Executive compensation and firm performance in the U.S. restaurant industry: An agency theory approach

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ABSTRACT

Executive compensation is increasingly becoming a target by media, shareholders, and government regulators. Excessive or poorly structured compensation arrangements have been blamed for the U.S. financial crisis of 2008 and it has been questioned why executives were being paid out the bonuses and other benefits even though their companies were losing shareholder value. Agency theory explains part of the problem is due to the separation of management from ownership. This study investigated the relationship between executive compensation and firm performance in the restaurant industry.

Keywords: executive compensation, agency theory, restaurant industry.

INTRODUCTION

Executive compensation, how and how much, is increasingly becoming a target by media, shareholders, and government regulators. It has been questioned why executives are receiving the bonuses and other benefits even though their companies are losing shareholder value. Part of the problem is due to the separation of management from ownership. Managers have incentives to pursue self-serving goals that may not maximize the shareholder value. Jensen and Meckling (1976) emphasized that managers will make operating decisions that maximize his utility in the form of pecuniary and non-pecuniary returns. Because the shareholders do not often have enough information regarding the managers’ activities, it is difficult to verify whether managers are acting in the best interest of the shareholders. It has been theorized that using equity-based compensation ties executives’ wealth to the stock price, therefore, motivates executives to align their own interests with the shareholders’ interests (Jensen & Meckling, 1976). However, Walker (2010) indicated that using stock options has contributed to the shift in executives’ focus on short-term gains, rather than longer-term outlook. Further, Mehran (1995) stated that there is little empirical evidence on whether corporations using more equity-based compensation perform better.

Agency theory seeks to determine most efficient contract governing the manager-shareholder relationship. Specifically, the question is a behavior-oriented contract (e.g., salaries)
more efficient than an outcome-oriented contract (e.g., ownership, stock options) affecting firm performance (Eisenhardt, 1989).

According to Sturman (2001) service industries provided lowest average salary, short-term bonuses, and long-term bonuses among all the industries tallied to their executives. In addition, a recent study reported that restaurant industry used more behavior-oriented compensation than outcome-oriented compensation (Barber, Ghiselli, & Deale, 2006). As agency theory indicates, using short-term incentive compensation may not align managerial interests with shareholder interests. Prior studies examining the executive compensation in the restaurant industry focused on single reward, either pay and performance (Kim & Gu, 2005; Madanoglu & Karadag, 2008) or managerial ownership and performance (Park & Jang, 2010). However, the executives usually are compensated through multiple rewards such as stock options, salary, and bonuses (Eisenhardt, 1989).

Financial performance is widely used as an indicator of business performance. It is generally suggested that a compensation system based on managerial performance would be a better solution because perfect monitoring may be impossible or too expensive (Kim & Gu, 2005). Therefore, developing appropriate performance measures and interpreting the outcomes are central to the issue of organizational control. Profitability is the most commonly used basis for defining success, however; found to be short run oriented measure (Phillips, 1999). Although, economic value added (EVA) was proposed as an overall measure of financial performance that is intended to represent a firm’s true performance (Lee & Kim, 2009), Otley (1999) argued that it is particularly weak in measuring and monitoring the means by which managers have adopted to achieve their overall objectives. In order to reflect both accounting performance measures and shareholders’ future expectations on firms Tobin’s $q$ has been employed to explain a number of diverse corporate phenomena (Gompers, Ishii, & Metrick, 2003). It is defined as the ratio of the market value of a firm to the replacement cost of its assets; it reflects both accounting performance measures and investors’ future expectation on firms.

The purpose of this study was threefold: first, to investigate the relationship between executive compensation and restaurant firm performance; second, to investigate which form of compensation, or combination, contributes more to the firm performance; and third, to determine whether level of compensation affects firm performance. This study adds value as it uses different methodology, panel data, and uses a larger sample with a longer time period than prior studies. In addition, this study includes additional determinants indicated by the literature to gain better insights into the relationship.

**PROPOSED METHODOLOGY**

The sample for this study is the publicly traded restaurant companies in the U.S. The ten year (1999-2009) annual financial and executive compensation data on those firms is obtained from COMPUSTAT database.

Overall firm performance was measured using a modified version of the Tobin’s $q$ following Chung and Puritt formula (1994). Chung and Puritt (1994) approximation of Tobin’s $q$
was chosen for its simplicity and data availability, yet the model found to explain at least 96.6% of the variability in Tobin’s q. Approximate q defined as:

\[ \text{approximate } Q = \frac{(\text{MVE} + \text{PS} + \text{DEBT})}{\text{TA}} \]  

(1)

where MVE is the product of a firm’s share price and the number of common stock shares outstanding, PS is the liquidating value of the firm’s outstanding preferred stock, DEBT is the value of the firm’s short-term liabilities net of its short-term assets, plus the book value of the firm’s long-term debt, and TA is the book value of the total assets of the firm.

A regression model (see equation 2) was adopted in this study to investigate the relationship between firm performance and executive compensation. Firm performance is the dependent variable and the independent variables are described below. Size was included as a controlling variable to reflect the size effects of the firm and was measured using total revenue of the firm.

\[ FP_{it} = \beta_0 + \beta_1 S_{it} + \beta_2 B_{it} + \beta_3 RS_{it} + \beta_4 SO_{it} + \beta_5 NON_{it} + \beta_6 OC_{it} + \beta_7 TC_{it} + \beta_8 Size_{it} + \epsilon_{it} \]  

(2)

\[(i = 1, 2, \ldots, N; t = 1, 2, \ldots, T)\]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP</td>
<td>Firm Performance, Tobin’s Q</td>
</tr>
<tr>
<td>S</td>
<td>Salary</td>
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<tr>
<td>B</td>
<td>Bonus</td>
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<tr>
<td>RS</td>
<td>Restricted Stock Grants</td>
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<tr>
<td>SO</td>
<td>Stock Options (Fair Market Value)</td>
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<td>NON</td>
<td>Non-equity Compensation</td>
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<tr>
<td>OC</td>
<td>Other Compensation</td>
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<tr>
<td>TC</td>
<td>Total Compensation</td>
</tr>
<tr>
<td>Size</td>
<td>Size, Total Revenue</td>
</tr>
</tbody>
</table>

Panel data methodology was chosen for this study as pooling regression ignores the individual firm effects (Aivazian, Ge, & Qiu, 2005 2005). Himmelberg et al. (1999) emphasized that environment in which compensation contracts take place differs across firms in both observable and unobservable ways.

Fixed-effects model

\[ FP_{it} = (\alpha_i + u_{it}) + \beta_1 S_{it} + \beta_2 B_{it} + \beta_3 RS_{it} + \beta_4 SO_{it} + \beta_5 NON_{it} + \beta_6 OC_{it} + \beta_7 TC_{it} + \beta_8 Size_{it} \]  

(3)

Random-effects model

\[ FP_{it} = \alpha_i + \beta_1 S_{it} + \beta_2 B_{it} + \beta_3 RS_{it} + \beta_4 SO_{it} + \beta_5 NON_{it} + \beta_6 OC_{it} + \beta_7 TC_{it} + \beta_8 Size_{it} + (u_{it} + v_{it}) \]  

(4)

where \( \alpha_i \) is the unknown intercept for each firm, and \( u_{it} \) is the error term.

Two statistical tests were performed to identify which empirical methodology, pooling, random effect, or fixed effect regression, is most suitable. Lagrangian Multiplier (LM) test (Breusch & Pagan, 1980) of the random effect model and the Hausman specification test to compare the fixed effect and random effect models (Hausman, 1978).
REFERENCES