The Comprehensive Examination of the Effect of CEO Compensation in TSX/S&P index companies

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Abstract—This research study in executive compensation investigated the effect of firm ownership on CEO compensation in Toronto Stock Exchange (TSX/S&P) companies. It had compared the CEO compensation system of owner-managed and management-controlled companies from 2005 to 2010. The research question for this study was: is there a relationship between CEO compensation, firm size, accounting firm performance, and corporate governance, among owner and management-controlled companies?. It was found that, there was a relationship between CEO compensation, firm size, accounting performance, and corporate governance, except for the relationship between CEO bonus and corporate governance in management-controlled companies. The correlations between CEO compensation, firm size, accounting performance, and corporate governance among owner and management-controlled companies were ranged from weak negative to strong positive ratios.
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Index Terms— CEO compensation, accounting performance, corporate governance, corporate ownership, owner-controlled CEO compensation, management-controlled CEO compensation, and TSX/S&P compensation.

1 INTRODUCTION

The purpose of this research is to understand in-depth the importance of firm ownership on CEO compensation in the TSX/S&P index companies, from 2005 to 2010. That is, the extent of influence of owner-controlled and management-controlled companies on CEO compensation system. This interesting and important study in the executive compensation area will reveal some scientific methodologies or trends to understand the nature of CEO contract under respective ownerships. One of the primary reasons to conduct this study is, over the past decade, United States public had raised concerns over huge bonuses declared to CEOs by their respective board of directors, considering the companies' performances were below expectations. The failure to understand determinants of CEO compensation from the public had led blaming CEOs of rent grabbing (monopolization of the CEO compensation system using its CEO power). Thus, these ever growing concerns bring to foreground conclusion the need to further study the CEO compensation system. This research will focus on the extent and nature of ownership effect on CEO compensation system. The CEOs and other executives would like to eliminate the risk exposure in their compensation packages by decoupling between pay and performance relationship and linking it to a more stable factor, firm size. This strategy indeed deviates from obtaining optimum results from a principal-agent contract. Previous studies had found the correlation results ranged from nil to strong positive ratios, primarily due to inconsistent use of sub-variables of firm size - total sales, total number of employees, or total assets. Therefore, firm size needs to be studied with CEO cash compensation on an extensive basis such as, at least use of two sub variables, to understand the relationship.

The most researched topics in executive compensation are between CEO compensation and firm performance. Although executive compensation and firm performance have been the subject of debate amongst academic, but there was little consensus on the precise nature of correlation as such, further research in greater detail need to be conducted to understand clearly the nature and extent of the relationship between them. As such, this research will use eight variables, that is, return on assets (ROA), return on equity (ROE), earnings per share (EPS), cash flow per share (CFPS), net profit margin (NPM), book value per common stocks outstanding (BVCSO), and market value per common stocks outstanding (MVCSO).

The relationship between CEO compensation and corporate governance (CEO power) are not studied extensively in the literature. In fact, research in this area is started over a last decade primarily due to researchers have failed to find a strong correlation between CEO compensation, firm size, and firm performance. The sub variables of corporate governance used in previous studies are CEO age, CEO tenure, and CEO turnover. The results are primarily characterized as weak correlation between them. This research study will use seven sub variables of corporate governance: CEO age, CEO stocks outstanding, CEO total stock's value, CEO tenure, CEO turnover, 5% management ownership, and 5% individual/institutional ownership, to test with CEO compensation.

2 LITERATURE REVIEW

2.1 CEO COMPENSATION AND FIRM SIZE

Prasad (1974) believed that executive salaries appear to be far more closely correlated with the scale of operations than its profitability. He also believed that executive compensation is primarily a reward for previous sales performance and is not necessarily an incentive for future sales efforts. McEachern (1975) believed

that executives are risk averse. They can reduce or eliminate risk exposure in their compensation package by linking it to a more stable factor, firm size. Gomez-Mejia, Tosi, and Hinkin (1987) believed that firm size is a less risky basis for setting executives' pay than performance, which was subject to many uncontrollable forces outside the managerial sphere of influence. Deckop (1988) believed that a strong sales compensation relationship would suggest that CEOs are given an incentive to maximize size rather than profitability. Tosi and Gomez-Mejia (1994) believed that measurement of firm size is the composite score of standardized values of reported total sales and number of employees. Gomez-Mejia and Barkema (1998) defined the relationship between CEO compensation and firm size as "positive". That is, CEOs in large companies make higher income than CEOs in small companies. This is supported by Finkelstein and Hambrick (1996), who believed that firm size is related to the level of executive compensation. This is further supported by Murphy (1985), who find that holding value of a firm constant, firm whose sales grow by 10% will increase CEO salary or bonus between 2% and 3% Therefore, it shows that size pay relation is causal, and CEOs can increase their pay by increasing firm size, even when increase in size reduces the firm's market value. Shafer (1998) shown that pay sensitivity, which measured as change in CEO wealth per dollar and change in firm value, falls with the square root of firm size. That is, CEO incentives are 10 times higher for a $10 billion firm than for a $100 million firm.

2.2 CEO COMPENSATION AND FIRM PERFORMANCE LINKAGE

According to previous studies conducted in the United States and the United Kingdom, CEO compensation is believed to be weakly related to firm performance. Loomis (1982) argued that pay is unrelated to performance. Henderson and Fredrickson (1996), and Sanders and Carpenter (1998, 2002) argued that CEO total pay may be unrelated to performance but it related to organizational complexity they manage. Likewise, studies conducted by Murphy (1985), Jensen and Murphy (1990), and Joskow and Rose (1994) find similar conclusions.

Jensen and Murphy (1990) argued that incentive alignment as an explanatory agency construct for CEO pay is weakly supported at best. That is, objective provisions of principal agent contract are not comprehensive enough to effectively create a direct link between CEO pay and performance. They find that pay performance sensitivity for executives is approximately $3.25 per $1000 change in shareholder wealth, small for an occupation in which incentive pay is expected to play an important role. This is supported by Tosi, Werner, Katz, and Gomez-Mejia (2000), who find that overall ratio of change in CEO pay and change in financial performance is 0.203, an accounting for about 4% of the variance. This weak relationship is explained by Borman & Motowidlo (1993) and Rosen (1990), who stated that archival performance data focuses only on a small portion of a CEO's job performance requirements as such, it is difficult to achieve a robust conclusion.

According to Jensen and Murphy (1990) who believed that CEO bonuses are strongly tied to an unobservable performance measure. They believed that if bonuses depend on performance measures observable only to the board of directors, they could have provided a significant incentive. They believed that one way to detect the existence of such phantom performance measures are to examine the magnitude of year to year fluctuations in CEO compensation. They believed that such fluctuations signifies CEO pay is unrelated to accounting performance. In addition, they argued that although bonuses represent 50% of CEO salary, such bonuses are awarded in ways that are not highly sensitive to performance. And the variation in CEO pay can be explained by changes in accounting profits than stock market value. Overall, they believed that pay performance sensitivity remains insignificant.

Jensen and Murphy (1990) find in their study that CEO received an average pay increase of $31,700 in years when shareholders earned a zero return, and received an average additional 1.35¢ per $1,000 increase in shareholder wealth. These findings are comparable to those of Murphy (1985 and 1986), Coughlan and Schmidt (1985), and Gibbons and Murphy (1990), who find that pay performance elasticity of approximately 0.1, indicating, salaries and bonuses increased by about 1% for every 10% rise in the value of the firm. In addition, they find an average pay increase of CEOs whose stockholders gains $400 million is $37,300, compared to an average pay increase of CEO whose stockholders lose $400 million is $26,500. These findings are supported by Jensen and Murphy (1990), who believed that CEO cash compensation should be structured to provide big rewards for outstanding performance and meaningful penalties for poor performance. In addition, they believed that the relationship between CEO cash compensation and firm performance would be less troubling if CEO owned a large percentage of corporate equity. Gilson and Vetsuypens (1993) argued that the association between pay and performance is small in economic terms when performance is measured in terms of changes rather than levels. This is supported by Iyengar (2000) who argued that changes in CEOs compensation are unrelated to changes in firms' performance perhaps due to stockholders in poorly performing firms would like to adopt a cautious wait and see attitude, to assess whether a change in performance is permanent before rewarding senior managers. This is further supported by Antle and Smith (1986), who find no relation between CEO cash compensation and firm performance. However, these statements are contradicted by Jensen and Zimmerman (1985), who stated that evidences are inconsistent with a view that executive compensation is unrelated to firm performance and enriches managers at the expense of shareholders. This is supported by Gibbons and Murphy (1990), who find that CEO pay changes by about 1.6% for each 10% of return on common stock. That is, the CEO pay structure is positively and significantly related to firm performance, as measured by the rate of return on common stock. This is supported by Lambert and Larcker (1987) and Sloan (1993), who find that there is a positive relation between CEO compensation and stock returns. According to Blanchard, Lopez-de-Silanes and Shleifer (1994), Iyengar, Raghavan J. (2000), and Bertrand and Mullainathan (2001), who stated that CEO cash compensation increases when firm profits rise for reasons that have nothing to do with managers' efforts. Murphy (1986) believed that top executives are worth every nickel they get.

2.3 CEO COMPENSATION AND CORPORATE GOVERNANCE (CEO POWER)

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 find 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 find 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 find a positive relationship between the percentage of total cash (salary and bonus) compensation and percentage of stocks 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) find 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.

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.

Deckop (1988) argued that CEO age has little effect on CEO compensation. However, Finkelstein and Hambrick (1989) find 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 have weakened 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.

Jensen and Murphy (1990) find that CEO turnover prob-

abilities are negatively and significantly related to changes in stockholder 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.

3 RESEARCH METHODOLOGY

This research study will be numerical, objective, and descriptive, and it demands clear results as such, quantitative research method will be selected. The longitudinal study method will be selected to collect historical financial data from 2005 to 2010. The stratified sample method will be selected to obtain a total sample population of one hundred and twenty companies each from TSX/S&P and NYSE indexes companies. In addition, will select forty companies each for three firm sizes of small, medium, and large, to validate comparisons of results. For statistical tests, CEO compensation will be assigned as dependent variable, firm size will be assigned as control variables, and firm performance and corporate governance will be assigned as independent variable. The total of eighteen statistical models were created for TSX/S&P population, to answer research question of this study. The survey method will be adopted to collect historical data. The inferential statistical method, linear regression, will be used to obtain statistical results. The 95% confidence level will be assumed for model tests.

4 DATA FINDINGS AND CONCLUSIONS

DATA FINDINGS

4.1 CEO COMPENSATION AND FIRM SIZE

Table 1 (Regression Analysis – ANOVA)

Owner-Managed	Salary	Bonus	Total Compensation
Firm Size	F(2,406)=135.985 p=.000 R2=0.401	F(2,380)=179.371 p=.000 R2=0.486	F(2,365)=113.974 p=.000 R2=0.384
Firm Performance	F(8,460)=54.880 p=.000 R2=0.488	F(8,207)=27.64 p=.000 R2=0.516	F(8,452)=62.368 p=.000 R2=0.525
Corporate Governance	F(7,163)=5.039 p=.000 R2=0.178	F(7,150)=4.781 p=.000 R2=0.182	F(7,143)=2.432 p=.022 R2=0.106

The above ANOVA table 1 results were based on linear regression tests. It had shown that in owner-managed companies, there was a relationship between CEO salary, CEO bonus, CEO total compensation, firm size, accounting performance, and corporate governance. The first three statistical models between CEO salary, CEO bonus, CEO total compensation, and firm size had statistical model fitness ratios of .401, .486, and .384 respectively as such, had characterized as moderate statistical models. Thus, these statistical models indicated that in owner-managed companies, firm size had a good influence on both short and long-term CEO compensation. The fourth to sixth statistical models had statistical model fitness ratios of .488, .516, and .525 respectively, as such had characterized also as moderate to good statistical models. Thus, these statistical models had indicated that accounting performance too had a material impact on both short and long-term CEO compensation. However, seventh to ninth statistical models had statistical model fitness ratios of .178, .182, and .106 as such, had characterized as weak statistical models. Thus, these statistical models had indicated that corporate governance had an immaterial influence on both short and long-term CEO compensation, perhaps due to corporate governance factors were not directly linked to CEO contract.

Table 2 (Regression Analysis - ANOVA)

Management-Controlled	Salary	Bonus	Total compensation
Firm size	$F_{(2,293)}$=55.493 p=.000 R^2=0.275	$F_{(2,271)}$=22.525 p=.000 R^2=0.143	$F_{(2,293)}$=76.375 p=.000 R^2=0.343
Accounting performance	$F_{(8,210)}$=38.241 p=.000 R^2=0.593	$F_{(8,443)}$=32.372 p=.000 R^2=0.369	$F_{(8,205)}$=81.096 p=.000 R^2=0.760
Corporate governance	$F_{(7,291)}$=10.514 p=.000 R^2=0.202	$F_{(7,267)}$=1.522 p=.160 R^2=0.038	$F_{(7,286)}$=4.025 p=.000 R^2=0.09

The above ANOVA table 2 results were based on linear regression tests. It had shown that in management-owned companies, there was a relationship between CEO salary, CEO bonus, CEO total compensation, firm size, firm performance, and corporate governance, except for the relationship between CEO bonus and corporate governance factors. The first three statistical models between CEO salary, CEO bonus, CEO total compensation, and firm size had statistical model fitness ratios of .275, .143, and .343 respectively, as such had characterized as weak to moderate statistical models. Thus, these models had indicated that firm size had an immaterial impact on both short and long-term CEO

compensation. The fourth to sixth statistical models had statistical model fitness ratios of .593, .369, and .760 respectively, as such had ranged from characterized as moderate to strong statistical models. Thus, these statistical models had indicated that in management-owned companies, accounting performance had a material effect on the both short and long-term CEO compensation, that is, CEO contracts were weighted heavily on accounting performance. The seventh to ninth statistical models had statistical model fitness ratios of .202, .038, and .09 respectively, as such had characterized as weak statistical models. Thus, these statistical models had indicated that corporate governance factors had an immaterial impact on CEO compensation.

Table 3 – Correlations (CEO Compensation vs. Firm Size)

Owner-Managed	Salary	Bonus	Total Compensation
Total Sales	0.628	0.670	0.595
Total Employees	0.247	0.181	0.169

The above table 3 illustrated the correlation results between CEO compensation and firm size in owner-managed companies. It had shown that there were strong correlations existed between CEO salary, CEO bonus, CEO total compensation, and total sales. That is, the correlations were .628, .670, and .595 respectively, which had indicated that total sales was an influential factor in CEO compensation. Thus, it had indicated that CEO short and long-term benefits were highly correlated with firm size. In addition, it had shown that cash and non-cash components of CEO compensation were equally influenced by total sales. However, the correlations between CEO salary, CEO bonus, CEO total compensation, and total employees had weak to moderate ratios. That is, the correlations were .247, .181, and .169 respectively, indicated that total employees was not a strong measurement variable to CEO compensation.

Table 4 – Correlations (CEO Compensation vs. Firm Size)

Management-Controlled	Salary	Bonus	Total Compensation
Total Sales	0.515	0.366	0.585
Total Employees	0.298	0.317	0.395

The above table 4 illustrated the correlation results between CEO compensation and firm size. It had shown that there were moderate to good correlations existed between CEO salary, CEO bonus, total compensation, and total sales. That is, it was found that the correlations between CEO salary, CEO bonus, CEO total compensation, and total sales were .515, .366, and .585 respectively, indicated that total sales were an influential factor in CEO compensation. On the other hand, the correlations between CEO salary, CEO bonus, CEO total compensation, and total employees had moderate ratios. That is, the correlations between CEO salary, CEO bonus, CEO total compensation, and total employees were .298, .317, and .395 respectively, indicated that total employees was not a strong influence as total sales in CEO compensation. Overall, it was found that in owner and management-controlled companies total sales had a strong influence to CEO salary, CEO bonus, and long-term benefits. Similarly, it was also found that in owner and management-controlled companies, total employees had a weak to moderate effect towards CEO compensation.

4.2 CEO COMPENSATION AND FIRM PERFORMANCE

Table 5 – Correlations (CEO Compensation vs. Firm Performance)

	Salary[1]		Bonus		Total Compensation	
	O.C.	M.G.	O.C.	M.G.	O.C.	M.G.
Return on assets	0.13	0.121	0.149	0.101	0.080	0.002
Return on equity	0.019	0.245	0.320	0.044	0.008	0.271
Earnings per share	0.066	0.427	0.338	0.016	0.032	0.343
Cash flow per share	0.056	0.232	0.109	0.073	0.064	-0.004
Net profit margin	0.652	0.706	0.679	0.482	0.570	0.796
Common stocks outstanding	0.353	0.521	0.427	0.360	0.351	0.670
Book value of common stock	0.395	0.563	0.483	0.443	0.589	0.687
Market value of common stock	0.278	0.678	0.662	-0.117	0.225	0.796

The above table 5 illustrated the correlation results between sub variables of CEO compensation and sub variables of firm performance both under owner and management-controlled scenarios. In owner-managed companies, it had shown that there were weak positive correlations existed between CEO salary, return on assets, return on equity, earnings per share, and cash flow per share. That is, the correlations were .13, .019, .066, and .056, respectively. However, in management-controlled companies, these similar relationships were characterized as weak to moderate ratios. That is, the correlations were .121, .245, .427, and .232, respectively. Thus, it had indicated that assets and equity related performances were more appreciated in management-controlled companies than owner-controlled companies perhaps due to structure of CEO contract emphasized on the success of projects, investments, and net income. In owner-managed companies, the correlations between CEO salary, net profit margin, total common stocks outstanding, book value per common stock outstanding, and market value per common stock outstanding, were characterized as moderate to good ratios. That is, the correlations were .652, .353, .395, and .278, respectively. However, in management-controlled companies, these similar correlations were character-

[1] O.C.= Owner-controlled; M.C.=Management-controlled

ized as strong ratios. That is, the correlations were .706, .521, .563, and .678, respectively. Overall, accounting performance had been rewarded by board perhaps due to the strong emphasis of a quantitative performance reward system in management-controlled companies then in owner-controlled companies.

In owner-managed companies, it was found that there were weak to moderate correlations between CEO bonus, return on assets, return on equity, earnings per share, and cash flow per share. That is, the correlations were .149, .320, .338, and .109, respectively. However, in management-controlled companies, it was found that these similar correlations were characterized as weak ratios. That is, the correlations were .101, .044, .016, and .73, respectively. Thus, it had shown that CEO bonus was more related to return on assets, return on equity, earnings per share, and cash flow per share in owner-managed companies than in management-controlled companies, indicated CEO contract with management-controlled companies had emphasized on qualitative factors such as management of the organization and other strategic task completion. In the owner-managed companies, the correlations between CEO bonus, net profit margin, total common stocks outstanding, book value per common stock outstanding, and market value per common stock outstanding were characterized as good to strong ratios. That is, the correlations were .679, .427, .483, and .662, respectively. However, in management-controlled companies, these similar correlations were characterized as weak to moderate ratios. That is, the correlations were .482, .360, .443, and .117, respectively. Thus, overall, it was found that in owner-managed companies CEO bonus was highly depended on quantitative performance criteria than in management-controlled companies, perhaps board favored on observable performance criteria through CEO contract.

In owner-managed companies, it was found that there were weak correlations between CEO total compensation, return on assets, return on equity, earnings per share, and cash flow per share. That is, the correlations were .08, .008, .032, and .064 respectively. However, in management-controlled companies, it was found that these similar correlations were characterized as weak negative to moderate ratios. That is, the correlations were .002, .271, .343, and -.004, respectively. Thus, it had shown that CEO total compensation in particular long-term benefits was weakly correlated in owner-managed companies than in management-controlled companies, perhaps due to emphasis on cash (in particular bonus) over stock compensation. In owner-managed companies, the correlations between CEO total compensation, net profit margin, total common stocks outstanding, book value per common stock outstanding, and market value per common stock outstanding, were characterized as moderate to good ratios. That is, the correlations were .570, .351, .589, and .225, respectively. However, in management-controlled companies, these similar correlations were characterized as strong ratios. That is, the correlations were .796, .670, .687, and .796, respectively. Thus, net-earnings related items and market activities had strongly influenced CEO long-term benefits in management-controlled companies than in owner-controlled companies. Overall, these divergent correlation results had illustrated that each accounting performance variable would have a unique effect on CEO salary, CEO bonus, and CEO long-term benefits, depended on the nature of CEO contract and the type of ownership structure.

4.3 CEO COMPENSATION AND CORPORATE GOVERNANCE

Table 6 – Correlations (CEO Compensation vs. Corporate Governance)

	Salary		Bonus		Total Compensation	
	O. C.	M. C.	O. C.	M. C.	O. C.	M. C.
CEO age	0.034	0.047	0.127	0.049	-0.042	-0.028
CEO total stocks outstanding	0.091	0.163	0.189	0.019	0.089	0.001
CEO total value of stocks	0.280	0.369	0.349	0.070	0.224	0.152
CEO tenure	-0.010	0.218	0.158	0.034	-0.120	-0.024
CEO turnover	-0.089	-0.092	-0.157	-0.057	0.027	0.008
5% Mgmt. ownership	0.117	-0.087	0.154	-0.091	0.041	-0.169
5% INDV./INST. ownership	0.235	-0.053	0.055	-0.121	0.153	-0.119

The above table 6 illustrated the correlation results between sub-variables of CEO compensation and sub-variables of corporate governance under both owner and management-controlled scenarios. In owner-managed companies, it had shown that there were weak negative to weak positive correlations existed between CEO salary, CEO age, CEO total stocks outstanding, CEO total value of stocks, CEO tenure, CEO turnover, 5% management ownership, and 5% individual/institutional ownership. That is, in owner-managed companies, the correlations between CEO salary and corporate governance factors were .034, .091, .280, -.010, -.089, .117, and .235, respectively. Thus, it had shown that overall corporate governance factors had weak to negligible influence to CEO salary indicated that the CEO had no influence over board in his salary setup. However, in management-controlled companies, it had shown that there were weak negative to moderate positive correlations existed between them. That is, the correlations were .047, .163, .369, .218, -.092, -.087, and -.053, respectively. Thus, it had shown that the CEO had some degree of influence over board towards his salary determination in particular, through the influence of CEO total stocks outstanding, CEO total value of stocks, and CEO tenure.

In owner-managed companies, it had shown that there were weak negative to moderate positive correlations existed between CEO bonus, CEO age, CEO total stocks outstanding, CEO total value of stocks, CEO tenure, CEO turnover, 5% management owner-

ship, and 5% individual / institutional ownership. That is, in owner-managed companies, the correlations between CEO bonus and corporate governance factors were .127, .189, .349, .158, -.157, .154, and .055, respectively. Thus, it had shown that corporate governance factors were more correlated to CEO bonus then to CEO salary, perhaps due to combination of accounting performance and CEO ownership effect. Similarly, in management-controlled companies, it was found that there were weak negative to weak positive correlations between them. That is, the correlations were .049, .019, .07, .034, -.057, -.091, and -.121, respectively. Thus, it had shown that, in management-controlled companies, CEO contract had completely ignored corporate governance factors, perhaps due to design of CEO compensation structure towards qualitative management performance criteria.

In owner-managed companies, it had shown that there were weak negative to weak positive correlations existed between CEO total compensation, CEO age, CEO total stocks outstanding, CEO total value of stocks, CEO tenure, CEO turnover, 5% management ownership, and 5% individual / institutional ownership. That is, in owner-managed companies, the correlations between CEO total compensation and corporate governance factors were -.042, .089, .224, -.120, .027, .041, and .153, respectively. Thus, it had shown that in owner-managed companies, corporate governance factors had an immaterial influence on CEO total compensation in particular long-term benefits. Similarly, in management-controlled companies, these corporate governance factors had weak negative to weak positive impact on CEO total compensation in particular long-term benefits. That is, in management-controlled companies, the correlations between CEO total compensation and corporate governance factors were -.028, .001, .152, -.024, .008, -.169, and -.119, respectively. Thus, it had shown that in management-controlled companies, corporate governance factors too had an immaterial influence on CEO total compensation in particular long-term benefits. Overall, corporate governance had a weak influence on CEO compensation under owner and management-controlled scenarios, perhaps due to the CEO contract emphasis on accounting performance and strategic goals accomplishments.

5 CONCLUSION

Overall, both under owner and management-controlled scenarios, it was found that there was a relationship existed between CEO salary, CEO bonus, CEO total compensation, firm size, accounting performance, and corporate governance. In owner-managed companies, it had shown that there was a strong correlation existed between CEO salary, CEO bonus, CEO total compensation, and total sales. However, in management-controlled companies, it had shown that there was a moderate to good correlation existed between CEO salary, CEO bonus, CEO Total Compensation, and total sales.

In owner-managed companies, it had shown that there were weak positive correlations existed between CEO salary, return on assets, return on equity, earnings per share, and cash flow per share. However, in management-controlled companies, these similar correlations were characterized as weak to moderate ratios. In owner-managed companies, the correlations between CEO salary, net profit margin, common stocks outstanding, book value per common stock outstanding, and market value per common stock outstanding, were characterized as moderate to strong ratios. However, in management-controlled companies, these similar correlations were characterized as strong ratios. In owner-managed companies, it was found that there were weak to moderate correlations between CEO bonus, return on assets, return on equity, earnings per share, and cash flow per share. However, in management-controlled companies, it was found that these similar correlations were characterized as weak ratios. In owner-managed companies, the correlations between CEO bonus, net profit margin, common stocks outstanding, book value per common stock outstanding, and market value per common stock outstanding were characterized as good to strong ratios. However, in management-controlled companies, these similar correlations were characterized as weak to moderate ratios.

In owner-managed companies, it was found that there were weak correlations existed between CEO total compensation, return on assets, return on equity, earnings per share, and cash flow per share. However, in management-controlled companies, it was found that these similar correlations were characterized as weak negative to moderate positive ratios. In owner-managed companies, the correlations between CEO total compensation, net profit margin, common stocks outstanding, and book and market values per common stock outstanding, were characterized as moderate to good positive ratios. However, in management-controlled companies, these similar correlations were characterized as strong ratios. Overall, these divergent results had indicated that the nature and extent of influence of accounting performance to CEO compensation are depended on the selection of predictor variables and the ownership structure.

In owner-managed companies, it had shown that there were weak negative to weak positive correlations existed between CEO salary, CEO age, CEO total stocks outstanding, CEO total value of stocks, CEO tenure, CEO turnover, 5% management ownership, and 5% individual / institutional ownership. However, in management-controlled companies, it had shown that there were weak negative to moderate positive correlations existed between them. In owner-managed companies, it had shown that there were weak negative to moderate positive correlations existed between CEO bonus, CEO age, CEO total stocks outstanding, CEO total value of stocks, CEO tenure, CEO turnover, 5% management ownership, and the 5% individual / institutional ownership. Similarly, in management-controlled companies, it was found that there were weak negative to weak positive correlations existed between them. In owner-managed companies, it had shown that there were weak negative to weak positive correlations existed between CEO total compensation, CEO age, CEO total stocks outstanding, CEO total value of stocks, CEO tenure, CEO turnover, 5% management ownership, and 5% individual / institutional ownership. Similarly, in management-controlled companies, these corporate governance factors had weak negative to weak positive ratios on CEO total compensation in particular long-term benefits. Overall, corporate governance factors had a weak influence on CEO compensation under both owner and management-controlled scenarios perhaps due to CEO contract emphasis on accounting performance and strategic goals accomplishments.

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7 APPENDIX

Operational Hypothesis Statement

H0: Among owner and management-controlled companies There is no relationship between CEO compensation, firm size, accounting firm performance, and corporate governance in TSX/S&P index companies.

H1: Among owner and management-controlled companies There is a relationship between CEO compensation, firm size, accounting firm performance, and corporate governance, in TSX/S&P index companies.

To address this Operational Hypothesis Statement, separate models were developed for each dependent variable:

Firm Size

Salary: $Y1=c+ B1X1+B2X2+\epsilon$

Bonus: $Y2=c+ B1X1+B2X2+\epsilon$

(Y1=salary; Y2=bonus; c=constant predictor; B1=influential factor for total sales; B2=influential factor for total number of employees; and ϵ=error).

(X1=Value of total sales; X2=Value of total number of employees).

Firm Performance

Salary:

$Y3=c+ B1X1+B2X2+B3X3+B4X4+B5X5+B6X6+B7X7+B8X8+\epsilon$

Bonus:

$Y4=c+ B1X1+B2X2+B3X3+B4X4+B5X5+B6X6+B7X7+B8X8+\epsilon$

(Y1=Salary; Y2=Bonus; c=constant predictor; B1=influential factor for ROA; B2=influential factor for ROE; B3=influential factor for EPS; B4=influential factor for CFPS; B5=influential factor for NPM; B6=influential factor for CSO; B7=influential factor for BVCSO; B8=influential factor for MVCSO; and ϵ=error)

Let X1=Value of ROA; X2=Value of ROE; X3=Value of EPS; X4=Value of CFPS; X5=Value of NPM; X6=Value of CSO; X7=Value of BVCSO; B8=Value of MVCSO

Corporate Governance

Salary:

$Y5=c+ B1X1+B2X2+B3X3+B4X4+B5X5+B6X6+B7X7+\epsilon$

Bonus:

$Y6=c+ B1X1+B2X2+B3X3+B4X4+B5X5+B6X6+B7X7+\epsilon$

(Y5=Salary; Y6=Bonus; c=constant predictor; B1=influential factor for CEO age; B2=influential factor for CEO stocks outstanding; B3=influential factor for CEO total value of stocks; B4=influential factor for CEO tenure; B5=influential factor for CEO turnover; B6=influential factor for 5% management ownership; B7= 5% individuals/institutional ownership; and ϵ=error).

Let X1=Value of CEO Age; X2=Value of CEO total stocks outstanding; X3=Value of CEO total value of stocks; X4=Value of CEO tenure; X5=Value of CEO turnover; X6=Value of 5% management ownership; and X7=Value of 5% individual/institutional ownership.

All eighteen models assumed to have a confidence level (α) of 5%.