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An Empirical Analysis of Board Activity, Corporate Governance Mechanisms, and Firm Value

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We studied the relationship between board activity, a firm's existing corporate governance structures and mechanisms, and firm value. The association between board activity and corporate governance variables is complex and multi-faceted. The two testable propositions in the study were that: an association exists between board activity and an array of corporate governance mechanisms; and that board activity adds value to the firm and by inference to shareholders. Board activity, measured by the frequency of board meetings, had a negative but lagged relationship with financial performance, a negative relationship with the size of the board, a negative relationship with insider ownership, a positive relationship with both the number of block holders and the number of other directorships held by directors, and insignificant relationships to both board independence and the number of committees. This confirms that other ownership and board composition characteristics could substitute board activity. The analysis of the interaction between board meetings frequency and the value of the firm is lagged but positive, implying relatively low market valuations triggers intervention of the board through frequent meetings that apparently impacts positively on firm value.

Key Words: *Board, Board activity, corporate governance, Governance mechanisms, Firm value.*

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Introduction

Since the advent of the corporation and the corporation's increasing dominance as the business organization of choice, attention has focused on the inefficiencies inherent in the separation of control from ownership that comes with the corporate structure. The proper constitution and functioning of a board of directors has been the monitoring device commonly used to ensure that the control and management of the firm is carried on for the benefit of the firm's owners (Shleifer & Vishny, 1997.Shareholders with their diversified interests do not necessarily have the professional capacity to run the organization. They appoint directors entrusting them to run the organization fairly, transparently and efficiently to enhance shareholders' value through well defined objectives and strategies. The directors in turn delegate the day-to-day operations and the judicious implementation of strategies and policies of the organization to management who establish a system structures for the efficient operation of the organization. The directors and management are therefore agents of the shareholders (Hendry & Kiel, 2004.

Corporate governance, defined as the manner in which companies are controlled and evaluated continues to attract interest in emerging and developing economies as the link between good corporate governance and national economic development becomes clearer. Furthermore, investors have become more discerning and insist on high standards of corporate governance in companies in which they invest, with activist shareholders becoming more vociferous at annual general meeting in calling management to account and demanding that they receive value for their investment. The monitoring role of the board of directors has long been recognized as a crucial component of corporate governance. In practice however, the board of directors is often criticized as a toothless bulldog characterized by dysfunctional behavior and largely ineffective in overseeing the CEO, who in many cases may have influenced the choice of the directors to the board. Davies (2000) argues that even non-executive directors (NEDs) are supine functionaries, with vested interests sharing the same 'high compensation' culture as the executive directors and thus perform poorly as monitors of executives' remuneration packages. He concludes "they advance their own interests at the expense of the shareholders" (P. 8).

Corporate governance guidelines such as those proposed by the Cadbury Committee report (1992) and the CMA (2002) recommend a number of principles that are essential for good corporate governance practices. The guidelines go further and define the role and responsibilities of the board of directors. In order to fulfill its responsibility of vigilant monitoring of management, the board of directors would have to devote a considerate amount of time to the company's affairs. Yet neither economic theory nor corporate laws in Kenya address the issue of the frequency of board meetings, their length, quality and content.

An understanding of the frequency of board meetings and its determinants should presumably shed light on the effectiveness with which the board carries out its oversight functions. On the face of

it, the number of meetings held by the board could be evidence of how effective the board has been in monitoring management. But for a board to be effective it need not necessarily meet frequently. Board effectiveness could be a function of number of other factors i.e. existence of standing committees of the board, independence of directors, director (insider) ownership, presence of block holders and the financial position and performance of the company (Mululu, 2005). How these factors influence the frequency of board meetings is not at all clear. For example, a lot of board's mandate could be exercised through committees, thereby obviating the need for frequent meetings. On the other hand, independent directors may put pressure on the CEO to schedule frequent meetings especially when a crisis is looming. Determining the direction of the relationship between these factors and meeting frequency is thus a question that requires empirical testing.

This study's twin aims were; first, to identify how corporate governance mechanisms influence board activity as measured by board meeting frequency (the determinants of board meeting frequency), for companies listed on the Nairobi Stock Exchange (NSE). Secondly, the study sought to determine whether board activity as measured by board meeting frequency had any significant effect on the value (financial performance) of companies.

The study established that board meetings were held quite frequently. Over 75% of the companies had nine (9) meetings in a year during the period of 1998 – 2003. Overall the findings were consistent with the agency theory of contracting, which posit relationships between a board's oversight effectiveness (here proxied by meeting frequency), and board size, insider ownership, independence of the board, number of block holders and the existence of committees. Further, the study found that board activity is positively related to the financial performance and market value of firms. The findings suggest that board meetings are an important dimension in board operations and particularly in the board's ability to effectively monitor management and improve firm's performance thereby benefiting shareholders.

Corporate Governance

In recent times, the frontiers of corporate governance have been expanding rapidly, in tandem with the increasing gravity of governance challenges to directors, boards, investors, management, regulators and academicians. Yet issues of governance are not new. Corporate governance has been practiced for as long as there have been corporate entities, characterized by the separation of ownership from management and control. Indeed, Adam Smith shows that he understood the issue of corporate governance, even though he did not use the phrase: *"Directors of companies, being managers of other people's money, it cannot well be expected that they will watch over it with the same anxious vigilance with which partners in a corporate company watch over their own"* (Smith 1776 edn 1976; p264).

It was not however until the 1980's that the topic received much attention.*"The proper governance of companies will become crucial to the world economy as the proper governing of countries"* (Bowes, 2000: p.1). A decade earlier Peter Drucker, when examining the challenges

managers would face in the 1990's predicted that: *"The governance of business is likely to become an issue throughout the developed world"* (The Economist, 21st October 1989: p26).
These predictions have come to pass as evidenced by the interest that the subject of corporate governance has generated in the media, professional, academic literature and society at large.

The need for enterprises to practice "good corporate governance" has become universal, becoming important with each passing day. In his Forward to a NASDAQ review Melalksne (2010) points out that, although the "Comply or explain" principle is still not a mandatory obligation, nevertheless it requires corporation to practice sound corporate governance or explain any failure to comply with the tenets of sound governance.

Several reasons can be advanced for the burgeoning concern with corporate governance. Firstly, the interdependence between the society and business demand that companies be accountable to the society as company decisions have far reaching effects on the society welfare and the environment. Companies not only provide essential goods and services, they pay taxes, create employment and engage in community-based activities and have thus become development partners with the society. As society becomes increasingly dependent on companies it (society) becomes more concerned with corporate activities and their governance as they (companies) play a key role in the creation of wealth both at the national and the corporate level. Drucker (1974) says that society will scrutinize company activities and especially those of large and visible business so as to ensure accountability.

Secondly, public attention was provoked following high profile corporate scandals and collapses in recent times that, without any warning, wiped out the wealth of shareholders in one fell swoop (examples include Enron, Parmalatt, WorldCom, the Bank of Credit and Commerce International (BCCI), among others). These failures resulted in intense pressure to reexamine the governance of corporations. Kenya has had its fare share of financial scams as demonstrated by the collapse of Lonrho, Trust Bank, Euro Bank, Kenya Finance Trust and Uchumi Supermarkets Limited. On the whole, many pundits and scholars ascribe corporate failure to a weak board, unable to exercise their mandate adequately (Stiles, 1993).

Thirdly, the hard economic times and shocks all over the world have exposed corporate weaknesses. The volatility of the world economy has significantly increased the risks faced by companies today. Stiles (1993) asserts that in such a non-compromising environment we can no longer afford to overlook corporate fraud, mismanagement and unjustified executive pay awards among other irregularities (See also Demb & Neubauer, 1992; Dimsdale & Prevezer, 1994).

Finally, the globalization of economies and the growth of financial and investment markets in the 1990s has presented an opportunity for institutional investors to deploy their massive funds internationally. As they seek to do so, they are insisting on high standards of corporate governance in

the companies in which they must invest. (CACG; 1999). Investor confidence can only be enhanced with good corporate practices underpinned by accountability and transparency.

Given the foregoing factors, governments and boards of corporations have been forced to pay attention to fundamental issues of corporate governance as they pursue national and corporate economic wellbeing. Without investment, companies will stagnate and collapse. If business enterprises do not prosper, there will be no economic growth; no employment, no taxes paid and invariably the national economy will stagnate. The country needs well-governed and managed business enterprises that can attract investments, create jobs and wealth, and remain viable, sustainable and competitive in the global market place."*Good corporate governance therefore becomes a prerequisite for national economic development" (CACG, 1999, p.6).*

In Kenya, the institutions that have been at the forefront in sensitizing the corporate sector in Kenya on corporate governance are The Capital Markets Authority (CMA), the Nairobi Stock Exchange (NSE), The Institute of Certified Public Accountants (Kenya, The Center for Corporate Governance (CCG) and Central Bank of Kenya (CBK).

The CMA created a major impact in the pursuit of the goal for good corporate governance in Kenya when it issued in 2002 the Capital Market guidelines on Corporate Governance Practice by listed companies. These guidelines were published under a gazette notice No. 369 of 25th January 2002 and not a legal notice and therefore do not have the force of law. However, certain of the guidelines have subsequently been incorporated into legal notice No.60 of 3rd May 2002 as part of the Capital Markets guidelines and are enforceable in law. The stated objective of the CMA guidelines on Corporate Governance is to strengthen and promote the standards of self-regulation and bring the level of governance practices in line with international trends.

The NSE has amended its Listing Manual and incorporated the CMA guidelines on corporate governance into the continuous obligations of listed companies and it continuously monitors compliance by listed companies with these obligations. In Kenya the emphasis on good corporate governance and accountability to shareholders and stakeholders has been on public listed companies. The potential for listed companies being subjected to sanctions for non-compliance by either the CMA or NSE has played an important role encouraging compliance with the guidelines (Mululu, 2005).

The Institute of Certified Public Accountants (Kenya) requires its members to report on the corporate governance practices of companies they audit and the Institute of Certified Public Secretaries (Kenya) also encourage its members to ensure compliance with the corporate governance guidelines. Both institutions train their members on corporate governance issues.

Methods

This study's objectives were two-pronged: First, it sought to examine the association between board activity as measured by the frequency of board meetings and corporate governance mechanisms. Secondly, it

sought to determine the interactions between board meeting frequency and firm value. The data used for the study was from the companies listed on the NSE covering the six years between1998 to 2003. In terms of corporate governance mechanisms the study focused on the composition on the board of directors, the board size, the leadership structure, the number of board committees and how often they meet, the shareholders and the extent of their shareholding. This information was sourced from the financial statements of the companies, the NSE and CMA.

Information on the number of board meetings, the number of board committee meetings and the number of other directorships held by outside directors which was not readily available in the financial reports was obtained from the company secretaries

To determine the interaction between board meetings frequency and financial performance, the study reviewed the financial performances of the quoted companies from the period 1998 to 2003. Statistical analyses were conducted using the corporate governance mechanisms as independent variables and price book ratio as the dependent variable (as a proxy for firm value). It was expected that the frequency of board meetings would increase as the firm value declined and that following intense board activity the firm value would increase due to the active interest of the board of directors in line with the contracting and agency theory.

Population

A list of all companies quoted on the Nairobi Stock Exchange as at 31st December 2003 was obtained from the Nairobi Stock Exchange as per Appendix 1. This list had 48 companies whose equity was quoted and actively traded on the NSE in both the main investment market segment and the alternative investment market segment. All the 48 companies formed the target population of the study.

Data Collection

Data on the composition of the board, the board size, the leadership structure, the total number of shares, the shareholders and the extent of shareholding was obtained from the annual financial reports of the companies. This information was also verified by the information collected from the company secretaries.

Data on the numbers of the board meetings, the number of standing board committees and how often they met, and the number of other directorships held by the outside directors and whether director incentive plans and employee stock options were in use was obtained from the company secretaries. Data on the company's financial performance was obtained from the company's financial statements for the years 1998 to 2003. The annual accounts were obtained from the NSE library.

Data Analysis

The data obtained on the corporate governance characteristics was analyzed using descriptive statistics. The first objective was to explore the impact of corporate governance variables on board activity. The proxy for board activity is in frequency of board meetings. Governance

mechanisms may be related in complicated ways and, as earlier stated, this study relies on the notion that governance mechanisms are substitutes or complements (Vafeas (1999)). Hence Pearson's correlation analysis was used to measure the degree of linear relationship between the variables of the study.

To investigate the interactions between board meeting frequency and corporate governance mechanisms (the determinants of board meetings frequency) panel data and regression analysis were used. T-statistics and analysis of variances were done to validate the model. The model tested was similar to one of Vafeas (1999) but with the necessary adjustments and configuration to domesticate it to the Kenyan conditions and environment.

The importance of board meeting frequency is considered an open question. Vafeas (1999) assertion is that, "It would seem easier and less costly for a firm to adjust the frequency of its board meetings to attain better governance than to change the composition of its board or its ownership structure or approve charter amendments".

The variables used in this study are defined and measured in Table 1.

Table 1: Operationalisation and Measurement of Variables

Variable	Specification	Definition /measurement
Board meeting frequency	NBM	The total number of annual board meetings for each firm
Board size	NBD	The total number of directors sitting on each company's Board.
Executive directors	NED	The total number of executive directors of each company's Board
Outside Directors	NND	The total number of non-executive directors of each Company's board
Board Committees (NSCB	NSCB	The total number of standing board committees
Number of standing Committee Meetings	NSCM	The total number of meetings of the standing board Committees
Unaffiliated block holder Directors	(NUBD)	The number of directors representing the unaffiliated block holder shareholders
Affiliated Outsider directors	NAO	- The number of directors representing the unaffiliated block holder shareholders
Shareholding	NTLS	The number of outside directors with potential business ties with the firm e.g. lawyers auditors, management consultants
Unaffiliated Block holders -	(NPUB)	The number of percentage of total shares held by the unaffiliated block holders (those who own more than 5%of the firm's stock)
Inside directorships	NSOD	The number of percentage of shares held by officers and Directors
Other Directorships	NBOD	The total number of other directorships held by outside directors.

Table 2 shows that the mean number of board of meetings, over the period of the study, was 7 (seven). The statistics show that over half of the observations had six annual meetings (medians=6) over the period of the study. The minimum number of meeting in a year over the same period is two while the maximum is eighteen (18). Over seventy five percent the companies in this study had nine (9) meetings in a year.

In a particular year, the average number of board of directors is nine. Unaffiliated block holder directorship (NUBD) and affiliated outsiders (NAO) are low with a mean of one. Insider ownership (NSOD) is rampant with a mean or average of 40 percent and a maximum of 10 percent in some firms.

Unaffiliated block holders (NPUB) hold substantial number of shares. Due to low response or lack of it, the variable, directors' incentive plans (DIP) is dropped further analyses. Most of the respondents were reluctant to disclose information on director's allowances and bonuses and details on the subject of insider shareholder ownership (NSOD) i.e. there were 156 missing answers out of 270 expected. At the same time most of the firms were less informed about other directorships held by outside directors. As all quoted companies have a separate leadership structure (See Jebet, 2001) the variable BD is also dropped.

Table 2: Descriptive Statistics of Corporate Governance Variables

Variable	Mean	Median	St.Dev.	Minimum	Maximum
Number of board meetings (NBM)	7	6	4	2	18
Number of board committees (NSBC)	4	4	2	1	8
Number of committee meetings (NSCM)	15	12	13	3	72
Number of board directors (NBD)	9	8	2	1	14
Number of executive directors (NED)	1	1	1	1	5
Number of non-executive directors (NND)	7	7	2	0	13
Number of unaffiliated board directors (NUBD)	1	1	1	0	5
Number of affiliated outside directors (NAO)	1	1	1	0	4
Number percentage of shares held by largest shareholder (NTLS)	36	35	15	2	75
Number percentage of unaffiliated block holders (NPUB)	47	48	19	0	74
Number percentage of shares held by insiders (NSOD)	40	48	23	0	70
Number of other directorship held by outside directors (NBOD)	4	1	12	0	63
Leadership Structure (BD)	1	1	0	1	1
Director Incentive Plans (DIP)	0	0	0	0	1

Table 3 gives the descriptive statistics of corporate governance characteristics, analyzed for each sector of the Nairobi Stock Exchange. Over the period of the

study firms in the financial sectors had the highest number of board meetings, 10 on the average. This was followed by industrials that had seven (7) board meetings on average.

The years 2002 and 2003 experienced the highest board meetings over the period. These were difficult periods for many companies with most of them reporting a decline in earnings or even losses. Over the same period a number of companies opted for extensive restructuring.

An examination of the minimum and maximum meetings, over the period of the study 1998 to 2003, a trend emerges that demonstrate that the number of board meeting tend to increase during periods following a decline in earnings, providing *prima facie* evidence that board's meet more often during crisis situations. Insider ownership, i.e. managers who are shareholders, is substantial in firms that are categorized as financial or industrial.

Table 3 Descriptive Statistics of corporate governance characteristics, analyzed for each sector of the Nairobi Stock Exchange

Corporate governance variables are defined and measured as follows:
Number of board meetings (NBM), Number of board meetings (NBM), Number of board committees (NSBC), Number of committee meetings (NSCM), Number of board directors (NBD), Number of executive directors (NED), Number of non-executive directors (NND), Number of unaffiliated board directors (NUBD), Number of affiliated outside directors (NAO), Number proportion of shares held by largest shareholder (NTLS), Number percentage of unaffiliated block holders (NPUB), Number percentage of shares held by insiders (NSOD), Number of other directorship held by outside directors (NBOD), Leadership Structure (BD), Director Incentive Plans (DIP). **Industry:** 1 = Agriculture; 2 = Commerce; 3 = Financials; and 4 = Industrial & allied.

Variable	Industry	Mean	Median	Std Dev	Minimum	Maximum
NBM	1	5	5	1	2	8
	2	5	6	1	4	8
	3	10	10	4	4	18
	4	7	6	4	2	18
NSBC	1	4	3	1	1	6
	2	4	4	2	2	8
	3	5	6	1	2	8
	4	4	4	2	1	8
NSCM	1	9	8	5	3	26
	2	15	12	13	6	68
	3	22	16	18	6	72
	4	14	12	10	6	58
NBD	1	8	8	1	6	11
	2	9	9	2	6	13
	3	9	9	2	8	14
	4	9	8	0	13	
NED	1	1	1	0	1	2
	2	1	1	1	1	3
	3	2	1	1	1	3
	4	2	1	1	1	5
NND	1	7	7	2	4	10
	2	7	7	1	5	10
	3	8	8	2	5	13
	4	7	7	2	3	11
NUBD	1	2	2	1	1	5
	2	1	1	1	0	2
	3	1	2	1	0	2
	4	1	1	0	1	2
NAO	1	1	1	1	1	3
	2	1	1	0	1	2
	3	1	1	1	0	2
	4	1	1	1	1	4
NTLS	1	24	25	6	15	36

	2	35	37	5	27	43
	3	53	52	14	23	75
	4	32	34	13	2	53
NPUD	1	46	42	12	34	71
	2	40	43	25	0	67
	3	46	50	19	0	71
	4	52	48	16	22	74
NSOD	1	31	33	23	3	57
	2	1	1	1	0	2
	3	37	40	20	1	63
	4	55	60	14	1	70
NBOD	1	63	63	0	63	63
	2	1	1	1	0	3
	3	10	1	18	1	45
	4	1	1	0	1	2

The determinants of board meeting frequency were explored using regression analysis. The dependent variable is number of board meetings (NBM) (excluding telephonic meetings of the board). The independent variables that capture (or are proxies) of the corporate governance mechanisms are: board size or number of members of the board (NBD); number of executives directors (NED), number of non executive directors (NND); number of standing board committees (NSBC); number of standing board committee meetings (NSCM); numbers of unaffiliated block holder directors (NUBD), Number of affiliated outsiders (NAO), number of percentage of shares held by largest shareholder (NTLS); number of percentage of total shares held by unaffiliated block holders (NPUB); number of percentage of shares held by officers and directors of the company (insider ownership) (NSOD), and number of other directorships held by outside directors (NBOD)

We use the Pearson product moment correlation coefficient to measure the degree of linear relationship between the board meeting frequency and selected corporate governance variables. For a two-tailed test of the correlation, between the number of board meetings (NBM), and the various governance variables, the results are summarized in **Table 4** below. The emerging expression is:

NBM = *f* (NBD +NED+NND+NSBC+NSCM+NUBD+NAO+NTLS+NPUB+NSOD+ NBOD)

The number of board meeting is significantly, in a statistically sense, related to the following variables: NSBC (51.3 percent (%), NSCM (54.5 percent (%)), NBD (51.1 percent (%)), NND (52 percent (%)), NUBD (14 percent (%)), NTLS (55 percent (%)), NPUB (32 percent (%)), NSOD (40 percent (%)), NBOD (negative 19.8 percent (%)). For the variables positively correlated with number of board meetings, the interpretation is that increases in such variables precede increases in the number of board meetings. For example, as the number of standing board committees increase one would expect more board meetings to supervise, coordinate or ratify the recommendations made by various standing committees.

It appears that the number of board meetings is negatively correlated with the number of other directorship (NBOD – 19.8 percent (%)). A possible explanation is that the directors will have to spread their time for board meetings across many companies and ultimately run out of time. At the same time, the number of directors

is a determinant of the number of standing committees i.e. as number of members of board increases, so is the capacity to create more standing and/or board committees. The committees would presumably handle most of the work that would have necessitated the attention of the full board.

The correlation between number of board of directors (NBD) and number of non-executive/independent directors (NND) is 85.7percent. it is possible that the inclusion of independent directors might not achieve its effect if non-independent directors outnumber them. This happens when the existing directors respond to the statutory requirement that the board include non-executive directors by appointing non-executive directors who will not challenge the existing directors. This could have a far-reaching corporate governance implication because the board of directors would fail to effectively execute its oversight mandate over management.

The number or percentage of shares held by officers and directors or insider ownership (NSOD) is positively correlated with the number of total shares held by affiliated owners. Furthermore, the number of other directorships held by outside directors (NBOD) is negatively correlated to number or percentage of shares held by officers and directors (Inside ownership) or NSOD. It is possible that the insiders could have formed companies that they use as an investment vehicle. It is equally possible that migration exists between outside directors and inside directors or that after some time, inside directors become outside directors.

Table 4: Correlation matrix of board meeting frequency and corporate governance variables.
The table shows, in each cell, first the Pearson's correlation coefficients, and below, the p-values, between corporate governance mechanisms and board activity. Corporate governance variables are defined and measured as follows: Number of board meetings (NBM), Number of board meetings (NBM), Number of board committees (NSBC), Number of committee meetings (NSCM), Number of board directors (NBD), Number of executive directors (NED), Number of non-executive directors (NND), Number of unaffiliated board directors (NUBD), Number of affiliated outside directors (NAO), Number proportion of shares held by largest shareholder (NTLS), Number percentage of unaffiliated block holders (NPUB), Number percentage of shares held by insiders (NSOD), Number of other directorship held by outside directors (NBOD), Leadership Structure (BD), Director Incentive Plans (DIP).

	NBM	**NSBC**	**NSCM**	**NBD**	**NED**	**NND**	**NUBD**	**NAO**	**NTLS**	**NPUB**	**NSOD**
NSCB	0.513 0.000										
NSCM	0.545 0.000	0.233 0.000									
NBD	0.511 0.000	0.232 0.000	0.408 0.000								
NED	0.105 0.089	0.137 0.027	0.257 0.000	0.198 0.001							
NND	0.520 0.000	0.238 0.000	0.290 0.000	0.857 0.000	-.116 0.058						
NUBD	0.140 0.033	-0.109 0.101	0.112 0.096	0.081 0.218	0.010 0.881	0.043 0.517					
NAO	-.002	-0.096	-0.137	0.148	-.033	0.317	0.439				

	0.974	0.166	0.048	0.030	0.631	0.044	0.000				
NTLS	0.552 0.000	0.559 0.000	0.318 0.000	0.281 0.000	0.096 0.118	0.270 0.000	-0.099 0.134	-.053 0.439			
NPUB	0.322 0.000	0.007 0.915	0.205 0.001	0.165 0.008	-.037 0.566	0.178 0.005	0.241 0.000	-.062 0.383	0.043 0.492		
NSOD	0.401 0.000	-0.019 0.844	0.020 0.842	0.067 0.477	-.308 0.001	0.263 0.005	0.248 0.014	0.378 0.000	0.036 0.706	0.794 0.000	
NBOD	-.198 0.017	-0.039 0.644	-0.020 0.816	-.174 0.036	0.259 0.002	-.276 0.001	-0.352 0.000	-.342 0.000	-.072 0.391	-0.374 0.000	-0.454 0.000

Regression Results

The objective at this stage was to explore the connection between board activity (NBM) and selected corporate governance variables. The regression equation explaining the number of board meeting (NBM) as a proxy for board activity is given in **Table 5** and can be is expressed as follows;

NBM = -3.98-0.228 NSBC+0.0327 NSCM-.688 NBD-3.23 NED+1.92 NND+1.20 NSOD + UBD-1.56 NAO+0.124 NTLS +0.196 NPUB- 0.107 NSOD + .222 NBOD .

Table 5. Regression of board meeting frequency (independent variable) against corporate governance variables.

Corporate governance variables are defined and measured as follows: Number of board meetings (NBM), Number of board meetings (NBM), Number of board committees (NSBC), Number of committee meetings (NSCM), Number of board directors (NBD), Number of executive directors (NED), Number of non-executive directors (NND), Number of unaffiliated board directors (NUBD), Number of affiliated outside directors (NAO), Number proportion of shares held by largest shareholder (NTLS), Number percentage of unaffiliated block holders (NPUB), and Number percentage of shares held by insiders (NSOD). $S = 1.211$, $R^2 = 92.78\%$,

$R^2(adjusted) = 90.0\%$, *** significance level 1%; ** significant level 5%; * significant level 10%.

Predictor Variable	Coefficient	SE Coefficient	T-stat	P-value
Constant	-3.976	2.185	-1.82	0.079
NSBC	-0.2282	0.2563	-0.89	0.380
NSCM	0.03272	0.02284	1.43	0.162
NBD	-0.6881	0.3556	-1.94*	0.062
NED	-3.2278	0.8653	-3.73***	0.001
NND	1.9154	0.3899	4.91***	0.000
NUBD	1.1976	0.8264	1.45	0.158

NAO	-1.559	1.473	-1.06	0.298
NTLS	0.12353	0.02998	4.12***	0.000
NPUB	0.19648	0.05041	3.90	0.001
NSOD	-0.10662	0.04133	-2.58**	0.015
NBOD	0.22212	0.05500	4.04***	0.000

Table 5 shows the coefficients of the predictor variables in the regression of the variables against board meeting frequency. At 1% level of significance, the following variables have influence on the determination of board meeting frequency: number of executive directors (NED), number of non executive/independent directors (NND), number of total shares held by largest shareholder (NTLS), number/percentage of total shares held by unaffiliated block holders (NPUB) and number of other directorships held by outside directors (NBOD). Also having a significant influence on board activity is number of percentage of shares held by officers and directors (NSOD) at 5% level number of board directors (NBD) at 10%. We conclude that for these variables, over the period of study, variations in them were accompanied by variations in the number of board meetings. This implies we can use our knowledge of the variable whose value is different from zero to predict changes in board meetings and associated costs. These are confirmed by t-values that are above the critical of 1.76 to show that the coefficients are significantly different from zero.

The coefficient for number of board of directors (NBD) is negative meaning that the number of board meetings (NBM) decreases as the number of board directors (NBD) increases. Therefore the number of directors is useful in estimating average change in board activity (NBM). For example, for every one-unit change in the number of board of directors (board size), the board activity will on average decrease by 0.688. Again this is seen when NBD is considered along with other corporate governance variables. This finding concurs with Steiner (1972) assertion that process losses increase rapidly with group size. It is possible that a carefully selected membership of a large board is fully diversified and requires fewer board meetings (Changnati et al (1985) and Pearce and Zahra (1992)). This might be attributed to decentralization of decision making from the main board, to committee meetings.

The increase in the number of executive directors (NED) is associated with the reduced board activity. The negative co-efficient sign for number of executive directors (NED) of negative 3.2278 confirms this. This is in line with the proposition that insiders tend to be more informed about the company's affairs and hence require fewer board meetings.

It appears that a large presence of non-executive/independent directors (NND) is also accompanied by reduction of number of board meetings. This finding contradicts

the expectation that outside directors will need to be briefed more often, and that being independent they will monitor management more effectively through increased board meetings. Two reasons could be proffered. Either they are efficient thus managing a firm's business in a few meetings or being busy with other engagements, they do not have time for a given firm's board meetings.

The number of total shares held by the largest shareholders (NTLS) and the number of percentage of total shares held by unaffiliated block holders are both positive and statistically significant. This is to be expected as the share ownership of companies quoted on the NSE is not widely dispersed (Jebet,2001) and hence they require more board meetings to stay well informed.

As the number of shares held by insiders (NSOD) increases, the fewer the number of board meetings. This is consistent with the expectation that, in companies dominated by inside shareholders, a number of decisions are made at management level and later ratified by a board dominated or controlled by insiders. The earlier arrangements dilute the importance that is attached to regular board meetings. This confirms the hypothesis that monitoring role of external board members through board meetings is less critical for firms with higher proportions of inside ownership as high insider ownership helps align the interests between managers and shareholders. This finding concurs with Vafeas (1999) - that the percentage of inside ownership is inversely related to board activity.

The number of other directorships held by outside directors (NBOD) emerge as influencing variable that impact positively on board meeting frequency. Successful directors are expected to hold similar positions in a number of companies. The greater the number of additional board seats held by a director the greater the reputation of that director, (Weir et al 2002). The finding supports that of Vafeas (1999) but contradict Shivdasani and Yermack (1999) who suggested that the relationship is not linear as directors holding more than three directorships may be over extending themselves at the expense of their monitoring ability.

In the regression equation above, the impact of the number of board committees (NSBC) of negative 0.2282 is insignificant. We therefore reject hypothesis that NSBC when considered along with other variables have impact on board activity (NBM). The same conclusion applies to number of standing board committee meetings (NSCM). One possible explanation is that the role of board committees in frequency of board meetings is ambivalent: some may argue committees create situations that require frequent full board ratification while others hold that committees substitute for the need of frequent meetings of the board.

Analysis of variances

In addition we analysed the variances as reported in **Table 6** to enable us assess the overall fit of the regression model. Using the F-test, we considered whether or not the ratio of the explained variance to unexplained variance is sufficiently high enough to reject the hypothesis that board meeting frequency is unrelated to corporate governance mechanisms. The

calculated F-test value is 34.45 while the critical value at 5% is 2.12, leading us to conclude that knowledge of selected corporate governance variables is useful in predicting board activity (NBM). Furthermore, the R^2 for the above regression is 92.7 percent. This measures the variation in board meeting frequency explained by the combined influence of all independent variables. We infer that 92.7 percent of the observed changes in the dependent variable, NBM, have been explained or accounted for by combined changes in the predictor variables.

Table 6. Analysis of Variance

Source	**DF**	SS	MS	F-value	P-value
Regression	15	44.94	2.996	3.58	0.004
Residual error	20	16.73	0.837		
Total	35	61.67			

The Interactions between Board Meeting Frequency, Corporate Governance Mechanisms and the Firm Value

From prior literature it is evident that the association between board meeting frequency and the value of the firm is not beyond question. The theoretical position is to expect benefits from board meetings to translate into profitability that ultimately translate into a higher firm value.

We employed employ the price to book ratio[1] as the measure of firm value. We also introduced control variables to neutralize differences in size (InMVF), return on total assets (ROTA), and return on equity (ROE). The emerging expression is:

PBR = NBM + NSBC + NSCM + NED + NND + NUBD + NAO + NTLS + NPUB + NSOD + NBOD + INMVF + RTA + ROE

Where:

PBR : Price to book ratio
InMVF: Log of market value
RTA : return on total assets
ROE : return on equity
Other variables are as previously defined.

The regression used the price book ratio as a proxy for firm value as a dependent variable and board meeting frequency and all corporate governance variables as independent variables. The results of the regression are as below:

PBR (Firm value) = - 0.87 + 0.247 NBM – 0.209 NSBC – 0.0011 NSCM – 0.085 NBD + 0.37 NED-0.199 NND + 0.488 NUBD + 0.87 NAO + 0.0148 NTLS – 0.0760 NPUB+ 0.0523 NSOD + 0.689 NBOD + 0.075 INMVF + 0.0439 RTA + 0.0145 ROE.

These results are presented in **Table 7**.

[1]It is useful because it standardizes measures that capture increase in value and thus facilitates comparison across firms.

Table 7. Regression of corporate governance variables on firm value (PBR)
Corporate governance variables are defined and measured as follows: Number of board meetings (NBM), Number of board meetings (NBM), Number of board committees (NSBC), Number of committee meetings (NSCM), Number of board directors (NBD), Number of executive directors (NED), Number of non-executive directors (NND), Number of unaffiliated board directors (NUBD), Number of affiliated outside directors (NAO), Number proportion of shares held by largest shareholder (NTLS), Number percentage of unaffiliated block holders (NPUB), Number percentage of shares held by insiders (NSOD). Price to book ratio (PBR), Log of market value (InMVF), return on total assets (RTA), and return on equity (ROE).

$S = 0.9146 \quad R^2 = 72.9\% \quad R^2(adjusted) = 52.5\%.$

Predictor	coefficient	SE Coefficient	T-stat	p-value
Constant	-0.865	5.767	-0.15	0.882
NBM	0.2468	0.1583	1.56	0.135
NSBC	-0.2091	0.2792	-0.75	0.463
NSCM	-0.00106	0.02014	-0.05	0.959
NBD	-0.0847	0.3098	-0.27	0.787
NED	0.366	1.107	0.33	0.745
NND	-0.1989	0.4550	-0.44	0.667
NUBD	0.4880	0.6944	0.70	0.490
NAO	0.872	1.203	0.72	0.477
NTLS	0.01482	0.05778	0.26	0.800
NPUB	-0.07603	0.06614	-1.15	0.264
NSOD	0.05233	0.05235	1.00	0.329
NBOD	0.6886	0.4792	1.44	0.166
InMVF	0.0746	0.3668	0.20	0.841
RTA	0.04393	0.06562	0.67	0.511
ROE	0.01454	0.02 177	0.67	0.512

One remarkable observation is that none of the coefficients are statistically significantly different from zero, even at 10% level. However R^2 at 72.9% is high. It was apparent that a regression using board meeting frequency and all corporate governance variables, as independent variables was not conveying enough information in terms of predicting firm value.

Step wise regression

To enhance the power of our tests, a stepwise regression was employed in selecting predictor variables. Stepwise regression removes and adds variables to a regression model for the purposes of identifying useful subset predictors. In step one of the stepwise regression, the variable return on equity (ROE) entered the model with significant coefficient; in step two the variable number of board meetings (NBM) entered the model, and so on. These

variables explain changes in market value of firms.

The regression below better captures corporate governance variables that impact on the value of the firm. The variables that impact on the firm value (Price to Book Ratio) are NBM, NPUM, NSOD, NBOD (marginal) and ROE. The regression equation is:

PBR = - 0.83 + 0.153 NBM – 0.186 NSBC – 0.323 NUBD – 0.727 NAO + 0.0487 NPUB
0.0399 NSOD + 0.688 NBOD + 0.0356 RTA + 0.0290 ROE – 0.00208 RPS.

Table 8 Stepwise Regression of selected corporate governance variables on firm value.
The regression equation is: PBR = - 0.83 + 0.153 NBM – 0.186 NSBC – 0.323 NUBD – 0.727 NAO + 0.0487 NPUB -0.0399 NSOD + 0.688 NBOD + 0.0356 RTA + 0.0290 ROE – 0.00208 RPS. Corporate governance variables are defined and measured as follows: Price to Book Ratio (PBR), Number of board meetings (NBM), Number of board meetings (NBM), Number of board committees (NSBC), Number of committee meetings (NSCM), Number of board directors (NBD), Number of executive directors (NED), Number of non-executive directors (NND), Number of unaffiliated board directors (NUBD), Number of affiliated outside directors (NAO), Number proportion of shares held by largest shareholder (NTLS), Number percentage of unaffiliated block holders (NPUB), Number percentage of shares held by insiders (NSOD). Price to book ratio (PBR), Log of market value (InMVF), return on total assets (RTA), and return on equity (ROE).

$S = 0.8001$ $R^2 = 71.2\%$ $R^2(adjusted) = 61.0\%$. Level of significance are *** significance level 1%; ** significant level 5%; * significant level 10%.

Predictor	Coefficient	SE Coefficient	T-stat	p-value
Constant	-0.828	1.228	-0.67	0.506
NBM	0.15287	0.07417	2.06**	0.049
NSBC	-0.1855	0.1427	-1.30	0.204
NUBD	0.3234	0.4887	0.66	0.513
NAO	0.7265	0.9199	0.79	0.436
NPUB	-0.04871	0.01848	- 2.64***	0.014
NSOD	0.03990	0.01319	3.03***	0.005
NBOD	0.6878	0.3490	1.97*	0.059
RTA	0.03562	0.03938	0.90	0.373
ROE	0.02900	0.01159	2.50**	0.018
RPS	0.002076	0.001289	1.61*	0.119

Table 9. Analysis of Variance of the Stepwise Regression

Source	DF	SS	MS	F-value	P-value
Regression	10	44.3689	4.4369	6.93	0.000
Residual error	28	17.9228	0.6401		
Total	38	62.2912			

On examination of **Table 8** and **Table 9**, the following interpretations can be supported.

Number of Board Meetings (NBM) and Firm Value

With a positive coefficient for NBM (+0.15237) the conclusion is that the value of a firm positively responds to changes in board meeting frequency. A potential inference is an active board can transform a loss making firm into a profitable one and that directors who meet more frequently are more likely to perform their duties than the ones that avoid meetings. Lorsch (1992) suggestion that directors who do not have enough time for board meeting are likely to be ineffective in monitoring management and creating value, is supported by these findings.

Number of percentage of Shares Held by Unaffiliated Block Holders (NPUB) and Firm Value

Total shares held by unaffiliated block holders are inversely related to firm value as indicated by the negative coefficient is (-0.04871).This is inconsistent with Vafeas (1999) assertion that unaffiliated owners of large equity of large equity blocks facilitate corporate governance since they have the power to discipline management. They can sack managers whose performance is below par Denis et al (1997).Good corporate governance mitigates agency problem thus enhancing the value of the firm (Grossman and Hart, 1980).

Percentage of Shares Held By Officers and Directors of the Company or Insider Ownership (NSOD) and the Value of the Firm

Our findings, a positive coefficient of 0.03990 confirms the hypothesized relationship for companies listed at the NSE. This finding is in agreement with Jensen's (1993) suggestion that inside ownership is an effecting corporate governance. Inside directors, because they have a stake in their firm takes keen interest in what is going on in the company, consequently mitigating agency problems. McConnell and Servaes (1990) consider insider ownership as an important control mechanism.

Number of Directorships Held by Outside Directors (NBOD) and the Value of the Firm

In the regression above NBOD has a positive coefficient of 0.6878 that is statistically significant. This finding does not support Dowen (1995) who found that NBOD have no influence on firm performance; but is in line with Gilson (1990) and Kaplan and Reishus (1990) who present evidence that trace firm performance to director's reputation. Weir et al (2002) argue that additional directorship is a proxy for director quality. Firms with directors of exceptional quality are expected to be more profitable than identical firms with low quality directors. This is because that class of directors will engender exceptional quality in superior decisions in order to preserve their reputation i.e. capital hypothesis.

Conclusion

We find that board activity as measured by the frequency of board meetings is related to a number of corporate governance variables such as the board size, the number of executive directors, number of total shares held by largest shareholder, the number of shares held by unaffiliated block holders; the number or percentage of

shares held by officers and directors (inside ownership) and the number of other directorship held by outside directors. Specifically we have evidence that the number of board meetings decrease with the board size, and that the number of board meetings decrease with the number/ percentage of shares held by officers and directors of the firm (inside ownership). Unlike Vafeas (1999) we find that the number of meetings increases with presence of unaffiliated owners of large equity blocks. The number of board meetings is also significantly related to the number of other directorships held by outside directors. Like the findings of Vafeas (1999) the use of board standing committees considered to provide directors effective contacts because they are small, have no impact on frequency of board meetings. Finally, the size of the firm as measured by the log of the market value has no discernible influence on the frequency of board meetings

On the association between board meeting frequency and the value of the firm (price to book ratio) the results show that boards increase the frequency of their meetings following poor performance and as a consequence of such increase in firm value giving support to Jensen (1993) and Vafeas (1999) that the role of corporate boards becomes increasingly more important during crises, when shareholders' interests are in visible danger. The results further show that the relationship between governance mechanisms and performance is a complex one. They raise questions about the efficacy of a policy that imposes prescribed internal governance structures on firms because such approach creates difficulties when trying to assess the effectiveness of those mechanisms given the differences among firms. (In this study we were unable to assess the effectiveness of leadership structure as all public listed companies have a separate leadership structure as required by CMA).

Implication on Policy And Practice

Given the differences among firms, there is need for regulators to constantly review the efficacy of corporate governance guidelines and regulations and allow for more flexibility in the governance system as opposed to the "one size fits all" approach presently adopted which makes it difficult to assess and improve the effectiveness of corporate governance mechanisms. Shareholders and investors should insist on more detailed information on the frequency of board and standing committee and how much time is spent at such meetings so as to be better informed as to how effectively the board monitors management.

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