

IMPACT OF EXECUTIVE COMPENSATION ON AGENCY COSTS IN INDUSTRIAL PUBLIC COMPANIES

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ABSTRACT

In the field of corporate governance, understanding and managing agency costs is an important part of ensuring effective company operations. In this study, we focus on the impact of CEO compensation on agency costs within companies listed in Vietnam. Our research sample includes 165 companies in Vietnam in the period from 2013 to 2022 with Stata software. Using Hausman test and Breusch Pagan Lagrangian Multiplier test, the REM is appropriate to analyze the result. The result shows that managerial compensation has a positive relationship with agency costs.

Keywords: Agency cost, Executive compensation, Corporate governance.

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1. Introduction

Shareholders, as primary stakeholders, expect companies to prioritize the maximization of shareholder value. They expect that executive decisions align with long-term sustainability rather than short-term gains, fostering a sense of confidence in the organization's overall trajectory. To realize those goals, shareholders entrust the responsibility of managing a company to executives and managers, expecting them to act in the best interest of the shareholders. This delegation is based on the understanding that professional managers possess the expertise and experience needed to make informed decisions that contribute to the company's growth and profitability. The hiring of capable managers is crucial for executing strategic plans, optimizing operational efficiency, and navigating the complexities of the business environment. Shareholders, in essence, rely on skilled and ethical managers to safeguard their investments and ensure the long-term success of the company. However, due to the limited capacity of shareholders to consistently oversee all managerial activities in a company, there is information asymmetry, potentially giving rise to ethical risks and agency cost.

Agency costs arise due to the inherent conflict of interest between shareholders, who seek to maximize their wealth, and executives, who may pursue personal interests at the expense of shareholder value (Jensen and Meckling, 1976). Executive compensation serves as a critical mechanism to align the objectives of managers with those of shareholders, aiming to mitigate agency costs by incentivizing optimal executive behavior (Jensen and Meckling, 1976). Striking the right balance in executive compensation structures is paramount, as excessive pay without commensurate performance can exacerbate agency costs, while inadequate compensation may fail to motivate executives to act in the best interest of the company (Faulkender et al. 2010). Therefore, there is a need for further research on this topic.

From the conclusion that executive compensation can influence agency costs, the topic "Research on executive compensation: evidence of agency cost in public companies" being chosen to investigate the extent of that influence. This work aims to express the extent of this influence and contribute to the broader body of research on executive compensation and agency costs. Ultimately, the study's findings could inform policymakers in developing recommendations for businesses to lessen these conflicts, reduce agency cost and in turn, enhance overall business value.

2. Literature review and hypotheses development

Adam Smith (1776) first introduced the concept of the agency problem, wherein he asserted that managers lack the same level of conscientious monitoring in companies as they do in private enterprises or joint ventures where the manager also serves as the business owner. Principals can mitigate interest divergences by instituting suitable incentives for agents and incurring costs termed agency costs (Jensen & Meckling, 1976; Wang, 2010). According to Michael C. Jensen et al. (12), agency costs encompass monitoring costs incurred by shareholders, costs arising from managerial commitment activities, and implicit costs. Numerous studies have proposed various methodologies for assessing agency costs. These include metrics operating

expense ratio or the ratio of selling, general, and administrative expenses (SG&A) to total revenue (Singh and Davidson, 2003; Florackis, 2005). According to Singh and Davison (2003), this formula is intended to signify "the degree of managerial discretion in spending the firm's resources". A higher SG&A expenditure to revenue ratio indicates greater agency costs.

Jensen and Meckling (1976) emphasize the critical role of monitoring and designing appropriate compensation packages for executives to ensure their decisions prioritize shareholder value. They posit that CEO compensation is established through a negotiation process between the principal (board of directors) and the CEO (agent). However, Bebchuk and Fried (2003) highlight the potential breakdown of this optimal contract due to the lack of guaranteed fulfillment of commitments by both parties, particularly concerning the risk of CEO power expansion. Additionally, Stephen G. Sapp (2008) underscores the significant influence of corporate governance on CEO compensation, suggesting that internal governance mechanisms linked to board member characteristics are associated with variations in executive pay.

Compensation is considered a substitute tool for corporate governance in reducing agency costs, thereby enhancing business efficiency (Florackis, 2005). Bebchuk, Fried, and Walker (2002) propose that when compensation is used as a tool to address agency problems, this approach is termed "optimal contract." Agency costs comprise three main types: monitoring costs, bonding costs, and residual loss (Jensen & Meckling, 1976). Executive compensation can individually reduce each of these costs. According to prospect theory (Pepper and Gore, 2012), individuals dislike losses, leading them to accept short-term risks more readily. Consequently, agents may accept short-term risks such as corruption or time-cutting when they feel that compensation does not commensurate with their efforts. With bonding expenditure, if compensation is allocated appropriately between fixed and contingent components, managers will bear greater responsibility and risk when making significant decisions. Thus, managers will refrain from actions that may harm the principal's interests. Concerning residual loss, if compensation accurately reflects the manager's abilities and contributions, managers will have the capability and initiative to seek out and exploit new business opportunities (Rynes, 2004). In practice, achieving optimal contracting outcomes may not always be feasible, as they can be influenced by the board of directors or managerial power itself, leading to an alternative perspective on the issue (Bebchuk, Fried, & Walker, 2002). The theory of managerial power posits that when managers wield greater power, they tend to use it to augment their compensation and decrease their workload. Consequently, executive compensation is often higher and/or less tied to performance when managers hold more power (Bebchuk & Fried, 2003; Bogus, 1993). Excessive compensation packages also escalate agency costs and provide incentives for CEOs to prioritize their personal interests. CEOs, being incentivized, are driven to boost the firm's cash reserves. According to Blanchard et al. (1994), when productivity remains steady, augmenting the firm's cash reserves will elevate executive compensation. Considering these arguments, compensation can not only alleviate agency costs but can also contribute to them when CEOs wield excessive power.

Hypothesis: *Executive compensation mitigates agency costs, implying a negative relationship between executive compensation and agency costs.*

3. Methodology

3.1. Data

In this research, the authors used secondary data extracted by us from the consolidated financial statements of 165 industrial companies listed on the Vietnamese stock exchange from 2013 to 2022. In particular, Salary for the general director is a primary variable, it represents the total income of the current General Director of each company including salary, bonus, and allowances.

The research team also proactively eliminated some observations during the data collection process because they could not collect enough necessary information about CEO income. The final result of the data set after our careful selection includes 511 observations collected from 90 companies that meet the time requirements and are listed in accordance with regulations.

3.2. Methodology

The group of authors employ quantitative techniques to investigate the association between executive compensation and agency costs. We collect data from 90 companies within the industry listed on the Vietnam stock exchange from 2013 to 2022 in the form of panel data. Subsequently, the data are imported into Stata software for analysis using three recovery methods: Pooled OLS, Random Effects Model, and Fixed Effects Model. Based on this analysis, the research team formulates the model:

$$ACOST = \beta_0 + \beta_1 * COM + \beta_2 * ROA + \beta_3 * CASHR + \beta_4 * FOWN + \beta_5 * SOWN + \varepsilon_{it}$$

In which:

β_0 : *Dependent - intercept (Constant term)*

$\beta_1, \beta_2 \dots \beta_5$: *Slope coefficients for each independent variable*

ε : *Model error (Residuals)*

i : *Company*

t : *Year t*

Table 1: Summary of Variables

Variables	Formula
Dependent Variables	
ACCOST	Selling general and administrative expenses/ Total Asset
Independent Variables	
COM	(CEO Compensation/ Total asset)*100
ROA	Net income / Total Asset
CASHR	(Cash + Equivalents) / Current Liabilities
FOWN	Ratio of capital contributed by foreigners
SOWN	Ratio of capital contributed by the state

4. Result

4.1. Descriptive statistics

Table 2: Descriptive statistics

Variable	Obs	Mean	Std. dev.	Min	Max
ACOST	511	0.0816853	0.0607174	0.0036	0.359
COM	511	0.185773	0.232186	0.01	1.29
ROA	511	0.0662542	0.0687601	-0.157	0.4712
CASHR	511	0.4722051	0.8383713	0.006	5.0531
FOWN	510	0.080511	0.1147481	0	0.49
SOWN	510	0.2974906	0.2401319	0	0.7822

According to Singh and Davidson (2003), agency cost can be estimated by the operating cost ratio formula which uses the ratio of selling, general, and administrative expenses (SG&A) to

total revenue. The average value of the agency cost in 511 observations is 8.17% with a standard deviation of about 6.07%. In general, the selling, general and administrative expenses of the sample enterprises do not have large differences. According to Than Thi Thu Thuy et.al (2014), agency costs often decrease when the share ownership ratio of the management board and the ownership ratio of foreign investors (FOWN) of the company increase.

The average CEO salary represents 0.19% of the sales of the company, with a rather large standard deviation of almost 23.2%. This demonstrates how CEO compensation varies greatly throughout industrial companies. The CEO salary of the firm paying the highest payment represents 1.29% of the company's annual sales, while the CEO salary of the company paying the lowest compensation represents just 0.01% of the company's revenue.

An analysis of sample businesses reveals an average cash payment ratio of 47.2%, accompanied by a high standard deviation of 83.8%. This indicates two key points: firstly, the sample businesses generally exhibit low liquidity, evident from the ratio being below 1. Secondly, the substantial standard deviation highlights significant fluctuations in the cash payment ratio across these businesses over time.

The return on assets (ROA) for the sample of industrial enterprises, primarily heavy industries, exhibits an average of 6.63% with a standard deviation of 6.88%. This translates to an average profit of 0.07 Vietnamese Dong (VND) per 1 VND invested. Notably, compared to the average ROA of industrial manufacturing enterprises in Vietnam (1.87% in 2020) and globally (5.3% in 2023), the sample's ROA of 6.63% can be considered favorable.

Table 2 reveals a higher prevalence of state ownership capital compared to foreign ownership capital within the sample. The highest observed state ownership ratio reached 78.22%, whereas the maximum foreign ownership ratio only reached 49%. This disparity might be attributed to government regulations that impose limitations on the maximum level of foreign equity investment permitted in specific industries deemed strategic or sensitive.

Table 3: Correlation matrix

	ACOST	COM	ROA	FOWN	SOWN	CASHR
ACOST	1.0000					
COM	0.2094	1.0000				
ROA	-0.0405	0.0905	1.0000			
FOWN	0.0705	-0.0955	0.2527	1.0000		
SOWN	-0.0254	0.1473	-0.0337	-0.1862	1.0000	
CASHR	0.0594	0.3219	0.2564	0.1066	-0.1378	1.0000

This table presents the correlation coefficients for all variables measured in the study. The correlation coefficient ranges from -1 to 1, with values closer to 1 indicating a stronger positive relationship between two variables, values closer to -1 indicating a stronger negative relationship, and values near 0 suggesting no significant correlation. Additionally, the sign of the coefficient signifies the direction of the relationship: positive (+) for a positive correlation and negative (-) for a negative correlation.

Key observations from the table implies that an increase in executive compensation is associated with an increase in agency costs. Furthermore, the majority of correlations displayed in the table fall within the low and medium range, with absolute values below 0.5. This suggests a low risk of multicollinearity affecting the regression analysis.

4.2. Multivariate results

With the agency cost (ACOST) as the dependent variable, Table 4 presents the findings of the multiple regression model estimation of our model. There are three methods that can be utilized to estimate the regression equation: Fixed effects model, Random effects model, and Pooled OLS.

Table 4: The impact of executive compensation on agency cost

Dependent Variable - ACOST			
Variables	Pooled OLS	Random Effects	Fixed Effects
COM	0.0622857 *** (0.0122451)	0.0529613 *** (0.0165878)	0.0422053 ** (0.0198816)
ROA	-0.0774977** (0.0406068)	-0.1287908 *** (0.035458)	-0.1277757 *** (0.0378698)
CASHR	-0.0009063 (0.0055696)	0.0046711 * (0.0028727)	0.0048363 * (0.003024)
FOWN	0.0574082 ** (0.024173)	0.1270174 *** (0.0311166)	0.1309862 *** (0.0389906)
SOWN	-0.0113688 * (0.0113956)	-0.0220633 * (0.0123438)	-0.0244297 * (0.0139634)
Cons	0.0743509 *** (0.0055696)	0.0751186 *** (0.008079)	0.0766634 *** (0.0066661)

Numbers of obs	510	510	510
R-squared	0.0522	0.1396	0.131

*** p<0.01, ** p<0.05, * p<0.1

The Hausman test and the Breusch and Pagan Lagrangian Multiplier test were used to assess the regression findings in order to determine which regression approach was best. The Breusch and Pagan Lagrangian Multiplier test (BP test) and Hausman test show that Random effect method (REM) is appropriate (p value = 5% for BP test, p-value= 0.9256)

Based on the obtained regression results, our research team proposes the following equation:

$$ACOST = 0.0530*COM - 0.1288*ROA + 0.0047*CASHR + 0.1270*FOWN - 0.0221*SOWN + 0.0751 + \epsilon$$

The research model shows that the estimated coefficient on COM is positive and significant at the 1% level, which suggests that when CEO Compensation increases 1 time, assuming other factors remain unchanged, the average Agency Cost increases 0.0530 times. This could clarify that elevated executive compensation is linked to increased discretionary expenses by top managers, resulting in higher agency costs.

4.3. Impact of CEO Compensation on Agency Cost

The regression analysis confirms a positive relationship between manager remuneration and agency costs. This implies that higher manager remuneration leads to an increase in agency costs. This finding aligns with the theoretical framework presented by Bebchuk et al. (2002), who argue that increased managerial power allows individuals to pursue self-serving interests, such as maximizing personal compensation and reducing work effort. The resulting discrepancy between expected performance and actual performance, also known as "wasted compensation", constitutes the additional agency cost incurred. This phenomenon contradicts optimal contracting theory, where compensation was initially conceived as a substitute for comprehensive corporate governance (Florackis, 2005). However, the current results echo the observations of Jensen (1986), who posits that enhanced remuneration packages incentivize managers to prioritize personal gain at the expense of maximizing shareholder value, thereby driving up agency costs.

V. Conclusion

When researching the impact of CEO compensation on agency costs in businesses, we found that the majority of articles mentioned that the relationship between manager compensation and agency costs is not a relationship unilaterally but considered from both positive and negative

aspects. Authors of foreign articles have mentioned this relationship such as Jensen & Meckling (1976); Florackis (2005); Bebchuk, Fried, and Walker (2002); Pepper and Gore (2012); Rynes (2004). Thus, the research team launched this article to investigate the impact of remuneration on agency costs in Vietnamese industry.

Our sample includes 165 public companies listed on the Vietnamese stock exchange for the period from 2013 to 2022. By using Stata, our results show that agency costs, measured by total SG&A costs, General and administrative expenses per total revenue. Besides, the research team measures managers' compensation by dividing the general director's total income by revenue. In addition, we also find that executive compensation has a positive relationship with agency costs.

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