

Past Performance and Executive Compensation: Evidence from Indonesia

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Abstract

This research examine the pay-for-performance hypothesis by studying Indonesian firms during the global financial crisis. Controlling for some firm fundamental factors and industry, we find that there is strong evidence that past performance drives the compensation paid to executives. This paper also reveals that financial firms tend to compensate their executive higher than those of non-financial firms. State-owned firms compensate a higher salary for their directors and commissioners than those of privately owned firms. Pay-for-performance system might reduce the agency problem between managers and shareholders, on the other side; however, this system might also reinforce the incentive for managers to take risk which subsequently increases the degree of riskiness of firms.

Keywords: pay-for-performance, executive compensation, performance, Indonesia, financial firms

1. Introduction

There have been so many explanations on the roots of the 2007/2008 global financial crisis. Some argue that excessive risk taking is one of aggravating factors in such crisis particularly in the financial industry. Arguably, the main reason for excessive risk taking behaviors is maximization of compensation. Managers and directors pursue tend to take risk, to increase firm value and ultimately to achieve their maximum compensation. This fact is a consequence of the pay-for-performance that has been widely implemented on the compensation system of firms' top management members.

Basically, the pay-for-performance hypothesis explains that a firm should reward its executives according to their performance (Bangoj et al., 2010) and should punish their bad performance (Shaw & Zhang, 2010). A number of studies have been attempting to examine the pay-for-performance hypothesis (Core et al., 1999; Geringer et al., 1999; Brunello et al., 2001; Kato et al., 2007; Bangoj et al., 2010, Shaw & Zhang, 2010; Ozkan, 2011). Mostly, those studies find evidences on pay-for-performance hypothesis. For instances, Kato et al. (2007), using a panel data of Korean firms, conclude that cash compensation of Korean executives is significantly related to stock market performance. Ozkan (2011) examines the link between CEO pay and performance using UK firms-level data. He finds significant effect, however the pay-performance elasticity for UK CEOs seems to be lower; more so for cash compensation. He also finds that longer tenure is associated with lower pay-performance sensitivity of option grants suggesting the entrenchment effect of CEO tenure.

This paper extends the literature on the determinants of executive compensation by studying Indonesian firms which the market value of capital market in this country is growing rapidly. More specifically, we test the pay-for-performance hypothesis controlling for some fundamental factors of firms and industry difference.

2. Review of the Literature

It has been generally considered that executive compensation of firms should be based on performance to eliminate agency problem between managers and shareholders. Compensation is often seen as an instrument to align managerial interests (agents) with those of the shareholders (Bangoj et al., 2010). Design and implementation of compensation schemes can provide strong motivation for employees and then improve the performance of the company. Literature on executive compensation could be viewed from corporate governance perspective (Sapp, 2008; Conyon & He, 2011, Conyon et al., 2011) and agency problem perspective (Core et al., 1999). Comprehensively, Sun et al. (2010) summarize three major theories in explaining executive compensation.

The first one, the economic perspective, majorly based on the agency theory according to the seminal work of Jensen and Meckling (1976) argues that the separation of ownership and control in modern corporations demands close monitoring of managers' behavior by principals to protect shareholders' benefits. Related to executive compensation, the proponents of this theory suggest that to minimize agency problems resulted from the separation between ownership and management, firms could employ some governance mechanisms such as managerial stock ownership aligning the interests of managers and shareholders, and outcome-based incentive contracts that decrease managerial opportunism (Eisenhardt, 1989). The second one, from the sociology point of view, based on stewardship theory which contrary to the agency theory, contend that managers do not always act in self-interested ways and in a situation of conflict they often place the interest of their firms above their own interests (Zajac & Westphal, 2004). The third one, Institutional perspective, argues that incentive mechanisms should be designed based on institutional framework (Peng et al., 2009). Those three theories of executive compensation basically view the issue of executive compensation as a tool to how to align managerial interests and shareholder interests. It can be concluded that a good compensation system would lead managers to behave in line with shareholders' interests.

The pay-for-performance hypothesis argues that firm performance is the main measure to determine executive compensation. According to agency theory, pay-for-performance could be considered as a mechanism to align the managers-shareholders' interests. It has been introduced in finance literature a concept of delta, or pay-performance sensitivity. It measures the change in the value of executive/CEO wealth for a 1% change in stock price. Therefore, high-delta compensation reduces conflicts of interest between managers and shareholders by linking manager wealth to the value of the firm's stock (Jensen & Meckling, 1976).

Several empirical studies support the pay-for-performance hypothesis. Kato et al. (2007), using panel data of Korean firms, conclude that cash compensation of Korean executives is significantly related to stock market performance. They also conclude that executive pay-performance is driven by corporate governance reform efforts in Chaebol firms. Banghøj et al. (2010), focusing on privately held firms, test the determinants of executive compensation. They find that there is a weak relationship between performance and executive compensation. However, their finding indicate that two governance variables which are board size and ownership concentration as well as executive characteristics such as skills, title and education significantly influence executive compensation. Ozkan (2011) examines the link between CEO pay and performance using UK firms-level data. He finds significant effect, however the pay-performance elasticity for UK CEOs seems to be lower; more so for cash compensation. A number of scholars have been expanding the measure of pay-for-performance by looking at corporate strategies as proxy of performance. Those who work on that issue argue that rather than using direct performance, more appropriate to use corporate strategies taken by executives such as risk taking strategy to determine their compensation (Dow & Raposo, 2005). For instances, DeYoung et al. (2009) examine whether and how the terms of CEO compensation contracts at large commercial banks in the US influenced, or were influenced by, the risky business policy decisions made by these firms. They find strong evidence that bank CEOs responded to contractual risk-taking incentives by taking more risk. Balsam et al. (2011) shows that there is an increased emphasis on sales in the determination of executive compensation for firms pursuing a cost leadership strategy, which seek to achieve their competitive advantage through low price and high volume. Yoshikawa et al. (2010), based on a sample of the 148 largest industrial firms in Japan for the 1990-1997 period, show that two firm strategies which are R&D investment and product diversification are positively related to executive bonus pay. In Indonesia context, Riani et al. (2014) examine the impact of executive compensation on bank performance and risk taking behavior using data for Indonesian commercial banks. They find that executive compensation could lead to higher performance. They also conclude that at least in context of Indonesian banking, a higher executive compensation does not bring to a higher risk taking behavior. They argue that the banking oligopoly in Indonesia create less incentive for managers to invest in risky projects, as they enjoy the higher interest rate on loans even in less risky loans.

In contrast, a few number of studies find that high compensation will lead to poor stock price performance. Using sample of 495 firms over 3 years, Core et al. (1999) find that the component of compensation has a negative relation with subsequent firm operating and stock return performance. Ariely et al. (2009) also find that high level monetary rewards have a detrimental effect on performance.

Recently, a number of studies directly incorporate the role of corporate governance variables on executive or CEO compensation. For example, Guthrie et al (2010) find that the compensation committee independence requirement increases CEO total pay, particularly in the presence of effective shareholder monitoring. This evidence bolsters the managerial power hypothesis, the effectiveness of independent directors in constraining CEO pay. Benmelech et al. (2010) suggest that there is a connection between compensation and future stock

returns in a potentially broader set of firms.

3. Empirical Strategy

We collect data on executive compensation of 67 listed Indonesian firms from their financial statements and annual reports (Note 1), while data on firm size, age, and leverage are also cross-checked with the OSIRIS database. We focus on the short period during the global financial crisis (2007-2008) to take a precise picture of the pay-for-performance.

Compensation is defined as total compensation received by directors and commissioners (LNCOMP). We use natural log of compensation following the study of Bangoj et al., 2010 to overcome heterogeneity issue. Performance is proxied by the ratio of return on assets (ROA_L1). A lag value is employed for this variable as given the fact that the focus of this study is the effect of past performance on executive compensation. Another advantage by using the lag value is to avoid endogeneity problem between these two variables. Several control variables are included. First, we control for firm size measured by the natural log of total assets (LNNTA). Then, we include the ratio of total debt to total assets to represent the leverage degree (LEV). The age of firm is also accounted (AGE). As some firms in this study are state-owned enterprises, we bring in a dummy variable to identify whether a firm is government firm or private firm (SOE). Dummies to account industries are also incorporated (Note 2). We control for year-effect as well as employing heteroscedasticity-robust method in all models. We estimate the empirical model using ordinary least square (OLS) regressions. Descriptive statistics as well as correlations among variables can be seen in Table 1.

Table 1. Descriptive statistics and correlations

	Mean	Median	Max	Min	LNCOMP	ROA_L1	LNNTA	LEV	AGE
LNCOMP	15.548	15.635	17.651	11.097	1				
ROA_L1	7.155	5.510	60.660	-85.020	0.237	1			
LNNTA	20.962	21.044	24.088	14.165	0.330	0.220	1		
LEV	50.634	51.679	99.996	3.466	0.041	-0.292	0.087	1	
AGE	28.648	25	77	5	0.204	0.339	0.053	0.063	1

This table presents the descriptive statistics and correlation matrix of variables. LNCOMP is the natural log of total executive compensation. ROA_L1 denotes the lag value of the ratio of return on assets (%). LNNTA represents the natural logarithm of total assets. LEV is the leverage ratio measured as the ratio of total debt to total assets (%). Age is firm age.

4. Results

Table 2 presents the results of OLS estimations. We alter some combinations of explanatory variables into three regression models. The first column is the OLS regression when only two explanatory variables (ROA_L1 and LNNTA) are included. We add LEV, AGE and SOE in the second model, while industry dummies are incorporated in the third specification.

As shown in Table 2, pay-for-performance hypothesis is confirmed in all regression models at 1% level of significant. The results show that Indonesian firms, in general, pay their top management members based on their performance. If firms' executives perform well in providing a higher accounting performance in the previous year, they will benefit by receiving a higher total compensation. It is in line with the findings of some previous studies on pay-for-performance hypothesis (e.g. Core et al., 1999; Geringer et al., 1999; Brunello et al., 2001; Kato et al., 2007; Bangoj et al., 2010, Shaw & Zhang, 2010; Ozkan, 2011).

Our results also show that large firms, as expected, pay a higher level of compensation to their executives than those of small firms. This evidence is robust in all models. Similar findings are also obtained for the coefficients of firm age in model 2 and 3. However, inconclusive findings are found in the sign of the coefficients of firm leverage. State-owned firms, as shown in column 3, compensate a higher salary for their directors and commissioners than those of privately owned firms.

Interestingly, the result of third model shows that coefficient of financial firms is positive and significant. It means that firms operating in finance industry tend to pay a higher compensation for their executives.

Table 2. Regression results

Variables	Compensation (LNCOMP)		
	1	2	3
Constant	10.82*** (0.117)	11.21*** (0.22)	9.475*** (0.416)
ROA_L1	0.012*** (0.001)	0.011*** (0.00008)	0.007*** (0.002)
LNTA	0.219*** (0.005)	0.181*** (0.01)	0.29*** (0.019)
LEV		0.002** (0.001)	-0.004*** (0.0002)
AGE		0.011*** (0.002)	0.004*** (0.0001)
SOE		0.116 (0.144)	0.780*** (0.070)
Basic			-0.176*** (0.024)
Consumer			0.025 (0.065)
Finance			1.299*** (0.094)
Infrastructure			0.426*** (0.007)
Mining			-1.407*** (0.171)
Property			-0.619*** (0.091)
Trade			0.205*** (0.009)
Year dummies	Included	Included	Included
Method	OLS	OLS	OLS
Firms	67	64	64
Observations	131	125	125
R-squared	0.161	0.167	0.269

*This table presents the regression results. LNCOMP is the natural log of total executive compensation. ROA_L1 denotes the lag value of the ratio of return on assets (%). LNTA represents the natural logarithm of total assets. LEV is the leverage ratio measured as the ratio of total debt to total assets (%). Age is firm age. SOE is the dummy variable taking a value of 1 for state-owned enterprises. The values in bracket are heteroscedasticity-robust standard errors. *, ** and *** indicate significance at the 10%, 5%, and 1% levels, respectively.*

5. Conclusion and Limitations

We test the relationship between past performance and executive compensation. The main finding of this study is there is a strong evidence past performance positively associated with the value of rewards given to firms' executives. The results reveal that Indonesian publicly traded firms apply the pay-for-performance system in compensating their executives. This system might reduce the agency problem between managers and shareholders, on the other side; however, this system might also increase the incentive for managers to take risk which subsequently enhance the degree of riskiness of firms.

However, we admit that this paper has some limitations. The small sample of this study could result a bias in the

interpretation as it lacks the degree of freedom. Another limitation comes from the fact that the relation between executive compensation and performance might be endogenous, even if the lag value of the proxy of firm performance used. Lastly, we acknowledge that this empirical model could not take into account the effect of pay-for-performance on risk taking behaviors.

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Notes

Note 1. We face a difficulty in collecting executive compensation data because many firms do not report compensation to their executives. Therefore, during the period we study, only 67 firms are included in the sample resulting in 125 firm-year observations.

Note 2. We refer to the work of Prabowo et al. (2012) that use Jakarta Stock Industrial Classification (JASICA) to distinguish the industry where a firm exists.

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