Dissertation Chapter V: RESULTS AND CONCLUSION

BoardCharacteristicsandItsEffecton CorporatePerformance

This Dissertation Statistical Analysis has been completed by PhD Assistance

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Statistical Analysis

The data analysis was done using the SPSS 17.0 version. Multiple linear regression analysis was carried out in order to find out an association between boards of directors, the percentage of non-executive directors with logged operating profit and profit before tax as an indicator of the corporate performance of the firm. Since there was a wide variation in the variable, dependent variables were logged transformed. Turnover was directly associated with the performance of the firm. Thus, this was also added in the model. However, there was a wide variance for a turnover variable. Thus, the turnover variable was also transformed to logged version and checked for heteroskedasticity and adjusted while performing the analysis.

Table 1. Multivariate analysis with corporate performance of firms with special reference to logged operating profit for the year 2006-7

Variables	Dependent variable: Corporate performance of firms				
	Logged operating profit for the year 2006-2007				
	Unstandardized β-	SE	T	F	P value

	coefficient				
Independent variables: Multivariate model					
Intercept	-0.825	0.722	-1.143	2.294	0.260
Board of directors	-0.034	0.045	-0.752	-	0.457
Non executive directors, %	0.018	0.008	2.153	-	0.038
Turnover 2006-07**	-0.747	0.607	-1.230	-	0.226
R Square	0.160	*	*	*	*
Adjusted R square	0.091	*	*	*	*

* Not applicable

SE – Standard Error of Mean; Multivariate model: Included board of directors, the percentage of non-executive directors and **logged turned over.

Interpretation

Table 1 shows the multivariate analysis with the corporate performance of firms with special reference to logged operating profit for the year 2006-7. The researcher included dependent variable as logged operating before tax and independent variable as the board of directors and confounders as a percentage of executive directors and logged turnover. In the above table, the regression coefficient (beta value) was -0.034, which states that with one-member increase in the board the performance of the firm decreases by 0.03%. However, a negative beta value indicated, that there was a negative association between the total number of directors and logged operating profit for the year 2006-2007. In addition, the beta value is higher than the acceptable significant limit of 10% (p=0.457).

The R-square value was 0.160 which indicates that there is only 16% change in the operating before tax of the company is explained by the board size of a company and this was mainly contributed by percentage of non-executive directors (β=0.018, p=0.038) and adjusted R-square is 0.091, which shows that the explanatory power of the model still reduces with the increase

of independent variables. The F-statistical value is 2.294 along with a significance level of --, which means a significant level of -- percent.

Thus, a negative but insignificant association for the board of directors and positive and significant association for the percentage of executive directors and performance of the firm, measured in terms of logged operating profit for the year 2006-2007. The intercept term is negative. However, in our case, it has very little economic meaning since it does not represent any likely outcome. Thus, overall we can infer that a total number of directors has a negative impact on the performance of the firm.

Table 2. Multivariate analysis with corporate performance of firms with special reference to logged profit before tax for the year 2006-7

Variables	Dependent variable: Corporate performance of firms
	Logged Profit Before Tax 2006-2007

	Unstandardized β-coefficient	SE	T	F	P value
Independent variables: Multivariate model					
Intercept	-0.708	0.092	-7.650	49.13	0.001
Board of directors	0.005	0.006	0.882	-	0.383
Non executive directors, %	0.013	0.001	12.038	-	0.001
Turnover 2006-07**	-0.012	0.078	-0.153	-	0.879
R Square	0.804	*	*	*	*
Adjusted R square	0.787	*	*	*	*

* Not applicable

SE – Standard Error of Mean; Multivariate model: Included board of directors, the percentage of non-executive directors and **logged turned.

Interpretation

Table 2 shows the multivariate analysis with the corporate performance of firms with special reference to profit before tax for the year 2006-7. The researcher included dependent variable as logged profit before tax and independent variable as the board of directors, the percentage of executive directors and logged turnover. In the above table, the regression coefficient (beta value) was 0.005, which states that with one-member increase in the board of directors the performance of the firm increases by less than 0.1%. In addition, the beta value is higher than the acceptable significant limit of 10% ($p=0.383$). Thus, positive but insignificant association indicated that there was no association between the board of directors and logged operating profit for the year 2006-2007. The regression coefficient value of executive directors was 0.013 after taking logged turnover into account, which states that with one percent increase in the executive directors, the performance of the firm increased by 0.1%. In addition, the beta value is lower than the acceptable significant limit of 10% ($p<0.001$). Thus, positive and significant association indicated that there was an association between percentage of executive directors and logged operating profit for the year 2006-2007.

The R-square value was 0.804 which indicates that there is 80% change in the logged profit before tax of the company and adjusted R-square is 0.787, which shows that the explanatory power of the model still reduces with the increase of independent variables. In addition, the F-value was 49.13 along with a significance level of --, which means a significant level of -- percent. Thus, a negative but insignificant association for the board of directors and positive and significant association for the percentage of executive directors and performance of the firm, measured in terms of logged profit before tax for the year 2006-2007. The intercept term is negative. However, in our case, it has very little economic meaning since it does not represent any likely outcome. Thus, overall we can infer that percentage of executive directors has a positive impact on the performance of the firm.

Table 3. Multivariate analysis with corporate performance of firms with special reference to logged operating profit for the year 2007-8

Variables	Dependent variable: Corporate performance of firms
	Logged operating profit for the year 2007-2008

	Unstandardized β-coefficient	SE	T	F	P value
Independent variables: Multivariate model					
Intercept	0.376	0.423	0.889	1.079	0.380
Board of directors	0.001	0.026	0.049	-	0.962
Non executive directors, %	-0.001	0.005	-0.169	-	0.866
Turnover 2007 – 08**	0.131	0.074	1.769	-	0.085
R Square	0.083	*	*	*	*
Adjusted R square	0.006	*	*	*	*

* Not applicable

SE – Standard Error of Mean; Multivariate model: Included board of directors, the percentage of non-executive directors and **logged turned over for the respective period.

Interpretation

Table 3 shows the multivariate analysis with the corporate performance of firms with special reference to logged operating profit for the year 2007-8. The researcher included dependent variable as logged operating before tax and independent variable as the board of directors and confounders as a percentage of executive directors and logged turnover. In the above table, the regression coefficient (beta value) was 0.001, which states that with one-member increase in the board the performance of the firm increase by less than 0.1%. However, a positive beta value indicated, that there was a positive association between the total number of directors and logged operating profit for the year 2006-2007. In addition, the beta value is higher than the acceptable significant limit of 10% ($p<0.001$). Thus, positive but insignificant association indicated that there was no association between the board of directors and logged operating profit for the year 2007-2008. The regression coefficient value of the percentage of non-executive directors was -0.001 after taking logged turnover into account, which states that with one percent increase in the executive directors, the performance of the firm decreased by less than 0.1%. In addition, the beta value is higher than the acceptable significant limit of 10% ($p=0.866$). Thus, negative and insignificant association indicated that there was no association between percentage of executive directors and logged operating profit for the year 2007-2008. The R-square value was 0.083 which indicates that there is only

8% change in the operating before tax of

the company is explained by the board size of a company and adjusted R-square is 0.006, which shows that the explanatory power of the model still reduces with the increase of independent variables. The F-statistical value is 1.079 along with a significance level of --, which means a significant level of -- percent. Thus, a no association exists for both board of directors and percentage of executive directors with the performance of the firm, measured in terms of logged operating profit for the year 2007-2008.

Table 4. Multivariate analysis with corporate performance of firms with special reference to logged profit before tax for the year 2007-8

Variables	Dependent variable: Corporate performance of firms				
	Logged Profit Before Tax 2007-2008				
	Unstandardized β-coefficient	SE	T	F	P value
Independent variables: Multivariate model					
Intercept	-0.861	0.174	-4.953	18.748	0.001

Board of directors	0.013	0.011	1.213	-	0.233
Non executive directors, %	0.015	0.002	7.269	-	0.001
Turnover 2007 – 2008**	0.003	0.303	0.086	-	0.932
R Square	0.610	*	*	*	*
Adjusted R square	0.577	*	*	*	*

* Not applicable; SE – Standard Error of Mean; Multivariate model: Included board of directors, the percentage of non-executive directors and **logged turned over for the respective period.

Interpretation

Table 4 shows the multivariate analysis with the corporate performance of firms with special reference to profit before tax for the year 2007-8. The researcher included dependent variable as logged profit before tax and independent variable as the board of directors, the percentage of executive directors and logged turnover. In the above table, the regression coefficient (beta value) was 0.013, which states that with one-member increase in the board of directors the performance of the firm increases by less than 0.1%. In addition, the beta value is higher than the acceptable significant limit of 10% (p=0.233). Thus, positive but insignificant association indicated that there was no association between the board of directors and logged operating profit for the year 2007-2008. The regression coefficient (beta value) value of percentage executive directors was

0.015 after taking logged turnover into account, which states that with one percent increase in the executive directors, the performance of the firm increased by 0.1%. In addition, the beta value is lower than the acceptable significant limit of 10% (p<0.001). Thus, positive and significant association indicated that there was an association between percentage of executive directors and logged operating profit for the year 2007-2008.

The R-square value was 0.610 which indicates that there is 61% change in the logged profit before tax of the company and adjusted R-square is 0.577, which shows that the explanatory power of the model still reduces with the increase of independent variables. In addition, the F-value was 18.748 along with a significance level of --, which means a significant level of -- percent. Thus, a negative but insignificant association for the board of directors and positive and significant association for the percentage of executive directors and performance of the firm, measured in terms of logged profit before tax for the year 2007-2008. The intercept term is negative. However, in our case, it has very little economic meaning since it does not represent any likely outcome. Thus, overall we can infer that percentage of executive directors has a positive impact on the performance of the firm.

Discussion and Conclusion

In conclusion, overall, multivariate regression analysis showed that there was a strong and direct relationship with executive director and Profit before Tax than Operating profit. Looking at the R-square value, it can be interpreted that compared to logged operating profit, profit before tax explained the higher variance. No such association existed for the board of directors and performance of the firm measured in terms of profit before tax and logged operating profit. The possible explanation for the above results could be as follows. First, neither executive directors or nor the board of directors is analyzed directly to associate with the performance of the firms. Perhaps, this could have a huge impact on the performance of the company, particularly with reference to the percentage of executive directors in all models analyzed.

Secondly, there is a significant difference between executive directors and logged operating profit in 2006-07 while no significant difference exists between executive directors and logged operating profit in 2007-08 because the growth difference between 2006-2007 is directly related to the percentage of executive directors. However, in the 2007-2008, operating profit is not directly related to the percentage of executive directors. Since this could be possibly due to the wide difference exist in the growth (erratic growth) between 2007-2008, measured as logged operating profit compared to growth of 2006-2007

Negative board size

The first empirical research of effects of board size on the performance of the company was undertaken by Yermack (1996). For the purpose of his study, he examined 450 US firms from 1984 to 1991. This study demonstrated the negative effect of board size on performance. Jensen (1993) also states that with a larger size of the board, directors lay emphasis on politeness and consideration rather than truth and honesty. The results of his study also state that a board with more than nine members is ineffective and gives CEO's the power to control. A larger board can increase the agency problems in a firm thus making it easy for the CEO to control and influence the decisions of the firm and become more powerful (Cheng, 2008). Overall the negative effect of board size on the performance of the firm is confirmed these group of researchers.

As per the above analysis - Summary findings of main Hypotheses [Logged operating profit & Profit before Tax]

Hypothesis	Significance (p)	Confirmation	Hypothesis
Logged operating profit 2006-2007 H1a: Larger board size would enhance the performance of the firm as it would have a valuable blend of directors from diverse backgrounds with different expertise. Thus, larger board size would lead to better strategic decisions and hence positively affect the performance of the firm.	NS	Negative association	Rejected
H2a: Larger the number of non-executive directors greater the independence and improvement in the performance of the company since these directors will focus on the	<0.01	Positive association	Accepted

core business of the firm.			
Loggedoperatingprofit2007-2008 H1a: Larger board size would enhance the performance of the firm as it would have a valuable blend of directors from diverse backgrounds with different expertise. Thus, larger board size would lead to better strategic decisions and hence positively affect the performance of the firm.	NS	Positive association	Rejected
H2a: Larger the number of non-executive directors greater the independence and improvement in the performance of the company since these directors will focus on the core business of the firm.	NS	Negative association	Rejected

Hypothesis	Significance (p)	Confirmation	Hypothesis

Logged Profit before tax 2006-2007 H1a: Larger board size would enhance the performance of the firm as it would have a valuable blend of directors from diverse backgrounds with different expertise. Thus, larger board size would lead to better strategic decisions and hence positively affect the performance of the firm.	NS	Positive association	Rejected
H2a: Larger the number of non-executive directors greater the independence and improvement in the performance of the company since these directors will focus on the core business of the firm.	<0.01	Positive association	Accepted
LoggedProfitbeforetax2007-2008 H1a: Larger board size would enhance the performance of the firm as it would have a valuable blend of directors from diverse backgrounds with different expertise. Thus, larger board size would lead to better strategic decisions and hence positively affect the performance of the firm.	NS	Positive association	Rejected

H2a: Larger the number of non-executive directors greater the independence and improvement in the performance of the company since these directors will focus on the core business of the firm.	<0.01	Positive association	Accepted