THE RELATIONSHIP BETWEEN DIRECTOR REMUNERATION AND PERFORMANCE OF FIRMS LISTED IN THE NAIROBI SECURITIES EXCHANGE

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Abstract

This study examined the relationship of Directors’ remuneration and company performance for 57 firms listed on the Nairobi Securities Exchange for a period from 2006 through 2010. The study demonstrates the existence of a positive link between directors’ remuneration and ROE, EAT and Tobin’s Q as measures of firm performance. Further it concludes that among Kenyan listed companies, directors’ remuneration has a weak relationship with ROE and Tobin’s Q, but a moderately strong positive relationship with EAT. The implication of this finding is that, among Kenyan listed companies, directors remuneration is strongly linked to raw performance indicators as opposed to measures of efficiency of utilization of shareholder funds and market performance. These findings therefore point towards high possibility of agency problem since directors can benefit themselves by maximizing raw earnings without due regard to long term performance and market performance.

Keywords: Directors’ remuneration, firm performance, corporate governance

1.0 INTRODUCTION

Most large businesses today are run as companies which are distinct legal entities from the owners (often referred to as shareholders). Bebchuk and Fried, 2003 affirms that since it may not be possible for all the shareholders to take part in the management process, they appoint directors to act on their behalf, giving rise to a principal-agent relationship, subsequently an agency problem. The agency problem arises when the directors benefit from the company at the expense of the shareholders by designing remuneration packages where they award themselves very high salaries and other benefits that may reduce profits that are available for distribution to the shareholders (Jensen and Meckling, 1976). This happens because the directors are in a strategic position in the organization structure to influence their pay (Bratton, 2005). Bebchuk and Fried, 2003 emphasized that the Directors’ remuneration, if not well structured, will actually contribute

The generalisability of much published research based on the directors’ remuneration on the company’s performance is problematic. A serious weakness with this argument, was pointed out by Rosen, 1992 who states that firm performance is influenced by several factors, arising from both internal and external sources to the company). However, Kaplan and Norton (1992) points out that businesses tends to lay emphasis on quantitative performance measurement metrics, while factors like consumer satisfaction and innovation are also equally important areas of analyzing firm performance. Jensen and Meckling, 1976; Jensen and Murphy and Kerin (2003) affirms that firms must have a balance between fixed and variable pay to executives as the
fixed pay ensures that directors get some pay whether or not the company performs well, since they will have rendered services to the company. In addition to the agency problem, high Directors’ remuneration is also due to greed by executives and weak governance by shareholders (AKST, 2006).

One of the more significant findings that emerge from the studies reviewed so far is that there are various possible ways through which directors’ remuneration may influence firm performance. An implication of this is the possibility that this debate on Directors’ remuneration is unlikely to end. Whilst this study does confirm the relationship between the general structure of Directors’ remuneration and corporate performance., it fails to substantiate evidence about the extent to which corporations are prepared to publicly disclose details about their executives’ remuneration contracts or packages and annual changes in the values of entitlements and payouts under these packages.

2.0 LITERATURE REVIEW

Shareholders of joint stock companies need to appoint directors to manage the companies on their behalf. This results to a principal-agent relationship where the shareholders are referred to as the principals while the directors are the agents. On contrary, Jensen and Meckling (1976) argue that a principal agent relationship also arises when the shareholders borrow and hence act as agents of the lenders, this paper narrows the principal-agent relationship to that between shareholders and directors.

Berle and Means (1932) presents the main factors that lead to the agency problem as the separation of ownership and control, and asymmetric information between shareholders and executives. The information asymmetry enables managers to use their discretion to benefit their private interests in various ways. Jensen and Meckling (1976) argues that the agency problem has made it necessary for shareholders to effectively monitor the directors, and thus incur agency costs. Perrow (1986) criticizes the agency theory

Alternatively, Shleifer and Vishny (1997) states that corporate governance deals with the assurance that providers of finance to firms get of a return on their investment. Caramanollis-Cötelli (1995) also explains that fair allocation among stakeholders within and outside the firm determines corporate governance. Stakeholders include shareholders, suppliers, creditors, employees, customers, and the general public.

John and Senbet (1998) argues that corporate governance deals with mechanisms by which stakeholders of a business protect their interests by exercising control over the management. Better corporate governance practices are seen by many countries as a way of enhancing overall economic performance by improving economic dynamism. This has resulted in many countries encouraging corporate governance principles and even making them mandatory through legislation, and enforcing compliance by regulators. Equitable treatment of all shareholders, enhanced disclosure requirements, communication with the shareholders, and an effective board of directors, is some of the important principles of corporate governance (OECD, 1999). The firm has to consider fair remuneration for its directors that is based on firm performance, in order to discharge its duties effectively.

Williamson (1966) suggests that managers would seek to maximize their own utility and consider the implications of this for firm behavior in contrast to the profit-maximizing case. He suggested that managers’ interests are best served by maximizing sales after achieving a minimum level of profit which satisfies shareholders. More recently this has developed into ‘principal–agent’ analysis which models a widely applicable case where a principal (a shareholder or firm for example) cannot costlessly infer how an agent (a manager or supplier, say) is behaving. This may arise either because the agent has greater expertise or knowledge than the principal, or because the principal cannot directly observe the agent’s actions; it is asymmetric information which leads to a problem of moral hazard. This means that to an extent managers can pursue their own interests. Traditional managerial models typically assume that
managers, instead of maximizing profit, maximize a simple objective utility function (this may include salary, perks, security, power, prestige) subject to an arbitrarily given profit constraint (profit satisfying).

2.1 Directors’ remuneration and firm performance

Directors’ remuneration is invariably and closely linked to the issue of corporate governance. Good and sound corporate governance should constrain excessive payments being made to directors and remuneration should be largely determined by the firm’s performance. Nonetheless, no prescription on how to determine the directors’ remuneration is provided by corporate governance principles or best practice. Rather, the board through the remuneration committee should design a remuneration package that is capable of attracting and retaining executive directors of good caliber (Greenbury, 1995). Thus while in the eyes of the shareholders, remuneration should be designed in such a way as to maximize firm performance, sometimes other factors come into play.

The relationship between firm performance and directors’ remuneration can be seen from two perspectives. The first perspective involves the decision to base director’s remuneration on firm performance. In this case, it would be expected that there is a very high correlation between the two.

The second perspective is the residual effect of remuneration packages on firm performance. If the remuneration is attractive enough, the company can bring in talent that can lead to better management of the firm. Further, rewarding directors based on performance can also motivate them to perform better.

Directors’ remuneration packages should be attractive enough to attract and retain the directors who have the capacity required to manage the company successfully and that the structure of the packages for the executive directors should be tied to the corporate and individual performance. The remuneration of non-executive directors, on the other hand, should reflect individual director’s experience and the level of responsibilities in the company. Each firm is required to maintain a remuneration committee, mainly or wholly composed of non-executive directors, whose tasks being to make recommendations to the board the remuneration of the executive directors.

Finally, decisions relating to the remuneration of non-executive directors lie, on the other hand, with the board as a whole. Thus while performance is seen as a major determinant, it is not always true that remuneration is wholly or even partially based on performance (Abdullah, 2006).

There have been some studies carried out to establish the threefold relationship between corporate governance, firm performance, and Directors’ remuneration. According to Lee, Lev and Yeo (2008), the relationship between corporate governance and firm performance is a positive one such that better performance is seen in the firms that have a more effective corporate governance structure than those with a less effective structure. The study also established that agency costs are reduced and firm performance improved by a good Directors’ remuneration package. However in most Chinese companies, it was established that Directors’ remuneration that is tied to performance is not promoted by corporate governance measures such as independent board.

2.2 Types of Directors’ remuneration

According to Carola and Saks (2005), the compensation that is paid to the directors when they carry out their management role in the firm is referred to as Directors’ remuneration, which has increased over the past two decades, leading to a lot of attention by stakeholders.

Excessive pay to executives has made Directors’ remuneration part of the agency problem rather than a solution (Bebchuk and Fried, 2003). The centre for corporate governance formulated principles of corporate governance in 1999, where they suggest that a remuneration committee should be formed to
design the Directors’ remuneration. Such a committee will often use the services of management consultants and other experts coupled with market surveys in designing the Directors’ remuneration.

Fixed payments, short-term incentives, long-term incentives, entry benefits, exit benefits, and non-pecuniary benefits should all be included in a good mix of Directors’ remuneration (Kerin, 2003). Payments that are not affected by the firm’s performance, such as basic salary and other fringe benefits like health cover, car, and school fees, are referred to as fixed payments. Payments that are contingent on the achievement of one or more short-term targets such as profit after tax, earnings per share, return on capital employed, return on equity, or more specific targets such as cost reduction or sales growth, are referred to as short-term incentives, and are normally paid in the form of cash bonuses.

Inducements to achieve longer term targets generally related to shareholder value creation over three to five years, are referred to as long-term incentives, and are typically provided through the award of shares and/or options. Payments to induce a potential CEO candidate to accept the position, such as sign-on bonuses or ‘golden hellos’ are referred to as entry benefits, and are normally paid in cash or an award of shares and/or options. Payments aimed at inducing a CEO to leave the firm are referred to as exit benefits.

There are times when special-purpose compensation elements are offered, for example retention bonuses, also referred to as ‘golden handcuffs’, are often offered to lock in key executives for a period of time after a merger or acquisition. According to Kerin, 2003, non pecuniary benefits such as club membership, enjoyment of the job, the respect of employees, and prestige often have more influence on the behavior of executives as compared to other incentives, and these normally form part of the golden handcuffs. Shavel (1979) argues that the executives assume greater risk when they add control to ownership of a firm, therefore the fixed payment is more important than most of the others.

2.3 Determinants of Directors’ remuneration

Conlon and Parks (1988) and Fama (1980) argue that when Directors’ remuneration is linked to firm performance, both the executives and the shareholders will benefit in the long run. In addition to firm performance, remuneration committees should consider the directors’ experience, age, and qualifications, both academic and professional (Combs and Skill, 2003). A study of top 45 executives in US by Hogan and McPheters (1980) found a significant positive relationship between Directors’ remuneration and firm performance, experience and age. A positive relationship, though not significant, was however found between Directors’ remuneration and qualification. Tax implications, which could play a significant role in the pay based on performance, should be considered by the remuneration committee (Rose and Wolfram, 2002).

A research study carried out by Boyd in 1996 on US firms summarized key determinants of Directors’ remuneration such as firm size, firm profitability, equity ownership by directors, and resource richness of the board, in addition to the experience, age, qualification and tax. Boyd explained that as expected, firms with large size, high profits, smaller shareholder concentration and competent board had higher Directors’ remuneration.

In the public sector, performance contracting is done to ensure that a director performs to the highest expected level. The FCS Group (2005) explains that under performance contracting, the contract of the officer is designed to ensure some quality measurable objectives can be achieved, and rewards are based on the result. The scope of this study does not include this area of discussion.

In Kenya some surveys on salaries have been done, the most recent being a survey by PricewaterhouseCoopers (PWC) in 2009. The survey showed that the top ranked CEO in the financial services sector, which is the highest paid, was earning a total of ksh 3.9 million up from ksh 2.5 million in 2007. According to the report of the
survey, the average cost of employing a CEO in Kenya had increased by 30.7% since 2007.

Most of the studies have focused on companies in developed countries in the U.S, Europe, and Asia, and the results have been mixed with some being contradictory. The recent surveys by PWC also did not highlight the key components of Directors’ remuneration, factors that influence the pay and the situation about NSE companies. They also focused on key management personnel and chief executive officer rather than the directors, which is the focus of this study.

While some studies have shown a strong positive relationship, others have shown weak or no direct relationship. Most studies have come up with firm size as a key determinant of director’s remuneration. The lack of consensus among the past studies indicates that the issue remains unresolved. Further, it is quite evident that empirical studies based in Africa are lacking since most of the studies done were based on developing countries and emerging economies like India and China. Thus there is need to further investigate the relationship between directors’ remuneration and firm performance.

3.0 METHODOLOGY

The study best followed a cross sectional and longitudinal perspective. In establishing the relationship between Directors’ remuneration and firm performance, a firm’s financial performance and share price were analyzed from the year 2006 up to 2010. The firms are analyzed during this period being the latest to establish the current position about Directors’ remuneration and firm performance. The period of five years is selected so as to establish the trend over a reasonably long period of time. The firms are also analyzed to establish whether there is relationship between remuneration and firm size as measured by Revenue, Total Assets and Total Equity. The target population is the companies listed on the NSE, due to the fact that such companies are required to comply with corporate governance rules (CMA, 2002).

As of December 2009, there were 56 listed companies (NSE Handbook, 2009) although 3 companies had their trading suspended i.e. Hutchings Biemer Ltd, Uchumi Supermarket Limited and Carbacid Investments Ltd. The listed companies were at the time classified into the three main categories (see appendix one) namely: the main investment market, alternative investment market and the fixed income segment. The main investment segment had four categories namely: agricultural, commercial & services, finance & investments and Industrial & allied. The list of the companies was obtained from the NSE website. As explained in the literature, there was no need to sample because the main objective was to use all the listed companies.

Secondary data was used to find out directors’ remuneration. The main source of information was the financial statements of the companies that are published annually and posted in the company websites. These were obtained from the Nairobi Securities Exchange. Some financial statements were obtained online.

Both regression analysis and correlation analysis were used with the Directors’ remuneration regressed with firm performance which was measured using average annual Tobin’s Q, return on equity and earnings after tax. Regression analysis was preferred since it is able to provide not only the relationship between two or more variables (whether positive or negative), but also information on the strength of the relationship (Johnson and Kuby, 2007). The coefficient of determination was used to determine the strength of the relationship whilst standardized coefficients were used to determine the comparative explanatory power, direction and significance of the explanatory variables in the regression models (see equations i and ii below). The nature of the relationship (i.e. whether positive or negative) was indicated by the sign β in the equation.

The models applied were of the following general form:

\[ Y = \beta_0 + \beta_1X \]  

\[ (i) \]
\[ Y = \beta_0 + \beta_1X_1 + \ldots + \beta_nX \ldots \] (ii)

Where \( Y \) = Dependent variables  
\( X \) = Independent variable

**4.0 DATA ANALYSIS RESULTS, FINDINGS AND DISCUSSIONS**

The study targeted all the listed companies at the Nairobi stock exchange and sought to obtain director remuneration and performance indicators from the financial statements from year 2006 to 2010.

**4.1 Descriptive statistics for all sectors in the NSE**

Descriptive statistics were computed for both Director’s remuneration and the three measures of firm performance.

Table One shows directors’ remuneration had a minimum of KES 871,000, Maximum of KES 447 million and an average of KES 58.8 million in the five years from 2006 to 2010. The standard deviation of 64 million showed that there was a high level of variation of directors’ remuneration from the mean indicating that while some companies paid very high levels, others paid very small values as indicated by the minimum and maximum paid. Regarding the three performance indicators, ROE ranged from a low of -70.45% to a maximum of 52.43% with an average of 16.86% and a standard deviation of 13.55. Similarly, EAT displayed a similar distribution with a low of -4 billion, a high of 15.1 billion and a mean of 1.6 billion. The Earnings displayed a wide dispersion from the mean as represented by a high standard deviation of 2.4 billion. Finally, Tobin’s Q ranged from 0.44 to 5.67 with a mean of 1.54 and a standard deviation of 0.93.

**4.2 Descriptive statistics by sector**

From the table above, financial and investments sector recorded the highest level of Directors’ remuneration at 71.1 million, followed by industrial and allied sector at 61.1 million. The sector with the least average directors’ remuneration was alternative investments market segment with a mean Directors’ remuneration of 15.5 million. Financial and investments sector recorded the highest ROE at 17.68% followed by industrial and allied at 17.28% with the least performing, Alternative investments market segment recording a mean ROE of 5.2%. Commercial and services sector had the highest mean of EAT at 2.1 billion followed by industrial and allied sector at 1.7 billion and the least performing was alternative investments market segment with a mean EAT of 20.1 million. Similarly, commercial and services sector had the highest mean Tobin’s Q at 1.91 followed by industrial and allied sector at 1.78 and the least performing was alternative investments market segment with a mean Tobin’s Q of 0.38. An ANOVA test was used to determine if the differences in means for the different sectors was statistically significant. The table below shows the ANOVA test results.

**4.3 Comparison of Means by sector ANOVA test**

The differences in means across the sectors of Directors’ remuneration, EAT and Tobin’s Q are statistically (p < 0.05). Only ROE does not have statistically significant differences in means by sector (p > 0.05).

**4.4 Correlation analysis**

Table 4 shows that Directors’ remuneration yielded positive statistically significant correlations with all the independent variables (p < 0.05) with the strongest correlation being with EAT (0.649) followed by ROE (0.349) and the least correlation was with Tobin’s Q at 0.336. These results partially confirm findings by Herdan et al (2011) who found a positive correlation (0.020) between directors’ remuneration and ROE and a positive correlation (0.035) between Tobin’s Q and directors’ remuneration. The independent variables had positive statistically significant correlations with each other (p < 0.05) with the strongest correlation being between Tobin’s Q and ROE at 0.555 followed by ROE and EAT at 0.391 and EAT and Tobin’s Q at 0.253.
4.5 Regression analysis

The pooled data for the five years was subjected to bivariate linear regression for Directors’ remuneration against each of the independent variables. The subsections below show the model results. Regression analysis was preferred since it is able to provide not only the relationship between two or more variables (whether positive or negative), but also information on the strength of the relationship (Johnson and Kuby, 2007). The bivariate regression analysis was applied separately for each of the three measures of firm performance. Similar past studies like Letting (2011) and Kesete (2012) have used the same approach.

4.5.1 Regression analysis between Directors’ Remuneration and ROE

To determine the relationship between directors’ remuneration and firm performance, a bivariate linear regression was fitted to the data and the results were as shown in table 5 and 6. From table 5, the R-square was 0.121 indicating that ROE explains 12.1% of the variability in directors’ remuneration. From table 6, the coefficient for ROE is 1705.75 indicates a positive relationship between the two variables while the standardized coefficient is 0.349. The coefficient for ROE is statistically significant in the model (p < 0.05) indicating that ROE has a statistically significant relationship with Directors’ remuneration. This means that, in addition to considering other factors, companies base their decision on directors’ remuneration on ROE. This confirms the findings of Hassan et al. (2003) who found a positive but weak relationship between Directors’ remuneration and firm performance in a study carried out using a sample of 100 listed companies in Malaysia. The weak relationship between directors’ remuneration and ROE seems to contradict basic expectations that directors being the agents of shareholders should be rewarded proportionately to the extent they contribute towards improving shareholder wealth. Thus agency conflict might arise where firms pay high values of directors’ remuneration while the companies have low returns on shareholder equity. However the inverse is not true.

4.6 Regression analysis between Directors’ Remuneration and EAT

To determine the relationship between directors’ remuneration and firm performance (EAT), a bivariate linear regression was fitted to the data and the results were as shown in table 7 and 8. From table 7, the R-square was 0.422 indicating that ROE explains 42.2% of the variability in directors’ remuneration suggesting the existence of a moderately strong positive relationship between the variables. The coefficient for EAT is 0.018 and the standardized coefficient is 0.649 indicating a positive linear relationship between the two variables. The coefficient for EAT is statistically significant in the model (p < 0.05) indicating that EAT has a statistically significant relationship with Directors’ remuneration. Compared to the standardized coefficient for ROE, the standardized coefficient for EAT is higher indicating that EAT has a stronger relationship with Directors’ remuneration. These findings conform to findings by Kubo (2001) who found a strong positive relationship was found between Directors’ remuneration and firm performance as measured by stock market returns for UK firms. The findings support the argument that directors should be rewarded according to the performance of the companies so as to minimize the agency conflict.

4.7 Regression analysis between Directors’ Remuneration and Tobin’s Q

The study used regression analysis to examine the relationship between directors’ remuneration and Tobins’ Q (as a measure of firm performance). Table 9 shows that the Coefficient of determination was 0.113 indicating that ROE explains 11.3% of the variability in directors’ remuneration with the rest being accounted for by other factors. From table 10, the coefficient for Tobin’s Q is 23,019.64 and the standardized coefficient is 0.336 indicating a positive linear relationship between the two variables. The coefficient for Tobin’s Q is statistically significant in
the model \( p < 0.05 \) indicating that Tobin’s Q has a statistically significant relationship with Directors’ remuneration.

Compared to the standardized coefficient for ROE (0.349) and that of EAT (0.649), the standardized coefficient for Tobin’s Q is the lowest indicating that Tobin’s Q has the least relationship with Directors’ remuneration among the three measures of firm performance.

This is quite understandable since Tobin’s Q ratio is not a direct measure of a firm’s short term performance but it does offer some insight on market and stock valuation. Thus the positive relationship with directors’ remuneration indicates that higher valued firms pay higher remuneration. However, the relationship is weak indicating that other factors come into play in determining directors’ remuneration. When looking at the links between directors’ compensation and market factor, Herdan et al (2011) noted that a positive correlation exists between Tobin’s Q and directors’ remuneration within UK companies. However, though positive, the relationship was weak which confirms the findings in the present study.

### 4.8 Estimating the effect of firm size on the strength of the relationship between Directors’ Remuneration and firm performance as measured by ROE, EAT and Tobin’s Q

The study further sought to examine whether the strength of the relationship between firm performance and Directors’ remuneration was influenced by the size of the firm. Stepwise regression analysis was applied and the effect of firm size was established by checking the change in R-squared and the significance of the change when firm size was introduced to the original models. Firm size was measured using natural log of sales as a proxy. The results for the three models were as shown in tables 11, 12 and 13. From table 11, the change in R-square is 0.066 indicating that firm size improves the model by 6.6%. The F-change is 10.933 and is statistically significant indicating that firm size significantly influences the relationship between directors’ remuneration and ROE \( p < 0.05 \). Table 12 shows that the change in R-square is 0.004 indicating that firm size accounts for 0.4% of the variability in the directors’ remuneration. The F-change is 0.999 and is not statistically significant \( p > 0.05 \) indicating that firm size has no influence on the relationship between directors’ remuneration and firm performance as measured by EAT.

From table 13, the change in R-square is 0.216 indicates that firm size accounts for 21.6% of the variability in the directors’ remuneration. The F-change is 12.067 and is statistically significant \( p < 0.05 \) indicating that firm size significantly influences the relationship between directors’ remuneration and Tobin’s Q. The findings suggest a positive influence of firm size on the relationship between directors’ remuneration and firm performance as measured by ROE and Tobin’s Q. This conforms to the findings by Ozkan (2007). However, firm size has little influence on the relationship between directors’ remuneration and EAT. This could be due to the high correlation between firm size and EAT.

### 5.0 SUMMARY AND CONCLUSION

The study sought to establish the link between directors’ remuneration and firm performance as measured by ROE, EAT and Tobin’s Q. It further sought to establish the role of firm size in the hypothesized relationships. It was established that the all the four variables had wide dispersions indicating widely varying performance and remuneration levels among the companies listed in the NSE. ANOVA test revealed a significant difference in means of ROE, Tobin’s Q and Directors’ remuneration for the different sectors in the NSE. Correlation analysis yielded positive statistically significant correlations between Directors’ remuneration and each of the measures of firm performance (ROE, EAT and Tobin’s Q) with the correlation between Directors’ remuneration and EAT being the strongest and that with Tobin’s Q being the weakest. The regression analysis results revealed that Directors’ remuneration and firm performance as measured by ROE has a weak but positive relationship. This implies that the efficiency with which directors use shareholder funds
to generate profit contributes to the level of directors’ remuneration only to a small extent. Similarly, the regression between Directors’ remuneration and Tobin’s Q yielded a weak positive relationship. This means that market valuation does not contribute much to determination of directors’ remuneration. The regression analysis between Directors’ remuneration and EAT was moderately strong. This was the strongest relationship between directors’ remuneration and firm performance compared to the other two measures of performance. This suggests that companies in the NSE base their remuneration more on raw Earnings as opposed to other measures of performance which seek to evaluate the efficiency with which shareholder funds are being used.

Further analysis revealed that firm size influences the relationship between directors’ remuneration as measured by ROE and Tobin’s Q. However, firm size has little influence on the relationship between directors’ remuneration and EAT. This could be due to the high correlation between firm size and EAT. This suggests that larger firms tend to pay higher values of director remuneration compared to smaller firms.

5.1 CONCLUSION

The question has always been raised on how directors’ remuneration is related to their input towards the performance of the company. Most studies have focused on trying to figure out the best method for remuneration that maximizes shareholder wealth. The present study has demonstrated the existence of a positive link between directors’ remuneration and ROE, EAT and Tobin’s Q as measures of firm performance. The study concludes that among Kenyan listed companies, directors’ remuneration has a weak relationship with ROE and Tobin’s Q, but a moderately strong positive relationship with EAT. The implication of this finding is that, among Kenyan listed companies, directors remuneration is strongly linked to raw performance indicators as opposed to measures of efficiency of utilization of shareholder funds and market performance. These findings therefore point towards high possibility of agency problem since directors can benefit themselves by maximizing raw earnings without due regard to long term performance and market performance.

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APPENDIX ONE: COMPANIES UNDER STUDY

Agriculture
1. Rea Vipingo Ltd.
2. Sasini Tea & Coffee Ltd.
3. Kakuzi Ltd.

Commercial and Services
1. Marshalls E.A. Ltd.
2. Car & General Ltd.
4. CMC Holdings Ltd.
5. Nation Media Group Ltd.
6. TPS (Serena) Ltd.
7. Standard Group Ltd.

Finance and Investment
1. Barclays Bank of Kenya Ltd.
2. Housing Finance Ltd.
3. Centum Investment Ltd.
4. Kenya Commercial Bank Ltd.
6. Pan Africa Insurance Holdings Co. Ltd.
7. Diamond Trust Bank Ltd.
8. Jubilee Insurance Co. Ltd.
9. Standard Chartered Bank Ltd.
10. NIC Bank Ltd.

Industrial and Allied
1. Athi River Mining Ltd.
2. BOC Kenya Ltd.
3. British American Tobacco Ltd.
4. E.A. Cables Ltd.
5. E.A. Breweries Ltd.
6. Sameer Africa Ltd.
7. Kenya Oil Ltd.
8. Mumias Sugar Company Ltd.
9. Unga Group Ltd.
10. Bamburi Cement Ltd.
11. Crown Berger (K) Ltd.
14. Total Kenya Ltd.

Alternative Investments Market
1. Kapchorua Tea Co. Ltd.
2. Express Ltd.
3. Williamson Tea Kenya Ltd.
APPENDIX TWO: LIST OF TABLES

TABLE 1: DESCRIPTIVE STATISTICS FOR DIRECTORS’ REMUNERATION AND FIRM’S PERFORMANCE

<table>
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<tr>
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<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<td>Directors’ remuneration ('000')</td>
<td>174</td>
<td>871.00</td>
<td>447,000.00</td>
<td>58,755.94</td>
<td>64,880.99</td>
</tr>
<tr>
<td>ROE (%)</td>
<td>211</td>
<td>(70.45)</td>
<td>52.43</td>
<td>16.86</td>
<td>13.55</td>
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<tr>
<td>EAT ('000')</td>
<td>211</td>
<td>(4,083,000.00)</td>
<td>15,148,038.00</td>
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<td>2,435,753.17</td>
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<td>Tobin's Q</td>
<td>212</td>
<td>0.44</td>
<td>5.67</td>
<td>1.54</td>
<td>0.93</td>
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<td>Valid N (listwise)</td>
<td>173</td>
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TABLE 2: COMPARATIVE MEANS FOR DIRECTORS’ REMUNERATION AND PERFORMANCE INDICATORS BY SECTOR

<table>
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<tr>
<th>Sector</th>
<th>Directors' remuneration ('000')</th>
<th>ROE (%)</th>
<th>EAT ('000')</th>
<th>Tobin's Q</th>
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</thead>
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<td>Agriculture</td>
<td>Mean 16,570.38</td>
<td>15.92</td>
<td>315,645.13</td>
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<td></td>
<td>N 13</td>
<td>15</td>
<td>15</td>
<td>14</td>
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<tr>
<td></td>
<td>Std. Deviation 15,414.11</td>
<td>6.83</td>
<td>298,027.50</td>
<td>0.38</td>
</tr>
<tr>
<td>Commercial &amp; services</td>
<td>Mean 59,879.89</td>
<td>17.57</td>
<td>1,483,700.04</td>
<td>1.91</td>
</tr>
<tr>
<td></td>
<td>N 36</td>
<td>46</td>
<td>46</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation 53,147.42</td>
<td>20.27</td>
<td>3,407,087.30</td>
<td>1.03</td>
</tr>
<tr>
<td>Financial &amp; Investments</td>
<td>Mean 71,079.95</td>
<td>17.68</td>
<td>2,123,195.61</td>
<td>1.25</td>
</tr>
<tr>
<td></td>
<td>N 58</td>
<td>66</td>
<td>66</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation 82,501.58</td>
<td>8.64</td>
<td>2,085,003.42</td>
<td>0.24</td>
</tr>
<tr>
<td>Industrial &amp; allied</td>
<td>Mean 61,116.56</td>
<td>17.28</td>
<td>1,658,291.56</td>
<td>1.78</td>
</tr>
<tr>
<td></td>
<td>N 59</td>
<td>75</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation 57,413.77</td>
<td>12.48</td>
<td>2,246,665.80</td>
<td>1.17</td>
</tr>
<tr>
<td>Alternative investment market</td>
<td>Mean 15,491.00</td>
<td>5.20</td>
<td>20,066.78</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>N 8</td>
<td>9</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation 3,481.87</td>
<td>14.67</td>
<td>82,506.81</td>
<td>0.49</td>
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</tbody>
</table>
### TABLE 3: COMPARISON OF MEANS BY SECTOR ANOVA TEST

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Directors' remuneration ('000') * Sector</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups (Combined)</td>
<td>47,293,279,076.28</td>
<td>4</td>
<td>11,823,319,769.07</td>
<td>2.934</td>
<td>.022</td>
</tr>
<tr>
<td>Within Groups</td>
<td>680,957,591,054.02</td>
<td>169</td>
<td>4,029,334,858.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>728,250,870,130.31</td>
<td>173</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ROE (%) * Sector</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups (Combined)</td>
<td>1,318.85</td>
<td>4</td>
<td>329.71</td>
<td>1.823</td>
<td>.126</td>
</tr>
<tr>
<td>Within Groups</td>
<td>37,249.66</td>
<td>206</td>
<td>180.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>38,568.51</td>
<td>210</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EAT ('000') * Sector</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups (Combined)</td>
<td>66,152,634,760,051.30</td>
<td>4</td>
<td>16,538,158,690,012.80</td>
<td>2.888</td>
<td>.023</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1,179,755,004,309,820.00</td>
<td>206</td>
<td>5,726,966,040,338.92</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>1,245,907,639,069,870.00</td>
<td>210</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tobin's Q * Sector</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups (Combined)</td>
<td>26.36</td>
<td>4</td>
<td>6.59</td>
<td>8.687</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>157.02</td>
<td>207</td>
<td>0.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>183.37</td>
<td>211</td>
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### TABLE 4: CORRELATION ANALYSIS

<table>
<thead>
<tr>
<th></th>
<th>Directors' remuneration ('000')</th>
<th>ROE (%)</th>
<th>EAT ('000')</th>
<th>Tobin's Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directors' remuneration ('000')</td>
<td>Pearson Correlation</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>N 174</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROE (%)</td>
<td>Pearson Correlation</td>
<td>.349</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>N 174</td>
<td>.000</td>
<td>211</td>
<td></td>
</tr>
</tbody>
</table>
TABLE 5: REGRESSION ANALYSIS BETWEEN DIRECTORS' REMUNERATION AND ROE

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.349</td>
<td>.121</td>
<td>.116</td>
<td>60989.24317</td>
</tr>
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TABLE 6: COEFFICIENTS ESTIMATES FOR THE REGRESSION BETWEEN DIRECTORS' REMUNERATION AND ROE

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>30746.615</td>
<td>7373.227</td>
<td>4.170</td>
</tr>
<tr>
<td></td>
<td>ROE (%)</td>
<td>1705.752</td>
<td>349.771</td>
<td>.349</td>
</tr>
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</table>

TABLE 7: REGRESSION BETWEEN DIRECTORS' REMUNERATION AND FIRM'S PERFORMANCE

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.649</td>
<td>.422</td>
<td>.418</td>
<td>49480.69206</td>
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</tbody>
</table>

TABLE 8: COEFFICIENT ESTIMATES FOR THE REGRESSION BETWEEN DIRECTORS' REMUNERATION AND ROE

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>30475.446</td>
<td>4521.770</td>
<td>6.740</td>
</tr>
<tr>
<td></td>
<td>EAT ('000')</td>
<td>.018</td>
<td>.002</td>
<td>.649</td>
</tr>
</tbody>
</table>
TABLE 9: MODEL SUMMARY FOR THE REGRESSION BETWEEN DIRECTORS’ REMUNERATION AND TOBIN’S Q

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.336</td>
<td>.113</td>
<td>.108</td>
<td>61313.09977</td>
</tr>
</tbody>
</table>

TABLE 10: COEFFICIENT ESTIMATES FOR THE REGRESSION BETWEEN DIRECTORS’ REMUNERATION AND TOBIN’S Q

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>23253.073</td>
</tr>
<tr>
<td></td>
<td>Tobin's Q</td>
<td>23019.642</td>
</tr>
</tbody>
</table>

TABLE 11: MODEL SUMMARY FOR THE ESTIMATION OF EFFECT OF FIRM SIZE ON THE RELATIONSHIP BETWEEN DIRECTORS’ REMUNERATION AND ROE

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.349</td>
<td>.122</td>
<td>.115</td>
<td>58436.25904</td>
<td>.122</td>
<td>18.727</td>
<td>1</td>
<td>135</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>.434</td>
<td>.188</td>
<td>.176</td>
<td>56398.23433</td>
<td>.066</td>
<td>10.933</td>
<td>1</td>
<td>134</td>
<td>.001</td>
<td></td>
</tr>
</tbody>
</table>

TABLE 12: MODEL SUMMARY FOR THE ESTIMATION OF EFFECT OF FIRM SIZE ON THE STRENGTH OF THE RELATIONSHIP BETWEEN DIRECTORS’ REMUNERATION AND EAT

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>.445</td>
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<td>135</td>
<td>.000</td>
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<tr>
<td>2</td>
<td>.670</td>
<td>.449</td>
<td>.441</td>
<td>46454.32033</td>
<td>.004</td>
<td>.999</td>
<td>1</td>
<td>134</td>
<td>.319</td>
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TABLE 13: MODEL SUMMARY FOR THE ESTIMATION OF EFFECT OF FIRM SIZE ON THE STRENGTH OF THE RELATIONSHIP BETWEEN DIRECTORS’ REMUNERATION AND TOBIN’S Q

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>.145</td>
<td>.139</td>
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<td>.145</td>
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<td>135</td>
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<td>.216</td>
<td>.204</td>
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<td>134</td>
<td>.001</td>
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</tr>
</tbody>
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