directors is compromised. The argument against CEO duality is aptly put in the following quote:

In a company where the chairman is also the CEO ... power concentrated in one individual and possibilities for checking and balancing powers of the CEO ... are virtually eliminated. In such a corporation, the board may not be able to function as an independent body - independent from the influences of top management (Chaganti *et al*, 1985, p.407).

As mentioned above - in relation to CEO dominance - board independence may be critical in ensuring that a CEO does not follow strategies which are detrimental to corporate survival.

Aside from the above argument it is also proposed that the separation of CEO and board chair roles is necessary because one person cannot perform both roles effectively. Stewart (1991) in

her study of the relationships between board chairs and CEOs comments that "both the chairman and general manger have a distinctive domain" (p.523).

A further argument for separating the roles of chairperson and CEO concerns the relative role expectations on each. In contrast to the CEO, who is involved in the day-to-day management of the company, the board chair "is often involved in special planning assignments, in policy review and formulation and in public and stockholder relations" (Chaganti *et al*, p.408). It is likely that, given his or her day to day executive commitments, the CEO will not be able to effectively perform the additional roles of chairperson. This is likely to be particularly so during times of crisis. Furthermore, some of the benefits which the CEO can obtain from having a chairperson will inevitably be absent when the roles are combined. For example Stewart (1991, p.522) has highlighted several roles of chairpersons, including mentoring (acting as a coach and counsellor positively seeking to influence the [CEOs] behaviours), and consultant (giving advice to the CEO and other directors).

Hambrick and D'Aveni's (1992) study, although it does not directly examine CEO duality and failure, also indicates that CEO duality may be undesirable in ensuring corporate survival. These authors comment that:

Possibly the most widely observed characteristic of failing top management teams is the presence of dominant CEOs, or autocrats. Argenti (1976), Miller and Friesen (1977) and Ross and Kami (1973) all found evidence of strong-willed, dominating, often egomaniacal chief executives at the helms of unsuccessful firms. Such leaders may be wedded to the wisdom of their own views, may greatly discount or stunt the potential contributions of subordinate team members, and drive subordinates away in frustration (Hambrick and D'Aveni, 1992, pp.1450-1451).

Hambrick and D'Aveni's (1992) study of 57 bankrupt firms and 57 matched survivors found that CEO dominance - operationalised as the ratio of the CEO's cash compensation to the average compensation of other members of the top management team - was a significant predictor of bankruptcy. Hambrick and D'Aveni's (1992) sample was also used by Daily and Dalton (1994b), which found that CEO duality - which can be seen as another measure of chief executive dominance - was a significant predictor of bankruptcy. CEO duality can be seen as one means by which chief executive officers can wield greater control over the direction of companies and, in particular, over those persons also charged with determining the future direction of the company (other directors) and achieving the objectives of the company (other executives). It is therefore not surprising that Hambrick (1991) sees CEO duality as a means of power hoarding, which has in turn been linked to inferior corporate performance (Miller and Friesen, 1977).

One argument proposed for the separation of CEO and chairperson roles is that - in the case of a poorly performing company - "it is not immediately clear what process would be relied on to

remove CEO/board" (Daily and Dalton, 1994a, p.645). This is because the CEO who is also board chair is assumed to have a board which largely defers to him or her. Interestingly, research by Harrison, Torres and Kukalis (1988) indicates that it is more difficult to replace either the CEO or board chair when these roles are separated, than when the two roles are held by one individual.

Taking an agency theory perspective, Daily and Dalton (1994a) propose that separating the roles of CEO and chairperson "reduces the opportunity for the CEO and inside directors to exercise behaviours which are self-serving and costly to the firm's owners" (p.645).

Another argument against CEO duality is that it lessens organisations ability to adapt to change (Daily and Dalton, 1994a). In this regard, Argenti (1986b) gives autocratic leadership and CEO duality among the management defects which can contribute to eventual failure:

An autocratically run company that also has not responded to change is plainly in jeopardy, for it means that the autocrat himself has almost certainly failed to notice how the world has changed. He is the company: if he has not understood some new trend in the business environment then the company is doomed. It might not happen for years, or it might be tomorrow. It only needs some stroke of bad luck to expose the fatal flaw that his company has been allowed to develop (Argenti, 1986, p.101).

Lorsch and MacIver (1989) also propose that separating the roles of CEO and chairperson has compelling benefits, including increasing a board's ability to prevent crisis and enhancing the ability of the board to act quickly during times of crisis.

The above arguments tends to support the following hypothesis:

*H2: Failed companies will be more likely to have CEO duality compared to surviving companies.*

As with board size, CEO duality is a proxy measure for intangible variables such as CEO power or dominance, role expectations and the ability to respond to crises. The intangible nature of these variables may lead to CEO duality being an imprecise proxy, but in the absence of better developed measures - and given the convenience of CEO duality in terms of data collection - I adopt its use in this study.

### **2.1.3 Outside Directors**

As with the CEO duality debate it is often proposed that inside directors cannot be relied on to impartially monitor their own performance. In contrast, outsiders are seen to be independent, and therefore impartial, as well as benefiting a company by representing alternative perspectives and enhancing the expertise of directors in general (Zahra and Pearce, 1989).

Sheppard (1994b) proposes that outside directors "provide an indicator of the board's orientation toward its external environment ... and thus its ability to respond to change" (p.801). The inability to respond to change is one of the major causes of corporate decline (Miller, 1990). It therefore appears reasonable to propose that corporations having fewer outside directors will be less able to perceive and respond to change in the external environment, and therefore be more likely to fail. As Pfeffer and Salancik (1978) note, increased environmental pressure means that organisations will require more support from outside constituencies. One means by which such support can be gained is through outside directors and their network of contacts (Borch and Huse, 1993).

The turnaround literature indicates that replacement of top management is a major prerequisite for major strategic change. In the New Zealand context, Addison and Hamilton (1988) found that the top ranked turnaround strategy was to change top managers (used in 77 per cent of turnarounds). Also, Grinyer, Mayes and McKiernan (1990) found that 85 per cent of their "sharpbenders" - which were defined as "companies, of different sizes, that have been in relative decline with regard to their industry and have managed a sharp and sustained recovery" (p.116) - instituted major changes in management.

One of the advantages of outside directors is that, in contrast to inside directors, they are more able and willing to support changes in top management. In this regard Boeker (1992) found that boards with a higher proportion of outsiders were more likely to dismiss CEOs of poorly performing companies. As Daily (1994) comments "outside director do not operate under the same constraints as inside directors. This may be especially true in crisis situations where outside directors may be more able to exercise control in organisations" (p.284). We therefore expect that having more outside directors on a board is advantageous in that it increases the likelihood that poor performing managers will be removed during crises; thereby, possibly avoiding failure.

Those arguing in favour of having a board dominated by outside directors propose that the independence of inside directors is open to question. One role of the board is to monitor and evaluate top management. In this respect, insiders directors are seen to be in a position to serve their own best interests.

Studies of corporate governance and failure have tended to use the proportion of outside (or inside) directors as the independent variable. Daily and Dalton (1994a) - while accepting the value of this measure when corporate control is being evaluated - propose that it is more appropriate to use the number of outside directors in evaluating resource dependence theory. These authors note that:

It seems that - especially in crisis - the firm needs as many outside representatives on its board as it can garner to provide access to as many valued resources and as much information as possible (Daily and Dalton, 1994a, p.646).

There is evidence that boards with higher proportions of outside directors are more involved in strategic decision making (Judge and Zeithaml, 1992) and are more likely to be involved in strategic restructuring (Johnson, Hoskisson and Hitt, 1993). These findings indicate that outsider representation on boards will be associated with efforts to prevent corporate decline (Daily and Dalton, 1994b, p.1606).

As we can see from the preceding arguments there are rather compelling arguments in favour of outside directors. However, some arguments have been made against representation by outsiders on boards. In this regard, it has been suggested that outsiders do not have the time and expertise to perform effectively (Zahra and Pearce, 1989, p.315). In addition outsiders may find it difficult to "understand the complexities of the company and to monitor its operations and, hence, to be fully responsible or effective" (Chaganti *et al*, 1985, p.407). These two arguments would lead us to expect that having more insiders on boards is conducive to corporate survival as these directors can be expected to have more time, expertise and knowledge to bring to bear, which will help avoid corporate collapse.

On balance, the above arguments - for and against outsider representation on boards - are supportive of the above hypothesis:

*H3*: Failed companies will have a lower proportion of outside directors on their boards compared to surviving companies.

*H4*: Failed companies will have fewer outside directors on their boards compared to surviving companies.

*H5*: Failed companies will be less likely than surviving companies to have a majority of outside directors.

Once again, outsider representation is a proxy for intangible variables; such as the influence of outsiders on corporate strategy and responsiveness to the environment. As a proxy variable outsider representation is subject to the same concerns outlined above in relation to the board size and CEO duality proxy variables.

#### **2.1.4 Interaction Effects of Governance Variables**

Two recent studies (Daily and Dalton, 1994a, 1994b) have investigated the relationship between the interaction of governance variables and corporate failure. In the first of these

studies, Daily and Dalton (1994a) examined the interaction effect of CEO duality and both the number and proportion of outside directors, proposing that:

... it should be acknowledged that firms with CEO/board chair structures and few independent directors would constitute the limit of centralized top management governance. At the other extreme would be separate CEO/board chair positions and relatively more independent directors (Daily and Dalton, 1994a, p.646).

Whether or not it is the interaction between the number of outsiders or the proportion of outsiders, and CEO duality, or both, that may lead to corporate failure is unclear, hence the following hypotheses:

*H6:* Failed firms will be more likely than survivors to have CEO duality and a lower proportion of outside directors.

*H7:* Failed firms will be more likely than survivors to have CEO duality and have fewer outside directors.

### **2.1.5 Ownership**

Following Berle and Means (1932), it is often argued that in the modern corporation ownership is so widely spread that managers have the scope to pursue their own interests largely unchecked by shareholders. As Glasberg and Schwartz (1983), comment, this "managerial theory" of the firm:

... is premised on the observation that most companies are no longer subject to the dictates of individual owners holding dominant blocks of stock (Glasberg and Schwartz, 1983, p.320)

However, there appears little basis for this statement in the New Zealand context. As shown in Fox and Walker (1997) the vast majority of New Zealand listed companies are controlled by individuals or companies holding large blocks of stock combined with board and, often, management representation.

It has been proposed that one of the ways managers can pursue their own interests is through conglomerate building. The general proposition here is that as share ownership becomes more diffuse - and, as a result, managers discretion increases - the firms they manage will be observed to diversify in ways which are likely to be contrary to owners' primary concern for profitability. Through diversity comes a reduction in managers perceived "employment risk" (Amihud and Lev, 1981) and an increase in company size and hence managers compensation

(Gomez-Mejia, Tosi and Hinkin, 1987). Fox and Hamilton (1994) found no evidence to support this corporate control-diversification relationship in their study of 96 New Zealand listed companies for the year 1985.

Furthermore, the evidence on corporate control and corporate financial performance does not lend support to the managerial theory of the firm. Hence Glasberg and Schwartz's comment that:

Though there have been some discrepant results, the body of evidence disconfirms the managerial hypothesis. Owner- and manager-controlled companies exhibit little or no difference, in either profit margin or rate of return to stockholders (Glasberg and Schwartz, 1983, p.320).

Given the above, there appears to be no sound basis for supporting the managerial theory of the firm in the context of corporate failure. If there is no association between ownership and corporate financial performance, it appears most unlikely that there would be any such association between ownership and failure. Hence:

*H8*: Failed companies and surviving companies will not be distinguishable by their concentration of ownership.

Note this statement asserts an essentially linear relationship between the share of the largest owner and degree of influence or control that can be exerted over the company. It is accepted that this relationship may have been better represented by a binary (step function) relationship (control/no control). However, any step function representation would have involved some loss of information and the imposition of a critical level of ownership at which the step should take place. In other words, both formulations involve assertion and I have proceeded here with the continuous linear version on the grounds that its performance would be (a) less sensitive to the assertion underlying its use, and (b) provide the more severe test of the relationship in question.

## **2.2 Other Factors that May Lead to Corporate Failure**

In addition to the governance variables examined above, there are a number of other factors which have been proposed to contribute to corporate failure. It is to these factors which we will now turn our attention:

### **2.2.1 Company Size (the liability of smallness)**

There is extensive evidence that there is a "liability of smallness" (Aldrich and Auster, 1986), ie. that smaller firms are more likely than larger firms to fail. For example, Peel, Peel and Pope

(1986) found failed companies were significantly smaller (as measured by the logarithm of total assets) than their non-failed counterparts. Bates and Nucci (1989) found firm size, as measured by the logarithm of sales revenue, to be inversely related to discontinuance. In a review of the firm size-failure literature Singh and Lumsden comment that "with few exceptions, there seems to be strong empirical support for the liability of smallness" (1990, p.176).

One explanation for increased rates of failure among smaller firms is that, in contrast to larger firms, smaller companies tend to be less diversified and therefore more subject to industry fluctuations (Sheppard, 1994a). Also, in corporations which operate in a single industry, there may be significant advantages associated with size which reduce the likelihood of failure. For example, in the context of banking, Boyd and Runkle (1991) propose that larger bank size is associated with a larger customer base and in turn to less risk in the lending portfolio, leading to a lower chance of bankruptcy.

Aldrich and Auster (1986) propose several other reasons for the liability of smallness, the first of which relates to Hannan and Freeman's (1984) notion of structural inertia:

According to Hannan and Freeman, since selection processes in modern societies are such that they favour organisations with greater structural inertia (ie. inert organisations have lower mortality rates) larger organisations must have lower mortality rates (Aldrich and Auster, 1986, p.171).

Smaller organisations have several disadvantages, compared with large organisations. Tax laws, in particular the favourable tax treatment of capital gains, create incentives for small-firm owners to sell out to large firms, whose borrowed funds for acquisition purposes have tax-deductible interest. Governmental regulations have more impact on small organisations as they attempt to deal with city, country, state, and federal levels of government. Finally, in competing with large organisations for labor input, small organisations are at a major disadvantage, since they cannot offer the long-term stability and internal labor markets that large organisations are thought to have (Singh and Lumsden, 1990, p.176).

One of the most commonly used arguments for the liability of smallness concerns the association between firm size and firm age. With regards firm age there is seen to be a "liability of newness" (Stinchcombe, 1965). Javanovic (1982) proposes that firms learn about their efficiency through operating in their industry. As firms become more experienced in their industry the likelihood of failure is reduced, or as Javanovic states "efficient firms grow and survive: the inefficient decline and fail" (1982, p.650). Stinchcombe's (1965) first referred to the concept of liability of newness. This concept incorporates Javanovic's (1982) proposition in arguing that younger firms are more likely than older firms to fail. The reasons for this are:

First, new organisations depend on new roles and tasks that have to be learned at some costs. Second, sometimes new roles have to be invented, and this may conflict with constraints on capital or creativity. Third, social interactions in a new

organization resembles those between strangers, and a common normative basis or informal information structure may be lacking. Finally, stable links with clients, supporters of customers are not yet established when an organization begins (Bruderl and Schussler, 1990, p.530).

The arguments outlined above along with previous research on the liability of smallness lead us to propose that:

*H9:* Smaller companies will be more likely to fail than larger companies.

### **2.2.2 Industry**

Several studies have found that industry effects impact on company performance (Grant, Jammine and Thomas, 1988; Scherer, 1980; Vernon, 1972). As Vesper (1980) notes in an early review on success and failure factors of entrepreneurial start-ups:

Probably the most important variable affecting the survival and success of a new venture ... is the choice of product or service to be offered (Vesper, 1980, p.29).

There is compelling evidence that failure rates differ significantly between industries. For example, Preisendorfer and Voss found that "survival times of manufacturing firms are longer than those of trading firms" (1990, p.117). Platt (1989) found failure rates of American companies differed significantly among 16 industry groups during each of the 1950s, 1960s and 1970s.

One explanation for the relationship between industry and corporate failure concerns industry contagion (Lang and Stulz, 1992; Aharony and Swary, 1983):

Contagion may manifest itself in the form of creditor and customer withdrawal within an industry as a result of one firm's bankruptcy. This withdrawal weakens other firms as a consequence. Alternatively, one firm's bankruptcy may signal to the market that the industry is weak. This is consistent with the view that survival is determined by environmental carrying capacity, defined as the ability of the environment to support a population of firms (Hannan and Freeman, 1977). A strong environment, however, may enable a resource-deficient firm to delay or even avoid bankruptcy ... (Daily, 1994, pp.274-5).

Given the evidence for an industry-failure relationship I propose that:

*H10:* The industry in which a company operates will influence its likelihood of failure.

### 2.2.3 Protection

In New Zealand, the second half of the 1980s were characterised by a wide-ranging process of economic liberalisation (Campbell-Hunt, Harper and Hamilton, 1993; Savage and Bollard, 1990). This process of economic liberalisation is of particular interest in that it was beyond that attempted by any comparable country (Hamilton and Shergill, 1993b, p.103) and took New Zealand from being one of the most regulated economies in the industrialised world to one of the least regulated (Passow, 1992).

Major reforms to impact on manufacturers included the removal of import licenses, and their replacement with tariffs which were destined to fall over time (refer Baird Savage and Petherick, 1990, pp.13-15). Non-manufacturers were hit by the removal of entry restrictions (Hamilton and Shergill, 1993a).

In terms of the effects of the aforementioned economic policy on New Zealand companies, there are two previous studies of interest. In the first study, Hamilton and Shergill (1993a) looked at 44 manufacturing companies that were listed on the New Zealand Stock Exchange between 1975 and 1985. They found that industry concentration and effective protection rates were significantly related to return on equity, and industry concentration was significantly related to growth in sales. Another study (Galt, 1986) surveyed 30 manufacturing firms and found that the most common responses to economic liberalisation were dropping product lines (mentioned by 11 firms) and reducing staff numbers (mentioned by 12 firms).

Given the obvious effects of industry protection on corporate performance, it is somewhat surprising that this factor has been neglected in previous studies of corporate failure. In the New Zealand context, we expect companies that had higher levels of protection prior to deregulation to be more likely to fail during a period of economic liberalisation. This is because economic liberalisation will inevitably have the most severe impact on the performance of these companies. In particular companies that are only profitable because they operate in a protected environment may not be able to adapt to their changing environment in order to become profitable and survive.

*H11:* Companies having higher levels of industry protection will be more likely to fail during a period of economic liberalisation than will companies with lower or no industry protection.

## **2.2.4 Strategy**

Numerous studies have examined the relationship between corporate strategy and corporate financial performance (Datta, Rajagopalan and Rasheed, 1991; Ramanujam and Varadarajan, 1989). A recent review of these studies states that:

... the performance effects of firm diversification remain unclear despite a large body or prior research that has yielded mixed results due to differing performance measures, diversification measures, samples and time periods (Lloyd and Jahera, 1994, p.259).

In the New Zealand context there is evidence that some corporate strategies lead to higher financial performance. Hamilton and Shergill (1993a) in their study of 79 companies listed on the New Zealand Stock Exchange between 1975 and 1985 found that companies with a related diversified strategy outperformed companies with any other strategy in terms of ROA, ROE and growth in sales.

With the exception of Sheppard (1994b), who found no relationship between the level of diversification and bankruptcy, previous studies of corporate failure have neglected to control for corporate diversification. Instead, these studies have controlled for industry effects by matching failed and surviving companies in the same major industry. Sheppard (1994a) argues that this is inappropriate given that diversified firms activities are often so widely spread that no comparable match can be made on the basis of major industry. Hence the need to control for corporate diversification in failure studies. Sheppard (1994b) outlines the argument for a diversification-failure relationship thus:

Through diversification an organization can reduce its reliance on any one domain of activity and thus reduce the chance that a market downturn in any one market will greatly impact the firm's chance for survival (Sheppard, 1994b, p.798).

From the foregoing discussion we can expect that:

*H12:* Failed firms will be less diversified than survivors.

## **2.2.5 Structure**

Previous research has supported the M-form hypothesis, namely that companies with a multidivisional structure will perform better than companies with other structures (Hoskisson, 1987). The reason for the purported superiority of the M-form structure, as originally stated by Williamson, is that:

... the organisation and operation of the large enterprise along the lines of the M-form favours goal pursuits and least-cost behaviour more nearly associated with the neo-classical profit maximising hypothesis (Williamson, 1975, p.150).

More recently Hamilton and Shergill (1989) in commenting on the influence of adoption of the M-form structure on corporate performance state that:

... the alleged superiority of this structure in terms of company profitability stems from its ability to avoid the problems of control loss and strategic myopia, problems which would otherwise lead to impaired profitability (Hamilton and Shergill, 1989, pp.89-90).

Williamson (1970) proposed that compared to companies with an M-form structure, large companies with a functional structure would be less internally efficient and have less direction as a result of less strategic control (Hoskisson, Harrison, and Dubofsky, 1991). Williamson (1970) also highlights the problem of replacing poorly performing top managers, which is said to be more difficult in companies with a functional structure. As mentioned earlier, the replacement of poorly performing top managers is particularly important in turnaround situations (Addison and Hamilton, 1988). Thence the inability to replace such managers due to structural constraints may well be an important factor associated with corporate decline.

Another structure which has come under criticism by Williamson (1985) is the H-form (holding company) structure. It has been proposed that this structure "does not provide adequate controls necessary for efficient capital allocation" (Hoskisson *et al*, 1991, p.272).

An interesting question arises with regards the association between the various structures I have examined and corporate failure. It appears clear that divisional (M-form) structures are much less likely to be associated with corporate failure than functional structures. Furthermore, it is apparent that the holding company structure is something of a transitory structure, falling between the functional and divisional structures. In the New Zealand context, Hamilton and Shergill (1989) found structure to be associated with financial performance (growth and profitability). Companies with divisional structures were the most profitable, followed by companies with holding company structures and functional structures. It therefore appears likely that:

*H13*: Companies with a functional structure will be more likely to fail than companies with either a holding company structure or a divisional structure.

## **2.2.6 Strategy-Structure Fit**

Several studies have indicated that some combinations of strategy and structure are associated with higher performance than are others (Hamilton and Shergill, 1992; Donaldson, 1987;

Donaldson, 1984). For example, Hamilton and Shergill (1992) found that New Zealand listed companies having a related diversified strategy and a divisional structure outperformed companies having any other combination of strategy and structure. Given the relationship between strategy-structure fit and corporate financial performance, we can expect that:

*H14*: Failed companies will be more likely than survivors to have no fit between strategy and structure.

### 3. Sample

According to Sheppard (1994b), one of the major problems with the organisational decline literature is that:

... most studies involve organisations which may be subject to substantial liability of newness or smallness ... The conclusions of these studies may thus be inappropriate for the managers of larger, on-going business concerns. Yet, the research in the area is desired [sic]. Strategic managers - those managers responsible for the well being of the entire organization - list the survival of their organization as their principal concern ... (Sheppard, 1994b, p.796).

Taking note of Sheppard's comments, I elected to use a group of established companies as the basis for our study, thereby hoping to gain a greater understanding of the factors contributing to organisational decline. The sample was selected from those 129 companies that were listed on the New Zealand Stock Exchange (NZSE) from 1980 to 1985.<sup>6</sup> Next, I classified those companies that then remained listed through to 1990 as *survivors* (31 companies).<sup>7</sup>

Our next task was to determine which of those companies that did not remain listed through to 1990 were failures. To do this I used a previous study of corporate distress in New Zealand (Addison and Hamilton, 1988) and determined the Z-values of all companies that did not survive (remain listed) to 1990. For each of these non-survivors, Z-values were based on financial information contained in the most recently available annual report prior to delisting. If the company had a Z-value that signified distress and did not survive until 1990 I classified it as failed.<sup>8</sup> In doing so I excluded from our sample companies that were delisted for reasons

---

<sup>6</sup> Finance and mining companies were excluded from analysis because of their unusual balance sheet characteristics.

<sup>7</sup> Four companies (Mount Cook, Radio Otago, Nuhaka and Taylor's) were excluded from analysis due to insufficient data.

<sup>8</sup> Following Addison and Hamilton (1988) the Z-values were determined as follows:

$$Z = 0.56 + 12.52 X1 - 3.82 X2$$

Where:

X1 = EBIT/Total Assets

X2 = Current Liabilities/Total Assets

ostensibly not associated with poor financial performance. A total of sixteen companies were classed as *failures* (out of 35 companies).

#### 4. The Variables

The dependent variable of interest was company failure, a binary variable assigned the value of 1 if the company was a *failure* and 0 if it was a *survivor*. The independent governance variables of interest are given in Table 2:

**Table 2**  
**Governance Variables and Their Measurement**

<i>Governance variable</i>	<i>Measured as:</i>
Board size	Total number of directors
Number of outsiders	Total number of outsider (currently non-executive) directors
Percentage of outsiders	Ratio of total number of outsiders to board size
Majority outsiders	A binary variable assigned the value 1 if more than half of the board members are outsiders; otherwise coded as 0
Executive Chair	A binary variable assigned the value 1 if the board chair is also an executive; otherwise coded as 0
Ownership	The percentage of all issued voting capital held by the major (ie. largest) shareholder or shareholding group
Interaction A	Interaction effect of executive chairperson and number of outsiders
Interaction B	Interaction effect of executive chairperson and proportion of outsiders

In addition to the governance variables several other independent variables were examined. These are discussed in turn below:

##### ***Corporate Strategy***

The strategic variable of interest is the extent of diversification of New Zealand listed companies. Previous studies in New Zealand have used the product-count approach developed by Varadarajan and Ramanujam (1987) to measure diversification strategy (refer: Fox and

---

A Z-value of less than +0.15 signifies distress, whereas a Z-value of greater than +0.15 signifies that a company can be regarded as non-distressed.

Hamilton, 1994; Hamilton and Shergill, 1993a; Hamilton and Shergill, 1992b). Using this approach, both failed and surviving companies were classified as having one of the following four levels of diversity in 1985: *very low diversity*; *related diversified*; *unrelated diversified*; and *very high diversity*.

The primary reason for the adoption of this measure of diversification strategy derives from the lack of publicly available sales data, on a product line basis, for New Zealand companies. The measurement system was also adopted for this research in the interests of local continuity and replication.

### ***Structure***

Following previous studies of company structure in New Zealand (Hamilton and Shergill, 1989; Hamilton and Shergill, 1992b) we classified companies as having one of the following three types of structure: functional, holding company, divisional:

In the functional structure, the organisation is broken down into a series of specialised hierarchical functions, each controlled by a specialist (functional) manager, all of whom report directly to the chief executive ... In the divisional structure, each division - whether based on product or geography - is likely to be headed by its own general manager, and have the resources and authority to operate as an autonomous unit ... The holding company structure is one comprised of independent companies (subsidiaries) which are majority owned and controlled by the separate holding company (Hamilton and Shergill, 1993b, p.37).

### ***Strategy-Structure fit***

Following Hamilton and Shergill (1992) strategy-structure fit was recorded as a binary variable, with companies having a strategy structure fit assigned the value 1, and companies without such a fit assigned the value 0. The following table shows the possible combinations of strategy and structure and whether or not there is a fit:

**Table 3**  
**'Fit' and 'Non-Fit' Combinations of Strategy and Structure**

	<i>Corporate strategy</i>			
	<i>Very low diversity</i>	<i>Related diversified</i>	<i>Unrelated diversified</i>	<i>Very high diversity</i>
Functional	+	-	-	-
Holding Company	-	-	+	-
Divisional	-	+	+	+

Source: Hamilton and Shergill (1992)  
Note: + = 'fit', - = 'non-fit'

Other independent variables of interest are given in the following table:

**Table 4**  
**Other Independent Variables**

<i>Variable</i>	<i>Measurement</i>
Protection	The measure of protection for each company was based on its primary industry. Data for rates of protection were taken from Wong and Brooks (1986) and relate to 1985-86. It must be noted that the protection variable will be less appropriate for diversified firms, i.e., where a firm does not have a dominant primary industry.
Industry Concentration	Each company was assigned the concentration ratio (based on persons engaged) of its primary industry during 1984-85
Firm size	The natural logarithm of total tangible assets

## 5. Results and Discussion

### 5.1 Introduction

Descriptive statistics and correlations appear in Tables 5(a) to 5(c). We observe that several variables are indeed correlated with corporate failure. In particular companies having very low diversity, a majority of outside directors or a higher proportion of outsiders were correlated with failure. In addition companies having very high diversity were negatively correlated with failure.

The failing propensity that appears to be associated with outside directors is counter to our expectations. One possible explanation for our finding is the measure of outside directors used, i.e., non-executive directors. For example, our measure of outside directors will include former executives of a company which remain on a board following retirement from their positions as executives. Hence, our measure of outsiders may not have been sufficiently robust to provide an accurate picture of director independence from management, or of resource dependence; and our findings in this regard should be treated with some caution.

The apparent failure-avoidance characteristics of very high diversity companies should be put in context. The data relates to 1985-90, i.e., a period in which there was large-scale deregulation and a recession following the post-1987 sharemarket crash. It is plausible that companies involved in many industries were less susceptible to failure for reasons that do not deny the limits of managerial competence in the multi-business enterprise.

**Table 5(a)**  
**Correlation Matrix - Control Variables**

<i>VLD</i>												
<i>RD</i>	-0.3149 <sup>b</sup>											
<i>UD</i>	-0.3149 <sup>b</sup>	-0.1750										
<i>VHD</i>	-0.5408 <sup>c</sup>	-0.3005 <sup>b</sup>	-0.3005 <sup>b</sup>									
<i>Fnl</i>	0.6431 <sup>c</sup>	-0.1010	0.0207	-0.5918 <sup>c</sup>								
<i>Hlg</i>	-0.2675 <sup>a</sup>	-0.1251	-0.1251	0.4592 <sup>c</sup>	-0.5094 <sup>c</sup>							
<i>Dvl</i>	-0.4204 <sup>c</sup>	0.2264	-0.3005	0.1824	-0.5640 <sup>c</sup>	0.4592 <sup>c</sup>						
<i>Fit</i>	0.3198 <sup>b</sup>	-0.0392	-0.0392	-0.2653	0.2030	-0.6870 <sup>c</sup>	0.4455 <sup>c</sup>					
<i>Size</i>	-0.2709 <sup>a</sup>	-0.1057	-0.7093	0.4138	-0.3292 <sup>b</sup>	0.3822 <sup>c</sup>	-0.0202	-0.2614 <sup>a</sup>				
<i>IC</i>	0.0264	0.0133	0.1246	-0.1304	0.2066	-0.1416	-0.0816	-0.0244	0.1919			
<i>Protn</i>	0.0324	0.0138	-0.0391	-0.0138	0.1436	-0.1648	0.0070	0.0809	-0.2087	-0.0109		
<i>Fail</i>	0.3002 <sup>b</sup>	0.0778	-0.0483	-0.3266 <sup>b</sup>	0.2317	-0.0427	-0.2029	0.0118	-0.2185	0.0518	0.1521	
	<i>VLD</i>	<i>RD</i>	<i>UD</i>	<i>VHD</i>	<i>Fnl</i>	<i>Hlg</i>	<i>Dvl</i>	<i>Fit</i>	<i>Size</i>	<i>IC</i>	<i>Protn</i>	

Note: VLD=very low diversity; RD=related diversified; UD=unrelated diversified; Fnl=functional structure; Hlg=holding company structure; Dvl=divisional structure; Fit=strategy-structure fit; Size=firm size; IC=industry concentration; Protn=protection; Fail=failure.  
<sup>a</sup>p<.1; <sup>b</sup>p<.05; <sup>c</sup>p<.001

**Table 5(b)**  
**Correlation Matrix - Governance Variables**

<i>EC</i>									
<i>BdSize</i>	-0.1457								
<i>N_OUT</i>	-0.3648 <sup>b</sup>	0.6517 <sup>c</sup>							
<i>P_OUT</i>	-0.3851 <sup>c</sup>	-0.0530	0.6883 <sup>c</sup>						
<i>M_OUT</i>	-0.3551 <sup>b</sup>	-0.0545	0.4707 <sup>c</sup>	0.6837 <sup>c</sup>					
<i>IntA</i>	0.2314	0.6250 <sup>c</sup>	0.7732 <sup>c</sup>	0.4528 <sup>c</sup>	0.2952 <sup>b</sup>				
<i>IntB</i>	0.4088 <sup>b</sup>	-0.1520	0.3261 <sup>b</sup>	0.6115 <sup>c</sup>	0.4675 <sup>c</sup>	0.6515 <sup>c</sup>			
<i>Own</i>	0.0710	-0.1448	0.1377	0.2740 <sup>a</sup>	0.4704 <sup>c</sup>	0.2268	0.3972 <sup>c</sup>		
<i>Fail</i>	-0.2059	-0.2177	0.1218	0.3104 <sup>b</sup>	0.3496 <sup>b</sup>	0.0236	0.1429	0.3459 <sup>b</sup>	
	<i>EC</i>	<i>BdSize</i>	<i>N_OUT</i>	<i>P_OUT</i>	<i>M_OUT</i>	<i>IntA</i>	<i>IntB</i>	<i>Own</i>	

*Note:* EC=executive chairperson; BdSize=board size; N\_OUT=number of outsiders; P\_OUT=percentage of outsiders; M\_OUT=majority of outsiders; IntA=interaction of EC and number of outsiders; IntB=interaction of EC and proportion of outsiders; Own=ownership; Fail=failure.

<sup>a</sup>p<.1; <sup>b</sup>p<.05; <sup>c</sup>p<.001

**Table 5(c)**  
**Correlation Matrix - Other Variables**

<i>EC</i>	0.0125	-0.0304	-0.1895	0.1525	-0.0270	0.3528 <sup>b</sup>	-0.3101 <sup>b</sup>	-0.3420 <sup>b</sup>	0.2170	0.1981
<i>BdSize</i>	0.3303 <sup>b</sup>	0.1627	0.1538	0.0971	-0.2426 <sup>a</sup>	0.1224	0.1379	-0.0343	0.6131 <sup>c</sup>	-0.0660
<i>N_OUT</i>	0.0851	0.1171	0.0721	-0.0558	-0.0948	-0.0215	0.1204	0.0973	0.1789	-0.1096
<i>P_OUT</i>	0.3323 <sup>b</sup>	0.0066	-0.0972	-0.2689 <sup>a</sup>	0.2180	-0.2075	-0.0304	0.2800 <sup>a</sup>	-0.3441 <sup>b</sup>	-0.0836
<i>M_OUT</i>	0.1413	0.0517	0.0517	-0.2209	0.0703	-0.3035 <sup>b</sup>	0.2172	0.2840 <sup>a</sup>	-0.2073	0.0725
<i>IntA</i>	0.0067	0.1370	-0.0427	-0.0776	-0.0244	0.0876	-0.0583	-0.0329	0.2856 <sup>a</sup>	0.1567
<i>IntB</i>	0.3655 <sup>b</sup>	0.0243	-0.2168	-0.2260	0.2631 <sup>a</sup>	-0.0229	0.2551 <sup>a</sup>	0.0648	-0.1681	0.2300
<i>Own</i>	0.1420	0.0397	-0.1035	0.0960	-0.0847	0.0263	0.0639	0.0258	-0.1518	-0.1898
	<i>VLD</i>	<i>RD</i>	<i>UD</i>	<i>VHD</i>	<i>Fnl</i>	<i>Hlg</i>	<i>Dvl</i>	<i>Fit</i>	<i>Size</i>	<i>IC</i>

*Note:* VLD=very low diversity; RD=related diversified; UD=unrelated diversified; Fnl=functional structure; Hlg=holding company structure; Dvl=divisional structure; Fit=strategy-structure fit; Size=firm size; IC=industry concentration;

<sup>a</sup>p<.1; <sup>b</sup>p<.05; <sup>c</sup>p<.001

Our findings that very high diversity companies may be more likely to avoid failure and that very low diversity companies may be more likely to fail - may indicate that having an involvement in many industries protects a company from failing. In this regard the comments of Sheppard (1994b) may be supported by our findings, i.e., diversification may reduce reliance on any one industry and - in the event of a market downturn in any one market - increase the chances of survival.

I next proceeded to conduct a logistic regression. This statistical technique is common in terms of the corporate failure literature, where the independent variable is dichotomous (failure versus survival) as opposed to continuous. The results of the logistic regression are presented in Table 6.

**Table 6**  
**Results of Logistic Regression Analysis**

	Coefficients	s.e.	log-likelihood	Model Chi-square	Improvement in chi-square	Sig.	Hit rate
Baseline	N/A	N/A	60.28	-	-	-	-
M_OUT	-4.62	16.33		8.55	8.55	.003	65.96%
DVL	0.73	0.39	47.65	12.63	4.08	.002	70.21%

Predictive accuracy

	<i>Predicted</i>		<i>Percent correct</i>
	<i>0</i>	<i>1</i>	
<i>Actual 0</i>	20	11	64.52
<i>Actual 1</i>	3	13	81.25

Overall: 70.21%

*Note:* 0 = survivor; 1 = failure

From the logistic regression, only two independent variables were found to be significant predictors of failure. First, I found that companies having a majority of outside directors in 1985 were significantly more likely to fail before 1990 than were companies that did not have a majority of outside directors. I also found that companies which did not have a divisional structure in 1985 were more likely than companies that did have such a structure to fail before 1990. In the next two sections I will discuss these findings. I will then proceed to examine the null-findings of this research in light of previous research.

## 5.2 Majority of Outside Directors

With regards our majority of outsiders-failure finding, it is interesting to note that in 1985 all of the companies which subsequently failed had a majority of outsiders on their boards. In contrast 22 out of 31 (71 per cent) of those companies that survived through to 1990 had a majority of outside directors in 1985. The issue of causality needs to be addressed with regards the observed majority of outsiders-failure relationship, ie. did having a majority of outside directors lead to corporate failure, or did the failing companies recruit more outside directors to their boards as their performance deteriorated. Insight into this issue is readily derived from the board composition data for these companies. If we compare the boards of failed and non-failed in the earlier year of 1980 we find that the companies that were subsequently to fail during 1985-90 also all had outsider controlled boards in 1980. In contrast 24 of the 31 (77.4 per cent) of companies which survived through to 1990 had outsider controlled boards in 1980.

All of this points to the companies that failed having a majority of outsiders on their boards for a considerable length of time prior to their eventual demise. That the majority of outsiders should be a significant predictor of failure is particularly interesting given that the proportion of outsiders was not found to be a predictor of failure. This indicates that the resource dependence arguments - which propose that outside directors will be particularly beneficial in linking firms with their environments thereby reducing the risk of failure - are not supported by our data. On the contrary, having a majority of outsiders appears to be detrimental to a firm's chances of survival.

Thus it is desirable that the balance of power on boards should not rest with outsiders. There are several reasons why this may be the case. As was mentioned previously, outsiders as a whole may lack the insight into the activities of a firm and its environment that those involved in the company on a day-to-day basis possess. These attributes may be particularly pertinent in ensuring corporate survival.

Our finding that companies having a majority of outsiders were more likely to fail is not wholly consistent with the only previous study to examine this relationship. Chaganti *et al* (1985) found no significant differences between failed and non-failed companies in terms of the majority of outsiders on their boards. However, they did observe that "in each of the three years prior to failure, a larger number of non-failed firms had outsiders in the majority than did failed firms" (p.412). However, as I earlier mentioned our measure of outsiders is somewhat restrictive and may not adequately capture the notions of director independence or resource dependence. Hence, our findings with regards outside directors should be regarded as indicative only.

### **5.3 Not Having a Divisional Structure**

The other major finding of our logistical analysis was that firms not having a divisional structure, ie with either functional or holding company structures, are more likely to fail. This finding is particularly interesting given the lack of attention to structure as a variable in previous failure studies. As was mentioned earlier there are several reasons why companies with a holding company or functional structure may be more likely to fail, than companies with a divisional structure.

We now turn our attention to the variables which were not found to be significant predictors of corporate failure:

### **5.4 CEO Duality**

Our finding that there is no relationship between CEO duality and failure is consistent with two previous studies (Chaganti *et al*, 1985; Daily and Dalton, 1994a), but inconsistent with Daily and Dalton (1994b). In the first of these studies Chaganti *et al* (1985) found no difference in the incidence of CEO duality - in each of the 5 years preceding failure - for failed as compared to non-failed retailing companies. More recently, Daily and Dalton (1994a) found that CEO duality was not a significant predictor of bankruptcy at either three or five years prior to firms filing for bankruptcy. However, another recent study by Daily and Dalton (1994b) found that bankrupt firms were more likely than their matched non-bankrupt controls to have dual CEOs.

Therefore, one the whole, the empirical evidence to date supports the proposition that CEO duality is not detrimental to a firm's chances of survival. This is rather surprising given the strong arguments that both the proponents and detractors of the CEO duality structure have proposed.

### **5.5 Board Size**

The two previous studies which have examined board size and bankruptcy have found a negative association, ie. bankrupt firms tend to have fewer directors than their non-bankrupt counterparts. The first of these studies (Chaganti *et al*, 1985) compared board size between 21 matched pairs of failed and non-failed retail firms. For each of the five years prior to failure, failed firms were found to have significantly fewer directors (at the 95 per cent level of confidence) than their non-failed counterparts. Failed companies had, in each of the five years prior to failure an average board size of between 9 and 10 members. This is in contrast to non-failed companies which had an average board size of between 11 and 12 members.

More recently Gales and Kesner (1994) also support a board size-failure relationship. These authors found that at the time of filing for bankruptcy, firms had significantly smaller boards (an average of 7.04 members) than their non-failed matched pairs (which had on average 7.69 members). Gales and Kesner also found that firms eventually filing for bankruptcy experienced a significant decline in board size. However, Gales and Kesner made no comparison with the control group for this two year period. It is possible, therefore, that the control group also experienced a significant decline in board size, for reasons unassociated with poor performance.

Unlike the previous studies I have just mentioned, we found that board size was not a significant predictor of corporate failure. As with our finding concerning the majority of outside directors and failure, this finding indicates that the resource dependence view of boards is not supported by our sample.

## **5.6 Proportion and Number of Outsiders**

Five previous studies have, either directly or indirectly, examined the relationship between the proportion of outside directors on boards and corporate failure. Chaganti *et al* (1985) found no difference in the percentage of outside directors on boards of failed companies as compared to non-failed matched pairs for each of the five years prior to failure. Sheppard (1994b) who also compared failed and non-failed matched pairs in each of the five years prior to failure (using 23 matched pairs in total), also found no significant difference in the percentage of outsiders on the boards of these companies. Gales and Kesner (1994) found no significant difference in the percentage of outside directors for 127 matched pairs of bankrupt and non-bankrupt companies, at the time of bankruptcy and two years prior to filing for bankruptcy. Daily and Dalton (1994a) found no significant difference in the proportion of independent directors in 50 matched pairs of failed and non-failed firms at either 3 or 5 years prior to filing for bankruptcy. However, another recent study by Daily and Dalton (1994b) found that failed companies have a higher proportion of affiliated directors than their non-failed counterparts. In summary, previous studies have, with the exception of Daily and Dalton (1994b) found no association between the proportion of outsiders on boards and corporate failure.

Three studies have examined the number of outside directors and corporate failure. In the first of these studies Hambrick and D'Aveni (1992) found, for each of the four years immediately preceding bankruptcy, that failed companies had significantly fewer outside directors than their matched-pairs of surviving companies. Daily and Dalton (1994a) found for their matched pairs no significant difference in the number of independent directors at either three or five years preceding bankruptcy. Gales and Kesner (1994) found that at the time of bankruptcy and two years preceding bankruptcy, there was no significant difference in the number of outsiders on

the boards of failed versus non-failed companies. They did, however, find that in the two years preceding bankruptcy, failing firms lost a significant number of outside directors.

As previously mentioned, four out of five previous studies found no relationship between the proportion of outsiders and failure. These studies are supported by our research. Also two out of three previous studies found no relationship between the number of outsiders and failure. These findings are also supported by our research.

## **5.7 Interaction Effects**

The interaction effects of CEO duality and either the number or proportion of outsiders were not found to be associated with subsequent corporate failure. This is in contrast to Daily and Dalton (1994a), where the interaction effect of CEO duality and the proportion of outside directors was found to be the only significant governance variable that predicted failure at both 3 and 5 years prior to firms filing for bankruptcy. Daily and Dalton (1994b) also found this interaction effect to be a significant predictor of bankruptcy (they did not test the interaction effect of the number of outsiders and CEO duality in their second study).

One possible reason for the lack of a finding in this area relates to the, aforementioned, lower incidence of CEO duality among New Zealand, as compared to U.S. companies, thereby ensuring that relatively few New Zealand companies will exhibit the interaction effect under investigation.

## **5.8 Ownership**

That ownership does not appear to be a significant predictor of failure indicates that management-controlled firms may not be any more likely to be led by self-serving individuals who may engage in acts which jeopardise the very survival of their companies. This finding would appear to lend further support to proponents of stewardship theory, who argue that far from being self-serving individuals managers do act in ways that are in the best interests of shareholders.

## **5.9 Protection**

The level of protection afforded companies in 1985 does not appear to be related to their chances of survival in the subsequent five year period. This indicates that companies did not have such difficulty in dealing with deregulation that their survival was jeopardised. This is counter to our expectations; I expected that deregulation would have had a detrimental effect on the survival of New Zealand firms. However, our finding in this regard must be treated with caution - it may simply be that our measure of protection was not sufficiently robust to

capture the effects of deregulation on the firms under investigation. One possibility is that the protection variable did not adequately capture the effects of deregulation on diversified firms, as the value assigned this variable was based on the notional primary industry for each firm.

## **5.10 Strategy**

Consistent with Sheppard (1994b), no relationship was observed between corporate strategy and failure. Thus, while there is considerable evidence that corporate strategy influences financial performance, the relationship between corporate strategy and failure appears non-existent. It appears that despite some corporate strategies being associated with poorer financial performance, this does not mean that companies having such strategies are over-represented in terms of corporate failure. This is somewhat puzzling as I expected failure to be influenced by financial performance.

## **5.11 Other Variables**

No relationship was observed between company size and failure. This is perhaps not surprising given that our samples of failed and surviving companies comprised companies which had been established for at least five years. As was earlier stated this finding was anticipated and can be seen to give our findings more relevance to managers of larger established companies.

Also, I found no relationship between industry concentration and failure. In part, this may be due to the level of measurement, namely at the two-digit SIC code level.

## **6. Conclusions**

This study indicates that several factors, some of which have not been previously identified, distinguish companies that fail from those that survive. In particular having a majority of outside directors may be detrimental to a firm's chances of survival; so too may be having either a functional or holding company structure. A caveat to our findings should be made with regard to sample size. This study has a smaller sample size than some other analyses. This was inevitable given the restricted population size, i.e., the small number of New Zealand listed companies. However, it is possible that our null findings might simply be an artefact of a limited sample size. Also, it is plausible that the failure of prior studies - and the present one - to explain corporate governance and failure may have something to do with the weakness of the data used; in particular, the use of the proxy corporate governance variables such as those adopted here may be inadequate.

Our findings lend further credence to stewardship theory, a framework which presumes that managers are seeking to maximise organisational performance (Donaldson and Davis, 1991). Managements representation on boards, far from being undesirable, appears to enhance a firm's likelihood of survival, if executives, and not outside directors, dominate the board. The implication from this is the dominant influence of managers at board level may well be necessary because these individuals may well possess knowledge and expertise which outside directors do not, by virtue of their more detached involvement in the activities of the company. It appears that boards dominated by outsiders may, in effect, hamstring executives from the pursuit and implementation of those strategies which best ensure the very survival of their company.

The finding that not having a divisional structure appears to increase a firm's likelihood of failure is interesting in light of the lack of previous research on corporate structure and failure. As with corporate governance in general, structure appears to be an area on which failure researchers should turn their attention.

## *References*

- Addison, R. and Hamilton, R.T. (1988) Company turnarounds in New Zealand. *Management Forum*, 14, 2, 95-103.
- Aharony, J. and Swary, I. (1983) Contagion effects of bank failures: evidence from capital markets. *Journal of Business*, 56, 3, 305-322.
- Aldrich, H. and Auster, E.R. (1986) Even dwarfs started small: liabilities of age and size and their strategic implications. *Research in Organizational Behavior*, 8, 165-198.
- Altman, E.I. (1973) Predicting railroad bankruptcies in America. *Bell Journal of Economics and Management Science*, 4, 1, 184-211.
- Amihud, Y. and Lev, B. (1981) Risk reduction as a managerial motive for conglomerate mergers. *Bell Journal of Economics*, 12, 2, 605-617.
- Anderson, C.A. and Anthony, R.N. (1986) *The new corporate directors*. New York: John Wiley & Sons.
- Argenti, J. (1986a) Predicting corporate failure. *Accountancy*, 97, February, 157-158.
- Argenti, J. (1986b) Spot danger signs before it's too late. *Accountancy*, 97, July, 101-102.
- Baird, M, Savage, J. and Petherick, A. (1990) *Responding to change: What firms say about structural change*. New Zealand Institute of Economic Research, Research Paper No.34.

- Bates, T. and Nucci, A. (1989) An analysis of small business size and rate of discontinuance. *Journal of Small Business Management*, 27, 4, 1-6.
- Berle, A.A. and Means, G.C. (1932) *The modern corporation and private property*. New York: MacMillan.
- Boeker, W. (1992) Power and managerial dismissal: scapegoating at the top. *Administrative Science Quarterly*, 37, 3, 400-421.
- Borch, O.J. and Huse, M. (1993) Informal strategic networks and the board of directors. *Entrepreneurship: Theory and Practice*, 18, 1, 23-36.
- Boyd, J.H. and Runkle, D.E. (1993) Size and performance of banking firms. *Journal of Monetary Economics*, 31, 1, 47-67.
- Bruderl, J. and Schussler, R. (1990) Organizational mortality: the liability of newness and adolescence. *Administrative Science Quarterly*, 35, 1, 30-47.
- Campbell-Hunt, C., Harper, D.A. and Hamilton, R.T. (1993) *Islands of excellence?: a study of management in New Zealand*. New Zealand Institute of Economic Research, Research Monograph No. 59.
- Chaganti, R.S., Mahajan, V. and Sharma, S. (1985) Corporate board size, composition and corporate failures in the retailing industry. *Journal of Management Studies*, 22, 4, 400-417.
- Daily, C.M. (1994) Bankruptcy in Strategic Studies: Past and Promise. *Journal of Management*, 20, 2, 263-295.
- Daily, C.M. and Dalton, D.R. (1994a) Corporate governance and the bankrupt firm: an empirical assessment. *Strategic Management Journal*, 15, 8, 643-654.
- Daily, C.M. and Dalton, D.R. (1994b) Bankruptcy and corporate governance: the impact of board composition and structure. *Academy of Management Journal*, 37, 6, 1603-1617.
- Datta, D.K., Rajagopalan, N. and Rasheed, A.M.A. (1991) Diversification and performance: critical review and future directions. *Journal of Management Studies*, 28, 5, 529-558.
- Donaldson, L. (1987) Strategy and structural adjustment to regain fit and performance: in defence of contingency theory. *Journal of Management Studies*, 24, 1, 1-24.
- Donaldson, L. (1984) Explaining structural change in organisations: Contingency determinism or contingency fit. *Australian Journal of Management*, 2: 15-24.
- Donaldson, L. and Davis, J.H. (1991) Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management*, 16, 1, 49-64.
- Fox, M.A. and Hamilton, R.T. (1994) Ownership and diversification: agency theory or stewardship theory. *Journal of Management Studies*, 31, 1, 69-82.
- Fox, M.A. and Walker, G.R. (1997) Regulatory design and sharemarket ownership in New Zealand. *Advances in Banking and Finance, forthcoming*.

- Gales, L.M. and Kesner, I.F. (1994) An analysis of board of director size and composition in bankrupt organizations. *Journal of Business Research*, 30, 3, 271-282.
- Galt, D. (1986) Adjustment to change in New Zealand manufacturing, In, T. Lindop (ed.) *Liberalising the New Zealand Economy*, Fourth National Business Conference, University of Otago.
- Glasberg, D.S. and Schwartz, M. (1983) Ownership and control of corporations. *Annual Review of Sociology*, 9, 311-332.
- Gomez-Mejia, L.R., Tosi, H. and Hinkin, T. (1987) Managerial control, performance and executive compensation. *Academy of Management Journal*, 30, 1, 51-70.
- Grant, R.M., Jammine, A.P. and Thomas, H. (1988) Diversity, diversification and profitability among British manufacturing companies, 1972-1984. *Academy of Management Journal*, 31, 4, 711-801.
- Grinyer, P.H., Mayes, D. and McKiernan, P. (1990) The sharpbenders: achieving a sustained improvement in performance. *Long Range Planning*, 23, 1, 116-125.
- Hambrick, D.C. and D'Aveni, R.A. (1992) Top team deterioration as part of the downward spiral of large corporate bankruptcies. *Management Science*, 38, 10, 1445-1466.
- Hamilton, R.T. and Shergill, G.S. (1992) The relationship between strategy-structure fit and financial performance in New Zealand: evidence of generality and validity with enhanced controls. *Journal of Management Studies*, 29, 1, 95-113.
- Hamilton, R.T. and Shergill, G.S. (1989) Organisational structure and company performance: some New Zealand evidence. *Pacific Accounting Review*, 2, 1, 88-102.
- Hamilton, R.T. and Shergill, G.S. (1993a) Extent of diversification and company performance: the New Zealand evidence. *Managerial and Decision Economics*, 14, 1, 47-52.
- Hamilton, R.T. and Shergill, G.S. (1993b) *The logic of New Zealand business: strategy, structure and performance*. Auckland: Oxford University Press.
- Hannan, M.T. and Freeman, J. (1984) Structural inertia and organisational change. *American Sociological Review*, 49, 149-164.
- Hannan, M.T. and Freeman, J. (1977) The population ecology of organisations. *American Journal of Sociology*, 82, 929-964.
- Harrison, J.R., Torres, D.L. and Kukulis, S. (1988) The changing of the guard: turnover and structural change in top-management positions. *Administrative Science Quarterly*, 33, 2, 211-232.
- Hoskisson, R.E. (1987) Multidivisional Structure and performance: The contingency of diversification strategy. *Academy of Management Journal*, 30, 4, 625-644.

- Hoskisson, R.E., Harrison, J.S. and Dubofsky, D.A. (1991) Capital market evaluation of M-form implementation and diversification strategy. *Strategic Management Journal*, 12, 4, 271-279.
- Javanovic, B. (1982) Selection and evolution of industry. *Econometrica*, 50, 3, 649-670.
- Johnson, R.A., Hoskisson, R.E. and Hitt, M.A. (1993) Board of director involvement in restructuring: the effects of board versus managerial controls and characteristics. *Strategic Management Journal*, 14, Summer, 33-50.
- Judge, W.Q. and Zeithaml, C.P. (1992) Institutional and strategic choice perspectives on board involvement in the strategic decision process. *Academy of Management Journal*, 35, 4, 766-794.
- Kets de Vries, M.F.R. and Miller, D. (1985) Narcissism and leadership: an object relations perspective. *Human Relations*, 38, 5, 583-601.
- Lang, L.H.P. and Stulz, R.M. (1992) Contagion and competitive intra-industry effects of bankruptcy announcements. *Journal of Financial Economics*, 32, 1, 45-60.
- Lloyd, W.P. and Jahera, J.S. (1994) Firm-diversification effects on performance as measured by Tobin's q. *Managerial and Decision Economics*, 15, 3, 259-266.
- Lorsch, J.W. and MacIver, E. (1989) *Pawns or potentates: The reality of America's corporate boards*. Boston, Massachusetts: Harvard Business School Press.
- Miller, D. (1990) *The Icarus paradox*. New York: Harperbusiness.
- Miller, D. and Friesen, P.H. (1977) Strategy-making in context: ten empirical archetypes. *Journal of Management Studies*, 14, 3, 253-280.
- Moyer, R.C. (1977) Forecasting financial failure: a re-examination. *Financial Management*, 6, 1, 11-17.
- Ohlson, J.A. (1980) Financial ratios and the probabilistic prediction of bankruptcy. *Journal of Accounting Research*, 15, 1, 109-131.
- Passow, S. (1992) New Zealand: An economic turnaround lays the foundation for investment. *Institutional Investor*, 26, 8, 5-15.
- Peel, M.J., Peel, D.A. and Pope, P.F. (1986) Predicting corporate failure - some results from the UK corporate sector. *Omega*, 14, 1, 5-12.
- Pfeffer, J. and Salancik, G.R. (1978) *The external control of organizations: a resource dependence perspective*. New York: Harper and Row.
- Platt, H.D. (1989) The determinants of interindustry failure. *Journal of Economics and Business*, 41, 2, 107-126.
- Preisendorfer, P. and Voss, T. (1990) Organizational mortality of small firms: the effect of entrepreneurial age and human capital. *Organization Studies*, 11, 1, 107-129.

- Ramanujam, V. and Varadarajan, P. (1989) Research on corporate diversification: a synthesis. *Strategic Management Journal*, 10, 6, 523-551.
- Ross, J.E. and Kami, M.J. (1973) *Corporate management in crisis*. Englewood Cliffs, NJ: Prentice-Hall.
- Savage, J. and Bollard, A. (1990) *Turning it around: closure and revitalisation in New Zealand industry*. Auckland: Oxford University Press.
- Scherer, F.M. (1980) *Industrial market structure and economic performance*. Boston: Houghton Mifflin.
- Sheppard, J.P. (1994a) The dilemma of matched Pairs and diversified firms in bankruptcy prediction models. *Mid-Atlantic Journal of Business*, 30, 1, 9-25.
- Sheppard, J.P. (1994b) Strategy and bankruptcy: an exploration into organizational death. *Journal of Management*, 20, 4, 795-833.
- Singh, J.V. and Lumsden, C.J. (1990) Theory and research in organizational ecology. *Annual Review of Sociology*, 16, 161-195.
- Stewart, R. (1991) Chairmen and chief executives: an exploration of their relationship. *Journal of Management Studies*, 28, 5, 511-527.
- Stinchcombe, A.L. (1990) Weak structural data, In M.S. Mizruchi and M. Schwartz (eds.) *Contemporary Sociology*, 19, 380-382.
- Stinchcombe, A.L. (1965) "Social structure and organizations", In J.G. March (ed.) *Handbook of organizations*. Chicago: Rand McNally, 142-193.
- Vernon, J.M. (1972) *Market structure and industrial performance: a review of statistical findings*. Boston: Allyn Bacon.
- Vesper, K.H. (1980) *New venture strategies*. Englewood Cliffs, N.J.: Prentice-Hall.
- Williamson, O.E. (1975) *Markets and hierarchies: analysis and antitrust implications*. New York: Free Press.
- Williamson, O.E. (1970) *Corporate control and business behavior*. New Jersey: Prentice-Hall.
- Wong, A. and Brooks, R. (1989) New Zealand's true rate of protection. *Reserve Bank Bulletin*, 52, 1, 27-36.
- Zahra, S.A. and Pearce, J.A. (1989) Boards of directors and financial performance: a review and integrative model. *Journal of Management*, 15, 2, 291-334.