BOARD INFLUENCE AND CEO POWER TO EXECUTIVE COMPENSATION SYSTEM IN AMERICAN SMES

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Abstract

This study investigated the board influence and CEO power towards determining the CEO compensation system in the American SMEs from 2005 to 2010. The quantitative research method was selected for this research study. The forty small to medium-sized companies were selected through a stratified sampling method. The research question for this research study was: what relationship is there between the board influence, CEO power, and CEO cash compensation, in the American SMEs. The results found that, there was a relationship between the board influence, CEO power, and CEO salary. However, the results also found that there was no relationship between the board influence, CEO power, and bonus. The correlations between the board influence, CEO power, CEO salary were characterized as weak, indication of the complexity of the executive compensation factors and external and internal environments surrounding the American SMEs.

Keywords: Executive Compensation, Board Influence, SMEs, CEO Cash Compensation, CEO Business Relationship

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1 Introduction

1.1 Purpose and CEO Compensation System

The purpose of this research is to understand the nature and extent of the relationship between the board influence, CEO power, and CEO cash compensation in the American SMEs. This interesting and rare focus study on the executive compensation system in the SMEs, will reveal some scientific methodologies or trends to understand the possible influence of board members, as each board member represents the respective ownership group, and CEO power, towards the determination of the CEO compensation system. The relationship between CEO compensation, board influence and CEO power was not examined extensively relative to pay for performance, in the American SMEs. The variables used in the previous studies for the CEO power were, CEO age; CEO tenure; CEO stock value; and CEO turnover, were found to have negligible to weak relationship with CEO compensation. This is due to third party data collection, different population samples such as industry and market, and use of different statistical methods, all had led to a divergence in results. The variables used in the previous research studies related to the board power include management and individuals/institutional ownerships, board population, and internal vs. external directors. The study conducted by the Core et al. (1999), finds that, the CEO equity ownership or the presence of another executive board member who owns at least 5% of the outstanding equity significantly reduces the level of CEO compensation.

1.2 CEO compensation background

The CEO compensation system has been greatly misunderstood by the public for some time, but it has been emerged as a concern during the period of the global credit crunch (2007 to 2009). The general social, ethical belief is that the CEOs should be rewarded based on the performance and should be penalized if companies perform below market expectations. This belief resulted in numerous single studies conducted in the United States and United Kingdom, yet these studies have failed to arrive at robust conclusions on the relationship between CEO pay and performance. A factor analysis conducted by Tosi, Werner, Katz and Gomez-Mejia (1998), stated that less than 5 percent of CEO pay is explained by performance factors. Dyl (1998) stated that there is a downside hedge of a CEO's pay in management

controlled firms, given that it is more strongly related to firm size, not firm performance. Williams (1985) believed that executives themselves set their pay using outside consultants to legitimize compensation package, therefore transparency is minimized within the decision making system. The great scholars in the field of executive compensation, such as, Gomez-Mejia, Eugene F. Fama, Michael Jensen, and Kevin Murphy have expressed concerns: why are robust conclusions not achieved; why these studies have arrived at divergent or inconsistent results; and why it has failed to establish defining factors that influenced CEO compensation system. Tosi et al. (2000) have blamed these concerns to different methods of collection, different statistical techniques, different samples, different moderator variables, and differences in how constructs of interest have been used in various studies. As such, these reasons have hampered to reach definite and consistent conclusions among previous studies. In addition, CEO cash compensation has rarely been studied as a separate study despite it is believed to be a strong proxy towards determining CEO total compensation. That is, CEO cash compensation which includes salary and bonus is sufficient to represent CEO total compensation which comprised of salary, bonus, stock options, pensions, and other long-term benefits. Agarwal (1981), Finkelstein & Boyd (1998), and Finkelstein and Hambrick (1989, 1996) concluded that simple measures of cash compensation are an excellent proxy for CEO total pay. Similarly, Mehran (1992) reported that CEOs took 67% of total pay in the form of salary and a bonus and 22% in the form of equity based incentives.

Overall, the relationship between board influence, CEO power and CEO compensation are not attested extensively in the past, especially for the American SMEs. In fact, only few credible researched papers were written, ignoring firm size. This perhaps due to, CEO power only had been the subject of recent focus (current decade), supported by weak pay-performance results. Therefore, CEO compensation need to be studied on an extensive basis using multiple variables such as, CEO age, CEO stocks outstanding, CEO stock value, CEO tenure, CEO turnover, management 5 percent ownership, and individuals/institutional 5 percent ownership, using American SMEs as a sample population.

2 Literature review

2.1 CEO compensation and CEO stock ownership

According to Jensen and Murphy (1990), voting power of CEO includes CEO and his immediate family stock ownership and the percentage of stocks over which CEO has a sale or shared power to direct the voting. It is believed that CEO's in large firms tend to own less stock and have less compensation based incentives than CEOs in small firms. This is supported by Jensen and Murphy (1990), who finds that as a percentage of total corporate value, CEO stock ownership has never been high in large companies. That is, there exists a small and insignificant positive coefficient of ownership interaction variable, which implied that the relation between compensation and performance is independent of an executive's stock holdings. In addition, according to their earlier (1989) study, they find that median CEO of one of nation's 250 largest public companies own shares just over $2.4 million, less than 0.07% of the company's market value. In addition, they find that 9 out of 10 CEOs own less than 1% of their company's stock, and 1 in 20 CEOs own more than 5% of the company's outstanding stocks. Overall, they find that CEOs receive about 50% of their base pay in the form of bonuses. Their study is based on sampling of 73 manufacturing firms during a 15 year period. This is supported by Cyert, Kang and Kumar (2002), who finds a negative correlation between large stockholders and CEO compensation. That is, doubling percentage ownership of external stakeholders reduces non salary compensation by 12% to 14%. This is contradicted by an earlier study conducted by Mehran (1995), who finds a positive relationship between the percentage of total cash (salary and bonus) compensation and percentage of shares hold by managers. His study is based on one year collection of data. Ungson and Steers (1984) believed that firms where CEOs have large stock ownership and long tenure, they can largely shape their pay. Similarly, Finkelstein and Hambrick (1988) believed that the relative power of a CEO may affect the height of the hurdles that are set to qualify for contingent pay. In addition, they believed that strong family's position in the firm will increase executive's power. Moreover, they find that CEO compensation and CEO stock ownership are related in an inverted U-shaped manner, compensation highest in situations where CEO stock ownership is characterized as moderate. That is, the point of inflection happened when CEO stock ownership reached about 9 percent in the first 18 years, beyond that, salaries started to decline due to tax preference of incurring capital gains over current income. Bertrand and Mullainathan (2000) finds that CEOs at firms lacking five percent (or larger) stock ownership tend to receive more luck based pay, that is, pay associated with profit increases that are entirely generated by external factors rather than by CEOs' efforts. In addition, they also find that firms that have fewer external stakeholders, CEO cash compensation is marginally reduced when option based compensation is increased. Overall, previous

studies between CEO compensation and stock ownership have produced inconsistent results ranged from weak negative to good positive ratios.

2.2 CEO compensation and CEO tenure

Murphy (1986) stated that CEO performance is influenced by CEO tenure. That is, he believed that increased CEO tenure may promote principal trust of an agent and in turn agent will take actions in the principal's interest. Similarly, Sigler (2011) finds that CEO tenure appears to be an important variable in determining the level of CEO compensation. His examination is based on two hundred and eighty firms listed on the New York Stock Exchange from 2006 to 2009. In addition, Finkelstein and Hambrick (1989) believed that CEO tenure is thought to have a positive link with compensation. That is, pay steadily increase as CEO gains and solidify power over-time. However, they find in their study that such a relationship is not observed between CEO tenure and CEO pay. As such, they then decided to conduct additional testing, cross sectional associations of CEO compensation and CEO tenure, and have found that there is an existence of a curvilinear relationship, a U-shaped pattern. That is, CEO tenure increases pay up to 18 years and then it started to decline gradually. They have provided two possible explanations for this curvilinear relationship. Firstly, they believed that power accrues for a while and then diminishes due to CEO's reduced mobility in the managerial labor market, or due to his evolution into a figurehead with one or two younger high priced executives carry the actual weight of a CEO's job. Secondly, they believed that executives reached a point where they prefer stock over cash compensation. This could occur because of changes in family and financial circumstances. This supposition is supported when they have examined two sub samples and have found that stock compensation carries a higher proportion of total compensation. As such, they believed that CEO tenure increases a shift in pay mix from cash to stock earnings, support the notion that personal circumstances influence pay. In addition, they believed that long CEO tenure will create opportunity to recruit sympathetic board members for CEOs. In addition, they find that the average tenure of a CEO is significantly lower in externally controlled firms (2.96 years) than management-controlled firms (5.92 years). Thus, they believed that the boards of externally controlled firms may not need to pay from profitability because CEO tenure is dependent on the owner's satisfaction with CEO performance. Their study is based on a sample size of sixty companies. Pfeffer (1981) believed that the creation of a personal mystique which may induce unquestioned deference or loyalty, can be expected to occur when CEO power becomes institutionalized in the organization. Overall, previous studies have shown that linear to curvilinear relationships existed between CEO compensation and CEO tenure.

2.3 CEO compensation and CEO age

Deckop (1988) argued that CEO age has little effect on CEO compensation. However, Finkelstein and Hambrick (1989) finds an inverted U-shaped relationship between CEO age and CEO cash compensation, indicating, CEO cash compensation increases until CEO reached the age of 59 years and then it starts to decline. This is consistent with the view that earnings over time is in line with CEO's need for cash, which tends to drop off as he or she gets older due to no major expenditures to incur such as, house and child rearing expenses. This is supported by McKnight et al. (2000), who find that CEO compensation is positively related to a certain age, but it starts to decline afterward. This is further supported by Weir (2000), who finds that the relationship between CEO salaries and CEO age are significantly related, but weakening over time, and the relationship between CEO age and CEO bonus appears nonlinear in nature. That is, at about age 53, the proportion of bonus as a percentage of salary begins to decrease at an increase rate. On the other hand, according to Gibbons and Murphy (1992), who finds that CEO age is a well-recognized determinant of compensation and have shown to be significantly related to CEO pay. Overall, previous studies have found the relationship between CEO compensation and CEO age as curvilinear. However, previous studies have lacked detail investigation of this relationship.

2.4 CEO compensation and CEO turnover

Jensen and Murphy (1990) finds that CEO turnover probabilities are negatively and significantly related to changes in shareholder wealth. In addition, they concluded that the dismissals were simply not an important source of CEO incentives. Gilson and Vetsuypens (1990) examined the nature of compensation packages for financially distressed firms. They found that within a small sample of financially distressed firms, when a turnover occurs, insider replacement CEOs were paid substantially less than their predecessors, but outsider replacement CEOs were paid substantially more. Similarly, Murphy and Oyer (2002) find that outside CEO replacements receive higher compensation than inside CEO replacements.

That is, outside replacement CEOs, at median, typically make $335,360 more than their predecessors while inside CEOs are typically paid only $126,156 more than their predecessors. Brickley (2003) concluded that firm performance continues to explain very little variation of CEO turnover. Overall, despite literature consisted of excellent theoretical discussions on this topic, yet it lacked consistent empirical studies on the relationship between CEO compensation and CEO turnover. Nevertheless, among available empirical studies, it was found that there is a positive relationship between CEO compensation and CEO turnover. However, previous studies have never used firm size as a control variable towards a clear understanding of the relationship between CEO cash compensation and CEO turnover.

2.5 CEO compensation and 5% management ownership

The study conducted by Boudreaux (1973), Plamer (1973), and Gomez-Mejia, Tosi, and Hinkin (1987) believed that when there is no external equity holder with at least five percent of the stock, firm is called management controlled firm. Jensen and Murphy (1989) finds that executive inside stock ownership can provide incentives, but these holdings are not generally controlled by corporate board and the majority of top executives has small personal equity ownership. Mehran (1995) finds a negative relation between the management ownership and level of compensation. Bertrand and Mullainathan (2000) finds that CEOs in firms that lacks a five percent (or larger) external shareholder tend to receive more luck based pay, that is, pay associated with profit increases that are entirely generated by external factors rather than by managers' efforts. In addition, they also find that firms lack large external shareholders, cash compensation of CEOs is reduced less when their option based compensation is increased. Overall, despite literature consisted of some excellent theoretical discussions on this topic, yet it lacked empirical studies between them. Nevertheless, among available empirical studies, it was found that there was a mixed relationship between CEO compensation and 5% management ownership.

2.6 CEO compensation and 5% individual/institutional ownership

Gomez-Mejia, Tosi, and Hinkin (1987) finds that executives in externally controlled firms receive more compensation for performance and less for scale of operation than their counterparts in firms without dominant stockholders. In addition, they believed that outside dominant stockholders view firms primarily as investments and have power and incentive to align compensation of CEOs with performance of firms. Lambert et al. (1987) finds a negative relation between the existence of outside block holders that owns at least 5% of outstanding shares and executive compensation. This is supported by David, Kochar and Levitas (1998), who find that CEO pay is negatively correlated with the presence of pressure resistant institutional investors and positively correlated with the presence of pressure sensitive ones. This is also supported by Cyert, Kang and Kumar (2002), who finds a negative relationship between equity ownership of largest shareholder and amount of CEO compensation. In addition, they find that doubling the percentage ownership of the outside shareholder reduces non salary compensation by 12-14%. This is further supported by Dyl (1998), who finds a negative relation between CEO equity ownership and compensation, which he blamed for monitoring activities that reduce agency costs. Overall, the literature has lacked empirical studies between CEO cash compensation and 5% individual/institutional ownership. Nevertheless, among available empirical studies, it was found that there was a negative relationship between CEO cash compensation and 5% individual/institutional ownership. This review of literature demands further research towards understanding the board and CEO respective powers in determining CEO compensation. This research study developed following research question, as follows:

Research Question:
What relationship is there between the board influence, CEO power, and CEO cash compensation in the American SMEs?

Hypothesis:
H_0: There is no relationship between the board influence, CEO power, and CEO cash compensation in the American SMEs.
H_1: There is a relationship between the board influence, CEO power, CEO cash compensation in the American SMEs.

3 Research methodology

This research is an empirical study to understand the nature and extent of the relationship between the board influence, CEO power, and CEO cash compensation in the American SMEs from 2005 to 2010. The NYSE SMEs will be exclusively focused in this research study, to qualify as a new contribution to the literature. This research study requires collecting, counting, and classifying data, and performing analyses on statistical findings. It requires a process to include a method of deductive reasoning by the use of the measurement tools to collect the relevant data. In addition, it requires only establishing associations among variables using effect statistics such as correlations. As such, the quantitative research method will be selected for this research study. Bryman (1989) explained that quantitative research method tests hypotheses and identifies patterns in variables, whereas qualitative method validates corporate information and informs some of the methodological decisions. With its origins in the scientific empirical tradition, quantitative approach relies on numerical evidence to draw conclusions, to test hypotheses or theory, and is concerned with: measurement, causality, generalization, and replication. Within the quantitative research method framework, longitudinal survey method will be adopted to collect six years of data from 2005 to 2010. According to Zanaida and Fernando (2000), longitudinal design is seldom used in social science research; however, it is typically within financial investigations that have adopted positivist research philosophy. Main & Johnson (1993) believed that companies' annual reports are a common resource tool when examining compensation details. Accordingly, this study will collect financial data of companies from highly credible SEDAR (represents United States Securities and Exchange Commission) database. The stratified sample method will be selected for this research study, as this research study demands to have a SMEs sample population. Also, within the SMEs only consistent performance companies will be selected to obtain quality data, to obtain quality results. The sample population will be based from the New York Stock Exchange (NYSE) index. The SMEs will be determined based on the revenues not exceeding $500 million.

The surveys are believed to be useful when a researcher wants to collect data on phenomena that cannot be directly observed. It is a non-experimental, descriptive research method. As such, this research study will use the survey method to collect data from 2005 to 2010. The linear regression method will be adopted in this research study to perform inferential statistical tests, that is, parametric and correlations to obtain, generalizability of the results. The confidence level (α) will be set at 5 percent. The board influence as an independent variable will be based on the management five percent ownership and individuals/institutional ownership. That is, management and external ownership representations in the board effecting CEO cash compensation. The CEO power or influence as an independent variable will be based on the CEO age, CEO stocks outstanding, CEO stock's value, CEO tenure, and CEO turnover.

Statistical models:

Salary: $Y_1=c+ B^1{}_1X^2{}_1+B_2X_2+B_3X_3+B_4X_{4+}B_5X_5+B_6X_6+B_7X_7+\epsilon$
Bonus: $Y_2=c+ B_1X_1+B_2X_2+B_3X_3+B_4X_{4+}B_5X_5+B_6X_6+B_7X_7+\epsilon$

4 Results

It was found that the two statistical models (Appendix A and C) had a divergent p-values, that is, in the first model, the relationship between CEO salary, board influence and CEO power had a p-value of .000; and in the second model, the relationship between board influence, CEO power, and CEO cash compensation had a p-value of .081. The first statistical model was statistically significant (p-value is less than .05) as such, the null hypotheses were rejected, indicating there was a relationship between the board influence, CEO power, and CEO cash compensation. The second statistical model was statistically insignificant (p-value greater than .05) as such, the null hypothesis is accepted, indicating there was no relationship between the board influence, CEO power, and CEO cash compensation. The regressions (R^2) of .136[3] (CEO salary model) and .054[4] (CEO bonus model) demonstrated the weak statistical

[1] Y_1=salary; Y_2=bonus; c=constant predictor; B_1=influential factor for CEO age; B_2=influential factor for CEO shares outstanding; B_3=influential factor for CEO shares value; B_4=influential factor for CEO tenure; B_5=influential factor for CEO turnover; B_6=influential factor for 5% management ownership; B_7=influential factor for 5% individuals and institutional ownership; and ϵ=error.
[2] X_1=value of CEO age; X_2=value of CEO shares outstanding; X_3=value of CEO shares value; X_4=value of CEO tenure; X_5=value of CEO turnover; X_6=value of 5% management ownership; and X_7=value of the book value of 5% individuals and institutional ownership.
[3] Appendix B.
[4] Appendix D.

relationships, perhaps due to some other specific factors, based on company, industry, and market, had influenced executive compensation system in the American SMEs. The study conducted by Aggarwal and Samwick (1999) and Bebchuk, Fried and Walker (2002) found that CEO power was widely believed to vary in cross section and over time. The CEOs with greater stock ownership, who possesses greater tenure, and who serves at firms with larger or less independent boards, are likely to have greater power. The CEOs with more established reputations or whose actions are more difficult to judge are more likely to possess greater influence. In addition, Bebchuk, Fried and Walker (2002) believed that CEOs influence their own compensation to extract economic rents from shareholders.

4.1 Regression coefficients

CEO Salary: $Y_{1(2005\text{-}2010)}=202562.604+3860.500X_1-.001X_2-2260.351X_4-88090.843X_5 +20912.801X_6+11884.026X_7$ (Appendix E, table 7)

CEO Bonus: $Y_{2(2005\text{-}2010)}=-36454.021+4960.167X_1-.007X_2-5253.116X_4+61206.582X_5 -188.117X_6+3138.305X_7$ (Appendix F, table 8)

The regression coefficients (Appendix E, table 7), for the CEO salary, had shown only B_1 (CEO Age) and B_7 (5% individuals/institutional ownership) had a positive and significant impact to the CEO salary compensation system. However, B_2 (CEO shares outstanding), B_4 (CEO tenure), B_5 (CEO turnover), and B_6 (5% management ownership) had a significant and negative impact to the CEO salary compensation system. B_3 (CEO shares value) had a zero beta as such, it was not part of the CEO salary compensation system. According to Brauer and Westermann (2010), the larger the B, the faster is the reversion to the mean. The coefficients demonstrated that the board was positively influenced by both the management and external shareholders ownerships. As such, these two variables could be part of the macro CEO compensation model. On the other hand, the CEO power had a negative influence on the CEO compensation model, indicating that CEO stock ownership, CEO tenure, CEO age, all had not been a factor towards the CEO salary, an indication of the board independence and transparency in the American SMEs.

The regression coefficients (Appendix F, table 8), for the CEO bonus, had shown only B_1 (CEO Age), B_5 (CEO turnover), and B_7 (5% individuals/institutional ownership) had a positive and significant impact to the CEO bonus compensation system. However, B_2 (CEO shares outstanding), B_4 (CEO tenure), B_6 (5% management ownership), all had a significant and negative impact to the CEO bonus compensation system. B_3 (CEO shares value) had a zero beta as such, it was not part of the CEO bonus compensation system. The coefficients demonstrated that board influence came from the external shareholders ownership, which had a positive impact on the CEO bonus model, an indication of external majority ownership. On the other hand, the CEO power had been negatively influenced to the CEO compensation model, indicating that CEO stock ownership, CEO tenure, and CEO age, all had not been a factor towards the CEO bonus determination, again an indication of the board independence and transparency in the American SMEs.

The F-tests results (large numbers characterized statistical model's usefulness) as provided in the Appendix B, table 4, and Appendix D, table 6, had shown that the CEO salary and bonus models had respective values of 5.032 and 1.838, an indication of model's usefulness as such, they are both statistically valid models.

The results had shown that there were mixed correlations between CEO salary, CEO bonus, and CEO age, in the American SMEs. The correlation between CEO salary and CEO age was .096. The correlation between CEO bonus and CEO age was -.004. These results indicated that the CEO age had a weak effect on CEO compensation. These results were supported by the study conducted by Deckop (1988), who argued that CEO's age had little effect on CEO compensation. Finkelstein and Hambrick (1989) found an inverted U-shaped relationship between CEO age and CEO cash compensation. That is, CEO cash compensation had increased up to 59 years age, beyond which real cash earnings had decreased on a consistent basis till retirement. This is supported by McKnight et al. (2000), who found that CEO compensation was positively related to age, but it had provided diminishing returns on marginal pay as age increased. This effect was so profound that marginal CEO compensation level decreased till CEO retirement age.

Table 1. Correlations

		SALARY	CEO AGE	CEO SHARES OUTSTA-NDING	CEO SHARES VALUE	CEO TENURE	CEO TURNOVER	=/> 5% MGMT	=/> 5% INDIVIDUALS ./ INSTITUTION
Pearson Correlati-on	SALARY	1.000	.096	-.162	-.236	.074	-.132	.079	.159
	CEO AGE	.096	1.00	.281	.188	.629	-.170	.246	-.259
	CEO SHARES	-.162	.281	1.000	.695	.103	-.051	.452	-.347
	CEO SHARES VALUE	-.236	.188	.695	1.000	.022	-.048	.114	-.159
	CEO TENURE	.074	.629	.103	.022	1.000	-.291	.236	-.086
	CEO TURNOVER	-.132	-.170	-.051	-.048	-.291	1.000	-.056	.042
	5% MGMT	.079	.246	.452	.114	.236	-.056	1.000	-.248
	5% INDS./INSTIS.	.159	-.259	-.347	-.159	-.086	.042	-.248	1.000

Table 2. Correlations

		BONUS	CEO AGE	CEO SHARES OUTSTA-NDING	CEO SHARES VALUE	CEO TENURE	CEO TURNOVER	=/> 5% MGMT	=/> 5% INDVS./ INSTIS.
Pearson Correlation	BONUS	1.000	-.004	-.178	-.134	-.086	.090	-.090	.067
	CEO AGE	-.004	1.000	.282	.189	.631	-.169	.248	-.260
	CEO SHARES	-.178	.282	1.000	.695	.106	-.053	.453	-.352
	CEO SHARES VALUE	-.134	.189	.695	1.000	.023	-.046	.114	-.163
	CEO TENURE	-.086	.631	.106	.023	1.000	-.303	.250	-.081
	CEO TURNOVER	.090	-.169	-.053	-.046	-.303	1.000	-.075	.036
	5% MGMT	-.090	.248	.453	.114	.250	-.075	1.000	-.257
	5% INDIVIDUALS INSTITUTION	.067	-.260	-.352	-.163	-.081	.036	-.257	1.000

The correlation results had shown that there were negative correlations between the CEO salary, CEO bonus, and CEO total stock holdings, in the American SMEs. The correlation between CEO salary and CEO total stocks was -.162. The correlation between the CEO bonus and CEO total stock holdings was -.178. That is, the CEO stock ownership had a weak negative impact on both the CEO salary and bonus. These results had been supported by the study conducted by Jensen and Murphy (1989), who found that the CEO stock ownership had not played any role towards pay-performance sensitivity in CEO cash compensation. This is also, supported by Murphy and Jensen (1990), who found that there was a small and insignificant existence of positive coefficient of CEO total stock ownership, which implied that the relation between CEO compensation and firm performance was independent of the executive's stock holdings. In addition, the studies conducted by Agrawal & Knoeber (1996), Himmelberg et al. (1999), and Demsetz and Villalonga (2001), all had failed to find any relationship between firm value and the executives' equity stakes. However, Ungson and Steers (1984) found that firms where the CEO had large stock ownership, longest tenure, control of top management team or other means, a CEO can largely shape his or her pay. This was supported by Finkelstein and Hambrick (1989), who believed that executives who own significant portions of their firms are likely to control not only operating decisions but board decisions as well. Such executives would thus be in a position to essentially set their own compensation.

The correlation results had shown that there were negative correlations between CEO salary, CEO bonus, and total value of CEO stocks, in the American SMEs. The correlation between CEO salary and total value of CEO stocks was -.236. The correlation between CEO bonus and total value of CEO stocks was -

.134. This is supported by the only study conducted in the literature by the Jensen and Murphy (1990), who found that the total value of CEO stocks were immaterial towards determining CEO compensation.

The correlation results had shown that there were mixed correlations between CEO salary, CEO bonus, and CEO tenure, in the American SMEs. The correlation between salary and CEO tenure was .074. The correlation between CEO bonus and CEO tenure was -.086. The study conducted by Murphy (1986) found that CEO tenure was influenced by CEO performance-contingent pay. In addition, he believed that long CEO tenure may promote a principal's trust of an agent. Hermalin and Weisbach (1998), Bebchuk and Fried (2003), and Larcker and Rusticus (2004) found that CEOs over time acquire greater managerial power. Sigler (2011) argued that the tenure of CEO appeared to be one of significant variables in determining the level of CEO compensation. However, Finkelstein and Hambrick (1989) stated that a monotonic relationship was not found between CEO tenure and CEO pay.

The correlation results had shown that there were mixed correlations between CEO salary, CEO bonus, and CEO turnover, among TSX/S&P and NYSE populations. The correlation between CEO salary and CEO turnover was -.132. The correlation between CEO bonus and CEO turnover was .09. The study conducted by Jensen and Murphy (1990) found that the CEO turnover probabilities were negatively and significantly related to changes in the shareholder wealth. In addition, they concluded that the dismissals were simply not an important source of CEO incentives. Murphy and Oyer (2002) found that outside CEO replacements receive higher compensation than insider CEO replacements. That is, outside replacement CEOs, at median, typically make $335,360 more than their predecessors while insiders were typically paid only $126,156 more than their predecessors. Brickley (2003) concluded that firm performance continues to explain very little variation of CEO turnover.

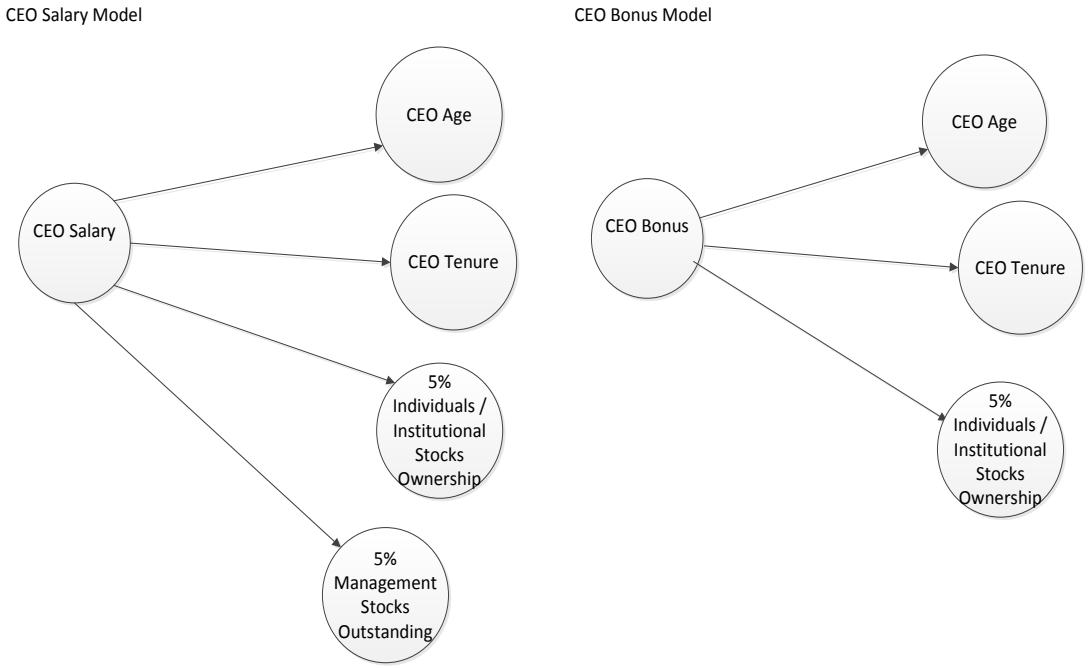
The correlation results had shown that there were negative correlations between CEO salary, CEO bonus, and 5% management ownership, in the American SMEs. The correlation between CEO salary and 5% management was -.079. The correlation between CEO bonus and 5% management was -.09. The study conducted by the Boudreaux (1973), Plamer (1973), and Gomez-Mejia, Tosi, and Hinkin (1987), who found that when there was no external equity holder with at least 5% of the stock, and may characterize as management controlled firm. Bertrand and Mullainathan (2000) found that CEOs in firms that lacked five percent or larger stock ownership tend to receive more luck-based pay.

The correlation results had shown that there were positive correlations between CEO salary, CEO bonus, and 5% individual/institutional ownership, in the American SMEs. The correlation between CEO salary and 5% individuals/institutional ownership was .159. The correlation between CEO bonus and 5% individuals/institutional ownership was .067. The study conducted by the Gomez-Mejia, Tosi, and Hinkin (1987), who found that executives in externally controlled firms receive more compensation for performance and less for scale of operation than their counterparts in firms without dominant stockholders. In addition, they believed that outside dominant stockholders view firms primarily as investments and have power and incentive to align compensation of CEOs with performance of firms. However, Lambert et al. (1987) found a negative relation between CEO compensation and 5% of outstanding stocks, when an outside block holder owns at least 5% of outstanding stocks. This is also supported by Cyert, Kang and Kumar (2002), who found a negative relationship between equity ownership of largest shareholder and amount of CEO compensation. In addition, doubling the percentage ownership of the outside shareholder reduced non-salary compensation by 12-14%. That is, equity ownership of the largest external shareholder was strong negative related to size of CEO equity compensation and total variable pay.

4.2 Derived statistical models

Based on the statistical results, the two statistical models were developed for the relationship between the board influence, CEO power and CEO cash compensation. In the following figure 1, the CEO salary model shows that the CEO salary is related with the CEO age, CEO tenure, 5% individuals/institutional stocks ownership, and 5% management stocks outstanding. The CEO bonus model shows that the bonus is related to the CEO age, CEO tenure, and 5% individuals/institutional stock ownership.

Figure 1. The CEO salary and bonus model



5 Conclusion

The first regression (R^2) model indicated that there was a relationship between board influence, CEO power, and CEO cash compensation. However, the second regression (R^2) indicated that there was no relationship between the board influence, CEO power, and CEO cash compensation. The correlations between board influence and CEO compensation indicated that management and external shares ownership had influence either on salary or bonus, as such these variables should be included in the executive compensation models. The correlations between CEO power and CEO bonus were characterized as weak mixed ratios. The positive influence to the CEO compensation was based on the CEO age, CEO tenure, and 5% individuals/institutional ownership. These results indicate that the executive compensation system is very complex and may include quantitative and qualitative factors in the American SMEs.

Social implications derived from this research findings are the board is accountable for the CEOs cash compensation in the American SMEs. Excessive executive pay without justification may need to be corrected through redesigning executive compensation systems, to strengthen the linear objective link between performance and pay. That is, pay for performance system could be achieved through strengthening the independence of the board of directors and compensation committees, increase the shareholders' rights to elect directors, to express their views on compensation plans, to discourage manipulation of CEO compensation, and align incentives more closely with the aims of the owners.

This research study admits that there were scope limitations towards the executive compensation framework. Firstly, the long term CEO compensation system which includes stock options, pensions, and other long term benefits were not the subject of this study; and secondly, it only focuses on the American SMEs (revenues less than $500 million).

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Appendices

Appendix A - Table 3: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.369[a]	.136	.109	125739.872	.136	5.032	7	224	.000	.714

a. Predictors: (Constant), =/> 5% OF INSTITUTIONAL OWNERSHIP, CEO SHARES VALUE, CEO TURNOVER, CEO AGE, CEO TENURE, =/> 5% OF MGMT OWNERSHIP, CEO SHARES OUTSTANDING.

b. Dependent Variable: SALARY

Appendix B - Table 4: ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	556953861246.713	7	79564837320.959	5.032	.000[a]
	Residual	3541555425390.180	224	15810515291.920		
	Total	4098509286636.890	231			

a. Predictors: (Constant), =/> 5% OF INSTITUTIONAL OWNERSHIP, CEO SHARES VALUE, CEO TURNOVER, CEO AGE, CEO TENURE, =/> 5% OF MGMT OWNERSHIP, CEO SHARES OUTSTANDING

b. Dependent Variable: SALARY

Appendix C – Table 5: Model Summary[b]									
R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
				R Square Change	F Change	df1	df2	Sig. F Change	
.233[a]	.054	.025	222775.774	.054	1.838	7	224	.081	1.254
a. Predictors: (Constant), =/> 5% OF INSTITUTIONAL OWNERSHIP, CEO SHARES VALUE, CEO TURNOVER, CEO AGE, CEO TENURE, =/> 5% OF MGMT OWNERSHIP, CEO SHARES OUTSTANDING									
b. Dependent Variable: BONUS									

Appendix D – Table 6: ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	638433092159.863	7	91204727451.409	1.838	.081[a]
	Residual	11116906223401.700	224	49629045640.186		
	Total	11755339315561.600	231			
a. Predictors: (Constant), =/> 5% OF INSTITUTIONAL OWNERSHIP, CEO SHARES VALUE, CEO TURNOVER, CEO AGE, CEO TENURE, =/> 5% OF MGMT OWNERSHIP, CEO SHARES OUTSTANDING						
b. Dependent Variable: BONUS						

Appendix E: Table 7: Coefficients[a]												
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
(Constant)	202562.604	81304.546		2.491	.013	42342.975	362782.233					
CEO AGE	3860.520	1542.744	.213	2.502	.013	820.371	6900.669	.096	.165	.155	.534	1.873
CEO SHARES OUTSTANDING	-.001	.003	-.062	-.590	.556	-.006	.003	-.162	-.039	-.037	.349	2.863
CEO SHARES VALUE	.000	.000	-.224	-2.449	.015	.000	.000	-.236	-.161	-.152	.460	2.172
CEO TENURE	-2260.351	1780.948	-.107	-1.269	.206	-5769.907	1249.205	.074	-.084	-.079	.541	1.847
CEO TURNOVER	-88090.843	40668.384	-.141	-2.166	.031	-168232.407	-7949.280	-.132	-.143	-.135	.912	1.096
5% MGMT	20912.801	10808.911	.145	1.935	.054	-387.357	42212.959	.079	.128	.120	.686	1.459
5% INDIVIDUALS /INSTISTUTIONS	11884.026	4269.490	.190	2.783	.006	3470.523	20297.529	.159	.183	.173	.828	1.207
a. Dependent Variable: SALARY												

Appendix F: Table 8: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolera-nce	VIF
(Constant)	-36454.021	144745.345		-.252	.801	-321690.784	248782.741					
CEO AGE	4960.167	2739.959	.161	1.810	.072	-439.227	10359.561	-.004	.120	.118	.531	1.882
CEO SHARES OUTSTANDING	-.007	.004	-.169	-1.536	.126	-.016	.002	-.178	-.102	-.100	.349	2.868
CEO SHARES VALUE	.000	.000	-.036	-.376	.708	.000	.000	-.134	-.025	-.024	.460	2.172
CEO TENURE	-5253.116	3165.734	-.148	-1.659	.098	-11491.546	985.315	-.086	-.110	-.108	.532	1.880
CEO TURNOVER	61206.582	69421.066	.060	.882	.379	-75595.332	198008.496	.090	.059	.057	.905	1.105
5% MGMT	-188.117	19186.895	-.001	-.010	.992	-37998.022	37621.788	-.090	-.001	-.001	.679	1.472
5% INDIVIDUALS /INSTISTUTIONS	3138.305	7662.736	.029	.410	.683	-11961.967	18238.577	.067	.027	.027	.823	1.215

a. Dependent Variable: BONUS