THE IMPACT OF MANAGERIAL POWER ON REAL EARNINGS MANAGEMENT BASED ON COMPENSATION MOTIVATION.

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ABSTRACT

Since the global financial disaster, management incentive compensation, which is receptive to financial firms’ short-term performance, has been noted to warn financial systems’ sustainability by incentivizing managers to follow extreme risks. Consequently, International Standards have been recognized regarding compensation for financial institutions’ senior executives and employees. However, this compensation may force not only banks’ risk-taking behaviors, but also their earnings management. So, this study analyzed executive compensation’s impact on earnings management. This study evaluated rigid impacts across multiple magnitudes by analyzing the effects of inducement compensation standards proposed to increase financial systems’ sustainability on individual financial institutions and further contributes to studies on managerial decision making.

INTRODUCTION

Earnings management has always been one of the important issue in corporate governance and accounting research. Healy and Wahlen [1] argued that earnings management is the behavior of management to change the financial report by means of accounting methods or designing the real transactions; it will mislead the outside shareholder that depend on reported accounting practices.

Earnings management is divided into accrual earnings management and real earnings management, the accrual earnings management is the choice of the company’s management to cover up the company’s operating performance without breaking the accounting rules. Real earnings management is defined as the actions managers take, while differing from normal business practices, to meet certain private gains.
The relationship between executive compensation and earnings management was first projected by Watts [2], said that executives would prefer to select more profitable accounting policies in order to recover the present value of their personal compensation.

This paper tries to examine the relationship between executive compensation and real earnings management from the viewpoint of managerial power and how managerial power manipulate the level of the real earnings management based on the motivation of remuneration.

This study provides an opportunity to believe rigid impacts across multiple dimensions by investigating the impact of compensation standards which were established to restrict managers’ extreme risk-taking on earnings management. Compensation systems are utilized to determine the agency problem caused by the division of ownership and management. The agent theory treats an enterprise as a group of contractual relationships under which the principals engage the agent to perform some service on their behalf which involves delegating some decision making power to the agent, and defines an agent problem as the disparity of the agent’s and principal’s interests, which does not result in the most favorable allocation of resources. The corporate governance and remuneration reports published with the introduction of the FSB’s compensation principles provided a research background for an observed study on the impact of financial firms’ incentive compensation on management decision making.

**Meaning of Earnings Management**

Earnings management is a general term in accounting decisions that may affect the results of the financial statements. Their role is to provide a true picture of the financial situation and the performance of a particular business in an international environment. In practice, however, there may be opportunities to influence accounting information using a variety of methods and techniques, and as a result, the financial statements lose their function and misrepresent the accounting data, resulting in profit manipulation. Profit manipulation is also dealt with by the phenomenon of earnings management, which is a contemporary topic in the world of finance in the international environment. This is a very complex and versatile phenomenon occurring in companies, irrespective of their territory, area of business or size. Several profit models are used to measure and detect earnings management, whose detection capability varies.

Earnings management occurs “when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers”. Earnings management is a strategy used by the management of a company to deliberately
manipulate the company’s earnings so that the figures match a pre-determined target. This practice is carried out for the purpose of income smoothing. Thus, rather than having years of exceptionally good or bad earnings, companies will try to keep the figures relatively stable by adding and removing profit from reserve accounts.

**Motives for earnings management**

It is clear that earnings management is driven by managers’ incentives. The incentives are divided into three groups. The groups are: Capital market incentives, contractual incentives and regulatory incentives.

**Capital market motivations**

Several stakeholders such as financial analyst and investors use accounting information. It is possible that the manager could have incentives to manage earnings to control the progress of the short-term stock prices. This could be result in reporting higher earnings or lower earnings. When there is a management buy-out, lower earnings report could be issued. De Angelo (1988) concluded that there is little verification that management understates the earnings for management buy-out the management. This means that it would be cheaper to buy out the management due lower stock prices. Friedlan (1994) and Teoh et al. (1998a) found evidence that management use overstated earnings in periods before initial public offers to maintain the stock prices.

**Contractual motivations**

The contracts are made with employees, suppliers, the management and creditors. The firm wants to minimize the costs of the contracts. Several writers suggest that there is a positive relation between contracts and earnings management. The management could manage the earnings to motivate investors to buy stocks.

**Regulatory motivations**

There are several forms of regulatory motivations for earnings management. Earnings management will be used to avoid industry regulations. Furthermore, there will be more incentives by the manager to use earnings management in case of an anti-trust investigation to reduce the risk. Managers could also use earnings management with the motive to decrease the tax. According to the positive accounting theory of Watts and Zimmerman (1978) large firms have more tendencies to prefer accounting methods to present lower the earnings.

**Why do firms engage in earnings management?**

The firms are engaged in Earnings Management due to following reasons:

1. Debt contracts;
2. Compensation Agreements
3. Equity Offerings;
4. Insider trading.

Firms’ performance is frequently synchronized in debt covenants. Moreover dividend limitations are incorporated in them. This is because the position of the debt providers is weakening by dividends that exit the firm. Through dividend payout, less cash remains in the firm to pay back the debt providers. Some firms profit from a comparatively cheap form of capital, although they may not evasion on their loans. Due to higher earnings, companies could seem more profitable than in reality.

Compensation contracts appear to provide more confirmation for the existence of earnings management than debt contract. Extensive studies have shown that in general that the greatest cause of earnings management is the self-interest motivation of management.

Equity offerings also offer a great opportunity to manage earnings. Managers are known to blow up earnings to receive a better price for new equity. This is possible due to the information irregularity and is consistent with the notion that management seek to receive a relatively low cost of capital.

Insider trading has also been predictable. Benish even argues that it is expected for managers to use their insider information about earnings overstatements, to trade for their own benefit.

The Modified Jones Model (1995)
The Modified Jones model also uses discretionary accruals as proxy for earnings management. In relation to the original Jones model, this model does control for changes in the receivables account.

Adjusting for change in receivables will result in more accurate accruals from change in sales. The nondiscretionary accruals are estimated during the event period as:

\[
\text{NDA}_\tau = 1(1/A_{\tau-1}) + 2(\Delta \text{REV}_\tau - \Delta \text{REC}_\tau) + 3(\text{PPE}_\tau)
\]

Where
\[
\Delta \text{REV}_\tau = \text{revenues in year } \tau \text{ less revenues in year } \tau-1 \text{ scaled by total assets at } \tau-1;
\]
\[
\Delta \text{REC}_\tau = \text{net receivables in year } \tau \text{ less net receivables in year } \tau-1 \text{ scaled by total assets at } \tau-1;
\]
\[
\text{PPE}_{i,t} = \text{gross property plant and equipment in year } t \text{ scaled by total assets at } \tau-1;
\]
\[
A_{\tau-1} = \text{Total assets at } \tau-1;
\]
\[
\Box_1, \Box_2, \Box_3 = \text{firms specific parameters.}
\]

The earnings can be managed in the accounts receivables. The accounts receivables can present within the sales, but it is not sure that the payment will be realized. CEOs could smolder up the accounts receivables
to show higher sales and let them depreciate after the revelation of the annual report. This model is more accurate than the Jones model, because the changes in account receivables are taken into account. The risk that CEOs will smolder up the accounts receivable is mitigated in the modified Jones model. Adjusting for change in receivables will result in more precise accruals from change in sales, but the modified Jones model still shows imperfections.

**Executive compensation and earning management**

The role of accounting as a medium for the economic reality of the firm, has actually found challenged by the various financial scandals of the early 2000s. Although accounting appears as a essentially technical discipline, it is now linked with the mechanisms of corporate governance. The corporate accounting system is not enough to guarantee the reliability and informational power of the accounting and financial information. Through this study, we will check the executive compensation as governance mechanisms that may influence the quality of earnings. Several studies have been conducted to investigate the effect of other governance mechanisms on earnings management.

**METHODOLOGY**

This section will present the methodology of this study. As mentioned before accruals will be used as proxy to measure earnings management.

**Dependent variables**

The dependent variable for this study is an assessment of earnings management. As mentioned before accruals will we use as proxy for earnings management. First the total accruals will be measured. The formula to define the total accruals is:

\[ T_{Ai,t} = ΔCA_{i,t} - ΔCL_{i,t} - ΔCash_{i,t} + ΔST_{Di,t} - Dep_{i,t}/ Ai_{i,t-1} \]

Where:

- \( ΔCA_{i,t} \) = change in current assets;
- \( ΔCL_{i,t} \) = change in current liabilities;
- \( ΔCash_{i,t} \) = change in cash and cash equivalents;
- \( ΔST_{Di,t} \) = change in debt included in current liabilities;
- \( Dep_{i,t} \) = depreciation and amortization expense;
- \( Ai_{i,t-1} \) = total assets.

The total accruals can be divided into discretionary and non-discretionary accruals. For this study the discretionary accruals is applicable, because these accruals can be controlled by CEOs. The non-discretionary accruals have to be measured before calculating the discretionary accruals.
The formula for the non-discretionary accruals is:

\[ NDAt,i = \xi_1 (1/A_{i, t-1}) + \xi_2 (\Delta \text{REV}_{i, t} - \Delta \text{REC}_{i, t}) + \xi_3 (\text{PPE}_{i, t}) + \xi_i \]

Where

\[ \Delta \text{REV}_t = \text{revenues in year } t \text{ less revenues in year } t-1 \text{ scaled by total assets at } t-1; \]
\[ \Delta \text{REC}_t = \text{net receivables in year } t \text{ less net receivables in year } t-1 \text{ scaled by total assets at } t-1; \]
\[ \text{PPE}_{i, t} = \text{gross property plant and equipment in year } t \text{ scaled by total assets at } t-1; \]
\[ A_{t-1} = \text{Total assets at } t-1; \]
\[ \xi_1, \xi_2, \xi_3 = \text{firms specific parameters.} \]

When the non-discretionary accruals are measured, the discretionary accruals can be estimated by:

\[ DA_{i, t} = TA_{i, t} - ND_{i, t} \]

**Independent variables**

In this study the independent variables are measurements which are related to the compensation plan of CEOs. The independent variables are: base salary, bonus, stock options, shares and long term incentive plans.

*Base salary (BS)*

The base salary of the CEO is the basic component of the compensation plan. The higher the base salary, the lower variable compensation. This means the lesser the discretionary accruals.

*Bonus (B)*

The definition of bonus is very broad and could be implemented in different ways. The bonuses have short term uniqueness and will be pay out in cash. According to Gao and Shrieveres (2002), Guidry et al. (1998) and Lam (2005) the CEO bonus is positively related to discretionary accruals. The higher the bonus the more discretionary accruals. From now variable cash remuneration is used as a meaning for bonus.

*Stock options (SO)*

As mentioned before CEOs are decided to call stock options by companies to align the interests of the CEO and the company. Money call options have a strike price which is lower than the current price of the shares. By exercising the call option a profit will be instantly cashed out. It is more common to grant CEOs out of the money options. The strike price of these options is higher than the current stock price. If the share price increases above the strike price, the stock option will be in the money and CEO will take an advantage in case of exercising the options. Stock options are positive related to discretionary accruals. The higher the stock options the more discretionary accruals.

*Shares (S)*
When the company compensates the CEO with shares it will create incentives for the CEO to meet the companies’ long term interests. The stock holding of CEOs is positively related to discretionary accruals. The higher the shares holding the higher discretionary accruals.

**Long Term Incentive Plan (LTIP)**

The Long term incentive plan is a compensation for the CEO on long term. The higher the Long term incentive plan the lower the discretionary accruals.

**Incentive ratio**

The incentive ratio describes the value increase of a hypothetical CEOs total compensation package due to an increase of the share price of his company. The incentive ratio is per 100 basis points. Stock options and shares are part of the total bonus package. The formula of the incentive ratio is:

\[
\text{Incentive ratio} = \frac{\text{Onepct}}{\text{Onepct} + \text{base salary} + \text{Stock options}}
\]

Where \(\text{Onepct} = \text{Shareprice company X (total shares + Stockoptions)}\)

**REVIEW OF LITERATURE**

Mijoo Lee and In Tae Hwang (2019) analyzed executive compensation’s impact on banks’ earnings management using compensation data on South Korean banks. The analysis revealed higher earnings management using a loan loss provision with more variable compensation. If the proportion of equity-linked compensation to incentive compensation increased, then earnings management increased. On the other hand, more delayed compensation led to increased earnings smoothing. This study evaluated regulatory impacts across multiple dimensions by analyzing the effects of incentive compensation standards intended to increase financial systems’ sustainability on individual financial institutions and further contributed to studies on managerial decision making.

Oneil Harrisa, J. Bradley Karla, Ericka Lawrence (2019) suggested that earnings quality improved when females were in senior management because of gender differences in risk-taking and ethical attitude. They used gender socialization theory and agency theory to examine the earnings management behavior of female (CEOs) conditional on their equity incentives. They showed that female CEOs do not necessarily reduce earnings management. At lower levels of equity-based compensation, female CEOs influence earnings to a lesser degree than their male counterparts. However, at higher levels of equity-based compensation, female and male CEOs showed very similar earnings management behaviors.
Ping Liu, Md Sajjad Hosain and Liyan Li (2019) aimed at identifying the manipulation of interior pay gap between senior executives and ordinary employees on the organization’s future performance for listed Chinese firms. They found that there was a moderate positive relationship between the pay gap and firms’ future performance. The results further indicated that management power and overconfidence weaken the relationship between pay gap and corporate performance.

Kanyarat Sanoran and Leon Wong (NA) examined how executive compensation in the form of stock option, shareholdings, bonus, and long-term performance plan affected the discretionary accruals and cost of equity capital. They found that executive bonus and long-term performance plan were negatively associated with both discretionary accruals and cost of equity capital. Their analyses demonstrated that executive bonus and long-term performance plan affected only income-increasing earnings management, but not income-decreasing earnings management.

Arlita I G.A. Desy, Wirama Dewa Gede (2018) proved that stock option compensation has a positive effect on earnings management. Corporate governance reinforces the effect of stock option compensation on earnings management. Audit quality does not moderate the effect of stock option compensation on earnings management. Based on this result, companies should use other incentive plan to reduce earnings management. Practitioners and governments also need to reassessed corporate governance provisions in order to protect stockholders not only from accrual earnings management but also real earnings management.

Xu Yan-Jun, Chang Yan-Xin (2017) established the multiple regression model to test the relationship between executive compensation and real earnings management. The results showed that there was a significant negative correlation between the monetary compensation and real earnings management; while the equity incentive for executives was positively correlated with the real earnings management, it showed the opportunistic tendencies of executives; after introducing the variable of managerial power, the management power will deteriorated the negative correlation between monetary compensation and real earnings management, but it will not change the positive correlation between equity incentive and real earnings management.

Dimitrios Gounopoulos and Hang Pham (2016) studied whether the financial experience of CEOs was associated with earnings management around initial public offerings. They found that newly listed firms with financial expert CEOs were less likely to engage in earnings management than those with non-
financial expert CEOs. They also documented that for IPO firms managed by financial expert CEOs the at-issue earnings management was positively associated with future accounting performance and not significantly related to post-issue long-term stock abnormal returns. Their findings support the importance of CEO financial experience in the provision of higher quality financial reporting.

Qing (Sydney) Shu and Wayne B. Thomas (2015) found that the association between past smoothing and predictability of future earnings is increasing or decreasing in CEO stock (option) holdings. Options holdings have been linked with extreme risk-taking by managers and managers use discretionary accruals to mask volatility of less predictable earnings.

Ozge Uygur (2013) suggested that a mechanism could exist to detect fraudulent activities. They examined the association between bank executives’ incentives and earnings management, and found that stock options of bank executives were significantly and positively associated with the earnings management of their banks. Overall, the findings might lead to new regulatory changes in the banking industry for early fraud detection.

Lan Sun (2012) found that earnings management driven by different managerial incentives. Previous studies have identified that executive compensation contracts create incentives for earnings management. The agency theory and the positive accounting theory provide explanations for contract-driven earnings management. This study linked the agency theory and the positive accounting theory and reviews the early executive compensation studies, bonus plan maximization hypothesis and equity-based compensation. The aim of this study was to shed light in explaining contractual incentives and provides useful information in understanding the executive compensation contract-driven earnings management behavior.

Fakhfakh (2010) examined the effect of the compensation contract design on the earning management behavior. They showed that the use of the discretionary accruals as proxy of earning management was more pronounced at firms where the CEO’s compensation was more closely tied to the equity value. The analysis during the pre- and post- Sarbanes Oxley periods supported that the effect of the incentive ratio on earnings management was more pronounced during the first period and it becomes non significant during the second period, indicated that the incentive effect was slowed down by the new conditions imposed by SOX.
Qiang Cheng and Terry D. Warfield (2005) examined the link between managers’ equity incentives-arising from stock-based compensation and stock ownership—and earnings management. They hypothesized that managers with high equity incentives were more likely to sell shares in the future and motivated these managers to engage in earnings management to increase the value of the shares to be sold. They documented that managers with high equity incentives sell more shares in subsequent periods. As expected, we found that managers with high equity incentives were more likely to report earnings that meet or just beat analysts’ forecasts. They also found that managers with consistently high equity incentives were less likely to report large positive earnings surprises.

OBJECTIVES

- To provide basic framework of Earnings Management and reasons why do managers engaged in Earnings Management.
- To provide the theoretical relationship between Earnings Management and Incentives Compensation Motivation.
- To examine whether leaders benefiting compensation plans have a better quality of their profits, through the study of earning management.
- To suggest the prevalent approach to measure discretionary accruals by Modified Jones model (1995).

Relationship between Earnings Management and Incentives Compensation Motivation

The Relationship between Incentive Compensation and Earnings Management, We estimate the following Model to evaluate the relationship between incentive compensation and earnings management:

\[
\text{ALLPi,t} = \beta_0 + \beta_1 \text{VARIABLEi,t}-1 + \beta_2 \text{EQUITY_LINKEDi,t}-1 + \beta_3 \text{DEFERRALi,t}-1 + \beta_4 \text{AVGCOMPi,t}-1 + \beta_5 \text{TALNi,t} + \beta_6 \text{LOANSi,t} + \beta_7 \text{LOSSNETi,t} + \beta_8 \text{PASTLLPi,t} + \beta_9 \text{EBPi,t} + \beta_{10} \text{TIER1i,t} + \beta_{11} \text{SPECIALi,t} + \text{YEARCONTROLS} + \varepsilon;
\]

where \(\text{ALLP} = \) discretionary loan loss provision estimated from the residual in Model \(\text{VARIABLE} = \) Senior executives’ variable compensation divided by total compensation; \(\text{EQUITY_LINKED} = \) Senior executives’ equity-linked compensation divided by variable compensation \(\text{DEFERRAL} = \) Senior executives’ deferral compensation divided by total compensation; \(\text{AVGCOMP} = \) Senior executives’ total compensation divided by the number of executives subject to disclosure; \(\text{TALN} = \) The natural log of total assets; \(\text{LOANS} = \) The total loans outstanding divided by beginning total assets;
LOSSNET = An indicator variable that equals 1 if net income < 0, and 0 otherwise; PASTLLP = The prior year’s LLP divided by beginning total loans; EBP = The net income before taxes and LLP divided by beginning total loans; TIER1 = The Tier 1 risk-adjusted capital ratio at the beginning of the year; SPECIAL = An indicator variable YEARCONTROLS = A year indicator variable.

The Financial Stability Board’s (FSB) principles for sound compensation practices and implementation standards. Summarized from

Governance • Significant financial institutions should have an independent board remuneration committee. • Remuneration for risk and compliance employees should be determined independent of other business areas and be adequate to attract qualified, experienced staff.

Pay structure and risk alignment • The firm’s subdued or negative financial performance should generally lead to a considerable contraction of the firm’s total variable compensation. • A substantial portion of senior executives’ variable compensation should be payable under deferral arrangements over a period of years. • A substantial proportion of variable compensation should be awarded as shares or share-linked instruments.

Disclosure • An annual report on compensation should be disclosed to the public on a timely basis, including: the decision-making process, the most important design characteristics of the compensation system, and aggregate, quantitative compensation information.

Supervisory oversight • The firm’s failure to implement sound compensation policies and practices that parallel these standards should result in prompt remedial action.

CONCLUSION
The results of this study show that executive compensation is determined by the requirements of earning management. We also indicated that total compensation is negatively related to the absolute value of accruals. With a higher pay, the leader would be less opportunistic, reducing its propensity to manage the company's results and to alter the contract that binds with shareholders. This performance may be provoked by the desire to keep its leadership work and thereby avoid the risk of substitution.

The negative relationship between earnings management and the total executive compensation is in disagreement with the hypothesis of expropriation of private benefits by managers who will look for ways in which opportunistic earnings management to suitable the maximum private benefits and make contracts that connect with suboptimal shareholders. This research contributes to the literature on
managerial compensation and earnings quality. An extensive literature has focused on the analysis of this relationship, many empirical studies have supported the role of performance pay in aligning the interests of managers and shareholders. Thus, our study provides enhancement in this work by enlightening the opportunistic behavior of managers connected to forms of incentive compensation focusing on discretionary earnings management.

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