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경영학석사학위논문

## **Compensation Consultant Fees and CEO Pay**

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경영학과 회계학전공

조재현

# **ABSTRACT**

## **Compensation Consultant Fees and CEO Pay**

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While compensation consultants are known to play an important role in executive compensation design, research on the consultants and their incentives have been largely overlooked in the past due to data unavailability. As disputes over the efficiency and validity of compensation consulting grew rapidly, in December 2009, the SEC required firms to disclose fees paid for executive compensation consulting and other services under certain circumstances. Using 778 compensation consultant engagement and 201 executive compensation consulting fee observations from S&P 500 firms for 2009 and 2010, we examine whether fees paid to executive compensation consultants are related to more lucrative CEO compensation. Overall, we find evidence that CEO pay levels are higher

when compensation consultants receive higher executive compensation consulting fees. Further analysis suggests that compensation consultants award higher CEO pay when they only receive more than expected fees for executive compensation consulting. These results support the “repeat business” hypothesis that compensation consultants bias their compensation advice in order to secure revenue from their clients in the future.

**Keywords:** Compensation consultant; Consulting fee; CEO pay

**Student Number:** 2010-20529

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## **1. INTRODUCTION**

Compensation awarded to the Chief Executive Officer (CEO) has been a field of interest for many years. Many researchers have studied the factors that determines the compensation levels, whether they are set optimally, and whether they are excessive as asserted by many critics. While through what process and by whom the compensation is determined is an important factor to consider, the role that compensation consultants plays in the compensation decision making has been largely overlooked by researchers in the past due to data unavailability.

Compensation committee of the board or the management of the company engage with compensation consultants to retain advices on executive compensation design. Consultants are experts on issues related to compensation practices, such as relevant regulations, market trends, and benchmarking information. Many consultants accumulate their own proprietary data on executive pay level and compensation practices across different industries, allowing them to advocate for the optimal pay levels that considers the firm and its peer group performances (Cadman et al. 2010). With these expertise, consultants are able to effectively consider different forms of compensation packages and advice the board or the company with optimal pay levels (Brancato 2002). There also exists,

however, criticisms on the services provided by compensation consultants. While consultants' advices may seem as if they are intended to design optimal compensation schemes, critics assert that their potential conflicts of interest may bias their advices toward suboptimal levels, suggesting that CEOs receive lucrative compensation as result.

There are in general two types of conflicts of interests that can potentially bias compensation consultant's service. First is the incentive to secure revenue by retaining the executive compensation (EC) services to the clients, known as the "repeat business" incentives (Murphy and Sandino 2010). Furthermore, while some compensation consultants are small firms that focus exclusively on executive compensation services, many are large consulting companies that also provide services not related to executive compensation, such as actuarial and employee pension plan design. Compensation consultants' incentive to secure additional revenue from these non executive compensation (NEC) services is called the "cross-selling" interest. This cross-selling incentive can cause consultants to award higher than efficient level of compensation to their incumbent CEO whom retains the decision rights to award them the NEC services.

These conflicting roles of compensation consultants have increasingly caught the attention of regulators and shareholders. In response, the



Securities and Exchange Commission (SEC) in 2006 required companies to disclose whether they retain executive compensation consultants, and whether consultants are engaged directly by board or by company. Furthermore, the SEC strengthened the regulation in December 2009 by requiring firms to disclose fees paid to both EC and NEC services under certain circumstances. However, criticism against the requirement argued that such regulations are imposed without scientific evidence and therefore are excessive imposition on companies' disclosure practices.

In this paper, we examine whether compensation consultant's own incentives have effect on the CEO compensation level by utilizing consulting fee data that became available after the SEC's 2009 regulation. We hand-collect 778 consultant engagement information and 201 executive compensation fee data from companies' annual proxy statements from fiscal year 2009 and 2010. While there exists few studies on the relationship between compensation consultant conflicts and CEO compensation (Cadman et al. 2010; Murphy and Sandino 2010; Armstrong et al. 2010), which most of them failed to find evidence of biased consultant advice due to conflicts of interest, their findings have limited implications since all of them are based on the data from the SEC's 2006 regulation that lacks fee information. These prior researches used dummy variables to distinguish

between firms that retain compensation consultants and consultants that provide NEC services, and therefore fall short of capturing the full implications of compensation consultants' repeat business and cross-selling incentives. Therefore, we refer to the initial arguments made by the Waxman Report and hypothesize that compensation consultants' conflicts of interests, proxied by fees paid to their services, have a positive impact on CEO pay levels that consultants' services are biased toward inefficient level.

Our test on the impact of compensation consultants' incentives on the level of CEO pay revealed that consultants awards higher total and cash compensation when they receive higher EC fees, supporting the repeat business hypothesis. We also found some evidence that the level of cash compensation is higher when consultants also provide NEC services and when fees from those services are higher, partially reinforcing the cross-selling incentives. In order to examine whether the evidences found in the first test are linked to excessive fees paid, we estimate the determinants of EC fees and analyze the relationship between abnormal EC fees and the CEO pay. We expect the relationship between abnormal EC fees and CEO pay to be positive when EC fees are higher than expected, since excessive EC fees can increase consultants' incentive to bias their services. Consistent with the hypothesis, the regression results indicate that positive abnormal

EC fees are positive associated with CEO's total and cash compensation. Overall, the findings from this study suggests that compensation consultant services are detrimental to shareholders' values when consultants have high conflicts of interest and fail to provide unbiased executive compensation consulting services.

This study contributes to the executive compensation literature in several ways. First, by extending the studies on the role of compensation consultants, this study's findings fills the void in literature on whom plays a significant role in designing executive compensation packages. While prior researches have addressed factors related to firm economics, governance, and executive characteristics, direct evidence on outside consultants were scarce. Furthermore, this study reinvestigates the findings of other studies on compensation consultants (Cadman et al. 2010; Murphy and Sandino 2010; Armstrong et al. 2010) with more accurate proxies and provide new evidence that higher than expected fees lead to lucrative CEO pay.

We begin in Section II with background information, prior literature and hypotheses development. Section III reports the sample and measures used in the study. Section IV provides empirical models and results on the association between compensation consultant incentives and CEO pay, and Section V concludes.

## **2. LITERATURE AND HYPOTHESIS**

### **2.1 Background**

There exists rich research literature on the factors that determines the executive compensation levels, whether they are set optimally, and whether they are excessive as asserted by many critics. However, while through what process and by whom the compensation is determined is an important factor to consider, the role that compensation consultants plays in the compensation decision making has been largely overlooked by researchers in the past due to data unavailability.

Over the past several years compensation consultants played an increasing role in helping boards set and determine executive compensation (Higgins 2007). Such an increase in the use of compensation consultants is largely due to the increased demands for companies to align executive pay with shareholder interest. Compensation committee of the board or the management of the company engage with compensation consultants to retain advices on executive compensation design. Consultants are experts on issues related to compensation practices, such as relevant regulations, market trends, and benchmarking information. Many consultants accumulate their own proprietary data on executive pay level and compensation practices across different industries, allowing them to

advocate for the optimal pay levels that considers the firm and its peer group performances (Cadman et al. 2010). With these expertise, consultants are able to effectively consider different forms of compensation packages and advice the board or the company with optimal pay levels (Brancato 2002). There also exists, however, criticisms on the services provided by compensation consultants. While consultant's advices may seem as if they are intended to design optimal compensation schemes, critics assert that their potential conflicts of interest may bias their advices toward suboptimal levels, suggesting that CEOs receive lucrative compensation as result.

There are in general two types of conflicts of interests that can potentially bias compensation consultant's service. First is the incentive to secure revenue by retaining the executive compensation (EC) services to the clients, known as the "repeat business" incentives (Murphy and Sandino 2010). Furthermore, while some compensation consultants are small firms that focus exclusively on executive compensation services, many are large consulting companies that also provide services not related to executive compensation, such as actuarial and employee pension plan design. Compensation consultants' incentive to secure additional revenue from these non executive compensation (NEC) services is called the "cross-selling" interest. This cross-selling incentive can cause consultants to award

higher than efficient level of compensation to their incumbent CEO whom retains the decision rights to award them the NEC services.

A report issued by the Corporate Library in October 2007 titled “The effect of compensation consultants” (Higgins 2007) argues that executive pay levels are significantly higher for companies that retain compensation consultants and such pay levels do not appear to relate to increased shareholder return. Another report issued in December 2007 by the US House of Representatives Committee on Oversight and Government Reform titled “Executive Pay: Conflicts of interest among compensation consultants”, also known as the “Waxman Report”, suggests that compensation consultants’ conflicts of interest by receiving millions of dollars from executives whose compensations they are to assess is problematic, especially since such fees from NEC services are usually significantly greater than that is received for EC services. The Waxman Report used proprietary data obtained directly from compensation consultants that examined Fortune 250 companies between fiscal year 2002 and 2006 and used the fee ratio between NEC fees and EC fees as the proxy for consultants’ cross-selling incentives.

## **2.2 SEC Disclosure Requirement**

Until 2006, companies in US were not required to disclose any information on compensation consultants. However, with these reports indicating that use of compensation consultants may aggravate alleged CEO rent extraction possibilities as suggested by many studies (e.g., Core et al. 1999), the conflicting incentives of compensation consultants have increasingly caught the attention of regulators and shareholders. In response, the Securities and Exchange Commission (SEC) in 2006 required companies to identify and describe the scope of consultants that provide executive compensation services, and disclose whether the consultants are retained directed by board's compensation committee or by company (SEC 2006).

In December 2009, the SEC expanded the regulation by requiring companies to disclose fees earned by providing both executive compensation and unrelated services under certain circumstances. Specifically, if the board or the compensation committee engages its own compensation consultant to provide advice or recommendations on the level or package design of executive compensation, and if the consultant or its integrated affiliates provide services other than executive compensation consulting to the company, then disclosure of the fees related to all services

provided are required given that the fees for services the NEC services is more than \$120,000. The rule also requires companies to disclose whether the decision to engage the consultant or its NEC services are made or recommended by the company's management, and whether the board or compensation committee approves such NEC services. Even if the board or the committee does not retain its own consultant, fee disclosures are still required if the company retains a consultant that provides both EC service and NEC service that amounts more than \$120,000. If the board and the company's management engage separate compensation consultants, then no disclosure is required on the management's consultant, and lastly, services involving only broad-based non-discretionary plans or the provisions of information, such as surveys, that are not customized for the company are not treated as scope of EC services for the purpose of the disclosure (SEC 2009). The summary of the 2009 SEC fee disclosure requirement is given in the Figure 1.

[Insert Figure 1 About Here]

In March 2011, the SEC proposed rules directing the national securities exchanges to adopt certain listing standards related to the compensation committee as well as compensation consultants, as required by the Dodd-Frank Wall Street Reform and Consumer Protection Act. The proposed rules



would modify existing rules to require disclosure by eliminating the disclosure exception for services on broad-based plans and non-customized benchmark data, but would retain the conditional fee disclosure requirements.

### **2.3 Prior Literature**

While research on compensation consultants in the US was not possible prior to 2006 due to data unavailability, the SEC's 2006 requirement motivated several studies to examine the conflicting interests of compensation consultants and their effect on the CEO pay. Using 1,046 US firms that retained compensation consultants during fiscal year 2006, Murphy and Sandino 2010 tested the repeat business and the cross-selling incentives. They tested the repeat business effect by examining whether CEO pay is related to managerial influence over the decision to appoint compensation consultants, proxied by whether the consultant is engaged exclusively by the board or by the management. Inconsistent with their hypothesis, the result suggested that CEO pay is actually higher when the consultant works for the board rather than the management, rejecting the repeat business hypothesis. The analysis on cross-selling incentives, using actuary services as the proxy, showed that CEO pay is higher when compensation consultants provide such other services.

Cadman et al. 2010 also tests for the potential cross-selling incentives using 755 firms from S&P 1500 for fiscal year 2006. They used three proxies for conflicts of interest, namely NEC disclosures made by companies, engagement with other than Fredrick W. Cook or Pearl Meyer, consultants that exclusively provide EC services only, and lastly significant non-audit services indicating willingness to allow possible conflicts of interests. Overall, inconsistent with the Waxman Report and Murphy and Sandino 2010, they failed to find widespread evidence of higher pay levels for consultant's conflicts of interest.

Unlike the two studies previously mentioned, Armstrong et al. 2010 investigated the relationship between CEO pay and compensation consultant engagement controlled by governance differences. Using 2,110 firms in fiscal year 2006, they found that CEO pay is higher in weak governance companies, and those companies are more likely to retain compensation consultants. Although use of compensation consultants led to higher CEO pay, the effects disappeared when governance characteristics are controlled, indicating that weak governance explains much of higher pay in companies with consultants. Overall, these three studies suggest that the repeat business incentive of compensation consultants have no impact on the level of CEO pay, while evidences are mixed when NEC services are considered.

Findings inconsistent with the Waxman Report or the assertion made by Higgins suggest that compensation consultants do not compromise their optimal service for conflicts of interests, which is consistent with the literature on whether non-audit services compromise independence of auditors (Ashbaugh et al. 2003; Chung and Kallapur 2003) However, one criticism on these studies is that their findings have limited implications since all of them are based on the data from the SEC's 2006 regulation that lacks fee information. These prior researches used proxies with errors to distinguish between firms that retain compensation consultants and consultants that provide NEC services, and therefore stop short of capturing the full implications of compensation consultants' repeat business and cross-selling incentives.

#### **2.4 Research Question**

Most recently, a concurrent study by Cen and Tong 2011 used the information from 2009 proxy statements for S&P 500 firms to test whether compensation consultants' service fees are associated with higher CEO pay. They found results consistent with the repeat business and the cross-selling incentives, that both EC and NEC fees are related to excess CEO pay. However, their findings vary across different measures of fee data, making it difficult to draw consistent conclusions. Specifically, while they find

strong evidence of biased consultant advice using NEC dummy variable that contradicts prior studies, the results from fee data are only marginally significant yet economically insignificant, failing to fully support their hypothesis. Our results on the cross-selling incentives differs from that of Cen and Tong 2011, and we further focus on examining the repeat business hypothesis by estimating the determinants of the consulting fees with more comprehensive data. Therefore, we believe our study provide a unique contribution to the compensation consultant literature by more directly investigating how compensation consultants' own incentives affects their executive compensation services.

Although prior literature overall suggest that compensation consultants' potential conflict of interest is not related to CEO pay levels, those results were given without consideration of detailed fee information. With the new disclosure requirement by the SEC, the research question on the effects of consulting fees are largely an empirical issue. In the US the only study that utilized the consulting fees was the Waxman Report, which indicated biased service provided by consultants with conflicted incentives. Therefore, we refer to the initial arguments made by the Waxman Report and hypothesize that compensation consultants' conflicts of interests, proxied by fees paid to their services, have a positive impact on CEO pay levels that consultants'

services are biased toward inefficient level.

**H:** Higher consulting fees paid to compensation consultants are positively related to the level of CEO pay

### **3. SAMPLE**

#### **3.1 Sample**

We hand-collect the compensation consultant fees for executive compensation and other services from S&P 500 companies' annual proxy statements (DEF-14A) for fiscal year 2009 and 2010. With 1,000 possible firm-year observations, 38 observations are deducted for missing data in 2010 and 144 observations are deducted due to missing variables in process of merging database. From initial sample of 848 observations, 70 of them are deducted because they the companies do not retain any compensation consultants. There are 778 observations that retain compensation consultants for executive compensation services, and among them 611 (79%) observation did not engage in any NEC services or the amount of fees derived from those services were less than \$120,000. Therefore, 167 observations with NEC services more than \$120,000 disclosed fee information on both EC and NEC consulting services. In order to retain the sample size and compare the results with a dummy proxy on NEC services, we assume that remaining 611 observations have NEC fees of \$0.

Furthermore, since some companies voluntarily disclosed EC service fees, the final sample on EC fees is 201. The sample selection process is explained in Panel A of Table 1.

[Insert Table 1 About Here]

### **3.2 Measures**

Dependent and control variables to test the hypothesis are determined based on prior literature on compensation consultant and audit studies as their research design is similar with this study. All continuous variables are winsorized at 1 and 99 percentile, and descriptive statistics and the variable definitions are given in Panel B of Table 1. We provide brief description and rationale for the variables in this section.

#### ***CEO Pay and Characteristics***

Variables related to CEO pay and characteristics are collected from Execucomp database. The dependent variables for this study is CEO's annual total, cash, and equity compensation. Total compensation (TDC1 on Execucomp) is comprised of salary, bonus, non-equity incentive plan, grant-date fair value of option and stock awards, deferred compensation, and remaining other compensation. We also use cash compensation, defined as sum of salary, bonus, non-equity incentive plan, and long-term incentive plan compensation. Equity compensation is comprised of grant-date fair

value of option and stock awards. We expect that cash and equity compensation have different implications in the compensation package design, as secure cash payment may be preferred by risk-averse CEOs while equity compensations serve different purposes such as promoting CEO's risk-taking incentives.

### ***Consultant Incentives***

The key variables in the regressions are the consultant incentive variables, proxied by decision to retain NEC service from compensation consultants and fees paid for EC and NEC services. Dummy variable on whether compensation consultants provide NEC services and fees paid for NEC services are used to test the cross-selling incentives hypothesis, where higher NEC fees are expected to increase consultants' incentive to secure their revenues by awarding excess pay to CEOs, whom retain the decision retain or change NEC service providers. EC fees are used to test the repeat business hypothesis, where higher fees would increase consultants' incentive to be reappointed and thereby responding with higher CEO pay. After estimating expected level of EC fees in section IV, we further defined positive and negative abnormal EC fees to test how higher than or lower than expected fees affect consultants' decision to bias their executive compensation services. Abnormal fees reflect additional revenue received

beyond consideration of companies' financial performance and governance characteristics, indicating that such fees are obtained for idiosyncratic relationship between compensation consultants and its retainer. In the audit literature, abnormal fees may more accurately be linked by attempted bribes (Kinney and Libby 2002), and therefore can capture additional revenues arising from auditor-client relationship. Therefore, it is expected that positive abnormal EC fees are indications of revenues that consultants can receive beyond their normal level of effort, thereby increasing their incentive to secure its relationship with the companies that leads to higher CEO pay levels.

### ***Economic Characteristics***

Economic and financial performance variables are collected from Compustat and CRSP databases. Market value of equity (MVE) captures the size of companies, leverage ratio shows financial condition of companies, book-to-market ratio indicates companies' complexities and growth opportunities, ROA and stock returns show financial performance, and stock return volatility indicates noisy environments.

### ***Governance Characteristics***

Governance characteristics variables are obtained from Corporate Library database, and consist of largely three categories; CEO, Board,



ownership characteristics. CEO tenure is included to examine whether companies award different level of compensation packages according to CEOs' service years, whereas and CEO ownerships can represent two contradicting incentives to receive no more equity compensation versus extracting higher pay with power. Variable related to board's abilities, such as board size, board independence, board tenure, board and meetings are indications of good governance and therefore are expected to negatively impact the CEO pay. Similar proxies are used on compensation committee in estimating the determinants of consulting fees. Lastly, more business segments are related to more complex business environment and difficulties in designing compensation packages. Table 2 presents the Pearson correlation matrix.

[Insert Table 2 About Here]

## **4. RESEARCH DESIGN AND RESULTS**

### **4.1 Impact of Compensation Consultant Incentives on CEO Pay**

Following empirical model (Equation 1) is used to examine the impact of compensation consultant incentives on the level of CEO pay. For all regressions in this study, standard errors are corrected for heteroskedasticity using the Huber-White robust standard errors clustered by firm and industry

fixed effects are controlled based on two-digit SIC codes. We expect CEO's annual total, cash, and equity compensation to be positively related to compensation consultant's NEC services, NEC fees, and EC fees.

$$\begin{aligned}
CEO\ Pay_t = & \alpha_0 + \alpha_1 Consultant_t + \alpha_2 MVE_t + \alpha_3 Leverage_t + \alpha_4 BTM_t \\
& + \alpha_5 ROA_t + \alpha_6 Return_t + \alpha_7 Return\ Volatility_t \\
& + \alpha_8 CEO\ Tenure_t + \alpha_9 CEO\ Ownership_t + \alpha_{10} Founder\ CEO_t \\
& + \alpha_{11} Board\ Size_t + \alpha_{12} Board\ Independence_t \\
& + \alpha_{13} Board\ Tenure_t + \alpha_{14} Board\ Meetings_t + \alpha_{15} Busy\ Board_t \\
& + \alpha_{16} Outside\ Chairman_t + \alpha_{17} Business\ Segments_t \\
& + \alpha_{18} New\ Consultant_t + \alpha_{19} Big\ Consultant_t \\
& + Industry\ Effects + Year\ Effects_t
\end{aligned} \tag{1}$$

where: *CEO Pay* is *Total Pay*, *Cash Pay*, or *Equity Pay*, and *Consultant* is *NEC Service*, *NEC Fee*, or *EC Fee*.

Table 3 presents the results from regression in Equation 1. Columns 1 through 3 show the results using NEC service dummy as the key explanatory variable. As indicated in the Column 2, only cash pay level is positively related to the NEC service dummy, suggesting that consultants award CEO with higher cash compensation when executive compensation consultants have incentive to retain other services provided to the companies. Other than the key variable, company's size is positively related to the total compensation level, whereas companies with good governance as indicated by board variables prevent CEOs from receiving lucrative pay. Columns 4 to 6 provide further evidence on compensation consultants' cross-selling incentives, where NEC fee is the key explanatory variable. Consistent with

the finding with NEC service dummy, only cash pay level is positively correlated with the NEC fees. Together they provide limited evidence that compensation consultants' cross-selling incentive lead to higher CEO pay.

Columns 7 to 9 show the empirical results using EC fees as the independent variable. In column 7, the result indicates that higher EC fees to consultants leads to higher total compensation for CEOs. Furthermore, cash compensation is also positively related to EC fees whereas equity pay is marginally insignificant. These are evidences that when compensation consultant receives higher EC fees, meaning they have greater incentive to secure its business with the clients in the future, the consultants are more likely bias their advices on the CEO compensation design so that CEOs can extract excessive pay. This finding is in contrast with Cadman et al. 2010 and Armstrong et al. 2010 where they suggested that use of compensation consultants in designing CEO compensation package is unrelated to the level of CEO pay.

To further examine the cross-selling incentives of consultants, we test whether the fee ratio between EC and NEC fees have any effect on consultants' incentives and the CEO pay. We define the fee ratio as NEC fees divided by the sum of EC and NEC fees (total fees), as prior literature (Ashbaugh et al. 2003) suggest it best captures the explicit economic bond

between the consultant and the client and NEC fees' relative monetary value. Untabulated results suggest that the fee ratio has no effect on total, cash, nor equity compensations. Whereas findings in provided only limited evidence of cross-selling incentives, the insignificant results on the fee ratio make it more difficult for us to conclude that high fees from services other than executive compensation affect consultants' decisions on compensation advices.

[Insert Table 3 About Here]

#### **4.2 Determinants of Executive Compensation Consulting Fees**

Since we find only limited evidence that NEC services are related to CEO pay and much more consistent evidence on EC fees that is in contrast with prior studies, we focus on and further examine the effect of EC fees on CEO pay by analyzing whether abnormal level of EC fees can explain the findings from the previous test. Since there exist no prior studies on the determinants of fees related to compensation consult, we apply the models on audit fee determinants (Choi et al. 2010; Hwang et al. 2004, Hwang et al. 2005) and adjust dependent variable to reflect the scope of compensation consulting more accurately. The audit literature suggests that auditors' incentives to deter biased financial reporting differ systematically, depending on whether their clients pay more than or less than the normal

level of audit fee (Choi et al. 2010). We use this theory to analyze whether consultants' incentives to bias their compensation advice is related to positive abnormal EC fees. As its first step, Equation 2 is used to estimate the determinants of executive compensation consulting fees in order to find the optimal or expected level of EC fees.

$$\begin{aligned}
 EC\ Fee_t = & \alpha_0 + \alpha_1 MVE_t + \alpha_2 Leverage_t + \alpha_3 BTM_t + \alpha_4 ROA_t \\
 & + \alpha_5 Return_t + \alpha_6 Return\ Volatility_t + \alpha_7 CEO\ Tenure_t \\
 & + \alpha_8 CEO\ Ownership_t + \alpha_9 Board\ Meetings_t \\
 & + \alpha_{10} Committee\ Size_t + \alpha_{11} Committee\ Independence_t \\
 & + \alpha_{12} Committee\ Tenure_t + \alpha_{13} Five\ Pct\ Ownership_t \\
 & + \alpha_{14} Business\ Segments_t + \alpha_{15} New\ Consultant_t \\
 & + \alpha_{16} Big\ Consultant_t + \alpha_{17} NEC\ Service_t \\
 & + Industry\ Effects + Year\ Effects_t
 \end{aligned}
 \tag{2}$$

In this regression, variables on the compensation committee members are in place for board characteristics to more accurately capture the effect of specific role players of fee determination. We expect that companies with large size and operating in highly volatile and complex environment pay more fees to consultants. Moreover, we expect companies with better governance and more capable compensation committee members are less likely to outsource compensation services, thereby leading to lower EC fee levels. CEO and consultant characteristics are also included to observe whether EC fees differ depending on CEO and consultants' contract terms. The result from Equation 2 is shown in Table 4. It shows that, as expected,

compensation committee tenure is negative related to the EC fees, indicating that more experienced committee member can substitute for the compensation consultants' expertise in setting compensation schemes. Percentage holding of large owners is also negatively related to EC fees, suggesting either well monitored company requires less compensation consulting or that they prevent company from paying excessive consulting fees. Although the adjusted R-squared, 0.09, is smaller than that of conventional audit fee determinants, we believe this regression still provides valuable implications that it is a pioneer work in the compensation consultant literature.

[Insert Table 4 About Here]

### **4.3 Impact of Abnormal Compensation Consulting Fees on CEO Pay**

Using the results from the determinants of executive compensation consulting fees, we find abnormal EC fees calculated as the difference between the actual fees paid and the expected fee levels. Such abnormal EC fees consist of two parts, where normal fees reflect consultants' effort costs, and normal profits, and abnormal fees explaining the idiosyncratic relationship between the consultant and the company. In the audit literature, abnormal fees may more accurately be linked by attempted bribes (Kinney and Libby 2002), and therefore can capture additional revenues from

idiosyncratic auditor-client relationship. Therefore, it is expected that positive abnormal EC fees are indications of revenues that consultants can receive beyond their normal level of effort, thereby increasing their incentive to secure its relationship with the companies that leads to higher CEO pay levels. Equation 3 tests the hypothesis on the impact of abnormal executive compensation consulting fees on CEO pay.

$$\begin{aligned}
 CEO\ Pay_t = & \alpha_0 + \alpha_1 Positive\ Residual_t + \alpha_2 Negative\ Residual_t \\
 & + \alpha_3 MVE_t + \alpha_4 Leverage_t + \alpha_5 BTM_t + \alpha_6 ROA_t + \alpha_7 Return_t \\
 & + \alpha_8 Return\ Volatility_t + \alpha_9 CEO\ Tenure_t \\
 & + \alpha_{10} CEO\ Ownership_t + \alpha_{11} Founder\ CEO_t + \alpha_{12} Board\ Size_t \\
 & + \alpha_{13} Board\ Independence_t + \alpha_{14} Board\ Tenure_t \\
 & + \alpha_{15} Board\ Meetings_t + \alpha_{16} Busy\ Board_t \\
 & + \alpha_{17} Outside\ Chairman_t + \alpha_{18} Business\ Segments_t \\
 & + \alpha_{19} New\ Consultant_t + \alpha_{20} Big\ Consultant_t \\
 & + Industry\ Effects + Year\ Effects_t
 \end{aligned} \tag{3}$$

where: *CEO Pay* is *Total Pay*, *Cash Pay*, or *Equity Pay*, and *Consultant* is *NEC Service*, *NEC Fee*, or *EC Fee*.

Equation 3 uses the same control variables as in Equation 1, except the key independent variable is the positive and negative EC fees calculated from Equation 2. Positive (negative) residual is defined as the difference between actual EC fees paid by a client and the expected EC fees estimated by Equation 2. If the deviation from the expected level of fees is an important factor in determining the level of consultants' repeat business incentives, than higher positive abnormal EC fees are expected to increase

CEO pay. The association between negative abnormal EC fees and CEO pay is uncertain since whereas receiving small fees for the level of service may lower consultants' incentive to retain the client, the consultants may be reluctant to deliberately lower CEO pay and increase the chance of losing the client.

The regression results from Equation 3 are shown in Table 5. Consistent with the hypothesis, the findings indicate that positive abnormal EC fees are positive associated with CEO's total and cash compensation, whereas negative abnormal EC fees have no impact on CEO pay. This indicates that the finding in Table 3 suggesting higher EC fees leading to higher CEO pay is driven by positive abnormal EC fees and not by negative abnormal EC fees. The repeat business hypothesis is supported by this finding that consultants are concerned about securing the monetary value of their clients, and such interest is increased when they can derive higher revenue with same amount of effort given. All other control variables show consistent findings as in Table 3, suggesting small and better governed companies pay their CEO less. Overall, the findings from this study suggests that compensation consultant services are detrimental to shareholders' values when consultants have high conflicts of interest and fail to provide unbiased executive compensation consulting services.



[Insert Table 5 About Here]

## **5. CONCLUSIONS**

In this paper, we examine whether compensation consultant's own incentives have effect on the CEO compensation level by utilizing consulting fee data that became available after the SEC's 2009 regulation. We hand-collect 778 consultant engagement information and 201 executive compensation fee data from companies' annual proxy statements from fiscal year 2009 and 2010. The test on the impact of compensation consultants' incentives on the level of CEO pay revealed that consultants awards higher total and cash compensation when they receive higher EC fees, supporting the repeat business hypothesis. We also found some evidence that the level of cash compensation is higher when consultants also provide NEC services and when fees from those services are higher, partially reinforcing the cross-selling incentives. In order to examine whether the evidences found in the first test linked to excessive fees paid, we estimate the determinants of EC fees and analyze the relationship between abnormal EC fees and the CEO pay. We expect the relationship between abnormal EC fees and CEO pay to be positive when EC fees are higher than expected, since excessive EC fees can increase consultants' incentive to bias their services. Consistent with the

hypothesis, the regression results indicate that positive abnormal EC fees are positive associated with CEO's total and cash compensation. Overall, the findings from this study suggests that compensation consultant services are detrimental to shareholders' values when consultants have high conflicts of interest and fail to provide unbiased executive compensation consulting services.

This study contributes to the executive compensation literature in several ways. First, by extending the studies on the role of compensation consultants, this study's findings fills the void in literature on whom plays a significant role in designing executive compensation packages. While prior researches have addressed factors related to firm economics, governance, and executive characteristics, direct evidence on outside consultants were scarce. Furthermore, this study reinvestigates the findings of other studies on compensation consultants (Cadman et al. 2010; Murphy and Sandino 2010; Armstrong et al. 2010) with more accurate proxies and provide new evidence that higher than expected fees lead to lucrative CEO pay.

These findings, however, are not without limitations. First, the size and the information of the sample limits our ability to design a sophisticated research. Therefore, we plan to extend the sample to S&P 1500 and additionally hand-collect detailed information on compensation committee

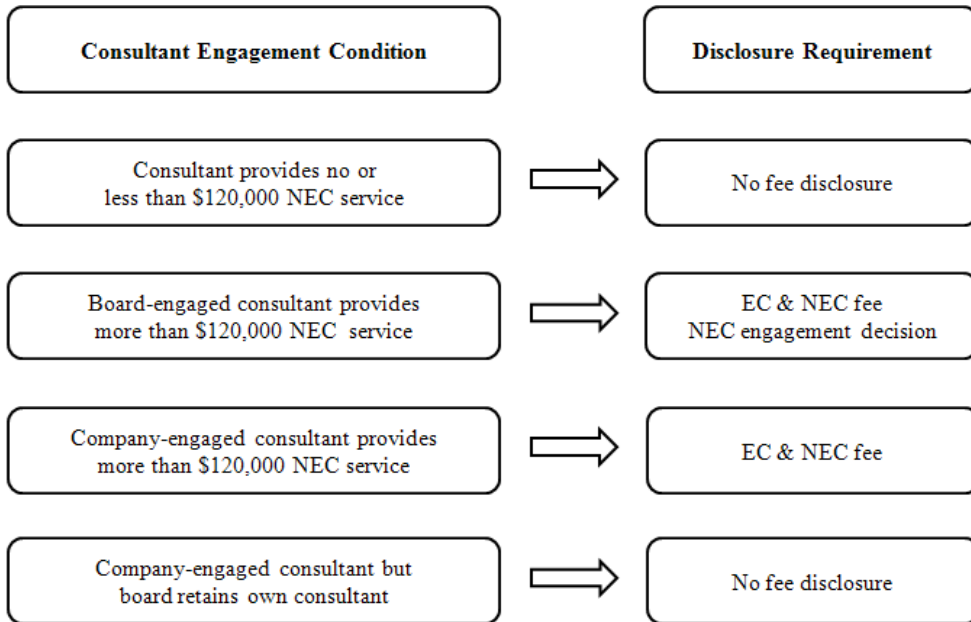
and consultant service scopes. Furthermore, the research model itself has some problems on selection bias and endogeneity issues. To strengthen our study, we should consider the effects of how EC and NEC engagement decisions are made, and apply other econometric methods such as Heckman model and propensity-score matching to control for such problems.

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**FIGURE 1**  
**2009 SEC Fee Disclosure Requirement**



**TABLE 1**  
**Sample Selection and Descriptive Statistics**

Panel A: Sample Selection

Initial Sample from S&P 500 for Fiscal Year 2009 to 2010	Firm-Year Observations
S&P 500 firms	1,000
Deduct firms with missing years	(38)
Deduct firms with missing variables due to database merge	(114)
Initial sample	848
Deduct firms without compensation consultant	(70)
Consultant sample	778
Firms where consultant only provide executive compensation service	611 (79%)
Firms where consultant provide services other than executive compensation	167 (21%)
Final fee sample	
Executive compensation consulting fees including 34 voluntary disclosures	201
Fees for services other than executive compensation including \$0 assumption	778

S&P 500 firms are selected as of fiscal year 2009. 201 executive compensation consulting fee observations consist of 167 mandatory disclosure observations and 34 voluntary disclosure observations. 778 observations of fees for services other than executive compensation consist of 167 mandatory disclosure observations and 611 observations as \$0 based on an assumption that consultants that are not required to disclose the fees engage in no services other than executive compensation consulting.

Panel B: Descriptive Statistics

Variables <sup>a</sup>	N	Mean	Standard Deviation	Min	25%	Median	75%	Max
<b>CEO Pay:</b>								
<i>Total Pay</i>	963	9,386	7,141	0.001	5,050	7,817	11,843	84,470
<i>Cash Pay</i>	963	3,515	2,985	0	1,831	2,895	4,261	34,167
<i>Equity Pay</i>	963	5,517	5,274	0	2,458	4,401	7,414	70,453
<b>Consultant:</b>								
<i>NEC Service</i>	856	0.217	0.413	0	0	0	0	1
<i>NEC Fee</i>	856	436	1,984	0	0	0	0	43,540
<i>EC Fee</i>	224	227	149	19	121	203	277	921.39
<i>Residual</i>	201	-0.010	0.671	-2.598	-0.338	0.096	0.412	2.010
<b>Economic:</b>								
<i>MVE</i>	960	22,453	37,224	1,241	5,827	10,018	21,524	364,064
<i>Leverage</i>	958	0.605	0.200	0.151	0.457	0.605	0.744	1.117
<i>BTM</i>	955	0.535	0.373	-0.051	0.271	0.451	0.713	2.042
<i>ROA</i>	963	0.064	0.070	-0.124	0.020	0.051	0.098	0.295
<i>Return</i>	898	0.252	0.413	-0.598	0.014	0.202	0.424	2.020
<i>Return Volatility</i>	898	0.090	0.035	0.037	0.065	0.083	0.110	0.207
<b>Governance:</b>								
<i>CEO Tenure</i>	958	6.978	5.820	1	2.9	5.5	9.2	31.6
<i>CEO Ownership</i>	955	0.008	0.020	0	0.001	0.003	0.007	0.132
<i>Board Size</i>	919	10.831	2.267	6	9	11	12	17
<i>Board Independence</i>	919	0.778	0.137	0.333	0.7	0.8	0.889	0.938
<i>Board Tenure</i>	942	8.232	2.889	1.875	6.333	8.039	9.731	17.176



<i>Board Meetings</i>	942	8.730	3.818	4	6	8	10	26
<i>Busy Board</i>	919	0.024	0.050	0	0	0	0	0.222
<i>Committee Size</i>	937	3.693	1.202	1	3	4	4	7
<i>Committee Tenure</i>	937	7.997	3.899	1	5.292	7.6	10	22
<i>Business Segments</i>	963	2.896	2.136	1	1	2	4	9
<i>Five Pct Ownership</i>	942	0.176	0.126	0	0.073	0.154	0.255	0.561

The sample consists of 778 firm-year observations of S&P 500 firms for fiscal year 2009 and 2010. Data for consulting service fees are hand-collected from companies' proxy statements. Financial performance data is obtained from Compustat and CRSP, CEO characteristics are attained from Execucomp, and governance variables are obtained from Corporate Library. All continuous variables are winsorized at 1 and 99 percentile.

a Variable Definitions:

- Total Pay* = CEO's annual total compensation (TDC1 on Execucomp), where natural logarithm is taken in the regressions;
- Cash Pay* = CEO's annual cash compensation (salary + bonus + nonequity incentive + LITP), where natural logarithm is taken in the regressions;
- Equity Pay* = CEO's annual equity compensation (grant date fair value of stock + grant date fair value of options), where natural logarithm is taken in the regressions;
- NEC Service* = 1 if firm retains non-executive compensation service from the same compensation consultant who serves executive compensation service, 0 otherwise;
- NEC Fee* = non-executive compensation service fees, where natural logarithm is taken in the regressions;
- EC Fee* = executive compensation service fees, where natural logarithm is taken in the regressions;
- Residual* = abnormal EC fee calculated using Equation (2) on service fee determinant;
- MVE* = market value of equity (year end price multiplied by common shares outstanding), where natural logarithm is taken in the regressions;
- Leverage* = total debt divided by total assets;
- BTM* = book-to-market ratio at fiscal-year-end;

*ROA* = return on assets (net income minus income from discontinued operation divided by beginning of the year assets);

*Return* = monthly compounded annual stock return;

*Return Volatility* = standard deviation of monthly compounded annual stock returns (*Return*) over five prior years (*t-5* to *t-1*);

*CEO Tenure* = years since date became CEO;

*CEO Ownership* = percentage of total shares owned by CEO;

*Board Size* = board size, which is the sum of inside and outside directors;

*Board Independence* = board independence, which is the number of outside directors divided by the number of the entire board members (*Board\_Size*);

*Board Tenure* = average tenure of board members;

*Board Meetings* = number of board meetings;

*Busy Board* = percentage of board members that hold more than four corporate directorships;

*Committee Size* = number of compensation committee members;

*Committee Tenure* = average tenure of compensation committee members;

*Business Segments* = number of business segments;

*Five Pct Ownership* = percentage of outstanding shares held by any 5% or greater shareholders.

**TABLE 2**  
**Pearson Correlation Matrix**

	Total Pay	Cash Pay	Equity Pay	NEC Dumm	NEC Fee	EC Fee	MVE	Lev.	BTM	ROA	Return	Return Vol.	CEO Tenure	CEO Share	Board Size	Board Indep.	Board Tenure	Board Meets	Busy Board	Comm. Size	Comm. Tenure	Biz Segs.	
Cash Pay	0.66*																						
Equity Pay	0.74*	0.36*																					
NEC Dummy	0.03	0.06	0.04																				
NEC Fee	0.05	0.08*	0.05	0.92*																			
EC Fee	0.19*	0.14*	0.16*	0.04	0.09																		
MVE	0.32*	0.10*	0.10*	0.01	0.04	0.01																	
Leverage	0.05	0.08*	0.05	0.02	0.07	0.16*	-0.03																
BTM	-0.12*	-0.14*	-0.07*	0.00	0.00	0.11	-0.11*	0.19*															
ROA	0.04	0.05	0.01	0.05	0.04	-0.11	0.21*	-0.34*	-0.51*														
Return	0.00	0.03	-0.02	-0.01	-0.01	-0.07	-0.04	-0.02	-0.12*	0.05													
Return Volatility	-0.10*	-0.13*	-0.10*	-0.11*	-0.12*	0.01	-0.26*	-0.03	0.19*	-0.15*	0.27*												
CEO Tenure	-0.04	-0.07*	-0.10*	0.03	0.02	-0.08	0.01	-0.12*	-0.03	0.01	0.05	0.00											
CEO Share	-0.11*	-0.09*	-0.19*	-0.06	-0.06	-0.09	-0.09*	-0.09*	-0.05	0.03	0.02	0.09*	0.45*										
Board Size	0.18*	0.15*	0.11*	0.04	0.06	0.02	0.32*	0.26*	0.22*	-0.17*	-0.12*	-0.21*	-0.09*	-0.14*									
Board Indep.	0.02	-0.03	0.07*	0.06	0.05	0.03	0.09*	0.19*	0.09*	-0.05	-0.02	-0.10*	-0.24*	-0.24*	0.12*								
Board Tenure	-0.13*	-0.06	-0.12*	-0.05	-0.04	-0.13*	-0.07*	-0.17*	0.01	0.02	-0.11*	-0.16*	0.37*	0.24*	-0.03	-0.32*							
Board Meetings	0.02	-0.01	-0.02	-0.01	-0.01	0.05	0.10*	0.27*	0.38*	-0.24*	0.02	0.20*	-0.16*	-0.13*	0.24*	0.15*	-0.21*						
Busy Board	0.00	-0.04	-0.03	0.05	0.08*	-0.10	0.05	0.05	0.03	-0.02	0.02	-0.04	-0.06	0.00	0.02	0.05	-0.08*	0.01					
Committee Size	0.14*	0.12*	0.09*	0.01	0.03	0.02	0.12*	0.19*	0.01	-0.10*	-0.04	-0.16*	-0.01	-0.09*	0.32*	0.13*	-0.02	0.00	0.11*				
Committee Tenure	-0.05	-0.03	-0.06	-0.02	0.01	-0.22*	-0.09*	-0.08*	-0.01	0.03	-0.06	-0.08*	0.13*	0.11*	-0.02	-0.22*	0.56*	-0.10*	-0.07*	0.01			
Business Segments	0.10*	0.08*	0.01	-0.07*	-0.03	0.12	0.15*	0.09*	0.12*	-0.13*	-0.01	-0.07*	-0.05	0.04	0.13*	0.03	0.04	0.03	0.04	0.06*	0.04		
Five Pct Ownership	-0.05	0.01	-0.01	-0.05	-0.06	-0.09	-0.35*	0.03	-0.01	-0.07*	0.11*	0.25*	0.04	0.00	-0.22*	-0.01	-0.09*	0.06	0.05	-0.08*	-0.02	-0.12*	

The symbol \* indicate significance at the 5% level.

**TABLE 3**  
**Impact of Compensation Consultant Incentives on CEO Pay <sup>a</sup>**

Independent Variables	(1) <i>Total Pay</i>	(2) <i>Cash Pay</i>	(3) <i>Equity Pay</i>	(4) <i>Total Pay</i>	(5) <i>Cash Pay</i>	(6) <i>Equity Pay</i>	(7) <i>Total Pay</i>	(8) <i>Cash Pay</i>	(9) <i>Equity Pay</i>
<i>NEC Service</i>	0.026 (0.45)	0.149* (1.76)	0.166 (0.81)						
<i>NEC Fee</i>				0.007 (0.75)	0.027** (2.06)	0.022 (0.70)			
<i>EC Fee</i>							0.239** (2.02)	0.292* (1.93)	0.435 (1.51)
<i>MVE</i>	0.222*** (4.08)	0.069 (0.85)	0.181 (1.10)	0.223*** (4.09)	0.067 (0.82)	0.179 (1.09)	0.321*** (4.89)	0.234*** (2.67)	0.501*** (2.70)
<i>Leverage</i>	0.169 (1.03)	0.429* (1.88)	0.335 (0.62)	0.175 (1.07)	0.404* (1.74)	0.323 (0.60)	-0.061 (-0.20)	0.014 (0.04)	-0.344 (-0.48)
<i>BTM</i>	-0.076 (-0.68)	-0.327 (-1.53)	-0.147 (-0.45)	-0.079 (-0.69)	-0.330 (-1.54)	-0.146 (-0.45)	0.055 (0.31)	-0.006 (-0.03)	0.507 (1.05)
<i>ROA</i>	-0.520 (-1.03)	0.117 (0.15)	-0.071 (-0.04)	-0.500 (-0.98)	0.103 (0.13)	-0.098 (-0.06)	-0.032 (-0.04)	1.677 (1.60)	-1.406 (-0.59)
<i>Return</i>	-0.010 (-0.18)	0.187** (2.36)	-0.109 (-0.56)	-0.007 (-0.13)	0.183** (2.31)	-0.109 (-0.56)	-0.055 (-0.41)	0.162 (1.28)	-0.373 (-0.82)
<i>Return Volatility</i>	-0.495 (-0.45)	-2.307 (-1.17)	-1.558 (-0.42)	-0.479 (-0.44)	-2.234 (-1.13)	-1.683 (-0.46)	-0.629 (-0.32)	-2.781 (-0.80)	0.327 (0.08)
<i>CEO Tenure</i>	0.011* (1.66)	-0.002 (-0.21)	0.027 (1.25)	0.011* (1.67)	-0.002 (-0.24)	0.027 (1.26)	0.013 (1.00)	0.006 (0.49)	0.042 (1.26)
<i>CEO Ownership</i>	1.736 (0.74)	5.945 (1.60)	-8.990 (-0.94)	1.948 (0.83)	5.892 (1.62)	-9.120 (-0.96)	1.090 (0.23)	2.102 (0.35)	7.535 (0.46)
<i>Founder CEO</i>	-0.262 (-0.99)	-0.913* (-1.80)	-0.705 (-0.91)	-0.310 (-1.23)	-0.874* (-1.83)	-0.698 (-0.96)	-0.348 (-1.23)	-0.014 (-0.04)	-2.592*** (-2.90)
<i>Board Size</i>	0.022 (1.44)	0.055** (2.21)	0.052 (1.22)	0.023 (1.52)	0.054** (2.20)	0.051 (1.22)	-0.032 (-1.38)	-0.040* (-1.73)	-0.023 (-0.35)
<i>Board Independence</i>	-0.422*	-0.712**	-0.147	-0.378*	-0.722**	-0.160	0.216	0.032	0.520

	(-1.94)	(-2.55)	(-0.18)	(-1.73)	(-2.54)	(-0.20)	(0.58)	(0.08)	(0.57)
<i>Board Tenure</i>	-0.037***	-0.026*	-0.077**	-0.037***	-0.026*	-0.076**	-0.012	-0.007	-0.097
	(-2.85)	(-1.80)	(-2.11)	(-2.88)	(-1.81)	(-2.10)	(-0.46)	(-0.30)	(-1.19)
<i>Board Meetings</i>	-0.005	-0.000	-0.066	-0.005	0.000	-0.065	-0.018	-0.040	-0.082
	(-0.46)	(-0.01)	(-1.61)	(-0.47)	(0.02)	(-1.60)	(-0.88)	(-1.30)	(-1.48)
<i>Busy Board</i>	-0.037	-0.983	-0.875	-0.045	-1.034	-0.917	1.057	0.886	3.161
	(-0.07)	(-1.09)	(-0.38)	(-0.09)	(-1.13)	(-0.40)	(1.30)	(0.97)	(1.52)
<i>Outside Chairman</i>	-0.223**	-0.142	-0.306	-0.222**	-0.151	-0.293	-0.563**	-0.528**	-1.411*
	(-2.33)	(-1.15)	(-0.95)	(-2.35)	(-1.24)	(-0.92)	(-2.43)	(-2.32)	(-1.70)
<i>Business Segments</i>	0.016	0.021	0.019	0.016	0.020	0.018	-0.023	0.005	-0.178*
	(1.23)	(0.96)	(0.41)	(1.26)	(0.91)	(0.40)	(-0.85)	(0.15)	(-1.97)
<i>New Consultant</i>	0.061	0.124	0.164	0.064	0.131	0.161	0.124	0.330	0.520
	(1.11)	(1.55)	(0.86)	(1.16)	(1.63)	(0.84)	(0.79)	(1.60)	(1.37)
<i>Big Consultant</i>	0.124**	0.072	0.042	0.117*	0.070	0.048	0.316	0.494*	0.762
	(2.05)	(0.90)	(0.22)	(1.95)	(0.88)	(0.25)	(1.62)	(1.84)	(1.54)
<i>Constant</i>	7.303***	7.695***	7.070***	7.383***	7.805***	7.213***	5.060***	4.556***	2.731
	(10.03)	(7.08)	(3.40)	(10.11)	(7.29)	(3.50)	(5.70)	(4.43)	(1.28)
<i>Industry</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Observations</i>	778	778	778	778	778	778	201	201	201
<i>Adjusted R-squared</i>	0.210	0.125	0.035	0.215	0.127	0.036	0.329	0.263	0.205

The symbols \*, \*\*, and \*\*\* correspond to 10%, 5%, and 1% significance levels, respectively, for two-tailed t-tests Standard errors are corrected for heteroskedasticity using the Huber-White robust standard errors clustered by firm.

a The regression model for this analysis is as follows:

$$\begin{aligned}
 CEO\ Pay_t = & \alpha_0 + \alpha_1 Consultant_t + \alpha_2 MVE_t + \alpha_3 Leverage_t + \alpha_4 BTM_t + \alpha_5 ROA_t + \alpha_6 Return_t + \alpha_7 Return\ Volatility_t + \alpha_8 CEO\ Tenure_t \\
 & + \alpha_9 CEO\ Ownership_t + \alpha_{10} Founder\ CEO_t + \alpha_{11} Board\ Size_t + \alpha_{12} Board\ Independence_t + \alpha_{13} Board\ Tenure_t \\
 & + \alpha_{14} Board\ Meetings_t + \alpha_{15} Busy\ Board_t + \alpha_{16} Outside\ Chairman_t + \alpha_{17} Business\ Segments_t + \alpha_{18} New\ Consultant_t \\
 & + \alpha_{19} Big\ Consultant_t + Industry\ Effects + Year\ Effects_t
 \end{aligned}$$

where: *CEO Pay* is *Total Pay*, *Cash Pay*, or *Equity Pay*, and *Consultant* is *NEC Service*, *NEC Fee*, or *EC Fee*.

**TABLE 4**  
**Determinants of Executive Compensation Consulting Fee <sup>a</sup>**

Independent Variables	(1) <i>EC Fee</i>
<i>MVE</i>	0.008 (0.11)
<i>Leverage</i>	0.766** (2.06)
<i>BTM</i>	0.241 (0.93)
<i>ROA</i>	-0.698 (-0.65)
<i>Return</i>	-0.034 (-0.21)
<i>Return Volatility</i>	0.676 (0.29)
<i>CEO Tenure</i>	-0.008 (-0.69)
<i>CEO Ownership</i>	-1.404 (-0.26)
<i>Board Meetings</i>	-0.001 (-0.04)
<i>Committee Size</i>	0.023 (0.44)
<i>Committee Independence</i>	-0.157 (-1.23)
<i>Committee Tenure</i>	-0.043** (-2.42)
<i>Five Pct Ownership</i>	-1.140** (-2.09)
<i>Business Segments</i>	-0.034 (-1.25)
<i>New Consultant</i>	0.008 (0.03)
<i>Big Consultant</i>	0.021 (0.10)
<i>NEC Service</i>	0.127 (0.96)
<i>Constant</i>	5.446*** (5.63)
Observations	201
Adjusted R-squared	0.090

T- The symbols \*, \*\*, and \*\*\* correspond to 10%, 5%, and 1% significance levels, respectively, for two-tailed t-tests Standard errors are corrected for heteroskedasticity using the Huber-White robust standard errors clustered by firm.

a The regression model for this analysis is as follows:

$$\begin{aligned} EC\ Fee_t = & \alpha_0 + \alpha_1 MVE_t + \alpha_2 Leverage_t + \alpha_3 BTM_t + \alpha_4 ROA_t + \alpha_5 Return_t \\ & + \alpha_6 Return\ Volatility_t + \alpha_7 CEO\ Tenure_t + \alpha_8 CEO\ Ownership_t \\ & + \alpha_9 Board\ Meetings_t + \alpha_{10} Committee\ Size_t + \alpha_{11} Committee\ Independence_t \\ & + \alpha_{12} Committee\ Tenure_t + \alpha_{13} Five\ Pct\ Ownership_t + \alpha_{14} Business\ Segments_t \\ & + \alpha_{15} New\ Consultant_t + \alpha_{16} Big\ Consultant_t + \alpha_{17} NEC\ Service_t + Industry\ Effects \\ & + Year\ Effects_t \end{aligned}$$

**TABLE 5**  
**Impact of Abnormal Compensation Consulting Fee on CEO Pay <sup>a</sup>**

Independent Variables	(1) <i>Total Pay</i>	(2) <i>Cash Pay</i>	(3) <i>Equity Pay</i>
<i>Positive Residual</i>	0.312** (2.18)	0.326* (1.73)	0.521 (1.36)
<i>Negative Residual</i>	0.160 (0.74)	0.236 (1.01)	0.311 (0.55)
<i>MVE</i>	0.329*** (5.11)	0.251*** (2.97)	0.527*** (2.90)
<i>Leverage</i>	0.102 (0.35)	0.228 (0.67)	0.035 (0.06)
<i>BTM</i>	0.101 (0.55)	0.056 (0.25)	0.616 (1.17)
<i>ROA</i>	-0.360 (-0.46)	1.369 (1.34)	-1.563 (-0.64)
<i>Return</i>	-0.150 (-1.26)	0.054 (0.45)	-0.527 (-1.20)
<i>Return Volatility</i>	-0.448 (-0.23)	-2.337 (-0.68)	1.062 (0.24)
<i>CEO Tenure</i>	0.011 (0.84)	0.005 (0.39)	0.042 (1.21)
<i>CEO Ownership</i>	-0.246 (-0.05)	0.492 (0.08)	4.569 (0.28)
<i>Founder CEO</i>	-0.361 (-1.22)	-0.019 (-0.05)	-2.602*** (-2.89)
<i>Board Size</i>	-0.031 (-1.39)	-0.039* (-1.68)	-0.022 (-0.34)
<i>Board Independence</i>	0.232 (0.59)	0.103 (0.24)	0.610 (0.63)
<i>Board Tenure</i>	-0.020 (-0.75)	-0.016 (-0.62)	-0.114 (-1.35)
<i>Board Meetings</i>	-0.019 (-1.05)	-0.043 (-1.51)	-0.089* (-1.72)
<i>Busy Board</i>	1.124 (1.35)	0.999 (1.09)	3.352 (1.54)
<i>Outside Chairman</i>	-0.578** (-2.41)	-0.561** (-2.44)	-1.466* (-1.66)
<i>Business Segments</i>	-0.045 (-1.44)	-0.019 (-0.52)	-0.215** (-2.23)
<i>New Consultant</i>	0.091 (0.58)	0.298 (1.47)	0.471 (1.24)
<i>Big Consultant</i>	0.290 (1.55)	0.459* (1.79)	0.715 (1.50)
<i>Constant</i>	6.354*** (6.42)	6.170*** (4.70)	4.754* (1.96)



Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
Observations	201	201	201
Adjusted R-squared	0.313	0.254	0.198

T- The symbols \*, \*\*, and \*\*\* correspond to 10%, 5%, and 1% significance levels, respectively, for two-tailed t-tests Standard errors are corrected for heteroskedasticity using the Huber-White robust standard errors clustered by firm.

a The regression model for this analysis is as follows:

$$\begin{aligned}
 CEO\ Pay_t = & \alpha_0 + \alpha_1 Positive\ Residual_t + \alpha_2 Negative\ Residual_t + \alpha_3 MVE_t \\
 & + \alpha_4 Leverage_t + \alpha_5 BTM_t + \alpha_6 ROA_t + \alpha_7 Return_t + \alpha_8 Return\ Volatility_t \\
 & + \alpha_9 CEO\ Tenure_t + \alpha_{10} CEO\ Ownership_t + \alpha_{11} Founder\ CEO_t + \alpha_{12} Board\ Size_t \\
 & + \alpha_{13} Board\ Independence_t + \alpha_{14} Board\ Tenure_t + \alpha_{15} Board\ Meetings_t \\
 & + \alpha_{16} Busy\ Board_t + \alpha_{17} Outside\ Chairman_t + \alpha_{18} Business\ Segments_t \\
 & + \alpha_{19} New\ Consultant_t + \alpha_{20} Big\ Consultant_t + Industry\ Effects + Year\ Effects_t
 \end{aligned}$$

where: *CEO Pay* is *Total Pay*, *Cash Pay*, or *Equity Pay*, and  
*Consultant* is *NEC Service*, *NEC Fee*, or *EC Fee*.

## 국문초록

미국 기업 최고경영자 보상의 결정에 있어 보상컨설턴트의 역할의 중요성은 널리 알려진 바이지만 데이터의 부족으로 인해 그에 대한 연구는 미미하였다. 급격한 증가추세를 보이는 최고경영자의 보상과 더불어 보상컨설팅의 효율성과 정당성에 관한 논란이 일자 미국 증권거래위원회는 2009년부터 보상컨설턴트가 보상 및 기타 컨설팅 서비스를 제공하며 회사로부터 받는 보수를 공시하도록 하였다. 본 연구는 2009년부터 2010년까지 미국 S&P 500 기업의 778개 기업-년도 관찰치를 이용하여 보상컨설턴트의 금전적 인센티브가 최고경영자의 보상에 미치는 영향을 조사하였다. 분석 결과, 전반적으로 보상컨설팅 보수가 높을수록 최고경영자의 보상이 증가하는 것으로 나타난 반면 보상과 관련되지 않은 기타 컨설팅 보수는 최고경영자의 보상에 영향을 끼치지 않는 것으로 나타났다. 또한 초과보수를 이용한 분석에서는 보상컨설팅 보수가 컨설턴트의 기대치보다 높을 경우에만 최고경영자의 보상이 높아지는 것으로 나타난다. 이러한 결과는 보상컨설턴트가 기존고객으로부터의 수익을 유지하기 위해 컨설팅의 독립성을 해한다는 가설과 일치한다고 해석할 수 있다.

**주요어:** 보상컨설턴트, 컨설팅 보수, 최고경영자 보상

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