



# Board Structures and Financial Performance of UK Top Firms: An Investigation of the Moderating Role of the Directors' Compensation

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## Abstract

Although several studies have empirically investigated the connection between corporate governance structures and financial performance, evidence from the literature indicates that findings from these studies are inconsistent, hence inconclusive. In this light, some scholars suggest that the inconsistency in the findings could be an indication that there is factor(s) moderating the relationship between the two variables. For this reason, we investigate how corporate board structures relate to financial performance and the effect of directors' financial compensation on such relationship using samples of the UK top firms. The findings of the study suggest that board composition is positively associated with financial performance (Tobin q). Other than that, the study also indicates that the effect of directors' financial compensation interacts positively with board composition to influence financial performance. By implication, this finding demonstrates that financial rewards to the outside directors play an inevitable role in influencing the relationship between corporate board and financial performance.

**Keywords:** *Board composition, board leadership, corporate governance, directors' financial compensation, tobin q, United Kingdom.*

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## Introduction

The controversy surrounding directors' compensation especially the executive pays is one issue that has reaffirmed the weakness of the corporate governance structures. In the recent past, the attention of stakeholders has been redirected to directors' compensation and the issue has attracted public fury in some advanced economies notably the UK and USA<sup>1</sup>. The public uproar over the directors' compensation is caused by the colossal loss suffered by investors as a result of collapsed share prices in the market (Jensen & Murphy, 2004). Over the years, directors' compensation has gone up quicker than inflation and stock market in some developed economies (Gregory-Smith, 2008).<sup>2</sup>

Directors' pays have always been a controversial issue (Canyon *et al.*, 2011). However, the dimension which the controversy is assuming calls for concern. It is common in recent time for shareholders to demonstrate their dissatisfaction by revolting against outrageous directors' compensation. Even though it has been argued that directors have to be motivated with financial incentives to entrench stronger corporate governance culture to enhance greater performance. (Canyon *et al.*, 2011; Jensen & Meckling, 1976).

Unfortunately, despite huge financial reward to executive and other board members, corporate performances remain unimpressive and cases of corporate failure and scandal continue to rise. Nevertheless, agency theory postulates that directors give up their interest for that of the shareholders and corporate performance, if they are motivated adequately with incentive (Fama & Jensen 1983; Jensen & Meckling, 1976).

Even then, theorists have failed to agree whether the interest of shareholders are protected and corporate performance enhanced under the existing corporate governance structures (Shleifer & Vishny, 1997). Corporate board is one vital structure of corporate governance whose role cannot be underestimated in corporate performance. Kiel and Nicholson (2003) declare that most theories of corporate governance hypothesize a connection between corporate governance structure and financial performance. However, research findings on the connection between board structures and financial performance remain inconclusive (Combs, Ketchen, Perryman, & Donahue, 2007; Daily, McDougall, Covin, & Dalton, 2002).

In the opinion of Combs *et al.* (2007), the inconsistency in findings on how corporate board structure relates to financial performance is an indication that other factor(s) may moderate the relationship between the two variables. Accordingly, this study examines the connection between board structures and financial performance using 126 UK top firms quoted on London Stock Exchange (LSE) between 2009 and 2011 and determines whether such relationship is moderated by the effects of directors' compensation.

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<sup>1</sup> In 2012, shareholders of the UK companies revolted over rise in executive pay. Example include Barclay Bank, Xstrata etc..

<sup>2</sup> The average CEO's total remuneration for S&P firm was 800,000 in 1970 moved up 12 million in 2009. This average total remuneration was 31 and 263 times wages of average production workers respectively (Canyon, et. al., 2011).

This study makes some important contributions to knowledge. First, the evidence from the study indicates that the directors' compensation interacted positively to significantly influence the relationship between board composition (outside directors) and financial performance (Tobi q) and this suggests that outside directors' role is enhanced in corporate governance with adequate financial incentive. However, the findings show that financial compensation did not significantly moderate the association between board leadership and financial performance (Tobi q). By implication, the results suggest that emphasises should be on financial incentive to the outside directors than to the board leadership to enhance corporate performance. The remaining parts of this paper are divided into 5. Part 2 focuses on the literature while part 3 discusses the methodology. The fourth, fifth and sixth part cover results, discussion and conclusion respectively.

## **Literature and Hypothesis**

### **Board Composition**

Board of Directors (BOD) which composes of the chairman, chief executive officer (CEO), executive and non-executive directors is considered as the most important structure in corporate governance (Hermalin & Weisbach, 2003). The CEO and executive directors are the insiders because they form the management team of a company while the remaining members of the board are the outsiders.

The responsibilities of BOD in corporate governance are basically grouped into monitoring functions and advisory functions (Fama, 1980; Hillman & Daiziel, 2003). The primary and most important function of the BOD is the monitoring function which is otherwise referred to as controlling role (Dalton, Daily, Ellstrand & Johnson, 1998; Fama, 1980). Through this function, the BOD monitors the activities of the managers entrusted with the resources of the shareholders (Hillman & Daiziel, 2003). The objective of the monitoring role is to keep the managers in check so that they do not deviate from the shareholders' objectives and interest. The monitoring activities include monitoring of CEO, formulation of corporate strategies, hiring, rewarding, disciplining and firing the executives (Jensen & Meckling, 1976; Hillman & Daiziel, 2003).

Agency theory indicates that the monitoring role is the pillar on which corporate governance is built and sustained. In the absence of monitoring role of the board, the management will pursue interest that intends to promote its economic welfare at the detriment of shareholders' interest. Fama (1980) declares that the monitoring role of the board reduces agency cost relating to the separation between shareholders and corporate control, as a result, improve corporate performance.

Apart from monitoring role, the board also acts in the capacity of advisers to the management (Fama & Jensen, 1983; Lasfer, 2006). Through advisory functions, the board makes available expert advice to management and allows the management to have vital information and resources (Guest, 2009; Fama & Jensen, 1983).

The question of whether the board is dominated by either outside directors or inside directors has been a subject of theoretical debates in corporate governance literature. To the agency theorists, corporate board performs its primary function better if great

number of outside directors are present on the board (Jensen & Meckling, 1976; Hermalin & Weisbach, 2003). Consistent with the Agency theory, several writers have argued that corporate board should have greater number of directors from outside (Cadbury, 1992; Fama, 1980; Ferreira, 2010). As Fama (1980) indicates, the directors from outside cannot be manipulated by the management because they are independent and have reputation to protect as experts, as a result, they can be trusted to effectively play oversight role on the management. In conformity with resource dependence theory perspective, Ferreira (2010) contends that the inclusion of outside directors on the corporate board is vital for prosperity of the firm because they have connection which could bring resources to the firm.

In practice, however outside directors are subjects of manipulation of the management and this has compromised their independence and monitoring role in corporate governance (Combs *et al.*, 2007). Added to this, Guest (2009) declares that outside directors have limited access to critical information necessary for effective oversight function and this has contributed to the rising cases of corporate scandal and failure.

Despite the drawback of board dominated by outside directors, the board with outsiders has great support in corporate governance literature and in practice. For instance, corporate governance codes or rules of most countries provide for the inclusion of outside directors on BOD. However, empirical evidence on the association between outside directors and financial performance varies.

Yermack (1996) using 452 US firms, found negative correlation between fraction of outside directors and performance. Agrawal & Knoeber (1996) also investigated 400 US firms and reported that larger fraction of outside directors on corporate board has negative effect on performance (Tobin q). In other US studies, Bhagat and Black (2002) indicated no significant connection between outside director and performance and same result was reported in Hermalin & Weisbach (2003).

Empirical findings from the UK indicate that Weir, Laing & McKnight (2002) documented that fraction of directors from outside is insignificantly related to firm performance of 311 companies. However, Guest (2009) found outside directors to be negatively related to firm performance using UK listed companies.

The findings of the empirical studies from developing countries are not different. From Malaysia, Haniffa and Hudaib (2006) who based their study on 347 listed firms found insignificant but positive association between board composition (outside directors) and financial performance (Tobin q). Similarly, Jackling & Juhl (2009) documented positive but marginally significant association between outside directors and financial performance (Tobin q) on 180 Indian listed firms. Using Bangladesh 104 listed firms, Rashid (2010) provided evidence indicating that outside directors did not exert any influence on financial performance (Tobin q). Heenetigal & Armstrong (2011) used 37 Sri Lanka firms to conclude that inclusion of directors from outside on the board is significantly positively related to firm performance (Tobin q). In a more recent study, Liu, Miletkov, Wei & Yang (2015) reported that the presence of outside directors on the board has positive impact on firm performance. However, Juhl, Kaur & Cooper (2015) with data of 700 Malaysian listed firms, indicate that outside directors is negatively related to firm performance. Similar result was reported in Fauzi & Locke (2012) and Zafar, Saeed & Humayon (2014).

## Board Leadership

Board leadership may be structured either as CEO duality or non-duality. For the duality structure, an individual is assigned the responsibility of both CEO and chairman of the board while in the case of non-duality structure, the position of CEO and chairman are separated and assumed by different individuals. CEO who is a worker of the firm, is in charge of the daily administration and implementation of long term plan of the firm. On the other hand, the position of chairman is on a part-time basis and the person occupying such position ensures that the boardroom procedures are orderly carried out (Cadbury, 1992). There is evidence in the literature supporting each of these board leadership structures.

Agency theory supports the separation of the role of CEO from that of the chairman. The stand of the theory is that such separation will ensure check and balance within corporate board and in turn, promote greater financial performance (Jensen & Meckling, 1976). In the opinion of Jensen & Meckling (1976), since it is the responsibility of the board to monitor the activities of the CEO and other directors, separating the position of CEO from chairman and assigning it to different individual will reduce opportunistic behaviour and increase the efficiency of the management. At the same time, Rhoades, Rechner & Sundaramurthy (2001) maintain that if the position of both the CEO and chairman is occupied by the same individual, there will be conflict of interest as the CEO will be placed in the position to supervise and assess his own performance. Affirming the view of others, Sharma & Braun (2007) declare that not separating the roles of CEO and chairman may cause expropriation of investors' wealth and increase agency cost incurred by the shareholders.

With respect to non-duality, Jensen (1994) holds the view that when the position of CEO is separated from that of chairman, the efficiency of the board will increase because the chairman is responsible to initiate appointment to the board, assignment to the board committee and set agenda for the board and he concludes that such arrangement will minimise agency cost and improve corporate performance. On the same issue, Brennan & McCafferty (1997) declare that by separating the position of CEO from that of chairman, corporate power is not concentrated on one individual.

However, Brickley, Coles & Jarrel, (1997) caution that non-duality is not without costs. Brickley and his colleagues state that the potential cost of separating board leadership include the difficulties of holding a single individual accountable for bad performance, rivalry and slow decision process. Even then, the supporters of CEO duality argue that giving authority to a single individual to act as CEO and board chairman would minimise disagreement among board members and enhances board effectiveness, which will positively influence corporate performance (Donaldson & Davis, 1991).

Concerning research findings, analysing data from 115 UK firms, Laing & Weir (1999) provided evidence suggesting that the performances of firms are worse when they switch from duality to non-duality and the study concluded that duality does not negatively affect firm performance. On the contrary, with data from 737 US firms, Brickley *et al.* (1997) reported that companies operating non-duality leadership structure performed better than companies with duality leadership. Similarly, Bhagat & Bolton (2008) found separate leadership to be positively correlated with corporate performance. Rhoades *et al.* (2001), Sharma & Braun (2007) and Jackling & Johl (2009) also reported the same results in their respective studies. However, the outcome

of Haniffa & Hudaib (2006), Ibrahim & Samad (2011) indicated that CEO duality is positively related to performance. On the contrary, Zafar, Saeed & Humayon (2014) found negative relationship between CEO duality and firm performance. The same result was indicated in the studies of Emile, Ragab & Kyaw (2014) and Nath, Islam & Saha (2015).

### **Director's Financial Compensation**

Directors are compensated for providing services to a company. This compensation usually in form of financial incentives come as salary, bonus, fees etc. However, for a number of reasons, the executive (inside directors) are well compensated than outside directors. In the first place, the inside directors possess specialised skill and knowledge and as a result, they make tremendous contribution to the economic performance of a firm as full time workers (Fama, 1980). Secondly, the financial incentives given to inside directors especially the CEO are the mean of aligning their interest to those of the equity holders 'so as to enhance the firm's value (Eisenhardt, 1998). On the financial compensation, scholars stress that the monetary incentives given to the inside directors discourage them to pursue interest that is inconsistent with that of the shareholders and encourages outside directors to carry out effective monitoring role for the overall good of the firm (Jensen & Meckling, 1976).

Even then, the compensation given to directors particularly the CEO has always be main issue of debate among the stakeholders (Larcker, Richardson & Tuna, 2007). The board is being accused of not setting the appropriate level of compensation for CEO and other executive that would maximise shareholders' wealth because in practice, the board is manipulated by the CEO (Core, Holthausen & Larcker, 1999; Larcker *et al.*, 2007). This implies that under weak corporate governance structures, CEO may be compensated without giving consideration to performance of the company (Core *et al.*, 1999). However, findings concerning executive pays and financial performance vary. Cosh & Hughes (1995) which used data from 64 UK firms, established that executive compensation has positive impact on performance. However, with data from 337 US firms, Donaldson & Davis (1991) found out that financial compensation for executive was not related to high performance (ROE). The same findings were reported in Larcker *et al.* (2007) and Jeppson, Smith & Stone (2009).

Nevertheless, since it is acknowledged in agency theory that agency problems could be minimised and corporate performance enhanced through effective monitoring role and provision of financial incentive to the executive, it is therefore necessary that outside directors should also be adequately motivated with financial incentive to encourage them to carry out their duty effectively. Still on the financial incentive, Combs *et al.* (2007) maintain that given the importance attached to incentive and monitoring in the agency theory, the factor that might likely motivate and enhance the effectiveness of outside directors is financial compensation. Affirming the view of Combs and his colleagues, Guest (2008) notes that inadequate financial compensation to outside directors is a barrier to their effectiveness in UK and of course, this includes other countries which practice corporate governance as UK. Therefore, in mobilising outside directors to enhance corporate performance, financial compensation is important just as it is to executive directors.

As a result of the controversy treading directors' pay in the recent past, it is imperative to ascertain whether the relationship between corporate board structures and financial performance is contingent on financial compensation given to the directors. Leaning on the argument of Hillman & Dalziel (2003) that the capacity of the board to monitor firm performance effectively depends upon the financial incentive available to compensate the directors, we put forward a proposition that the financial compensation pay to the directors' interacts with board composition and board leadership to positively influence financial performance. Based on the above literature, the hypotheses below are formulated for test:

*H<sub>1</sub>: Holding other factors constant, board composition is positively associated to financial performance.*

*H<sub>2</sub>: Holding other factors constant, board leadership is positively associated to financial performance.*

*H<sub>3</sub>: Holding other factors constant, directors' financial compensation interacts with board composition to influence corporate financial performance.*

*H<sub>4</sub>: Holding other factors constant, directors' financial compensation interacts with board leadership to influence corporate financial performance.*

## **Research Methodology**

### **Samples and Source of Data**

The samples of the study were drawn from among FTSE 350 firms from the London Stock Exchange. The FTSE 350 firms were suitable for this study because they represent firms from various sectors and industries of the UK economy. As was done in studies of Anderson and Reeb (2004) and Weir et al. (2002), the samples of this study did not include financial institutions. The samples were chosen from the population of 241 firms listed on FTSE in 2009<sup>3</sup>.

The firms used in this study were stratified proportionately into 10-industry classifications so as to have fair sectorial/industrial representation in the study. Subsequently, firms which served as the subjects of the study were chosen using simple random sampling technique. The actual samples of the study were 126 firms with 371 firm-years observations in unbalanced panel. The data used in the study were obtained from online reports of the samples published between 2009 and 2011.

### **Model and Variables**

In line with the recommendation in the statistics literature for the moderating study, Ordinary Least Square-Moderated Multiple Regression (OLS-MMR) technique was used to estimate the models of this study (Aiken & West, 1991). In specific term, four models were set out in this study. Model 1 which contains control variables was

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<sup>3</sup> Out of a total of 2,792 companies were listed on LSE, as at 30th December 2009 were the FTSE 350 firms (LSE, 2009). Foreign companies, financial institutions and companies that were not classified under any industry for one reason or the other were excluded from the 350 firms leaving 241 firms as the target population.

designed to test the effect of control variables on the Tobin q (financial performance) while model 2 which contains both independent and control variables was designed for regression estimating the main effect of the study and the result obtained from the model was utilised to validate hypotheses H<sub>1</sub>, H<sub>2</sub>. Model 3 and 4 were set up to test moderating effect of directors' compensation. The result of the regression of model 4 was used to validate hypotheses H<sub>3</sub>, H<sub>4</sub>. The models are presented in the form of equations below:

$$\text{Financial Performance}_{it} = \beta_0 + \beta_1\text{BMEET}_{it} + \beta_2\ln\text{FSZ}_{it} + \beta_3\text{BSH}_{it} + \beta_4\text{LEVE}_{it} + \beta_5\text{ROA}_{it} + \beta_6\text{CBSIZE}_{it} + \beta_7\text{INDSECT}_{it} + e_{it} \dots\dots\dots 1$$

$$\text{Financial Performance}_{it} = \beta_0 + \beta_1\text{BCOM}_{it} + \beta_2\text{BLS}_{it} + \beta_3\text{BMEET}_{it} + \beta_4\ln\text{FSZ}_{it} + \beta_5\text{BSH}_{it} + \beta_6\text{LEVE}_{it} + \beta_7\text{ROA}_{it} + \beta_8\text{CBSIZE}_{it} + \beta_9\text{INDSECT}_{it} + e_{it} \dots\dots 2$$

$$\text{Financial Performance}_{it} = \beta_0 + \beta_1\text{BCOM}_{it} + \beta_2\text{BLS}_{it} + \beta_3\ln\text{DFCOM}_{it} + \beta_4\text{BMEET}_{it} + \beta_5\ln\text{FSZ}_{it} + \beta_6\text{BSH}_{it} + \beta_7\text{LEVE}_{it} + \beta_8\text{ROA}_{it} + \beta_9\text{CBSIZE}_{it} + \beta_{10}\text{INDSECT}_{it} + e_{it} \dots\dots\dots 3$$

$$\text{Financial Performance}_{it} = \beta_0 + \beta_1\text{BCOM}_{it} + \beta_2\text{BLS}_{it} + \beta_3\ln\text{DFCOM}_{it} + \beta_4\text{BMEET}_{it} + \beta_5\ln\text{FSZ}_{it} + \beta_6\text{BSH}_{it} + \beta_7\text{LEVE}_{it} + \beta_8\text{ROA}_{it} + \beta_9\text{CBSIZE}_{it} + \beta_{10}\text{INDSECT}_{it} + e_{it} + \beta_{11}\text{BCOM}_{it} * \ln\text{DFCOM}_{it} + \beta_{12}\text{BLS}_{it} * \ln\text{DFCOM}_{it} + e_{it} \dots\dots\dots 4$$

Where: *i* = 1 to 126 refer to cross sectional units (company), *t* = 2009 to 2011 is time period, β<sub>0</sub>, and β<sub>1</sub> – β<sub>12</sub> represent intercept and regression coefficient respectively while e is the error term. Financial Performance is measured as Tobin q, BCOM for board composition, BLS is board leadership structure. While lnDFCOM is directors' financial compensation, lnFSZ is firm size, BSH is block shareholders, LEVE for leverage, ROA is return on assets, CBSIZE for board size and INDSECT for industrial sector. The measurement of the variables of the study are documented in Table 1.

**Table 1. Measurement of Variables**

Variable	Code	Measure
<b>Dependent</b>		
Financial performance	Tobin q	Book value of assets plus market value of equity minus book value of equity scaled by book value of assets
<b>Independent</b>		
Corporate Board Composition	BCOM	The number of directors from outside on the corporate board
Board Leadership Structure	BLS	Value of one (1) for segregating of the position CEO from that of chairman while the value of zero (0) for not segregating the position.
Directors' Financial Compensation	lnDFCOM	Natural log of the total yearly financial benefits given to all directors.
<b>Control</b>		
Firm size	lnFSZ	Natural logarithm of the total assets at the end of each year
Block Shareholding	BLSH	Value of one (1) where a firm has shareholder with at least 5% interest in shares while the value of zero (0) for not having shareholder with up 5% interest.
Leverage	LEVE	Total debt scaled by value of equity
Return on Assets	ROA	Earning before tax and interest divided by total assets x100
Corporate Board Size	CBSIZE	Absolute number of directors on the board
Industrial classifications	INDUSECT	Dummy variables were designed represent the 10 industrial sectors using Consumer Services sector as reference category.



## Results

### Descriptive Statistics

Table 2 documents the descriptive statistics while the results of correlation between various variables are shown in Table 3. Table 2 reveals financial performance measured as Tobin q was an average of 9531.89 while standard deviation is 16848.98. This means that on the average, performance for all the 371 observations was positive. The Table also indicates board composition had 2,367 outside directors (BCOM) across the 371 observations with a mean of 6.38 outside directors for all the firms and the number of directors from outside the firms on each board was between 2 to 14.

**Table 2. Descriptive statistics (N=371)**

Variables	Minimum	Maximum	Sum	Mean	Std. Deviation
<b>Dependent Variable</b>					
Tobin Q	237.93	122047.75	3536329.33	9531.89	16848.98
<b>Independent Variables</b>					
BLS	0.00	1.00	349.00	0.94	0.24
BCOM	2.00	14.00	2367.00	6.38	2.18
<b>Moderating Variable</b>					
DFCOM	0.55	25.01	1460.69	3.94	3.02
<b>Control Variables</b>					
BMEET	4.00	26.00	3271.00	8.82	2.89
FSZ	4.03	10.79	2825.95	7.62	1.39
BSH	.00	1.00	336.00	0.91	0.29
LEVE	-335.60	2235.00	2378.29	6.41	118.25
ROA	-16.63	54.33	3935.02	10.51	8.45
CBSIZE	5.00	19.00	3631.00	9.79	2.62

For other descriptive statistics, Table 2 shows 94 percent of the samples as having a separate board leadership structure (BLS) while the remaining 6 percent operated dual board leadership structure. This result suggests that almost all the firms observed in the study complied with the provision in UK Governance Code on the separation of CEO and chairman positions. Table 2 also provides descriptive evidence indicating that the amount of financial compensation paid to directors' (DFCOM) by all the samples was £1,460.69m with an average of £3.94m. From this amount, 85 percent went to the inside directors while 15 percent to outsiders. With respect to the control variables, on the average, the observed firms held board meeting (BMEET) about 9 times a year while the mean of the firms size (lnFSZ) as measured by natural log of total assets was £7.62 million. The descriptive statistics also indicates that 336 of the observation had shareholders (BSH) with at least 5% of the outstanding equity and the mean score of return on assets (ROA) for the observed firms was 10.51% for the period under review. Table 2 also indicates that on the average, board (CBSIZE) of the observed firms had about 10 members in the period covered by the study.

From the Table 3, the strength of association among the variables was between  $\pm .002$  and  $\pm .718$ . However, the association between most of the variables were generally weak with small effect ( $\pm .1$ ).

**Table 3. Result of Correlation Analysis**

Variables	1	2	3	4	5	6	7	8	9	10
1 Tobin Q	1.000	.								
2 BCOM	.548**	1.000								
3 BLS	.075	.158**	1.000							
4 DFCOM	.002	.073	.106*	1.000						
5 BMEET	-.147**	.009	-.040	-.137**	1.000					
6 FSZ	.717**	.312**	.136**	.575**	.714**	1.000				
7 BSH	-.130*	.015	-.081	-.217**	.194**	.110*	1.000			
8 LEVE	.014	-.070	.011	.095	.114*	.021	.056	1.000		
9 ROA	.047	-.085	.006	-.111**	-.011**	-.156**	-.257**	.093	1.000	
10 CBSIZE	.501**	.105*	.106*	.718**	-.211**	-.079	-.183**	.002	.011	1.000

Note :\*\* = Significance at 0.01, \* = Significance at 0.05

### Multi-Regression analysis

In applying OLS-MMR technique to detect the interacting effect of lnDFCOM, the variables were entered into the regression using hierarchical method. Before the regression, tests were performed on the various assumptions of OLS-MMR and the results indicated that the assumptions were fairly complied with. However, in order to eliminate the multicollinearity, the recommendation of Aiken and West (1991) that both independent variables and moderator be centered was followed. Subsequently, Variable Inflation Factor (VIF) and Tolerance score obtained in the process of regression suggest that multicollinearity does not represent a threat to the analysis.

The results presented in Table 4 indicates that the F ratios of the four models are significant and this implies that all the models could statistically predict financial performance as measured by Tobin q. The Table reveals that model 1 has the lowest  $R^2$  (.701) and adjusted  $R^2$  (.689). This result suggests that all the control variables in model 1 could only explain 70 percent (conservatively 69 percent) of variance in dependent variable (Tobin q). The highest  $R^2$  and adjusted  $R^2$  were recorded in model 4 ( $R^2$  .774; adjusted  $R^2$  .762). This shows all the variables of the study together with interacting effect of lnDFCOM provide better explanation for the financial performance (Tobin q) than the other three models and specifically, the combined variables in model 4 account for about 76 percent of Tobin q conservatively.

**Table 4. Multivariate Result**

<b>Variables/Model</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Control Variables</b>				
Constant	-64896.492 (-14.670)***	-59426.117 (-6.712)***	-59282.929 (-6.681)***	-47818.273 (-5.884)***
BMEET	-.046 (-1.488)	-.058 (-1.859)*	-.059 (-1.879)*	-.056 (-2.089)**
CBSIZE	.161 (4.204)***	.023 (.428)	.022 (.428)	-.004 (-.080)
lnFSZ	.661 (16.491)***	.659 (15.155)***	.659 (15.140)***	.585 (14.918)***
BHS	.032 (1.013)	.012 (.394)	.012 (.396)	.047 (1.710)*
LEVE	-.032 (-1.106)	-.019 (-.648)	-.019 (-.648)	-.019 (-.722)
ROA	.205 (6.446)***	.206 (6.397)***	.206 (6.393)***	.188 (6.707)***
BMAT	-.035 (-1.105)	-.026 (-.831)	-.026 (-.833)	-.031 (-1.124)
CONGOODS	.063 (1.878)*	.074 (2.224)**	.074 (2.221)**	.089 (3.052)***
HCARES	.324 (10.035)***	.332 (10.473)***	.332 (10.457)***	.290 (10.466)***
INDUSTRIAL	-.013 (.364)	.023 (.640)	.022 (.615)	.032 (1.001)
OILGAS	.031 (.958)	.055 (1.746)*	.055 (1.748)*	.071 (2.581)**
TELECOM	.050 (1.675)*	.049 (1.624)	.049 (1.623)	.044 (1.675)*
TECHN	.075 (2.166)**	.092 (2.796)***	.093 (2.798)***	.078 (2.703)***
UTIL	-.012 (.363)	.019 (.588)	.019 (.588)	.054 (1.879)*
<b>Main Effects</b>				
BCOM		.128 (2.341)**	.128 (2.338)**	1.675 (11.005)***
BLS		-.053 (-1.715)*	-.053 (-1.715)*	.126 (.406)
lnDFCOM			.011 (.368)	.841 (3.010)***
<b>Interacting Effects</b>				
BCOM *DFCOM				1.796 (10.770)***
BLS * DFCOM				.220 (.554)
R <sup>2</sup>	.701	.698	.698	.774
Adjusted R <sup>2</sup>	.689	.684	.683	.762
Change R <sup>2</sup>	.701***	.698***	.000	.077***
F Value	55.574***	51.030***	47.919***	63.419***

Note: T Statistics in parenthesis, Significant levels are\* P<.01, \*\* P<.05 and \*\*\* P<.10

For the predictive power of the control variables, beta values of CBSIZE ( $\beta = .161$ ;  $p < .01$ ), lnFSZ ( $\beta = .661$ ;  $p < .01$ ), ROA ( $\beta = .205$ ;  $p < .01$ ) and industrial sectors : CONGOODS ( $\beta = .063$ ;  $p < .10$ ) HCARE ( $\beta = .324$ ;  $p < .01$ ); TELECOM ( $\beta = .050$ ;  $p < .10$ ) TECHN ( $\beta = 0.75$ ;  $p < .05$ ) provide evidence which suggests that these variables had significant and positive relationship with financial performance (Tobin q). However, the coefficient of LEVE ( $\beta = -.068$ ;  $p < .05$ ) indicate that debt was significantly negatively related to Tobin q in model 1. Further evidence shows lnFSZ, ROA, BMEET HCARE and TECHN sector maintain the same pattern in their relationship with Tobin q in other models as in model 1.

In model 2, holding other variables constant, the regression coefficient shows BCOM ( $\beta = .128$ ;  $p < .05$ ) was positively significantly related to corporate financial performance (Tobin q) while BLS ( $\beta = -.053$ ;  $p < .10$ ) shows a marginal but negative impact on the financial performance. Therefore, the regression results of model 2 support hypothesis H<sub>1</sub> and reject H<sub>2</sub>. Similarly, after introducing lnDFCOM, model 3 replicated the regression result on the relationship between BCOM ( $\beta = .128$ ;  $p < .05$ ) as well as BLS ( $\beta = -.053$ ;  $p < .10$ ) and Tobin q as in model 2.

In model 4, in the presence of moderating effect of directors' financial compensation, the regression coefficients indicate that the relationship between BCOM ( $\beta = 1.675$ ;  $p < .01$ ) and Tobin q was positively strengthened than in other models. Furthermore, the influence of BLS ( $\beta = .126$ ;  $p > .10$ ) on Tobin q which was previously negative transformed to positive but remain insignificant. Nevertheless, the effect of directors' compensation significantly moderated the relationship between BCOM ( $\beta = 1.796$ ;  $p < .01$ ) and Tobin q. While the other regression coefficients indicate that the directors' compensation failed to moderate the relationship between BLS ( $\beta = -.220$ ;  $p > .10$ ) and Tobin Q. Therefore, the result in model 4 supports only H<sub>3</sub>.

## Discussion

The result in Table 4 provides statistical evidence, which suggests that board composition (BCOM) was positively associated with financial performance (Tobin q) at significance level just as predicted in hypothesis (H<sub>1</sub>). This result agrees with the previous findings reported in Jackling & Johl (2009) and Heenetigala and Armstrong (2011) and Liu *et al.* (2015) which indicated that the proportion of directors from outside on the board was positively related to financial performance. However, this finding is different from the results reported in other previous studies (example: Bhagat & Black, 2002; Johl, Kaur & Cooper, 2015; Rashid, 2010; Zafar, Saeed & Humayon, 2014) which reported that the proportion of outside directors on corporate board was not positively related to financial performance.

The present finding suggests that a unit increase in outside directors on corporate board will enhance market performance (Tobin q) by margin of about 13% ( $\beta$ ). In the absence of a moderator and holding other variables constant, this finding demonstrates that the presence of outside directors on corporate board positively affect market performance (Tobin q). The finding does not come as a surprise consider the fact that the descriptive statistics indicated that outsiders were almost two-third board members of the sampled firms in line with prescription in the UK Corporate Governance Code of UK.

Concerning the board leadership structure, evidence from Table 2 shows that most (94 percent) of the FTSE 350 firms operates non-duality structure as recommended by Corporate Governance Code of UK. However, this study provides evidence, which suggests that non-duality board leadership was weakly related to financial performance (Tobin q) contrary to the prediction in hypothesis (H<sub>2</sub>) and the proposition in the Agency theory. Surprisingly, regression coefficient provides evidence demonstrating that the two variables were negatively related. This implies a point improvement in the board leadership structure will reduce Tobin q slightly by about 5 percent ( $\beta$ ). Since the BLS is a dummy variable, the weak beta value suggests that there is no strong difference between financial performance (Tobin q) and that of non-duality board leadership and duality board leadership.

This study's finding on the board leadership structure is similar to that in Laing & Weir (1999) which indicated that companies, which separated the role of CEO from that of board chairman, did not perform well. However, the result is contrary to the findings reported in other empirical studies, which indicated positive relationship between the two variables (Brickley *et al.*, 1997; Rhoades *et al.*, 2001; Bhagat & Bolton, 2008). The weak negative relationship between non-duality board leadership and financial performance as reported in this study could be attributed to the problems that may arise from separating board leadership structure and these may include disagreement and rivalry among members of the board, which may slowdown decision-making as well as strategy formulation process.

In other results, the inclusion of directors' financial compensation into the analysis as a moderator strengthened the the predictive capacity of the model and accordingly, the adjusted R<sup>2</sup> in model 2 increased from 68 to 76 percent in model 4. This suggests that the inclusion of moderating effect of directors' compensation in the model provides better understanding of corporate financial performance (Tobin q).

With respect to the moderating effect of directors' financial compensation, the study discovered that the connection between board composition and financial performance (Tobin q) is moderated by directors' financial compensation just as predicted in hypothesis (H<sub>3</sub>). On specific note, the outcome of the interaction between board composition and directors' compensation improve the financial performance by about 180 percent ( $\beta$ ). This result demonstrates that the presence of directors' financial compensation caused board composition to have great positive impact on the firm performance. The evidence is consistent with the proposition of the Agency Theory which states that financial rewards play important role in motivating directors to enhance performance.

Even though there is no previous finding in the literature indicating that directors' financial compensation intracts with board composition to influence financial performance, the result of this study reaffirm the findings of some past studies which indicates that directors' financial rewards have positive impact on corporate performance (Cosh & Hughes, 1995). At the same time, the result also supports the views of some scholars that the effectiveness of the board depends on the financial rewards given to the directors (Hillman & Dalziel, 2003).

Furthermore, contrary to hypothesis H<sub>4</sub>, the evidence from regression analysis suggests that the interaction between directors' financial compensation and

non-duality board leadership did not significantly influence financial performance. This result indicates that the effect of directors' financial compensation failed to significantly influence the relationship between board leadership structure and Tobin q. Even then, it is important to note that the relationship between board leadership structure and Tobin q was transformed from negative to positive by the moderating effect of directors' financial compensation.

### **Conclusion**

Following the inconsistent and inconclusive findings on how corporate governance structure relate to financial performance, we advanced a proposition that the association between the two variables may be moderated by certain influential factor (s). It is in this light that this study was undertaken to investigate the interacting influence of directors' financial compensation on the connection between corporate board structures and Tobin q using UK FTSE 350 firms. The choice of directors' compensation as moderating factor was informed by shareholders complaint against the financial compensation paid to directors by companies in some countries particularly the UK in the recent past.

In the absence of the interacting effect of directors' compensation, the findings in this study provides evidence that board composition represented by proportion of outside directors related significantly but positively to corporate financial performance (Tobin q). At the same time, the study also establishes weak but negative association between non-duality board structure and financial performance.

Similarly, the evidence from the expanded model which incorporated the effect of directors' financial compensation suggests that the interaction between directors' financial compensation and board composition had significant positive influence on financial performance (Tobin q). However, the study found no evidence to suggest that effect of directors' financial compensation interacts with non-duality board leadership to exert significant influence on financial performance.

This study's finding on the connection between board composition and financial performance confirms earlier empirical findings on the role of outside directors in good corporate governance and also underscore the importance of the principle in Governance Corporate Codes of most countries including UK, Malaysia, Indonesia, Nigeria that encourages companies to include outside directors on their boards. However, the relationship between the two variables is greatly strengthened in the presence of directors' financial compensation. This finding demonstrates that the financial rewards given to the directors play essential role in boosting firm performance. Hence, it influences the relationship between board structure and financial performance.

Furthermore, the weak regression result on the association between non-duality board structure and financial performance even in the presence of directors' compensation indicates that separate board leadership may not add substantial value to the firm performance even with financial incentive given the management.

The findings from this study have a number of implications on corporate governance practice in the UK and countries with similar practice in worldwide. Most importantly,

the study provides evidence demonstrating the interacting role of directors' financial compensation on the connection between the board composition and firm performance and such role is theoretically relevant to be ignored. Accordingly, Agency Theory should explicitly posit for the preference of adequate financial compensation to outside directors to enhance their monitoring role in order to entrench good corporate governance.

Therefore, considering the practical and theoretical role of outside directors, the companies in UK and countries with similar corporate governance practice as the UK should compensate outside directors with adequate financial reward to motivate them in their role to enhance board productivity. Although, there have been improvement on outside directors' compensation in the last few years world wide, policy makers should consider including a provision in their corporate Governance Codes to mandate corporate organisations to provide adequate financial incentive to outside directors.

Furthermore, with respect to the finding which establishes no significant association between board leadership structure and financial performance, the practice of non-dual board leadership enshrined in Corporate Governance Code in UK and other countries should be revisited in the light of the enormous economic costs associated with the consequences emanating from separating board leadership positions such as board conflict, rivalry etc as well as the fact that specialised nature of certain industry makes such practice inappropriate.

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