EXECUTIVE COMPENSATION AND CORPORATE PERFORMANCE: EVIDENCE FROM JORDANIAN COMMERCIAL BANKS

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Abstract

The wave of the recent financial crisis has reawakened interest in corporate governance as well as the relationship between executive compensation and corporate performance. Notably, corporate governance has been presented as a mechanism to absorb fiscal crisis faced in emerging economies. The principal aim of this study is to investigate the relationship between CEO compensation and corporate performance among commercial banks operating in a small emerging market, namely Jordan. Primary data were collected for a sample of 13 Jordanian commercial banks listed at Amman Stock Exchange (ASE) during the period of 2010-2016. The findings of this paper suggest that corporate performance measured by return on equity (ROE) and return on assets (ROA) has no influence on CEO compensation. Furthermore, this paper examines the impact of a firm’s size on the relationship between CEO compensation and corporate performance. The results reveal a significant relationship between executive compensation and firm’s performance among the smaller sample firms.

Keywords: Executive Compensation, Firm Performance, Commercial Banks, Jordan, Board of Directors, Corporate Governance

1. INTRODUCTION

Executive compensation has been recognized as an important internal corporate governance mechanism over the last two decades. CEO compensation is widely tested in the context of developed countries such as the United States and the United Kingdom (for example, see Conyon, 1997; Correa & Lel, 2016; Murphy, 1999; Ozkan, 2011). However, the structure of corporate governance in developing countries is fundamentally different from those firms in developed countries. For instance, corporate governance in developing countries can be viewed as having lower disclosure requirements and investor protection (Claassens et al., 2000). Furthermore, ownership of firms in developing markets is highly concentrated compared to the developed markets. Thus, we expect that the agency problem is much higher in developed markets, as a result; it is important to pay more attention to the level of CEO compensation and link it to the corporate performance. A vast body of literature has found that one of the solutions to agency problem is to employ effective compensation plans in emerging markets (Gallego & Larrain 2012; Lam et al., 2013; Raithatha & Komera 2016; Zou et al., 2015). However, scholars argue that the effectiveness of commonly used compensation plans such as cash bonuses and stock options may not be linked to the corporate performance in emerging corporate governance settings (Ghosh, 2006; Luo & Jackson, 2012).
academic, business, investment communities etc.

This research adds to the area of CEO compensation by using an exclusive panel data set of 13 Jordanian commercial banks from ASE market for the period 2010-2017 to statistically investigate the relationship between CEO compensation and corporate performance employing total direct CEO compensation components (i.e. cash and bonus). Consistent with our expectation, this study reveals that there is no statistically significant impact of corporate performance on CEO compensation for Jordanian commercial banks. Moreover, this study finds a significant relationship between CEO compensation and corporate performance among the smaller sample firms.

The research structured as follows: section 2 documents the literature review; section 3 pinpoints the research methodology and shows the detailed description of the proxies of CEO compensation and corporate governance, their descriptive statistics; section 4 describes variables and research model; section 5 shows authors' findings; section 6 presents the robustness check and section 7 mentions the conclusions.

2. LITERATURE REVIEW

Since the 2008 financial crisis, all corporate governance codes have paid more attention to the governance of the remuneration of board members, most often through the “comply or explain” system. Prior studies in developed markets such as UK and US demonstrated that there is a significant relationship between executive compensation and firm performance (i.e., Conyon, 1997; Correa & Vel, 2016; Gregg et al., 2005; Murphy, 1999; Ozkan, 2011). However, firms are highly concentrated in emerging markets which may have an impact on the agency problem. It is also worth mentioning that the weak protection of minority shareholders in emerging markets may stimulate the need for a special issue of corporate governance codes of practices (Fan et al., 2011).

Many empirical studies investigate the effect of the company’s remuneration policy for key executive board members on its shareholders’ value. As a proxy for the company’s remuneration policy, scholars use various proxies of executive compensation. Some of these proxies are formed on aggregate levels (Galleto & Larain, 2012; Raiithatha & Komera, 2016); others are based on an individual level (Kubo, 2006). Regardless of which proxy is employed, nevertheless, the majority indicates a negative relationship between executive compensation and firm performance (e.g. Kubo, 2005, Lam et al., 2013, Usman et al., 2015). For instance, In Japan, Kubo (2005) documents that there is no relationship between the executive pay policy and firm performance.

Nevertheless, some prior studies offer supporting evidence on the positive association between executive compensation and corporate performance (e.g. Cai & Zheng, 2016; Raiithatha & Komera, 2016; Theeravanich, 2013). For example, Theeravanich (2013) found a strong association between executive compensation and firm performance in family firms only and revealed that the level of director compensation is influenced by the nature of the ownership. In another study, Cai and Zheng (2016) employed Chinese panel data and revealed similar findings. In India, Raiithatha and Komera (2016) found that there is a positive association between executive compensation and firm performance when the latter is measured by accounting proxies.

In China, Zou et al. (2015) studied the influence of top CEO compensation on corporate performance for a sample of 698 publicly listed firms. They found that there is a strong relationship between CEO compensation and corporate performance, but weak association between ownership structure and corporate performance.

In Jordan, there are limited studies conducted on the Amman Stock Exchange (ASE) regarding the relationship between CEO compensation and corporate performance. Abed et al. (2014) examined the determinants of CEO compensation for a sample of 266 industrial firms between the period of 2005 and 2010. They demonstrated that CEO tenure, CEO duality and firm size are positively related to CEO compensation. Ramadan (2013) gauged the correlation between CEO compensation and corporate performance for a sample of 77 Jordanian manufacturing firms for the period 2000-2011. He found that there is a positive correlation between CEO compensation and corporate performance.

Therefore, the purpose of this paper is to examine the relationship between CEO compensation and corporate performance in Jordan corporate context. This study employs a unique corporate governance dataset for Jordanian commercial banks for the period 2010-2016. Most prior corporate governance studies have focused mainly on insider and managerial ownership and have paid little attention to executive compensation (i.e., Ahmed & Hadi, 2017; Tomar & Bino, 2012; Zeitun, 2009). Other studies have tested the association between corporate governance, ownership concentration and corporate performance (i.e., Al Manaseer et al., 2012; Omran et al., 2008). Therefore, prior studies have focused mainly on ownership structure context and have ignored executive compensation in their investigations.

Furthermore, some of the published literature in this area indicates that the corporate governance variables are endogenously determined (i.e., Ararat et al., 2017; Black et al., 2012; Saona & Martin, 2016; Liu et al., 2015). In the existing literature, the most common technique used to control for Endogeneity is to use pooled OLS with robust standard error (Black et al., 2012). Moreover, other studies recommend the use of instrumental variables method for this purpose (Liu et al., 2015). However, there is no agreed number of instrumental variables to control for the Endogeneity problem. Moreover, other traditional methods like ordinary least squares and fixed or random effects models, used by most ownership structure related studies, have provided biased and inconsistent results (Ararat et al., 2016). Nevertheless, few prior studies use lagged variables estimation technique, which controls for the Endogeneity of explanatory variables (Liu et al., 2015). As a result, it is important to manage this problem in ownership structure analysis.
Thus, the majority of prior studies document strong evidence that CEO compensation is linked with corporate performance. We formulate the following hypotheses:

- **H₁**: Firm performance is positively associated with CEO compensation.
- **H₂**: Firm performance is negatively associated with CEO compensation.

\[
\text{CEOCOM}_i = \alpha + \beta \text{BZ}_i + \beta \text{BDU}_i + \beta \text{BKO}_i + \beta \text{CEOAGE}_i + \beta \text{LEV}_i + \beta \text{SIZE}_i + \beta \text{ROA}_i + \beta \text{ROE}_i + \sum_{i=1}^{n} \text{YEAR}_i + \epsilon_i
\]  

(1)

Where CEOCOM is CEO compensation, BZ is board size, BDU - board duality, BKO - blockholders, CEOAGE - CEO age, LEV - leverage, firm’s size, ROA - return on asset, ROE - return on equity, and YEAR is year dummy. Furthermore, this study follows the approach by Ozkan (2011) and investigates the sensitivity of CEO compensation. The equation as follows:

\[
\Delta \log \text{CEOCOM}_i = \alpha + \beta \Delta \text{Performance}_i + \sum_{i=1}^{n} \text{YEAR}_i + \epsilon_i
\]  

(2)

Where, \( \Delta \log \) (CEOCOM), the change in log CEO compensation, is equal to the continuously earned of corporate performance (ROE and ROA) and \( \beta \) is the elasticity of executive compensation regards corporate performance. Lastly, this research revisits the analysis of the CEO compensation-performance association moderating by the firm’s size.

4. VARIABLES DEFINITION

This research seeks to test the influence of corporate performance on CEO compensation. The study examines the effect of ROA and ROE on CEO compensation. The definitions and proxies of these variables are provided in the next paragraph.

**Board size (BZ):** using the Jordanian banks' annual reports, board size is defined as the total number of directors on the board (i.e., Abed et al., 2014; Ahmed & Hadi, 2017; Tomar & Bino, 2012; Zeitun, 2009; Yaseen et al., 2018).

**CEO/Chairperson duality (BDU):** in order to examine the effect of CEO power, this study examines whether the positions of CEO and chairperson are combined or separated. The annual reports provide this information and indicate when the title of the two positions is combined. Following Abed et al. (2014) a dummy variable equals one if the CEO is also the chairperson and zero otherwise.

**Firm Size** is an important variable that has been included in most of the previous empirical studies. Generally speaking, larger firms are predicted to have a lower risk as they can diversify more across their different product lines. Several empirical papers provide support for the above arguments and report a negative association between firm size and risk (see, for example, Gomez-Mejia et al., 2003; Core et al., 1999; Lee & Chen, 2011). In this study, following Abed et al. (2014) and Al-Amarneh et al. (2017) firm size is defined as the natural logarithm of total assets.

**Financial Leverage (LEV):** a considerable amount of the previous literature shows a negative association between financial leverage and CEO compensation (Abed et al., 2014; Gu and Kim, 2009). In this study and consistent with previous studies, financial leverage is defined as total debt to total assets (Yaseen et al., 2013).

**Blockholders:** in this study and using the annual reports, blockholders ownership is defined as the percentage of shares held by largest investors. The measurement of this variable is in line with previous studies (Abed et al., 2014; Mejia & Balkin, 1992). Prior studies revealed a mixed result with respect to block holders-corporate performance relationship. For example, Ahmed and Hadi (2017) stated that there is a positive relationship between block holders and corporate performance, while Tribo et al. (2007) found that there is a negative relationship between blockholders and corporate performance.

**CEO Age** is the age of the chief executive officer (Abed et al., 2014; Finkelstein & Hambrick, 1989; Yaseen et al., 2018).

5. DATA AND SUMMARY STATISTICS

The study consists of thirteen Jordanian commercial banks. The sample is held constant and is assumed to consist of the same firms throughout the study period, i.e., 01 January 2010 till 31st of December 2016; required data is collected from bank’s annual reports. The data codes for the individual data item are provided in parentheses following the data item. Following a vast body of literature in emerging markets, this study measures corporate performance by Return on Assets (ROA) and Return on Equity (ROE). The executive compensation plan is represented by cash salary and bonuses. And the control variables are the board’s size, board duality, blockholders, CEO age, leverage, and firm size.

5.1. Descriptive statistics

Table 1 documents the descriptive statistics for CEO compensation (CEOCOM) with an average and standard deviation of 191378 JD and 246921 JD respectively. The average board size (BZ) is 10.86. We can observe that the mean and median of blockholders (BKO) are 30.25% and 17.46% respectively. The average leverage ratio (LEV) is 85.67%. Regarding the firm’s size (log of total assets) is 9.31. With respect to the firm performance, this study measures both the return on assets (ROA) and return on equity. The average of ROA and ROE is 1.26% and 9.05% respectively. Our figures are similar to the findings of Abed et al. (2014).
5.2. Correlation matrix

Table 2 presents the Pairwise correlations among the research variables. It is noticeable from the table that the highest correlation, compared with other variables, is found between executive compensation (CEOCOM) and total assets (TOA) is (0.32) and board size (BZ) and total assets (TOA) is (0.42). Moreover, the highest correlation is found between CEO age (CEOAGE) and return on assets (ROA) is (-0.42). Furthermore, the highest association is detected between return on assets (ROA) and return on equity (ROE) is (0.86).

6. FINDINGS AND RESULTS

6.1. The relationship between CEO compensation and corporate performance

The results in Table 3 document that profitable firms offer less CEO compensation, which is related to the finding of prior studies. The coefficient on the return on assets variable is negative and not significant. Our findings are in the line with the findings document that firms with a higher blockholders ownership pay higher CEO compensation. This result is in the line with the result of Abed et al. (2014) at which they document that large shareholders do not perform an effective monitoring role in Jordanian commercial banks.

6.2. The relationship between CEO compensation and corporate performance

Lastly, this research runs the Variance Inflation Factor (VIF) command through STATA 11 to detect multicollinearity issue. The findings of VIF test reveals that this issue does not exist. From Table 4 it is clear that all value is less than 10.
6.2. CEO compensation and performance elasticity

Table 5 reports figures for equation (2). The estimator results in column (1) report that the sensitivity CEO compensation to return on assets (ROA) in Jordanian commercial banks is 0.57. In column (3) we include corporate governance variables, which are blockholders, board size and CEO age and board duality, to the regression model as control variables. Other control variables are firm size, which is defined as a firm’s total assets, and leverage (defined as total debt divided by total assets). Our results show that these control variables do not have a major effect on changes in CEO compensation unless leverage. However, employing these control variables does not have an extra explanatory power of the regression model and the value for CEO compensation-corporate performance sensitivity remains the same.

Furthermore, Table 5 reveals the results for the sensitivity CEO compensation to return on equity (ROE) which is 0.58. Moreover, employing an extra control variable does not reveal any change in the explanatory power of the regression model. Therefore, we can document that there is a positive association between corporate performance and CEO compensation. Next, we investigate if the relationship between CEO compensation and corporate performance changes with respect to the size of the firms.

Table 5. CEO compensation-performance sensitivity

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>BZ</td>
<td>0.12</td>
<td>0.12</td>
<td>0.12</td>
<td>0.12</td>
</tr>
<tr>
<td>BKO</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>CEO Age</td>
<td>0.37</td>
<td>0.37</td>
<td>0.37</td>
<td>0.37</td>
</tr>
<tr>
<td>LEV</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
<td>0.90</td>
</tr>
<tr>
<td>ROA</td>
<td>0.54</td>
<td>0.54</td>
<td>0.54</td>
<td>0.54</td>
</tr>
<tr>
<td>DUB Dummy</td>
<td>0.70</td>
<td>0.70</td>
<td>0.70</td>
<td>0.70</td>
</tr>
<tr>
<td>Constant</td>
<td>1.89</td>
<td>1.89</td>
<td>1.89</td>
<td>1.89</td>
</tr>
</tbody>
</table>

Note: This table contains coefficient values and t-statistics from the regression of the change in CEO compensation level against board size, board duality, blockholders, leverage, total asset, return on assets and return on equity. Figures recorded in parentheses represent t-statistics which are based on clustered standard errors, where ***, **, * mean significance at the 1%, 5% and 10% levels respectively.

6.3. The firm’s size effect on the relationship between CEO compensation and corporate performance

This study splits the data into small and large banks according to the total assets and revisits the relationship between CEO compensation and corporate performance. This analysis tests whether the association between CEO compensation and corporate performance will change between small and large banks. Small (large) banks are considered as banks that have a total asset smaller (equal to or greater) than the median of the total assets for the entire sample (see Usman et al., 2015). In Pakistan, Usman et al. (2015) found that board structure is not effective in building a sufficient executive compensation plan and revealed that CEO’s of larger firms enjoyed higher compensation than smaller ones.

In Table 6, this study finds that corporate performance for small banks has a significant positive relationship with CEO compensation than large banks. Moreover, board size (BZ) has a stronger positive association with CEO compensation in comparison with large banks. Furthermore, this research reveals that for small banks blockholders have a positive association with CEO compensation, whereas an inverse direction has been detected for large banks. Moreover, for large banks Table 6 reveals CEO age (CEOAge) has a stronger negative relationship with CEO compensation than smaller banks.
Table 6. The firm's size effect on the relationship between CEO compensation and corporate performance

<table>
<thead>
<tr>
<th>Variables</th>
<th>Large Firms</th>
<th>Small Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>BEZ</td>
<td>-0.79</td>
<td>-0.42</td>
</tr>
<tr>
<td></td>
<td>(0.27)</td>
<td>(0.16)</td>
</tr>
<tr>
<td>BKO</td>
<td>-0.36</td>
<td>-0.38</td>
</tr>
<tr>
<td></td>
<td>(0.27)</td>
<td>(0.81)</td>
</tr>
<tr>
<td>CEOAge</td>
<td>-2.64</td>
<td>-2.64</td>
</tr>
<tr>
<td></td>
<td>(1.33)</td>
<td>(1.33)</td>
</tr>
<tr>
<td>LEV</td>
<td>-26.03**</td>
<td>-24.95</td>
</tr>
<tr>
<td></td>
<td>(-2.30)</td>
<td>(-2.22)**</td>
</tr>
<tr>
<td>TOA</td>
<td>6.01</td>
<td>7.74</td>
</tr>
<tr>
<td></td>
<td>(0.75)</td>
<td>(0.85)</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.36</td>
<td>-0.86</td>
</tr>
<tr>
<td></td>
<td>(-0.86)</td>
<td>(-----)</td>
</tr>
</tbody>
</table>

**Note:** This table contains coefficient values and t-statistics from the regression of the firm's size effect in executive compensation level against board size, board duality, blockholders, leverage, total asset, return on assets and return on equity. Figures recorded in parentheses represent t-statistics which are based on clustered standard errors, where ***, **, * mean significance at the 1%, 5% and 10% levels respectively.

7. CONCLUSION

This research reveals some extra-empirical results on the relationship between CEO compensation and performance by controlling some well-known determinants of executive compensation for a sample of thirteen Jordanian commercial banks for the period 2010-2016. The empirical findings reveal that the executive compensation-performance elasticity of Jordanian commercial banks measured by ROE and ROA is respectively 0.58 (0.21). Moreover, our results on the relationship between CEO compensation and corporate performance reveal that profitable firms offer less CEO compensation. Our results are in line with the findings of Abed et al. (2014). Nevertheless, Ramadan (2013) documents a positive association between CEO compensation and corporate performance measured by ROA only. Furthermore, the results also document that smaller firms pay their CEOs higher compensation. Moreover, this study documents that blockholders ownership have a non-significant negative influence on CEO compensation, which shows that blockholders have a static monitoring role.

There are limitations to this study that are left for future research and should be considered when interpreting the study results. This research examines a small sample of 13 Jordanian commercial banks because of data availability reasons. Therefore, future research can expand to examine the executive compensation and corporate performance for a wider range. Moreover, corporate performance has been tested through Return on Equity (ROE) and Return on Assets (ROA). Thus, alternative measures of corporate performance may also be examined for further work.

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