

Impact of CEO Duality and Board Independence on FTSE Small Cap & Fledgling Company Performance

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The purpose of this empirical study is to explore whether there is any association of CEO duality and board independence with corporate financial performance. The sample consisted of 157 FTSE Small Cap and Fledgling companies between 2007 and 2009. The benchmark test performed was quantile regression coupled with OLS and pooled regression. The results give partial evidence on CEO duality having a positive impact on firm's accounting performance measured by ROA. In contrast, board independence has no significant association with firm's financial performance similar to the finding for board size. Control variable sales showed a significant positive and negative relationship with firm performance hence it is inconclusive whether larger firms perform better.

Field of Research: Corporate Governance, Finance

1. Introduction

In recent times Corporate Governance has been one of the most discussed topics among researchers and policy makers alike. Specifically the issues of Chief Executive Officer (CEO) duality, board independence, director's remuneration, managerial ownership have generated a considerable amount of interest. It was the failure of Enron and WorldCom, USA in 2002 that shook the auditing firms and raised questions against corporate governance and monitoring of accounts. Because of 2008 financial crisis, authorities and researchers are emphasizing on different aspects of corporate governance even more.

The Cadbury Code of 1992 first suggested that there should be a separation of role of the Chairperson and CEO. Over the years many researchers have conducted empirical tests (Baliga, Moyer & Rao 1996; Bhagat & Black 2002; Elsayed 2007; Bliss 2011) on the existence of any relationship between board independence and separation of the Chairperson and the CEO with firm value in different markets (i.e. UK, US, Australia, Continental Europe, Asia etc.) and in different time periods. The results from those studies tend to be mixed and in some cases inconclusive.

In the UK most of the work undertaken by different authors on the issue of impact of CEO duality and board independence on corporate performance was tested on large companies which are highly capitalized. The key limitations of previous studies were no research has been done on smaller companies till date. UK corporate governance codes provide a "one size fits all" policies. Results from this study indicate how small companies are unable to comply with these "one size fits all" policies due to their size. Hence this empirical study on FTSE Small Cap and Fledgling Companies for the years 2007, 2008 and 2009 is aimed to examine the relation of CEO duality and board independence on smaller firm performance.

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The rest of the paper has been organised as follows: Section 2 of the paper gives a literature review with two sub sections. The first part briefly discusses prior studies and empirical evidence on CEO duality and board independence. Second part develops hypotheses. Section 3 provides a detailed description of the sample, data collection, regression model, explanation of the dependent and independent variables and methods of test. Test results and detailed discussion of finding are in Section 4 and Section 5 is conclusion.

2. Literature Review

2.1 Prior Literatures and Evidences on Board Independence and CEO Duality

The responsibilities of the board of directors comprises of mainly two activities. Firstly, supervision of the management team in order to ensure efficient business. Secondly, provide time to time reports to the shareholders regarding the performance of the management and business as a whole (Cadbury 1992; Bliss 2011). However, the incident of Enron (USA) in 2002 raised questions regarding the integrity and honesty of directors.

2.1.1 Board Size & Structure

To ensure the board's independence, board composition is very important, which is the number of independent Non-Executive Directors (NED) on the board in relation to the total number of directors (Clifford & Evans 1997; Uadiale 2010). The Cadbury Report (1992), the Higgs Report (2003), the Tyson Report (2003) and the combined codes all suggested that the board should consist of sufficient number of NEDs to assure the shareholders of managerial accountability (Young 2000). According to The Combined Code on Corporate Governance (2008) and The UK Corporate Governance Code (2012) a board is considered to be independent if except chairperson half of the board comprises of NEDs. However for small companies (companies below FTSE 350) an independent board implies presence of at least two independent NEDs (The Combined Code on Corporate Governance 2008; The UK Corporate Governance Code 2012).

2.1.2 Roles of Non-Executive Directors in Board Independence

Executive directors' are full time employees with responsibility to manage the day-to-day business activities to formulate and implement corporate strategy (Weir & Laing 2001). On the other hand, neither NEDs nor chairperson are employees of the company. The chairperson's responsibility is to monitor boardroom affairs by ensuring that NEDs have access to relevant and sufficient information in order to make an informed decision during meetings (Weir & Laing 2001). NEDs are assumed to be independent and neutral because they are not related to the firm hence it is easier for them to maintain their neutral point of view (Weir, Laing & McKnight 2002). Their responsibility is to monitor and actively control top management decisions and to ensure shareholders' wealth maximization (Fama & Jensen 1983; Minichilli, Zattoni & Zona 2009).

2.1.2.1 Empirical Evidences on Board Independence

There are inconclusive or mixed results from previous studies on board independence and firm performance. Agrawal and Knoeber (1996) found a negative relationship between board independence and firm performance. Many authors found that there is no

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relationship between effective monitoring of independent directors and firm performance (Bhagat & Black 2002; Hermalin & Weisbach 1991; Klein 1998). On the other hand, Rosenstein and Wyatt (1990) found a positive one.

2.1.3 CEO Duality

Duality implies the CEO wears two crowns- one is of CEO and the other of the chairperson (Rechner & Dalton 1991). According to Fama and Jensen (1983) and Rechner and Dalton (1991) CEO duality works as a signalling factor because presence of CEO duality is the absence of separation of decision management from decision control.

2.1.3.1 Agency Theory versus Stewardship Theory

Two of the major corporate governance theories which are foundation for any issues related to corporate governance are agency theory and stewardship theory. Agency problem arise due to separation of ownership from control. According to agency theory the CEO and chairperson should be two different individuals to separate operation from control responsibilities and to minimize the self-interest optimizing behaviour and moral hazard. If CEO and Chairperson is the same individual then the main issue which arises from connecting CEO duality with agency theory is “who monitors the monitor?” (Alchian & Demsetz 1972).

On the contrary, stewardship theory recommends CEO and chairperson should be the same person due to their access to information for efficient and effective decision making and sufficient knowledge to control operations (Dulewicz & Herbert 2004; Ramdani & Witteloostuijn 2010). Chairperson most likely being an outsider and neutral body would have less in-depth knowledge and know-how of the business and operation. According to stewardship theory agents or executives are assumed to have good integrity and high moral, hence agents are assumed not to act opportunistically.

2.1.3.2 Empirical Evidences on CEO Duality

All the previous studies had mixed results. Studies undertaken by Donaldson and Davis (1991) and Lin (2005) support the positive relationship between CEO duality and firm performance. In contrast, Rechner and Dalton (1991), Pi and Timme (1993), Brickley, Coles and Jarrell (1997) found a negative relationship between CEO duality and firm performance. Chaganti, Mahajan and Sharma (1985); Baliga, Moyer and Rao (1996) and Dedman and Lin (2002) did not find any significant relationship on non-duality and corporate performance.

2.2 Hypotheses Development

Based on the discussion on the earlier empirical work and literature following three hypotheses have been constructed in order to examine whether they hold for the FTSE Small Cap and Fledgling companies.

H1: There is a positive association between board independence and corporate performance.

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All the codes and specifically the Higgs Report emphasized on board independence and role and number of NEDs on board to ensure board independence. However, previous studies on the relationship of board independence and corporate performance had inconclusive and contradictory evidences.

H2: There is a positive association between board size and corporate performance.

The above hypothesis deals with the issue related to board independence by using the board size as proxy measurement. Since in many literature board size has been linked to board independence and firm performance and larger board means better mix of expertise and knowledge for superior decision making that leads to higher firm performance

H3: There is a negative association between CEO duality and corporate performance.

The UK system supports the CEO non-duality whereas the US system used to encourage CEO duality. However for many corporate failure and scandals CEOs who were chairperson have been accused of abusive use of their supreme power. Therefore the UK corporate governance codes encouraged CEO non-duality in order to ensure board independence and better firm performance.

3. Methodology

3.1 Sample & Data

To conduct this empirical study data on FTSE Small Cap and Fledgling Companies for the years 2007, 2008 and 2009 have been collected. FTSE Small Cap companies constitutes only (approximately) 2% of UK market capitalization and the constituents list is reviewed quarterly (FTSE 2011). FTSE Fledgling companies are so small in market capitalization that this index is not included in FTSE All Share index and the list of FTSE Fledgling companies is reviewed on yearly basis in December (FTSE 2011). FTSE Small Cap and Fledgling Companies are not part of FTSE 350 index.

The constituents list of FTSE Small Cap index as of December 31st 2007, 2008 and 2009 consisted 321, 262 and 268 companies respectively. As of December 31st 2007, 2008 and 2009 the constituents list of FTSE Fledgling index consisted of 237, 213 and 173 companies respectively. After disregarding Financial Institutions and companies which were present in the list for less than 3 years, there were 96 Small Cap companies and 72 Fledgling companies. Initial sample consisted of 168 companies in 10 different industries. However the final sample consists of 157 constituents because 11 companies with negative debt to equity ratio were omitted to avoid confusion in analysis.

3.2 Data Collection Method & Sources

Data on variables have been collected mainly from two different sources. First, data on Return on Asset (ROA), Sales, Growth of Sales, Debt to Equity ratio and industry have been collected from Thomson One Banker. Second, data on CEO duality, board size and composition have been collected from each company's annual reports which are available on the company website. The yearly lists of constituents of both FTSE Small Cap and Fledgling companies have been collected from FTSE the index company.

3.3 Regression Model Development

Following model has been developed in order to test whether there is any relationship of CEO duality and board independence with corporate performance in FTSE Small Cap and Fledgling companies.

$$PERFORM = \alpha + \beta_1 BSIZE + \beta_2 BCOMP + \beta_3 CEO + \beta_4 SALES + \beta_5 GROWTH + \beta_6 DEBT TO EQUITY + \beta_7 INDUST DUMMIES + \epsilon$$

Where: α – intercept; β_n – coefficient for each of the independent variables; ϵ – the error term

Table 1: Details of the Research Variables		
Variables	Details	Source
<i>Dependent Variable</i>		
ROA (%)	Return on assets- average of three year's ROA as proxy of accounting measure of performance (in percentage)	Thomson One Banker
<i>Independent Variables</i>		
BFSIZE	Board size - number of directors on the board	Annual Reports
BCOMP	Board composition- proportion of outside directors sitting on the board (in proportion)	Annual Reports
CEO	CEO duality- dummy variable. "0" is for CEO non-duality or where CEO and chairperson are different individuals and "1" is for CEO duality	Annual Reports
SALES (log sales)	Sales- as a measure of firm size (natural logarithm of sales)	Thomson One Banker
GROWTH SALES (%)	Growth of sales- as a measure for firm performance (in percentage)	Thomson One Banker
DEBT TO EQUITY (log debt to equity)	Debt to equity ratio - as a measure of firm structure (natural logarithm of debt to equity ratio)	Thomson One Banker
INDUST DUMMIES	Industry as dummy variables –	Thomson One Banker

3.4 Dependent Variable

The dependent variable in this empirical study is firm performance which has been measured by Return on Assets (ROA). In this model average of 2007, 2008 and 2009 has been used which have been collected from Thomson One Banker database hence it has been calculated as follows.

$$\frac{[\text{Net Income before Preferred Dividends} + \{(\text{Interest Expense on Debt} - \text{Interest Capitalized}) \times (1 - \text{Tax Rate})\}] \times 100}{\text{Last Year's Total Assets}}$$

3.5 Independent Variables

Board size, board composition and CEO duality are the experimental variables and sales, growth of sales and debt to equity ratio are control variables. Debt to Equity ratio has been used as a measurement of firm's leverage and it has been averaged and turned into natural logarithm to reduce the skewness. The ratio has been collected from Thomson One Banker database hence the definition of the ratio is as follows-

$$\frac{(\text{Long Term Debt} + \text{Short Term Debt} \& \text{ Current Portion of Long Term Debt}) \times 100}{\text{Common Equity}}$$

4. Findings and Discussion

4.1 Descriptive Statistics

Table 2 shows the descriptive statistics of dependent variable (ROA) and independent variables for the average data. Sales and debt to equity ratio have been transformed into natural logarithm to decrease the skewness of the data. Average ROA for the sample of 157 companies is 2.71% with minimum ROA of -25.56% and maximum of 20.35%. Skewness which measures the asymmetry of distribution (for normal distribution skewness is zero) shows ROA with negative skewness of -1.073. Kurtosis of 2.052 implies the distribution is peaked because for a normal distribution the kurtosis is supposed to be zero. Median which is the middle value of the distribution is 4.27.

The largest board consisted of 13 board members and the smallest board with 2 members. Board composition which is the proportion of NEDs relative to total board members indicates that some companies had no NEDs on the board. The average board size for the sample is 6.71 ~ 7 people and average board composition is 0.54 or 54% of board of directors are NEDs which is aligned with the Combined Code of 1998, 2008 and UK Corporate Governance Code of 2012. Hence it can be said that majority companies have independent board.

SALES is a natural logarithm figure the minimum sales figure of -0.85 indicates sales of £142,075.00 and maximum sales 3.24 represents £1,734 million. Median for SALES is 1.97 and mean is 1.83. The ratio growth of sales has the highest standard deviation. Because of the global financial crisis of 2008 a significant number of firms faced negative growth of sales in 2008 and 2009. The mean for GRWOTH SALES is 16.86 whereas the median is only 6.56 which indicate that the distribution has more outliers with high values in the right side of the distribution then on the left which resulted in higher mean. The debt to equity ratio with negative kurtosis implies the distribution of the observations is rather flat.

Table 3 reports the Pearson's correlation which has been used to measure the strength of association between the variables (Oakshott 2009). From Table 3, the dependent variable ROA is positively correlated with BSIZE, SALES, DEBT TO EQUITY and negatively correlated with BCOMP, CEO and GROWTH SALES. ROA is highly correlated with SALES with correlation = 0.39. SALES and GROWTH SALES are significant at 1% level of significance. Experimental variables BSIZE, BCOMP and CEO are all positively correlated with each other with the strongest relationship between CEO and BCOMP (correlation = 0.387). The correlation between CEO with BSIZE and

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BCOMP are significant at 1% significance level and the correlation between BSIZE and BCOMP is significant at 5% significance level.

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**Table 2: Descriptive Statistics of Dependent and Independent Variables
for Average Data of the Whole Sample**

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Median</i>	<i>Std. Deviation</i>	<i>Skewness</i>		<i>Kurtosis</i>	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
ROA (%)	157	-25.56	20.35	2.7057	4.273333	7.43187	-1.073	0.194	2.052	0.385
BSIZE	157	2.33	13.00	6.7070	6.3333	1.80745	0.391	0.194	0.331	0.385
BCOMP	157	0.00	1.00	0.5406	0.542328	0.15324	-0.133	0.194	1.759	0.385
CEO	157	0.00	1.00	0.8726	1	0.33447	-2.257	0.194	3.133	0.385
SALES	157	-0.85	3.24	1.8279	1.974412	0.70895	-1.252	0.194	2.233	0.385
GROWTH SALES (%)	157	-43.41	545.14	16.8748	6.563333	55.78254	7.061	0.194	58.391	0.385
DEBT TO EQUITY	157	0.00	2.60	1.2701	1.585586	0.79820	-0.509	0.194	-1.135	0.385

Notes: ROA, return on assets; BSIZE, board size; BCOMP, board composition; CEO, CEO duality “0” for CEO non-duality and “1” otherwise; SALES, natural logarithm of sales. GROWTH SALES, growth of sales; DEBT TO EQUITY, debt to equity ratio.

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Table 3: Pearson Correlation								
		ROA	BSIZE	BCOMP	CEO	SALES	GROWTH SALES	DEBT TO EQUITY
ROA	Pearson Correlation	1	.020	-.107	-.021	.390**	-.304**	.134
	Sig. (2-tailed)		.800	.182	.789	.000	.000	.095
BSIZE	Pearson Correlation		1	.164*	.334**	.216**	.316**	.114
	Sig. (2-tailed)			.040	.000	.007	.000	.156
BCOMP	Pearson Correlation			1	.387**	.052	.068	.115
	Sig. (2-tailed)				.000	.520	.398	.150
CEO	Pearson Correlation				1	.201*	.092	.088
	Sig. (2-tailed)					.012	.253	.272
SALES	Pearson Correlation					1	-.202*	.239**
	Sig. (2-tailed)						.011	.003
GROWTH SALES	Pearson Correlation						1	-.200*
	Sig. (2-tailed)							.012
DEBT TO EQUITY	Pearson Correlation							1
	Sig. (2-tailed)							

** . Correlation is significant at the 0.01 level (2-tailed).
 * . Correlation is significant at the 0.05 level (2-tailed).
 Notes: ROA, return on assets; BSIZE, board size; BCOMP, board composition; CEO, CEO duality "0" for CEO non-duality and "1" otherwise; SALES, natural logarithm of sales. GROWTH SALES, growth of sales; DEBT TO EQUITY, debt to equity ratio.

4.2 Regression Test Results

Table 4 shows the results from performing OLS and Quantile regression (benchmark test). The OLS regression demonstrates a partial picture of the relationship between the dependent variable and independent variables because it is the average relationship on the basis of conditional mean function. Quantile regression provides full image of the relationship between dependent and independent variables at different points in the conditional distribution (Cameron & Trivedi 2010).

From the OLS regression results all three hypotheses have to be rejected because first of all BSIZE is insignificant at all the conventional significance level. Therefore, hypothesis 2 on the positive association between board size and corporate performance is rejected. Although the relationship between ROA and BSIZE is positive it is not significant. Hypothesis 1 which is regarding the positive association between board independence and firm performance is also rejected because BCOMP is insignificant. Additionally, there is a negative relation between BCOMP and ROA. Though CEO is

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significant at 1% significance level, still hypothesis 3 has to be rejected which is there is a negative association between CEO duality on corporate performance. Because regression results shows a positive relation with ROA which is in align with stewardship theory that the CEO duality enhances firm performance. OLS has a R^2 of 0.3230 or 32.30% of the variability in ROA is associated with the variability in the independent variables.

The quantile regression results are at $Q = 0.25$, $Q = 0.50$ (median) and $Q = 0.75$ where Q is the quantile. CEO is significant at $Q = 0.25$ (at 5% significance level) and $Q = 0.50$ (at 1% significance level). However, still hypothesis 3 has to be rejected because there is a positive association between CEO duality and firm performance which is consistent with the findings in OLS regression and stewardship theory and against agency theory. BSIZE and BCOMP are both insignificant at all the quantiles hence hypothesis 1 and 2 are also rejected. At $Q = 0.25$ and $Q = 0.50$ BSIZE shows a negative relation with ROA and BCOMP shows a negative relation at all the quantiles which is consistent with the findings in OLS regression. The pseudo R^2 for quantile regression are 0.2503, 0.1634 and 0.1219 at $Q = 0.25$, $Q = 0.50$ and $Q = 0.75$ respectively.

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Table 4: Cross-sectional OLS and Quantile Regression Results on Average Data								
	<i>OLS</i>		<i>Quantile</i>					
			Q = 0.25		Q = 0.50 (Median)		Q = 0.75	
	Coeff	Std. Error	Coeff	Std. Error	Coeff	Std. Error	Coeff	Std. Error
ROA								
BFSIZE	0.2281	0.3367265	-0.0546	0.5043464	-0.0872	0.4685753	0.0417	0.375698
BCOMP	-2.0613	4.041142	-5.5495	5.815454	-3.3505	5.607726	-0.9989	5.013829
CEO	3.0315*	0.8686907	2.7247**	1.174754	3.3880*	1.221119	1.9408	1.474402
SALES	-0.0170	0.0116963	0.0135	0.0151328	-0.0215***	0.0121387	-0.0358*	0.009612
GROWTH SALES	0.5475	0.728668	0.3733	1.047141	-0.5025	1.010946	-0.6472	0.993745
DEBT TO EQUITY	1.1716	1.852591	0.4079	2.97696	-0.2616	2.680017	-1.6372	2.501916
Industry dummies								
Basic Materials	1.5167	5.267372	1.088	4.707449	3.4786	5.992403	-0.1643	4.111182
Consumer Goods	-0.9739	4.952517	-1.924	4.34804	1.4318	5.523951	5.5221	3.631543
Consumer Services	-2.3182	4.716978	-6.029*	3.490983	0.3458	5.043395	-1.7829	3.197215
Real Estate Hold. & Develop.	-7.2129	4.90382	-9.4699**	3.980142	-4.6144	5.533754	-	3.493302
Health Care	-9.1049***	5.06324	-23.0851*	4.108353	-3.6217	5.69372	-2.5129	3.891121
Industrials	-3.2513	4.672339	-5.5859	3.414328	-1.7012	5.018598	-0.5880	2.96858
Oil & Gas	-1.3304	6.462933	-0.2662	3.152074	2.9953	6.825659	-0.2213	3.773919
Technology	-1.376	4.802632	-4.6848	3.696916	1.9276	5.241147	1.1155	3.303991
Telecommunications	-10.154	7.984032	-8.2486**	3.607577	-6.9733	5.06445	-9.3031*	3.082396
Constant	-0.5214	5.575721	2.7835	5.969704	1.1857	6.632934	5.6112	4.395762
R ² (Pseudo R ² for quantile regression)	0.3230		0.2503		0.1634		0.1219	
Adjusted R ²	0.2509							
N	157		157		157		157	

Notes: The benchmark for industry dummy is Utilities.
p<0.01; **p<0.05; *p<0.1*
 Notes: ROA, return on assets; BFSIZE, board size; BCOMP, board composition; CEO, CEO duality “0” for CEO non-duality and “1” otherwise; SALES, natural logarithm of sales. GROWTH SALES, growth of sales; DEBT TO EQUITY, debt to equity ratio.

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Table 5 provides further test of multiple regression results by using Pooled regression in order to test the relationship among dependent and independent variables specifically the experimental variables BSIZE, BCOMP and CEO. Pooled regression is performed for time series of cross sections. Where the assumption is that time specific effects are fixed and included as time dummies in the regressors (Cameron & Trivedi 2010). The pooled regression has been performed first with standard error and then with robust standard error.

From Table 5, it is evident none of the experimental variables are significant at the significance level of 1%, 5% or 10% hence according to pooled regression hypotheses 1, 2 and 3 which are regarding the positive association of board independence, positive association of board size and negative association of CEO duality with corporate performance respectively are all rejected. Variable BCOMP which has been used as a measure for board independence although is not significant, shows a negative relation with ROA. The predicted sign for this variable was plus (+). Though BSIZE and CEO both have a positive relation with ROA, they are unable to explain the model due their insignificance. Hence from the pooled regression it can be said that there is no significant relationship between firm performance with board independence and CEO duality.

Among the control variables SALES is positively and significantly related with ROA at 1% significance level. SALES have been used as a measure of firm size. Therefore, positive relationship between ROA and SALES means bigger firms perform better because during any financial distress bigger firms have more flexibility to face the distress. External financiers are also more willing to support bigger firms during such crisis time hence shareholders are comparatively secured than smaller firms. In contrast, GROWTH SALES is negatively and significantly associated with ROA at 5% and 10% level in pooled regression with standard error and robust standard error respectively, which is a surprising finding because with the positive growth of sales the ROA should also increase. One of the reasons could be chain effect, as the time period of the analysis is 2007, 2008 and 2009; 2008 is the year of recession and 2009 is the post recession time. Thus during this time period majority of the companies faced a negative growth of sales which means the net income went down over the years. However expenses went down due to job cuts/layoffs as well. Because of recession the asset base of the companies must have gone down to meet the liabilities and reduction in additional expenses related to maintenance inventory or stock. The R^2 of 0.25 implies that only 25% of the variations in ROA is associated with the variation in independent variables.

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Table 5: Pooled Regression Results				
ROA	Pooled Regression with Standard Error		Pooled Regression with Robust Standard Error	
	Coefficient	Std. Error	Coefficient	Robust Std. Error
BFSIZE	0.2515129	0.2160925	0.2515129	0.1975102
BCOMP	-0.3097489	2.740929	-0.3097489	2.90741
CEO	1.684586	1.333061	1.684586	1.387499
SALES	3.301794*	0.6235708	3.301794*	0.7600396
GROWTH SALES	-0.0096102**	0.00476	-0.009610***	0.0056099
DEBT TO EQUITY	0.280625	0.4911888	0.280625	0.5129007
Year dummies				
Year 2007	4.490445*	0.9332599	4.490445*	0.8992762
Year 2008	2.397032*	0.9242133	2.397032**	0.9640348
Industry dummies				
Basic Materials	1.371257	3.850139	1.371257	1.447585
Consumer Goods	-1.136705	3.618152	-1.136705	1.851994
Consumer	-2.376765	3.449334	-2.376765***	1.340977
Services				
Real Estate				
Holding & Devlp.	-7.189312**	3.580967	-7.189312*	1.830711
Health Care	-10.10467*	3.63123	-10.10467*	2.256404
Industrials	-3.312321	3.414718	-3.312321*	1.285417
Oil & Gas	-1.584463	4.723587	-1.584463	1.133615
Technology	-1.488401	3.509993	-1.488401	1.490365
Telecommunications	-9.923781***	5.834344	-9.923781**	4.889916
Constant	-4.118576	4.014853	-4.118576***	2.387425
R ²	0.25		0.25	
N	471		471	

*Notes: The benchmark for year dummy is Year 2009 and for industry dummy is Utilities.
*p<0.01; **p<0.05; ***p<0.1*

ROA, return on assets; BFSIZE, board size; BCOMP, board composition; CEO, CEO duality "0" for CEO non-duality and "1" otherwise; SALES, natural logarithm of sales. GROWTH SALES, growth of sales; DEBT TO EQUITY, debt to equity ratio.

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Table 6: Cross-sectional OLS Regression Results on Yearly Data						
ROA	2007		2008		2009	
	Coefficient	Std. Error	Coefficient	Std. Error	Coefficient	Std. Error
BSIZE	0.1327985	0.3191404	-0.0391577	0.3672571	0.4549165	0.4330187
BCOMP	-1.866088	3.971057	-2.434061	4.97322	3.899901	5.169604
CEO	-0.6763624	1.995143	2.895853	2.345509	2.947914	2.464225
SALES	3.457487*	0.9313899	4.01215*	1.111552	1.906886	1.158706
GROWTH SALES	-0.0086909***	0.0048709	0.0273458***	0.0164979	-0.0095848	0.0227932
DEBT TO EQUITY	1.0744	0.7491658	-0.3045714	0.8496203	0.8171548	0.918239
Industry dummies						7.03602
Basic Materials	0.6358111	5.773854	-0.9194889	6.77496	2.818627	6.629714
Consumer Goods	1.118377	5.41143	-2.824452	6.349153	-2.488966	6.318294
Consumer Services	-1.112716	5.16763	-4.77927	6.042207	-0.9060685	6.575732
Real Estate Holding & Development	0.5999656	5.350125	-14.96635**	6.280531	-8.229371	6.587548
Health Care	-12.96848**	5.506436	-9.337983	6.383649	-10.33509	6.243516
Industrials	-2.309296	5.121964	-4.754865	5.98347	-3.386972	8.657027
Oil & Gas	-1.365698	7.072794	-2.951117	8.300727	-1.891158	6.425609
Technology	-1.469244	5.259278	-3.896889	6.149639	0.4696355	10.79396
Telecommunications	-4.3286	8.757571	-4.862291	10.1994	-19.43341***	7.445957
Constant	-0.2735259	5.96841	2.186229	6.9168	-6.32254	
R ²	0.4131		0.3009		0.2034	
Adjusted R ²	0.3507		0.2266		0.1187	
N	157		157		157	
<p><i>Notes: The benchmark for industry dummy is Utilities.</i></p> <p><i>*p<0.01; **p<0.05; ***p<0.1</i></p> <p>Notes: ROA, return on assets; BSIZE, board size; BCOMP, board composition; CEO, CEO duality “0” for CEO non-duality and “1” otherwise; SALES, natural logarithm of sales. GROWTH SALES, growth of sales; DEBT TO EQUITY, debt to equity ratio.</p>						

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Table 6 is also a cross-sectional OLS regression result; however, it is done based on years separately. In the three years none of the experimental variables are significant hence the first three hypotheses are rejected. Therefore, the corporate financial performance is not related or dependent on board independence or CEO duality. Although BSIZE, BCOMP and CEO are insignificant, BSIZE in 2007, BCOMP in 2007 and 2008, and CEO in 2007 had negative coefficients. Among the control variables SALES is significant at 1% significance level in 2007 and 2008 and is positively related which means firm size is positively related with firm performance and bigger companies perform better. This is consistent with the finding in pooled regression however inconsistent with the finding of OLS and quantile regression. GROWTH SALES is negatively significant at 10% significance level in the year 2007 and positively significant at 10% significance level in 2008. The R² are 0.4131, 0.3009 and 0.2034 for the year 2007, 2008 and 2009 respectively.

4.3 Overall Discussion of the Findings

From the above several test results BSIZE (size of the board) was never found to be significant at any conventional significance level, although the sign of the relation varied in different tests. Pooled and OLS regression results showed a positive and quantile regression showed a negative relation. Hence hypothesis 1 has to be rejected which assumed there is a positive association between board size and firms financial performance. In addition, it is not possible to conclude whether there exists a negative relation because of mixed results. Therefore, this study shows having bigger boards does not impact the firm performance. In the previous studies by Elsayed (2007); Jackling and Johl (2009) and Ramdani and Witteloostuijn (2010) when ROA was used as dependent variable board size was found to be insignificant. Whereas, Haniffa and Hudaib (2006) when used ROA & Tobin's Q as dependent variable found significantly positive and negative respectively. Jackling and Johl's (2009) model with Tobin's Q also showed a positive significant association which is similar to findings of Ramdani and Witteloostuijn's (2010) OLS finding and outcome of Bliss (2011).

BCOMP or board composition which is a measure of board independence was also always insignificant regardless of tests performed. Additionally, negative association was found. Therefore hypothesis 2 on the positive association between board independence and corporate performance has to be rejected indicating corporate performance of FTSE Small Cap and Fledgling companies are not dependent on board independence or number of NEDs on the board. This result questions the recommendations made in different codes (Combined Code, Higgs report) regarding the number of NEDs for better monitoring of the board and corporate performance as a whole. Moreover, it supports stewardship theory that inside directors or executives are more knowledgeable and better decision maker. Past study undertaken by Haniffa and Hudaib (2006) also found board composition to be insignificant regardless of using ROA or Tobin's Q as dependent variable. However, Jackling and Johl (2009) found board composition to be positively significant when used Tobin's Q and insignificant with ROA. Ramdani and Witteloostuijn (2010) found board composition to be not significant in OLS and positively significant in quantile regression and Bliss (2011) found board composition to be positive and significant.

The Combined Code on Corporate Governance (2008) and The UK Corporate Governance Code (2012) suggests board should be of sufficient size and there should be at least 2 NEDs present on the board of small companies to ensure board

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independence. However in this study it was found few small companies board consisted of only 2 members. In such a scenario it is not possible for those companies to comply with these codes.

CEO duality was found to be positively significant in OLS and quantile regression results (however not in pooled). Hypothesis 3 has to be rejected because the hypothesis stated there is a negative association between CEO duality and firm performance. However, the study showed a positive relation supporting stewardship theory. It indicates for small companies (FTSE Small Cap and Fledgling companies) having CEO duality leads to better performance because of CEO's in-depth know-how, knowledge, expertise and efficient decision making which helps the company to adapt to the changes of the environment fast and easily, gives more flexibility and increases profitability. Therefore, CEO duality has a positive impact on corporate financial performance. Ramdani and Witteloostuijn (2010) in quantile regression and Bliss (2011) found CEO duality to be positively significant with firm performance. Haniffa and Hudaib (2006) found negatively significant relation when ROA was used as performance measure; however, no significance when Tobin's Q. Elsayed (2007) and Jackling and Johl (2009) found CEO duality to be insignificant in their empirical studies.

Among the control variables SALES which has been used as a measure of firm size found to be positively significant in pooled regression and negatively significant in quantile regression. Therefore, it is inconclusive whether firm size has positive or negative association with the firm performance. Elsayed (2007) found a positive significance of firm size and performance. Haniffa and Hudaib (2006) found negative significance with Tobin's Q and positive significance with ROA.

5. Conclusion

The primary aim of this paper was to examine whether there is any impact of CEO duality and board independence on corporate financial performance with a focus on FTSE Small Cap and Fledgling companies. For this empirical study not only OLS regression but also quantile regression has been used. Because quantile regression estimates conditional quantiles of variables and results are not affected by the outliers. This study questions effectiveness and usefulness of suggestions made in different codes starting from Cadbury Code of 1992 to The UK Corporate Governance Code of 2012. Because suggestions made in these codes are very general and vague. General suggestions made in these codes regarding board composition for small companies is presence of at least 2 NEDs; whereas, this study found that the board consisted of only 2 members in some companies. Regarding board size the suggestion is, it should be of sufficient size. Definition of the word "sufficient" is a matter of perception.

One of the limitations of the paper was the sample size. The sample consisted 157 companies, of which CEO duality was present in only 20 companies. Time limitation restricted to rerun the model (by using other dependent and independent variables) over and over to observe the changes in result. In addition, due to financial crisis the constituents list for 2008 was very small which resulted in elimination of large number of firms which were present in 2007 and 2009. There is a scope for further analysis and extend this study by using, ROA, ROE and Tobin's Q as dependent variables. Another key limitation of this paper is the study focused only at quantitative side; however, there is a soft side to corporate governance. Interviewing directors, managers and

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shareholders in order to know about their perceptions of good governance mechanism would make a study like this more reliable.

From this study it cannot be concluded whether CEO duality has positive or no impact on financial performances of FTSE Small Cap and Fledgling companies because OLS and quantile regression results showed there is a positive impact and pooled tests results showed no relation with firm performance. However it can be concluded there is no negative effect of CEO duality on performance of small capitalized companies. Hence the results partially support stewardship theory indicating small companies with CEO duality perform better than firms without CEO duality.

Board composition has been given high importance in the different corporate governance codes in order to ensure board independence. The general assumption based on agency theory is executives act in self interest rather than in company interest. Hence NEDs on the board will monitor the executives work and activities to minimize opportunistic behaviour. The variable board composition was always found without any significant relationship with firm performance. Therefore financial performance of FTSE Small Cap and Fledgling companies are not dependent on board independence or number of NEDs on the board which questions the general recommendations made in the codes on the minimum number of NEDs in order to maintain board independence.

When variable for board size was tested to find whether there is any association between board size and firm performance the result turned out to have no significant association with firm performance. Hence for FTSE Small Cap and Fledgling companies' board size has no direct impact on firm performance. It indicates bigger board does not mean higher profit by better monitoring, planning or execution or smaller board does not mean inefficiency in decision making and monitoring.

The association of firm size with firm performance is not conclusive from the tests. It is not possible to make any remark on the firm size of FTSE Small Cap and Fledgling companies with their performance. Overall from this empirical study on FTSE Small Cap and Fledgling companies for 2007, 2008 and 2009 there is partial evidence suggesting that firms with CEO duality perform better and board size and board independence have no significant impact on firm performance.

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