International Review of Business Research Papers
Vol. 9. No. 5. September 2013 Issue. Pp. 181 – 198

Competition, Corporate Governance and Executive Turnover

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This paper examines whether firms in competitive industries enforce discipline measures to senior executives using competition criteria rather than corporate governance attributes. The paper find that competition discipline senior executives more than the corporate governance factors. The results exhibits that competition is the main principle used to judge competence of senior executives in the firm. When exploring the causes of the executive turnover, this paper finds that competition is the leading factor considered over financial performance. The paper also finds that managerial industry experience significantly reduces the probability of executive turnover.

JEL Codes: G30, G34 and M51

1. Introduction

The central research question of this paper is concerned with comparing the influence of competition and corporate governance factors in determining executive turnover decisions. Economists often claim that managers of firms in competitive industries have strong incentives to reduce slack and maximize profits; otherwise the firm will go out of business. Accordingly, competition is the main criteria used to judge competence of senior executives than corporate governance factors in many competitive industries. This paper compared the importance of competition and corporate governance in enforcing discipline on executive turnover decisions. The evidence presented in this paper supports the hypothesis that firms operating in competitive industries remove senior executives using competition performance rather than corporate governance factors.

When competition is measured using winning percentage or the Herfindahl–Hirschman index (HHI), the paper find that none of the corporate governance factors is a significant determinant of executive turnover. As in Denis et al. (1997) and Dahya et al. (1998, 2002), this paper measured corporate governance using the proportion of non-executive directors and managerial ownership. On top of this, this study finds little evidence that managerial ownership distracts the role of competition performance in executive turnover decisions. These results suggest that the need to provide managers with incentives through good governance, and thus the benefits of good governance are smaller for firms operating in competitive industries. Finally, the results of this paper indicate that managerial industry experience reduces drastically the probability of turnover.

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The primary motivation behind this study is the availability of competition performance data which is widely available and reported in a meaningful way. This article provides some evidence on this issue by examining data from the British soccer industry. This industry offer abundant competition performance data that have not been used to evaluate managerial turnover decisions. An advantage of this intra-industry approach is that the paper was able to hold constant many relevant factors that may fluctuate across industries. It would be more difficult to interpret results based on inter-industry comparisons since many factors other than product market competition vary across industries. Importantly, the availability of firms' financial and corporate governance information has motivated this research. The possibility of analysing competition performance data together with corporate governance variables are main driving factors of doing this study. Another important issue that motivated this research is the scandals of financial troubles in the football sector. Specifically, this has motivated the investigation of whether directors in this sector are punished due to their corporate performance.

This paper contributes to the finance literature in the following ways. First, this paper provides new evidence on the negative link between competition performance and probability of turnover and present evidence of its practical applicability. This has established that competition performance is a priority used for managerial turnover decisions. To my knowledge, this has not been done elsewhere in other performance-turnover studies. Most existing studies adopted stock market returns (e.g. Kaplan, 1994, Murphy and Zimmerman, 1993), and accounting measures (e.g. Conyon and Florou, 2002, Denis and Denis, 1995) to analyse performance-turnover relationships. Thus, the adoption of industry-specific measures of performance is the great contribution of this study.

Second, this paper contributes to the debate on the effectiveness of boardroom governance particularly by considering issues on non-executive directors and managerial ownership. For instance, the findings of this paper suggests board ownership distract the independence of corporate decision making. The finding that corporate governance factors do not affect significantly firm's turnover decisions is contrast to previous findings by Goyal and Park (2002) and Hillier et al. (2005). Considering all these major contributions discussed, the findings of this paper are unique and different from previous studies.

The structure of the paper is as follows. Section 2 discusses theoretical foundation of this paper. Section 3 explains measurement of variables used in empirical analysis. Section 4 describes data sets and empirical methods adopted. Section 5 discusses main results of the paper. Section 6 discusses the robustness of the results. Section 7 describes predicted probabilities of directors' turnover over competition performance. The conclusion is in Section 8.

2. Theory Literature

2.1 Directors' Turnover and Firm Performance

According to agency theory postulates, directors should be assessed based on their corporate performance. If that is the case, board of directors should choose among alternative performance metrics to evaluate its directors' performance (Brickley,

2003). A dismissal from the board is a mechanism for controlling directors' actions and aligning the interest of both directors and shareholders. This mechanism serves to reduce firm's agency costs and maximise shareholders' wealth (Jensen and Meckling, 1976, Fama, 1980, Puffer and Weintrop, 1991). The criterion used on dismissal decisions differ from one firm to another in accordance with the company objectives.

In the football industry, it is sensible to judge directors' competence using competition performance rather than financial performance or corporate governance attributes. Stakeholders in football firms include people such as owners, directors, fans and creditors, among others. A larger number of these stakeholders prefer more success in competition performance rather than in financial performance. For this reason, this paper expects that competition performance is largely considered in executive directors' turnover decisions rather than corporate governance factors.

2.2 Directors' Turnover and Corporate Governance Mechanism

Studies linking turnover decisions and governance structure have started since 1970s (Helmich, 1976). Later studies have incorporated governance structures in their analyses. For example, Weisbach (1988) finds that more independent boards are more likely to fire poorly performing CEOs. Fizel and Louie (1990) finds that internal governance structure such as CEO duality and board setup have larger impact on turnover decisions than firm performance. The significance of corporate governance prescriptions in turnover decisions have been confirmed by Dahya et al. (2002) who finds improvement in the negative link between CEO turnover and performance after the 1992 Cadbury Report on corporate governance in the UK. This finding implies that firms with more non-executives on the board have strong negative performance-turnover relationship than firms with few non-executives on the board.

Another recommendation from agency theory is that firm's managers should own stocks of the company so as to minimise the divergent motivations between managers and owners of the firm. Morck et al. (1988) finds that managers that own company's shares above a certain threshold will have power to defend themselves from being fired. Confirming the strict impact of managerial ownership in turnover decisions, Denis et al. (1997) finds that managers with relatively small equity stakes in their firms lessen considerably the probability of being sacked. Dahya et al. (1998) finds similar results in the analysis of ownership structure, performance and top executive change for UK firms. These results imply that shareholders with low ownership in the firm will find too expensive to monitor firm's managers. The literature identifies this phenomenon as "free rider problem", (e.g. Shivdasani, 1993, Ertan et al., 2009, André, 2009).

On the other hand, blockholder or institutional ownership of the firm can mitigate the free rider problem because they have strong incentive to monitor management, (e.g. Denis et al., 1997, Goyal and Park, 2002). This means that blockholders have greater equity stakes in the firm, thus effective monitoring of the managers' performance enhances their own wealth. These kinds of ownership are important corporate governance mechanism that improves manager turnover decisions for poorly performing firms. In plain terms, the higher ownership by blockholders or institutions makes the board more effective and reduces managerial entrenchment in

the firm. Goyal and Park (2002) insisted that these ownership structure mitigates agency problems and aligns the divergent motivations between managers and owners.

From the above discussion, it is clear that most of the previous studies have analysed the link between executive turnover and firm performance without considering the aspect of competition performance. This is the area which the current paper intends to address systematically. In addition, this review of literature demonstrates that both firm performance and corporate governance factors determine executive turnover decisions. However, it is indistinct between the two elements which is the prevailing determinant of executive turnover. This paper also aims to address this inconclusive discussion of the prior studies.

3. Measurement of Variables

3.1 Dependant Variable

Directors' turnover is a binary variable represented by one if there is any executive director turnover in a particular year, zero otherwise. Many previous researches used the same variable in their analysis (e.g. Brunello et al., 2003, Garay and Gonzalez, 2005). Other papers that analysed turnover of many directors include Blackwell et al. (1994) and Fee and Hadlock (2000). Another paper by Fee and Hadlock (2004) provides some evidence of directors' departures by examining management turnover across the corporate hierarchy. Most of these papers are fairly informative and their empirical strategies are specific to particular industries under investigation. These studies relates to this paper in the sense that it consider turnover of any executive director in the firm regardless of his or her position.

3.2 Independent Variables

3.2.1 Performance Measurements

Holmstrom (1979) recommends that directors should be evaluated using performance measures that provide information concerning their efforts or abilities. This recommendation is based on the agency theory framework. According to Puffer and Weintrop (1991) care should be taken in defining performance metrics to scrutinize. Metrics of firm performance should act as proxies for stakeholders' perceptions. Normally, performance measures are commonly articulated in directors' compensation contracts. These measures might differ from one firm to another or from one industry to another. The measures are fundamentally associated to the principal objectives of the company. It is expected that firm's managers should concentrate on the company's primary objectives. In that context, performance measures for football firms involve success in competition and financial performance.

Competition performance is measured in two ways namely, winning percentage and the Herfindahl–Hirschman index (HHI). Winning percentage is commonly used in empirical research (Boulier and Stekler, 2003, Dawson et al., 2000). Herfindahl-Hirschman Index (HHI) is a measure of the size of firms in relation to the industry and an indicator of the amount of competition between them. In this paper, HHI is used to measure industry competition focusing on the English Premier

League. Some studies have previously used this index to measure industry competition (DeFond and Park, 1999, Giroud and Mueller, 2011, Goyal and Park, 2002). Financial performance is measured by net profit margin. This is computed by finding the net profit as the percentage of the revenue.

3.2.2 Corporate Governance and Other Variables

Non-executive director is a dummy variable recorded as one if the board consists of three or more non-executive directors, zero otherwise. This definition is based on UK Combined Code (2003)'s recommendation, that companies should comprise at least half the board as non-executive directors. For smaller companies, a board should have at least two non-executive directors. For the sample examined, each board has an average of six directors. This paper finds that a cut-off of 50% will be appropriate for these firms. Weisbach (1988) and Denis et al (1997) use a cut-off of 60% which was consistent with outsider-dominated board classification. Managerial ownership is the aggregate percentage of shares owned by all directors either directly or indirectly through other companies or their families. The similar technique of definition has been used by Denis et al. (1997) and Goyal and Park (2002).

3.2.3 Control Variables

According to standard literature several factors are to be controlled in analysing the determinants of managerial turnover. This paper controlled for firm size, leverage, directors' tenure and age. Most prior studies employed firm size in the empirical analysis of executive turnover (e.g. Puffer and Weintrop, 1991, Cosh and Hughes, 1997, Lausten, 2002). Firm size is measured by the number of employees in the firm. The use of the number of employees to proxy for firm size is common in practice (e.g. Shaffer, 2002, Nourayi and Daroca, 2008). Leverage is the ratio of total debt to total assets. The literature suggests that high levels of financial leverage in financially distressed firms often lead to managerial discipline (Gilson and Vetsuypens, 1993). Franks et al. (2001) document higher managerial turnover when firms are experiencing low performance and high leverage. This paper expects that executive turnover may be higher when the firm has higher leverage.

Directors' tenure measures managerial industry experience which is important determinant of executive turnover in many organisations. Some previous studies such as Goyal and Park (2002) have used the same variable. Studies from Parrino (1997) to Chen et al. (2007) adopted directors' age as a control variable in their regression equations. The variable has proven to be significant determinant of executive turnover in several papers. Besides, Brickley (2003) in a discussion of CEO turnover studies suggested that researchers should further investigate the relationship between turnover and age. Thus, this study uses average directors' age as a measure of directors' age.

4. Data and Empirical Strategy

4.1 Data

The data used in this analysis come from the English Premier League firms from 1998 to 2007.The sample period started from 1998 onwards due to the formal

establishment of FRS 10 where all firms were required to capitalise and amortise intangible assets. This implies that firms analysed are comparable in terms of accounting treatments. The main reason for selecting the sample from the football industry is the transparent and availability of the competition performance data.The whole of these data sets is unbalanced panel containing information at firm level. Corporate governance variables are manually collected from annual reports. Financial and firm characteristics variables are collected from the ICC Plum and Fame databases. Firm's competition performance data are collected from the website www.soccerbase.com.

One important issue in the study of firm performance and probability of turnover is the distinction between voluntary and involuntary departures for directors (Hermalin and Weisbach, 2003). Ideally, there are several reasons for director change such as retirement age, illness, death, dismissal or voluntary resignation etc. But distinguishing between these different reasons is certainly problematic and many studies so far have ignored this fact in their empirical analysis due to unavailability of relevant records. In this context, the performance-turnover relation can be biased because reasons like ordinary retirement or sudden death of a director have nothing to do with firm performance. Also, due to insider information a director may voluntarily quit because of poor performance before the board decided to fire him (Lausten, 2002).

In this paper, there was no technique of identifying whether the departure of a director is voluntary or involuntary. Therefore the paper estimated regression equations where the dependant variable is recorded as one if there is any director departure from the company, zero otherwise. It does not matter if the departure is of a CEO or an ordinary director. This approach has ignored the reason for potential departure and is consistent to some previous studies in the literature (e.g. Blackwell et al., 1994, Lausten, 2002). However, the focus of this paper is on the link between competition performance and directors' turnover, so the classification of turnover cases is far from being an important objective.

4.2 Empirical Strategy

This paper adopted empirical strategy that follows the existing literature and suits data available for analysis. The adoption of fixed or random effects logit regressions depends entirely on the objective of the analysis. The main objective of this paper is to estimate performance-turnover relationships while controlling for unmeasured characteristic of individual firms. For that reason, this research used fixed effects logit regressions. According to econometric literature, the use of fixed effects specification allows taking explicitly into consideration the unobserved heterogeneity that exists among the firms in the sample analysed (Wooldridge, 2006).

Importantly, fixed effects models have a convincing virtue over random effects models because they allow unobservable effects to be correlated with explanatory variables (Greene, 2001). As a consequence, many econometricians recommends the use fixed effects method in estimating ceteris paribus effects (e.g. Wooldridge, 2006, Greene, 2001). More importantly, the application of fixed effects and inclusion of control variables in the models reduces the possible endogeneity between directors' turnover and firm performance (Coles et al., 2007).This technique is greatly resolved econometric problems faced by many previous studies. One paper that

shares similar empirical strategy to mine is the study by Hillier and McColgan (2009) which examined firm performance and managerial succession in family managed firms. However, the focus of their work is somewhat different.

5. Results

Table 1 provides descriptive statistics of the firms investigated. On average, one director leaves the firm every financial year. The descriptive statistics reveal that firms in the sample have average net profit margin of -7.83 over the ten years period. This tells us that most firms are loss making organisations. There is a larger standard deviation for net profit margin which suggests a wide spread of profitability across time and between firms in the sample. Throughout the sample period, these firms have an average leverage ratio of 1.19. On average, a director serves on the board for six years. The sample reveals the average board ownership of 36.4%. On average, a director has about 54 years and the oldest director has 83 years.

Table 1: Descriptive statistics

Table 1 provides descriptive statistics of the variables analysed. The data are obtained on annual basis and are on firm level. Corporate governance data are manually collected from firm's annual reports for each year. Financial data is collected from ICC Plum and Fame databases. Firm's operational performance (i.e. match results records) data are collected from the website www.soccerbase.com. Directors' turnover is a binary variable represented by one if there is any director turnover in a particular year, zero otherwise. Net profit margin is defined as the net profit as the percentage of the revenue. Winning (%) is the percentage of matches won by a club in every season, in this case draws are considered as half win. HHI is equal to the sum of an industry (i.e. English Premier League) squared market shares in percentage. Non-executive director is a dummy variable recorded as one if the board consists of three or more non-executives, zero otherwise. Board ownership is the aggregate percentage of shares owned by all directors either directly or indirectly through other companies or their families. Firm size is measured by the logarithm of total number of employees. Leverage is the ratio of total debt to total assets. Director tenure is the average number of years a director served on the board. Director age is the average age of a director.

Variables	Observations	Mean	Standard. Deviation.	Minimum	Maximum
Director turnover dummy	190	0.49	0.50	0.00	1.00
Net profit margin	190	-7.83	25.16	-124.39	57.62
Winning (%)	190	0.50	0.13	0.16	0.84
Herfindahl–Hirschman index (square root)	190	5.03	3.20	1.74	15.77
Non-executive directors dummy	190	0.70	0.46	0.00	1.00
Board ownership (%)	183	36.40	29.97	0.00	100.00
Firm size	190	5.64	0.59	4.23	7.23
Leverage	190	1.19	0.78	0.00	4.97
Director tenure	189	5.85	2.94	1.00	16.80
Director age	189	53.43	7.38	27.13	83.40

Table 2: Pearson correlation matrix

This table reports Pearson correlation matrix between independent variables used in the empirical analysis. Net profit margin is defined as the net profit as the percentage of the revenue. Winning (%) is the percentage of matches won by a club in every season, in this case draws are considered as half win. HHI is equal to the sum of an industry (i.e. English Premier League) squared market shares in percentage. Non-executive director is a dummy variable recorded as one if the board consists of three or more non-executives, zero otherwise. Board ownership is the aggregate percentage of shares owned by all directors either directly or indirectly through other companies or their families. Firm size is measured by the logarithm of total number of employees. Leverage is the ratio of total debt to total assets. Director tenure is the average number of years a director served on the board. Director age is the average age of a director. ***, **, * Denotes statistical significance at the 1%, 5% and 10% level respectively.

Variables	1	2	3	4	5	6	7	8	9
1.Net profit margin	-								
2. Winning (%)	0.1660**	-							
	(0.0221)								
3.Herfindahl–Hirschman index (square root)	0.2093***	0.7786***	-						
	(0.0038)	(0.0000)							
4. Non-executive directors dummy	0.1666**	0.0537	0.1007	-					
	(0.0216)	(0.4617)	(0.1667)						
5. Board ownership (%)	-0.0909	-0.0102	-0.1081	-0.0630	-				
	(0.2208)	(0.8914)	(0.1454)	(0.3971)					
6. Firm size	-0.1783**	0.2202***	0.3120***	0.1463**	0.0138	-			
	(0.0138)	(0.0023)	(0.0000)	(0.0440)	(0.8526)				
7. Leverage	-0.4499***	-0.1629**	-0.2784***	-0.0992	0.3765***	0.1663**	-		
	(0.0000)	(0.0247)	(0.0001)	(0.1732)	(0.0000)	(0.0219)			
8. Director tenure	-0.0525	0.0926	-0.0595	0.1053	0.3684***	-0.1264*	0.0743	-	
	(0.4733)	(0.2049)	(0.4157)	(0.1493)	(0.0000)	(0.0831)	(0.3096)		
9. Director age	0.1217*	0.1349*	0.0356	0.2151***	0.1658**	0.1217*	-0.0641	0.4423***	-
	(0.0954)	(0.0642)	(0.6268)	(0.0030)	(0.0249)	(0.0952)	(0.3809)	(0.0000)	

Table 2 above reports Pearson correlation matrix of the explanatory variables used in the empirical analysis. While all three measures of firm performance appear to be correlated, the correlation is highest between the two competition measures of performance (Pearson correlation coefficient=0.78). To avoid multicollinearity problems, these highly correlated measures are not included in the single regression equation. Apart from the control variables, many of the other variables are significantly correlated, the magnitude of the correlations (absolute value < 0.45) does not indicate serious problems with multicollinearity.

Table 3: Main Results

This table reports logit regressions estimates for English Premier League firms for the period 1998 to 2007. Directors' turnover is a binary variable represented by one if there is any director turnover in a particular year, zero otherwise. Net profit margin is defined as the net profit as the percentage of the revenue. Winning (%) is the percentage of matches won by a club in every season, in this case draws are considered as half win. HHI is equal to the sum of an industry (i.e. English Premier League) squared market shares in percentage. Non-executive director is a dummy variable recorded as one if the board consists of three or more non-executives, zero otherwise. Board ownership is the aggregate percentage of shares owned by all directors either directly or indirectly through other companies or their families. Firm size is measured by the logarithm of total number of employees. Leverage is the ratio of total debt to total assets. Director tenure is the average number of years a director served on the board. Director age is the average age of a director. Z-statistics for two-tailed tests are reported in parenthesis. ***, **, * Denotes statistical significance at the 1%, 5% and 10% level respectively.

Variables	(1) Model	(2) Model	(3) Model	(4) Model	(5) Model	(6) Model
Net profit margin	-0.007	-0.007	-0.015	-0.005	-0.006	-0.016*
	(-0.760)	(-0.761)	(-1.560)	(-0.622)	(-0.647)	(-1.684)
Winning (%)	-7.387***	-7.373***	-4.616	-	-	-
	(-2.661)	(-2.639)	(-1.595)			
Herfindahl–Hirschman index (square root)	-	-	-	-0.336*	-0.358*	-0.451**
				(-1.753)	(-1.830)	(-2.152)
Non-executive directors	-	0.029	-	-	0.459	-
		(0.045)			(0.697)	
Board ownership (%)	-	-	-0.024	-	-	-0.026
			(-1.430)			(-1.507)
Firm size	-0.079	-0.081	-0.426	-0.020	-0.051	-0.313
	(-0.130)	(-0.133)	(-0.636)	(-0.034)	(-0.085)	(-0.477)
Leverage	0.149	0.146	0.285	0.085	0.012	0.069
	(0.208)	(0.201)	(0.382)	(0.122)	(0.017)	(0.093)
Director tenure	-0.292**	-0.292**	-0.312**	-0.276**	-0.282**	-0.324**
	(-2.085)	(-2.082)	(-2.016)	(-2.077)	(-2.094)	(-2.063)
Director age	-0.015	-0.014	-0.007	-0.010	-0.007	-0.002
	(-0.344)	(-0.335)	(-0.144)	(-0.232)	(-0.166)	(-0.037)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of firms	25	25	25	25	25	25
Observations	174	174	167	174	174	167
Log likelihood	-68.104	-68.103	-62.482	-70.465	-70.221	-61.356
Probability	(0.071)	(0.097)	(0.093)	(0.217)	(0.248)	(0.053)

Table 3 provided above reports results from the logit regressions estimates. The main interest of this paper is to find out how competition performance and corporate governance variables influence the probability of directors' turnover. Another interest is to observe how my findings relate to theories tested and how can be applied in policy development. The regressions estimated have similar specifications except that the

paper replaces some variables in each model. For clarity purposes, the coefficient estimates on year dummies are not reported. In this paper, models reported are contemporaneous. Models with lagged performance measures are not reported because they are not consistently significant and do not offer any explanation. The main findings are discussed below in sub headings.

5.1 Does Competition Performance Influence Directors' Turnover Decisions?

This section presents key findings of the paper. For the whole analysis, the findings indicate that competition performance is a major factor that influences directors' turnover decisions. Model (1) and (2) demonstrate significant negative relationship between winning percentage and probability of directors' turnover. This relationship is statistically significant at the 1% level. The coefficients' estimates show that winning percentage reduces the probability of turnover by about 7.37 to 7.38. These coefficients suggest that the turnover-competition relationship is economically meaningful. Winning percentage is not significant in model (3) where board ownership is included in the regression equation. This provides evidence that board ownership is overruling the function of winning percentage on directors' turnover decisions.

For the whole analysis, HHI is a significant determinant of directors' turnover. The relationship is significant at the 10% level or better across the models estimated. These coefficients show that HHI reduces probability of directors' turnover by about 0.34 to 0.45. On the whole, the findings on competition performance metrics are consistent with theoretical foundation that competition is stronger determinant of directors' turnover than corporate governance attributes. This provides confirmatory evidence on the findings that in competitive industries, competition is more important than corporate governance factors in managerial discipline (Giroud and Mueller, 2011). Also, the negative relationship between firm performance and directors' turnover is previously documented (e.g. Conyon and Nicolitsas, 1998, Coughlan and Schmidt, 1985, Hillier and McColgan, 2009). However, the performance metrics analysed here differ from other managerial turnover studies.

5.2 Does Corporate Governance Affect Directors' Turnover Decisions?

The results of this paper indicate that corporate governance factors do not affect probability of directors' turnover. The coefficient on non-executive directors is positive as predicted but not significant. Given the inverse relationship between competition performance and turnover, the positive coefficients on non-executive directors would suggest that sensitivity is higher for firms with more non-executive directors than for firms with less non-executive directors. The results show that board ownership is not significant negatively related to probability of directors' turnover. However, the inclusion of this variable in the regression equation overrules the role of winning percentage on executive turnover decisions. This finding implies that high ownership by management makes more difficult for a board to sack poorly performing directors. This is consistent to Denis et al. (1997) and Goyal and Park (2002).

The logic behind the negative link between managerial ownership and probability of turnover can be associated with two reasons. First, directors with higher firm's equity ownership get more power since they have voting control obtained through their equity ownership (Morck et al., 1988). Their power may deeply entrench directors in the firm. Second, equity ownership by management prevents external control market which harms the internal monitoring systems in the company (Hirshleifer and Thakor, 1994). This also reduces the probability of turnover for poorly performing managers.

5.3 Control Variables

The results indicate that managerial industry experience matter considerably in directors' changes decisions. Despite the alternate variables employed in the regression models, the coefficients on director tenure indicate significant negative signs in all models estimated. The models indicate statistical significance starting at the 5% level or better. This demonstrates that directors with huge industry experience are entrenched in their firms. This finding is consistent with many studies in the literature. For example, Goyal and Park (2002) finds that CEO tenure is negative and significant related to CEO turnover. This has similar implication to the finding of this paperthat directors' turnover is less likely to happen when directors have longer tenure.

6. Robustness Results

For confirming reliability of these results, this paper used one main technique. This paper excluded outliers for net profit margin and number of employees at the 1% and 99% percentiles. These two variables have eccentric values that may distract the actual findings. Table 4 report results after excluding these outliers. The explanation of most models remained similar qualitatively with slight differences in coefficients and significance levels. Overall, the results in Table 4 are qualitatively similar to the former results in Table 3.

Table 4: Robustness Results

This table reports logit regressions estimates for English Premier League firms after excluding outliers for the period 1998 to 2007. Directors' turnover is a binary variable represented by one if there is any director turnover in a particular year, zero otherwise. Net profit margin is defined as the net profit as the percentage of the revenue. Winning (%) is the percentage of matches won by a club in every season, in this case draws are considered as half win. HHI is equal to the sum of an industry (i.e. English Premier League) squared market shares in percentage. Non-executive director is a dummy variable recorded as one if the board consists of three or more non-executives, zero otherwise. Board ownership is the aggregate percentage of shares owned by all directors either directly or indirectly through other companies or their families. Firm size is measured by the logarithm of total number of employees. Leverage is the ratio of total debt to total assets. Director tenure is the average number of years a director served on the board. Director age is the average age of a director. Z-statistics for two-tailed tests are reported in parenthesis. ***, **, * Denotes statistical significance at the 1%, 5% and 10% level respectively.

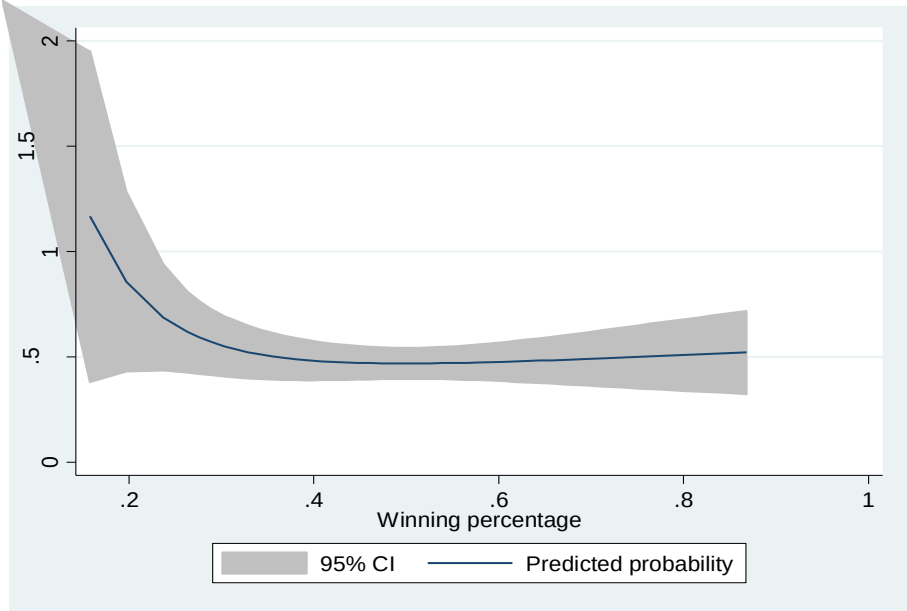
Variables	(1) Model	(2) Model	(3) Model	(4) Model	(5) Model	(6) Model
Net profit margin	-0.014	-0.014	-0.019*	-0.014	-0.014	-0.020*
	(-1.366)	(-1.367)	(-1.682)	(-1.416)	(-1.404)	(-1.796)
Winning (%)	-6.736**	-6.795**	-4.551	-	-	-
	(-2.300)	(-2.310)	(-1.472)			
Herfindahl–Hirschman index (square root)	-	-	-	-0.346*	-0.358*	-0.436**
				(-1.743)	(-1.766)	(-2.011)
Non-executive directors	-	-0.152	-	-	0.215	-
		(-0.229)			(0.313)	
Board ownership (%)	-	-	-0.025	-	-	-0.027
			(-1.473)			(-1.555)
Firm size	-0.261	-0.249	-0.580	-0.191	-0.204	-0.473
	(-0.412)	(-0.392)	(-0.848)	(-0.309)	(-0.327)	(-0.700)
Leverage	0.121	0.143	0.206	-0.020	-0.053	-0.006
	(0.162)	(0.190)	(0.265)	(-0.027)	(-0.071)	(-0.008)
Director tenure	-0.316**	-0.314**	-0.299*	-0.311**	-0.314**	-0.311*
	(-2.177)	(-2.154)	(-1.886)	(-2.198)	(-2.212)	(-1.936)
Director age	-0.007	-0.009	-0.006	-0.004	-0.002	-0.002
	(-0.168)	(-0.198)	(-0.124)	(-0.086)	(-0.045)	(-0.038)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of firms	25	25	25	25	25	25
Observations	170	170	164	170	170	164
Log likelihood	-65.813	-65.786	-61.323	-67.088	-67.039	-60.302
Probability	(0.055)	(0.075)	(0.080)	(0.105)	(0.136)	(0.048)

7. Predicted Probabilities

The paper evaluated further the implications of these results by using graphical presentation of predicted probabilities of directors' turnover over winning percentage. The 95% confidence interval for the predicted probability is shown with shaded regions

in Figure 1. Figure 1 below represents predicted probabilities of executive turnover over winning percentage. The graphic is reasonably clear that the relationship is always negative and significant for the sample analysed. The figure show that for a firm that falls from winning percentage of 40% to 20%, the probability of directors' turnover would rise from 50% to 80%. This means 50% decrease in winging percentage leads to 60% increase in probability of directors' turnover. This figure confirm the results from the regression estimations that the lower the winning percentage, the higher the risk of turnover for directors.

Figure 1: Predicted probability of directors' turnover changing over operational performance



8. Conclusion

The intuition for these findings is fairly clear. The most important finding suggests that competition performance is the main determinant of probability of turnover over corporate governance factors. This relationship is contemporaneous for the whole analysis and robust in alternative models specifications. This finding confirms that in competitive industries, competition is highly important in discipline incompetent managers than corporate governance attributes. This finding supports the results found by Giroud and Mueller (2011). The paper also finds that firm's managerial ownership is overruling the role of winning percentage in replacement decisions for poorly performing directors. This means that directors with high equity ownership get more power through voting control and this persuades their entrenchment decisions within firms without considering firm performance.

Moreover, this paper provides evidence that managerial industry experience determines the probability of turnover. The findings on industry experience are robust in alternative model specifications. The coefficients estimates on director tenure are statistically

significant in all models estimated despite the inclusion of various variables in the original model specified. This justifies that human capital theory is important in the analysis of performance-turnover relationships. Overall, this research has created knowledge by offering new empirical evidence using unique data set from the football industry.

Finally, readers of this research should consider two main limitations of the study. First, the results of this paper are limited to English Premier League firms. A possible opportunity of future research is to replicate the current study with other corporations and explore alternative measures of competition performance. Second, this paper did not distinguish between voluntary and involuntary turnover of directors. In an ideal world, there are might be several reasons for director change such as retirement age, illness, death, dismissal or voluntary resignation. A future study may consider all these factors in directors' turnover research.

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