NEW ZEALAND CEO COMPENSATION FACTORS

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Abstract

This paper analyses a combination of factors to try and determine whether they explain CEO compensation, and in turn help determine what makes the board of directors more effective. Factors include busy boards, local or international board members, dependent and not independent board members, director's pay and tenure variables. Of the new and old factors considered in this approach and using a sample size of 31 NZ firms over the 2006/2007 years, a correlation existed between firm size/firm performance and CEO compensation. Further distinctions in regards to busy boards showed no significant relationship to CEO compensation, differing from previous studies, and casting doubt on whether it matters how busy the board is. Also the locality of the board was not a determining factor in CEO compensation.

Keywords: CEO, compensation, board of directors

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Introduction

It is well documented that CEO compensation is notably high and rarely significantly related to firm performance or factors that it should be tied to (Anderson, Cavanagh, Collins, and Pizzigati, 2007). Some say that CEOs get paid too much (Moriaty, 2005). The trend is increasing, and one of the most important reasons relate to the board of directors (CEO pay: sky high gets even higher, 2005). It seems no matter what laws are put in place, CEO compensation continues to have an unrelenting upward trend that seems destined to never end. More recent studies have been conducted to do with a variety of explanations and relations, including managers being awarded in up markets but not for penalised for bad runs in the market (Garvey & Milbourn, 2006). Hartzell and Starks (2003) agree with many other researchers that higher institutional ownership has a degree of bearing towards impacting and controlling a CEO's compensation. Many of these studies are also based on the large firms in the US market, whereas this study focuses on the unique situation of New Zealand with many smaller firms and a much smaller market in which to compete.

This paper sets out to try and examine the more behavioural implications behind each board member and to see more clearly if any of them relate to CEO compensation and therefore impact on their effectiveness. These factors include the relative importance of whether a busier board is less concerned with making accurate decisions in regards to fair compensation. The findings in this paper suggest that there is little difference between a busy boards CEO pay package and a non busy board. Also analysed is the locality of the board members, which involves identifying whether the board members are in fact local to the business and/or the country, and this reveals no significant relationship, suggesting it does not matter whether the directors are local or foreign. Further examined is whether the CEO sits on the board, the percentage of inside/outside directors, the directors pay, the tenures on the CEO and board members, firm performance and firm size, with the last two being the only significant variables that help determine the level of CEO compensation.

The next section conducts a literature review, with sections three, four, and five covering the sample, method, and results respectively.

2. Literature Review

The Board of Directors

The best place to analyse implications behind CEO pay is to look at where and who makes the decisions. The board of directors have come under increasing scrutiny (CEO pay: sky high gets even higher, 2005) for the level of pay CEO's are currently getting for failing companies. This paper attempts to justify what is a suitable board of directors set up in regards to the following factors, all of which have had their own relevant attention in the prior literature. With regards with past research covering many elements, Cahan, Chua and Nyamori (2005) analyse board structure traits such as board size, whether the CEO is on the board, busy and independent directors. They find that board structure is important even only when focusing on CEO pay decisions. Ghosh and Sirmans (2004) also find that board structure variables should be included in a CEO package, as well as economic factors. There is no doubt that board structures are important and related to CEO compensation, and the rest of the literature review is broken down into the major specific factors to be analysed further.

Busy boards

The founding papers studying busy boards includes Fama and Jensen (1983) and Fama (1980), who argue that having a market for outside directors makes them strive for maintaining a good reputation as monitoring members of a board. Core, Holthausen, and Larcker, (1999), along with Fich and Shivdasani (2006) studied the effectiveness of the busy directors and found that boards that had members who sat on 3 or more boards on average were linked to weaker corporate governance. Petra and Dorata (2008) also discover that firms should restrict the amount of boards their directors sit on in order to reduce CEO compensation. This contrasts to Ferris, Jagannathan, and Adam Pritchard (2003) who found no evidence for limiting the amount of boards one person can sit on. Currently there is no definitive method for identifying correctly what a busy board is, so two methods are followed in this paper to help see whether the differing determinants contribute to further significance. An important note also is the level of compliance regulations required by a typical NZ director. It is found that there are over 40 acts of parliament that they need to recognise or at least be aware of (Healy, 2002). So experience or busyness could be a positive as well, with busy directors having a greater awareness of the rules, or could possibly know how to in fact bend them further than a less busy director.

Locality of the board

Much of the previous research has failed to recognise locality of the directors as an important factor due to the more intensive research needed to obtain this information. This can be analysed for New Zealand companies as they go to great lengths to talk about their directors and their histories in their annual reports. A possible hypothesis of this factor is that the more local the board, in terms of nationality and years with the business, the more incentive they will have for the business to succeed, and will therefore be more in line with maximising shareholder wealth, not CEO wealth. Contrary to this however, it could imply that they will let the CEO do what they want as they would be long-term friends and will not want to go against their wishes. Therefore this is a justifiable factor as it could potentially have a negative or a positive relation in the context of CEO compensation, and if a relation is found then there could be further implications for current NZ business laws in which some industries require three or more directors to be of local residence (Air NZ, 2007).

Dependent/independent board

There has been much attention given to dependent and independent boards over the years. The evidence suggests that there is an inverse relation between CEO compensation and the level of control the board of directors has. That is, the less control a board has, the higher the pay for the CEO. The value of independent directors has long been stressed (Felton, Hudnut, Witt, & Valda, 1995*).* Wright, Kroll, and Elenkov (2002) found that having directors that are independent with no ties to the business resulted in better board effectiveness and improved firm performance. More recently Petra (2005) finds that having independent directors does appear to strengthen corporate boards. Also Choi, Park, and Too (2007) find in Korea that the effects of independent directors on firm performance are strongly related. Contrary to these findings however are Kumar and Sivaramakrishnan (2008) who find that more independent boards actually perform worse, which is attributed from their monitoring efficiency decreasing as they improve the incentive efficiency of executive compensation contracts. These results indicate that the benefits of having independent directors may somewhat be construed. In terms of New Zealand NZX, at least one third of directors must be independent of the firm (Corporate Governance in New Zealand, n.d.).

Board Size, board composition, firm size and performance

Directly relating to NZ firms, Chin, Vos, and Casey (2004) had a sample of 426 annual observations and found board size and composition factors did not relate to firm performance. Conversly Petra and Dorata (2008) find that firms wishing to keep the CEO's pay lower will opt for a board with nine or less members on it. With regards to firm size, it has long been considered the best explanatory variable in terms of CEO compensation (Tosi et aL, 2000), (Lau & Vos, 2004).

Based on the literature review, these hypotheses are created and will be tested further: the more local the board, the greater impact (negative relation) it will have on CEO compensation in regards to a more justified amount. Agreeing with much of the literature, there is predicted to be a negative relation between independent directors and CEO compensation. That is, the more independent directors there are, the lower the level of CEO pay. A positive relation is predicted to be seen between CEO compensation and board busyness, similar to Fich and Shivdasani (2006) findings. A final test will show whether these variables gain or lose explanatory power controlling for size. Other predictions also considered are a relationship between directors pay, CEO tenure, director's tenure, firm size, and firm performance with regards to CEO compensation.

3. Data

The data set contains the majority of the largest public firms that are listed on the NZX stock exchange. These were preferred in the study as it was more likely they would have a more detailed description of each board of director member, which is not mandatory in their annual reports. Similar to Fich & Shivdasani (2006), utility and financial companies are ignored due to possible further regulations they have on their board of directors. Companies were excluded if the relevant details could not be found in their proxy statements gathered from DATEX. Performance and size criteria were retrieved from Datastream and Thompson Financial respectively. The total size of the data set is 31 companies over the periods 2006-2007. Where the level of CEO pay could not be found, it was assumed that the highest paid employee was the CEO. Firms also must have had the appropriate data across the two years. The variables used are further explained in Table 1, which shows the summary statistics. Where tenure data could not be found, a Google search was done to retrieve the information from news reports.

Methodology

In contrast to Fich & Shivdasani (2006) the relative busyness of the board was determined by having 50% or over of board members has 3 or more directorships. Busy board (2) takes into account Fich & Shivdasanis (2006) method of totalling the amount of directorships then averaging this amount. This change in method changes the average of total busy firms from 58% to 68%. In regards to the level of directorships, this study also takes into consideration directors who are CEO's, and committee members in other firms. However, being on a committee is given less value compared with directorships, and this was taken into account when it came to extracting the data from the annual reports.

In terms of locality, this was determined by the description provided in the annual reports, where most go into detail about their nationality and career paths leading up to their respective positions. Each board member was determined to be either a local of the business and country, otherwise they were considered of foreign descent. In assessing the locality factor, the threshold for a board to be determined local is 70%. 50% or more was not used as there are contributing factors that require some firms to have local board members, and also there was a relative small amount of foreign directors in regards to local directors. This percentage gives a greater chance for the foreign board factor to be seen.

The return on assets was used as a proxy for firm performance, and the market value of equity was used for the company's size.

The first step is to provide descriptive statistics on each variable considered, and these are shown in Table 1. The total average pay for a CEO in this sample was $919,050, with the lowest payout being $105,980. Inside directors get paid on average $20,464.88 more than independent directors. Outside directors averaged out to be 61% of each board, with the highest percentage of not independent directors at 71%. The average directors pay stands at $104,030, which is relatively high, however this figure involves the chairman, but never the CEO's pay unless directly stated that they get directors fees. The average board size in this sample is 6.8, with the maximum being 11 directors on one board. The total number of directors analysed in this study is 211, which is a relatively representative figure based on the limited size of New Zealand and the public companies. Comparing with Fich & Shivdasani (2006), New Zealand directors are much busier; with US directors in their study only 21% of the boards are considered busy, compared with 68% and 58% of boards in this sample being busy.

The second step in this empirical analysis involved a pair-wise regression which was estimated between the 11 dependent variables to ascertain any connections with one another. As table 2 indicates, a negative correlation can be seen between the locality of the directors and whether or not the CEO sits on the board, showing that when the CEO is on the board less of the directors are local. Also in regards to locality, the director's tenure has a positive relation indicating that boards are more likely to be local if the majority of directors have not been rotated. The larger firms are more likely to possess outside directors, and have a higher firm performance.

Also of important note from Table 2 is the fact that the number of directors is positively related to a busy board, indicating that the larger boards have the busiest directors. When the CEO sits on the board there is a negative correlation with busy boards, suggesting that boards are less busy when the CEO is on the board. This can also be explained in that the CEO's rarely have other responsibilities in terms of directorships and committees. Also the directors last on the board longer when the CEO is on the board, indicative that perhaps CEO's have more power and influence when they sit on the board. With regards to outside directors, there is a positive relation with director tenure and firm size, implying that outside directors have a longer stay in the board, and are higher in percentage in larger firms.

Table 1. Descriptive statistics – Data based on 31 NZX listed companies over the periods 2006/2007. CEO pay is the dependent variables and all the others are explanatory variables. See notes further below for further details on each variable

Variables	average	Standard deviation	median	minimum	Maximum
CEO Pay – Dependent Variable	919.05	728.84	786	105.980	5125
Busy Board	.68	.475	.60	0	1
Busy Board (2)	.58	.501	1	0	1
Outside Directors	.61	.19	.38	0	.71
Inside Directors	.39	.19	.63	.29	1
Local Directors	.81	.166	.83	.43	1
Directors Pay	104.03	119.907	61.391	0	975
Firm Size	12.6	18.07	5.85	.2479	96.94
Firm Performance	9.676	9.0485	7.022	-65.616	45.164
CEO Tenure	9.48	8.25	6	1	29
Tenure of Directors	8.56	8.14	5	1	46
Board Size	6.806	1.424	7	3	11
CEO on Board	.838	.373	0	0	1

Notes:
CEO pay – total pay for given year, as stated in there respective annual reports. Where the figure could not be found, it was assumed that the highest paid employee was the CEO
Busy Board(1) – Board defined as busy if the majority (50% or over) of board members have 3 or more involvements in directorships, CEO's, and committees. The parameters used include: 1=busy 0=not busy
Busy Board (2) – Board is defined as busy by adding up total directorships and dividing by number of board members for each company. The parameters used include: 1=busy 0=not busy
Inside directors – As defined in there annual reports, inside directors are classified as not independent
Outside directors – As defined in there annual reports, inside directors are classified as independent of the firms operations.
Local board – Deemed local if over 70% of the board members are local as determined in the descriptions offered in there annual reports. The parameters used include: 1=busy 0=not busy.
Directors pay – total pay given to each director, then averaged per board for that respective year.
Firm size – Identified by the market value of equity at the end of each year
Firm performance – given by the ROA: return on assets
CEO tenure – time spent as CEO of current company
Director's tenure – time spent as director of current company
Board size – the amount of directors on the given company board
CEO on board – Whether or not the CEO sits on the board. The parameters used include: 1=busy 0=not busy.

Table 2. Pair wise regression between each variable. Description of each variable is shown below table 1

	Locality of directors	Outside directors	Firm perfor-mance	Firm size	Busy board	Directors pay	Director's tenure	CEO's tenure	Number of directors	CEO on board
Locality of directors	1									
Outside directors	.13376	1								
Firm performance	.9895	.24054	1							
Firm size	.09166	.0402**	.0320**	1						
Busy board	.6354	.94747	.2833	.76019	1					
Directors pay	.7815	.12507	.43499	0.07166	.729	1				
Director's tenure	.00029**	.0149**	.0282**	.2622	.223	.329	1			
CEO's tenure	.5361	.0934	.7448	.6900	.2813	.9379	.0542	1		
Number of directors	.4403	.5219	.31962	.2801	.0050**	.4215	.465	.8838	1	
CEO on board	.00307*	.49069	.50716	.9729	.0329**	.68229	.0033**	.114	.0329**	1
Busy Board (2)	.1454	.7425	.9742	.3808	.0216**	.8369	.5191	.9877	.0807	.0097**

** - indicates significance at the 5% level of significance. *- indicates significance at the 10% level of significance

To ascertain which if any factors explain the level of CEO pay the following OLS regression is calculated:

$$\text{CEO pay}_j = \alpha + \beta_1(\text{Busy board})_j + \beta_2(\text{Busy board(2)})_j + \beta_3(\text{inside directors})_j + \beta_4(\text{outside directors})_j + \beta_5(\text{local directors})_j + \beta_6(\text{directors pay})_j + \beta_7(\text{firm size})_j + \beta_8(\text{firm performance})_j + \beta_9(\text{CEO tenure})_j + \beta_{10}(\text{Directors tenure})_j + \beta_{11}(\text{Number of directors})_j + \beta_{12}(\text{CEO on board})_j$$

The results of this regression are shown in Table 3. Similar to previous CEO compensation studies such as Core et al (1999) and Cahan, Chua and Nyamori (2005), the adjusted R squared is .597, which indicates that this model explains 59.7% of the cross-sectional variation in this sample involving 31 NZ firms.

Table 3. Regression of CEO compensation and variables. CEO compensation is the dependent variable

Variable	Co efficient	t-value	significance
Locality of Directors	-5.788	-.315	.754
Outside Directors	-8.345	-.550	.585
Firm Performance	1.043	1.755	.085*
Firm Size	.0297	7.256	.000**
Busy Board	-10.02	-.493	.624
Busy Board (2)	-30.73	-1.608	.113
Directors Pay	-8.15(E-05)	-.836	.407
Director’s Tenure	-1.279	-.64412	.522
CEO’s Tenure	-.346	-.38641	.701
Number of Directors	2.306	.456	.651
CEO on Board	-5.992	-.254	.801

* - denotes significance at 10% confidence level

** - denotes significance at 5% confidence level

4. Results

The results of the regression, as shown in Table 3 are similar to many previous studies, with only performance and size being able to explain CEO compensation. Once again size was the largest explanatory factor with a positive relation and significance at the 95% confidence level. Firm performance only became significant at the 10% confidence level, and was also a positive relation to CEO compensation, indicating that CEO’s do somewhat get paid for better performance. Finding no significance in the locality and busyness of the board indicates that these factors are not important in regards to offering a stronger board in terms of corporate governance, for this sample. These results go against previous findings such as Fich and Shivdasani (2006) who do find a link between busy directors and weaker corporate governance.

The sample shows that inside directors hold on average 3.29 other directorships, which is only slightly less than the outside directors who averaged 3.84. This suggests that in this sample, the outside directors are not much busier than the inside directors. In the previous section as identified, a busy board was classified as busy when the majority of directors had 3 or more directorships. To come in to line with Fich and Shivdasani (2006), they totalled the number of directorships of all the directors and then divided this by the amount of the board members. Following this method, the results remain insignificant, however much lower with a significance of .113 compared with .624 as above. When regressing on firm performance, it also offers insignificant figures, agreeing with Ferris, Jagannathan, and Pritchard (2003), who found no relation between firm performances and how busy the directors were.

Further tests

One further test involves sorting the firms out in terms of size, to see whether any factors gain explanatory power in terms of CEO compensation. Table 4 shows the results. Once again size and performance are significant but only for the larger firms, not for the smaller firms, where none of the identified factors are significant. At the 10% the busy boards (2) factor has negative significance in the large firms, suggesting that as the board gets busier, CEO compensation decreases.

Table 4. The firms are sorted into the largest 31 in terms of market value of equity, and smallest. Then two OLS regressions are done with CEO compensation as the dependent variable and the same independent variables as above are considered. The large group is the bolded figure while the figure below in brackets is from the small group regression

Variable	Co efficient	t-value	significance
Board Size	0.2775 (3.4803)	0.0183 (.7682)	0.9855 (.4518)
Tenure of Directors	-5.170 (.7215)	-1.356 (.3433)	0.1912 (.7351)
Directors Average Pay	-5E-05 (-.0001)	-0.2031 (-.8248)	0.8412 (.4197)
Size	0.0169 (0.0107)	2.1604 (.2604)	0.0437** (.7973)
Firm Performance	4.1723 (.1913)	2.6902 (.4092)	0.0145** (.6454)
CEO Tenure	-0.5274 (.1868)	-0.355 (.2028)	0.7267 (.8414)
Ceo on Board	52.306 (-10.424)	1.072 (-.4000)	0.2971 (.6936)
Outside Directors	3.5703 (-14.26)	0.075 (-1.270)	0.9407 (.2195)
Local (0 if no, 1 if yes)	3.003 (-15.97)	0.0833 (-.8992)	0.9345 (.3798)
Busy Board	-6.436 (-6.962)	-0.218 (-.5614)	0.8295 (.5811)
Busy board(2)	-57.25 (-.7458)	-2.018 (-.0638)	0.0579* (.9498)

* - denotes significance at the 10% confidence level
* - denotes significance at the 5% level

One more test involved separating out the two years; however this provided similar results as above, with firm size being the only significant variable to CEO pay. Interestingly firm performance lost its explanatory power suggesting that a larger sample is needed to identify this as a factor.

5. Conclusions

The board of directors has a difficult task in that they must obtain a good leader in a CEO, however they risk coming under high scrutiny if their compensation package over extends there efforts, especially when the company is not performing. This paper has demonstrated that locality and the independency of the board have no relation to the level of CEO pay, suggesting that perhaps board structure in regards to these two factors play a marginal role. When sorting for size busy boards do gain some explanatory power, however interestingly enough it is reverse of what was hypothesised, suggesting that busy boards is negatively related to CEO compensation. This could be due to, as mentioned above, the experience factor playing a role and the fact that busier board members are more knowledgeable and aware of a fair compensation package for the CEO.
Limitations of this study include the relatively small sample size and the restrictiveness of relative data needed, and the time required to analyse the qualitative information. However with 62 annual observations it is close to the sample size of a similar study done (80) on CEO compensation factors, who did find significance in board structure as a relation to CEO compensation (Cahan, Chua and Nyamori, 2005).

This paper offers further direction in terms of requiring greater and more determinants of factors such as busy boards and locality of board members, as an increasing amount of qualitative data is more publicly available. It provides some insight into smaller companies that have boards. Contrary to other findings, none the factors used in this study explain CEO compensation for these firms, suggesting that further research is needed in this field.

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