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The Impact of Executive Stock Option Programs on Shareholder Value: Agency Theory Perspective

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ABSTRACT:

This thesis examines the impact of executive stock option programs on shareholder value. Modern compensation systems operate as option-based incentives. ESO-based incentives entail problems such as information asymmetry, risk aversion, and increased corporate governance complexity. Traditional option valuation models, such as the Black-Scholes model, cannot account for the limitations of executive options, including non-diversified assets and non-existent hedging opportunities. Therefore, it is important to understand how stock options affect management decision-making and whether they increase shareholder value.

This thesis focuses on the incentive effects generated by Delta and Vega, the role of vesting periods, and the influence of governance structures on option-based compensation. The study presents the theoretical foundations of agency theory and incentive alignment and examines relevant academic literature to assess whether ESOs enhance or reduce shareholder value. Two hypotheses are developed to distinguish between well-designed and poorly structured option programs.

The findings provide insight into how compensation contracts shape managerial behaviour and corporate outcomes. Well-constructed ESO programs can strengthen long-term value creation by aligning managerial incentives with shareholder interests, whereas poorly structured contracts may promote short-termism or excessive risk taking. The thesis contributes to an improved understanding of the conditions under which option-based compensation functions as an effective governance mechanism.

KEYWORDS: Executive Stock Options, Black-Scholes Model, Certainty Equivalent, Shareholder Value, Agency Theory

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1 Introduction

Executive stock option compensation systems are an essential part of many companies´ efforts to improve corporate efficiency and maximize shareholder value. The use of Executive stock options has become increasingly common recently. This differs from traditional remuneration methods, as managers' salaries are tied to executive options. Hall and Murphy (2002) state in their article that executive options have become one of the most common forms of compensation. The purpose of which is to tie management pay to the company's performance and thereby increase shareholder value.

Since the 1990s, the use of stock options in corporate executive compensation has increased significantly and has become a relatively recent global trend (Hall and murphy, 2002). It is therefore important to study how these stock option programs affect shareholder value. While theoretical models suggest that well-structured executive stock option portfolios can increase share value (Core and Guay, 2002). Concerns have also been raised regarding agency costs, conflicts between management and shareholders. (Jensen & Meckling, 1976). Thus, the impact of stock option programs on shareholder value remains controversial. Despite their widespread use, they present challenges in aligning incentives and can simultaneously generate agency costs.

In this bachelor's thesis, I examine the impact of executive options on shareholder value the perspective agency theory. The analysis is based on a review of existing literature and empirical research, which together form basis for evaluating whether such compensation mechanisms are ultimately beneficial for shareholders.

1.1 Purpose of this Study and Hypothesis

The purpose of this thesis is to examine the impact of executive stock option programs on shareholder value. These compensation systems are designed to align the interest of company management with those of shareholders by tying executive pay to stock performance. According to agency theory, when managerial compensation is tied to the company's performance, managers have stronger incentives to act in the best interests of shareholders and potentially reduce agency costs. This leads to the first hypothesis:

H1: Well-designed executive stock option programs enhance shareholder value by aligning managerial incentives with shareholder interests

However, executive stock option programs have received some criticism. Several studies show that stock option programs can create agency costs between managers and shareholders. For instance, it might encourage managers to take excessive short-term risks, or lead to decisions that benefit managers at the expense of long-term shareholder value. Thus, the second hypothesis is:

H2: Poorly structured executive stock option programs may reduce shareholder value by encouraging short-termism or excessive risk taking.

These hypotheses are based on existing literature on Agency theory. Agency theory predicts that equity-based compensation can align managerial incentives with shareholder interests and enhance shareholder value. However, misaligned incentive structures may instead increase agency costs through excessive risk-taking or short-termism.

1.2 Structure of this Thesis

The first chapter introduces the purpose of the study and the hypotheses. The second chapter presents the theoretical framework by explaining what agency theory is and outlining its key principles. The third chapter defines the executive stock option system and its role as an incentive for the company and shareholders. The fourth chapter discusses how executive stock option programs and agency theory are interconnected to maximizing shareholder value. And finally, the last chapter brings together the issues and key observations discussed in the previous sections and forms a conclusion.

2 Agency Theory

In the second chapter, the theoretical framework of agency theory is discussed, along with the governance mechanisms that aim to reduce agency problems between shareholders and executives. Agency theory is used to analyse the relationship between managers and shareholders. It highlights how information asymmetry and differing risk preferences can create agency problems that may reduce firm value. The conflicts create agency costs which ultimately reduce shareholder value. The chapter also explains how effective corporate governance can minimize these costs.

2.1 Defining Agency Theory

Agency theory describes a situation where one party is the principal that gives decision making authority to another party that is agent. It is an agreement between these people (Jensen & Meckling, 1976). In a corporate context, shareholders are the principals, and the company managers are the agents. Shareholders trust the company's management to strive for the best possible situation to maximize shareholder value. According to Jensen & Meckling, both parties are rational and seek to maximize their own interests. In practice, however, the goals of managers and shareholders often diverge. Managers may pursue personal objectives such as job security, career advancement and short-term financial rewards rather than focusing on long term efficient development of the company (Fama & Jensen 1983). This misalignment creates agency problems, especially when managers hold more information than the shareholder. This is referred to as information asymmetry. It increases the likelihood that managers act opportunistically, making decisions that benefit themselves at the expense of shareholders.

(Jensen & Meckling, 1976) identify agency costs as the sum monitoring costs, bonding costs by the agent and residual loss. Where monitoring expenditures arise when shareholders need to monitor managers' behavior, bonding expenditures which are expenses borne by managers to assure shareholders their alignment and lastly residual loss refer to the value lost when still act against the shareholders interest despite monitoring and bonding efforts.

Also, Fama and Jensen emphasize the importance of separating decision-making authority," Without separation of decision management from decision control, residual claimants have little protection against opportunistic actions of decision agents, and this lowers the value of unrestricted residual claims". If agents' decision-making is not monitored, it leads to agent costs. When these responsibilities are not separated, the risk of unchecked managerial behavior increases.

Agency theory focuses on reducing these costs and aligning the interest of both parties. Jensen and murphy (1990) argue that executive compensation should be tied to firm performance, which helps ensure that managers act in the way that benefits shareholders. Shleifer & Vishny (1997) also highlight the role of legal protection and corporate governance in reducing agency problems.

2.2 Agency Costs

As previously mentioned, agency costs consist of three components and are the sum of monitoring costs, bonding costs and residual loss (Jensen & Mecling, 1976). Monitoring costs are expenses that shareholders incur to observe and control the actions of managers (Jensen & Meckling, 1976). These costs are necessary to reduce the risk that managers will act against the shareholders' interests. Examples of monitoring include internal control systems, external audits and regulatory compliances. Functional managerial labor market also can serve as a form of external monitoring (Hill & Jones, 1992).

Bonding costs are incurred by managers when they commit to actions that signal their alignment with the shareholders' goals. These are managerial costs that arise when managers restrict their own behavior to act in the interest of the shareholders (Jensen & Meckling, 1976). Bonding expenditures include management option programs, incentive-based compensation, and other mechanisms that link the goals of shareholders and managers. It helps and prevents managers deviating from goals that are in the shareholders' best interest (Jensen & Meckling, 1976).

Although agents may bear bonding expenditures, a gap may still exist between the interests of managers and shareholders. Jensen and Meckling describe residual losses in (theory firm 1976), “Residual loss is the portion of agency cost that remains after the principal has spent on monitoring and the agent has incurred bonding expenditures.” Residual loss represents the value of loss due to agency problems that cannot be eliminated through contracts or oversight.

Hill and Jones (1992) argue that managerial power increases, shareholders’ ability to influence decision making weakens. They further argue that power is asymmetrically distributed, the effectiveness of monitoring declines. This reduces effectiveness of monitoring and bonding mechanisms and increases agency costs for shareholders.

Hill & Jones describe the utility as follows:

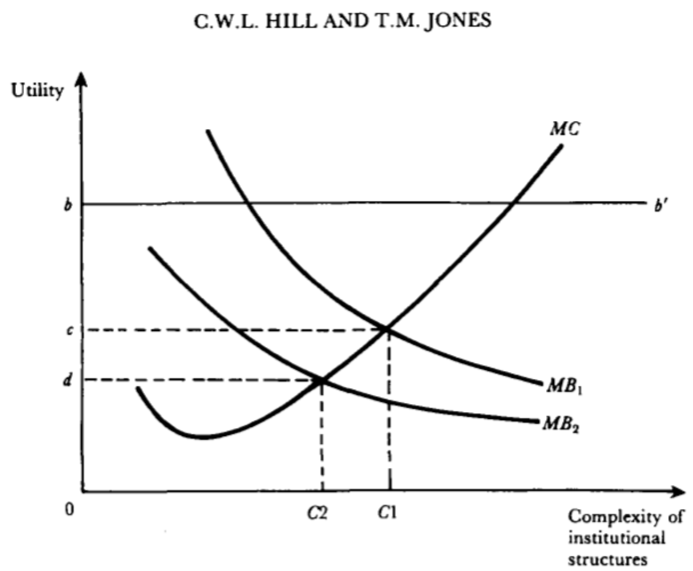

Figure 1. Monitoring utility framework (Hill & Jones, 1992).

In the figure MB_1 represents of the shareholders initial marginal benefit, MC is the marginal cost, and MB_2 shows the marginal benefit after a shift in power asymmetry. The movement C_1 to C_2 reflects an increase in residual losses. While c to d indicates a decline in shareholders' welfare.

2.2.1 Information Asymmetry

Information asymmetry arises when managers have access to more information than shareholders. In corporate governance, this means that managers usually possess more knowledge about the company's risk and return than shareholders do. This leads to power asymmetry which also results in greater residual losses (Hill & Jones, 1992).

Information asymmetry affects both internal and external stakeholders. If it is not properly monitored, it can negatively impact organizational effectiveness (K. SILPACHAI, S. Siengthai, R. Levermore, 2024). In addition, if information asymmetry is not addressed, the company's risk premium may increase. This can reduce efficiency in the capital markets and therefore decrease shareholder value (K. SILPACHA, S. Siengthai, R. Levermore, 2024).

Information asymmetry increases agency costs, and it prevents the perfect alignment of interest between managers and shareholders. When information asymmetry is higher, the monitoring and bonding costs for shareholders are higher. As a result, companies need effective governance mechanisms to reduce these costs.

2.3 Governance Mechanisms for Reducing Agency Costs

The methods that shareholders use to serve their own interests, monitor the managers, and secure their investment are referred to as corporate governance and corporate policy. These mechanisms are essential in reducing agency problems that arise from the separation of ownership and control. Shareholders rely on governance structures to ensure that managers do not pursue their own personal goals at the expense of shareholder value. Shareholders use corporate governance mechanisms to ensure their return to capital, even if there is information asymmetry between management and shareholders (K. SILPACHA, S. Siengthai, R. Levermore, 2024).

Corporate governance mechanisms are generally divided into internal and external categories. Internal mechanisms include board composition, ownership classes, dividend policy and leverage. External mechanisms refer to market forces such as regulation, the legal environment, and market corporate control (Sheifler & Vishny, 1997). Together these play a crucial role in aligning the interest of managers and shareholders. Board composition plays a key role in reducing agency costs. Shareholders benefit company management is monitored by independent board members (Fama & Jensen, 1983). This reduces monitoring costs and, as a result, residual losses. Also, if companies have large shareholders, their presence enhances monitoring. Debt financing is also encouraged as a governmental mechanism. Because fixed obligations increase discipline, management is pressured to use company resources more effectively and is in the best interest of shareholders (Sheifler & Vishny, 1997).

A well-designed corporate governance system aims to minimize agency costs by enhancing transparency and accountability. It does so without requiring shareholders to significantly increase their agency costs for monitoring or bonding. This is particularly important in listed firms, where disperse ownership limits the direct influence of individual shareholders and maximizes shareholder value.

2.4 Criticism and Limitations of Agency Theory

Agency theory has been subject to extensive criticism, and its limitations are increasingly acknowledged in literature. A central critique concerns its narrow focus on shareholders, which neglects the interest of employees, customers, and suppliers. This omission may lead firms to pursue strategies that are suboptimal and potentially detrimental to long term shareholder value. Also, managerial behavior is shaped by more complex motivational structures, rendering agency theory’s behavioral assumptions insufficient and unrealistic. (Jan Kultys, 2016; Blanche Segerstin & Armand Hatchuel, 2011). Critics further argue that while a certain level of control mechanisms can improve shareholder value, excessive control can negatively affect managers' strategic decisions along and thereby undermine long term shareholder value (Blanche Segerstin & Armand Hatchuel, 2011).

According to Jan Kultys (2016), agency theory fails to provide a robust theoretical perspective of managerial motivation and authority. Altough it places shareholders at the center of corporate governance. His study also mention that it is supported by legislation that indentifies them as the legal owners of the firm. On the motivation and authority of managers, even tough it acknowledges the role of shareholders. However, legislation entitles shareholders as the owners of companies (Kultys, 2016). The corporate governance system emphasizes shareholder control over managerial decision-making. This can weaken managerial authority, narrow the strategic decisions to serve only shareholder interests, and ultimately reduce shareholder value. Such a focus can paradoxically diminish shareholder value by disregarding the contributions and needs of employees, consumers and suppliers.

Hill & Jones (1992) add that agency theory insufficiently addresses market inefficiencies. The theory rests on the assumption that markets are efficient and that both shareholders and managers can freely enter or exit contractual relationships. In practice, however, such flexibility rarely exists, and alternative contractual partners may not be available. Thus agency theory relies on market assumptions that often do not hold in real economic environments.

3 Executive Stock Option Programs and Incentive Alignment

This chapter reviews the structure of executive stock options and how such options work. It examines how these mechanisms are based on shareholder value, and how options can either add to or detract from shareholder value. The chapter also discusses how options shape management behavior, and how option programs can be designed to function as a mechanism that creates shareholder value.

3.1 Key Characteristics of an Executive Stock Option

ESOs are financial instruments that give the holder right to buy or sell a share at a predetermined price known as the exercise price (Hall & Murphy, 2002). Unlike freely tradable options, ESOs cannot be sold, and holders cannot diversify their risk in the same way as traditional option holders. The true value of ESOs is also not reliably determined by traditional valuation models such as the Black-Scholes model (Hall & Murphy, 2002). Traditional valuation methods can produce distorted valuations for non-tradable options (Hall & Murphy 2002). Furthermore, management forfeits ESOs if they leave the company before vesting. In other words, ESOs can only be exercised once the vesting conditions have been fulfilled (Bettis, Bizjak, Lemmon, 2005; Bryan, Hhwang, Lilien, 2000).

According to Hall & Murphy (2002), the basic structure of ESOs includes an exercise price, which is typically set at-the-money, meaning it equals the market price of the share at the time of grant. Their empirical research shows that 94% of cases management options are granted at a price equal to the current market price of stock. The research also shows that in theory the strike price could be set below or above the market price or even indexed to an industry benchmark. However, in practice, ESOs are overwhelmingly granted at-the-money. Figure 2 illustrates that at-the-money options provide the strongest marginal incentive effect relative to their cost. By moving the exercise price further out-of-the-money reduces the firm’s valuation cost, but at the same time clearly weakens the incentive effect of the option (Hall & Murphy 2002).

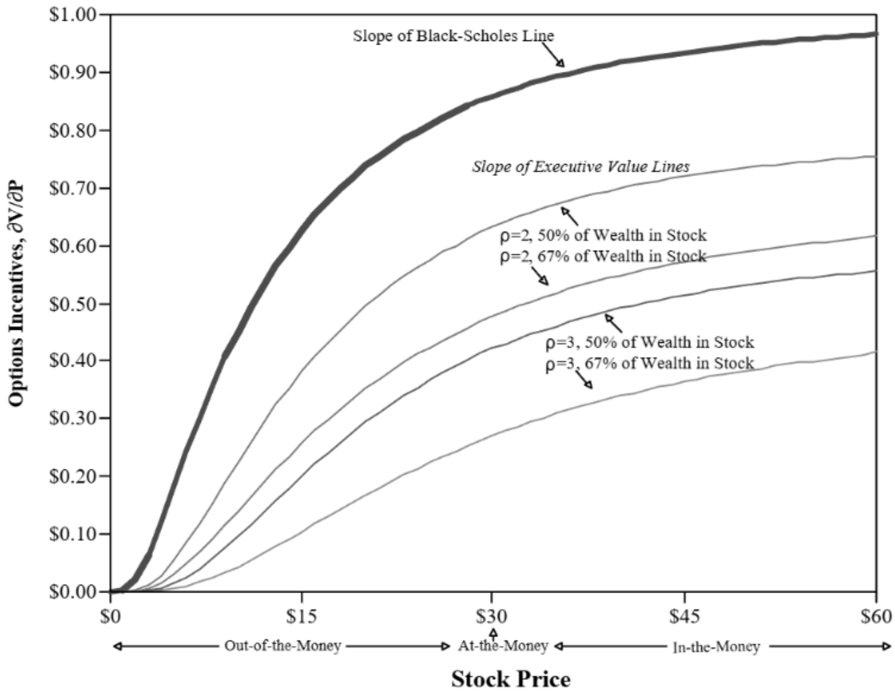

Figure 2. Stock Price and Option Incentives (Hall & Murphy, 2002).

One of the key features of management options is the structuring of the option release through vesting. Hall & Murphy (2002) mention that vesting conditions create commitment incentives by requiring managers to remain with the firm and meet the predetermined performance or time-based criteria. Once the vesting requirements are met, managers obtain the right to exercise the options (Hall & Murphy, 2002).

According to Gopalan et al. (2014), vesting can be divided into two main categories that are graded vesting and cliff vesting. Under graded vesting, options vast in equal installments over the vesting period. For example, on a quarterly basis, whereas under cliff vesting the entire option grant becomes exercisable at once when the vesting period ends. Their study also shows that vesting can be structured either purely on a time basis or through performance-based conditions, where the release of options is tied to specific firm outcomes such as achieving a target share price or meeting strategic objectives.

ESOs typically have a maximum maturity of up to ten years, meaning they function as long-term incentive instruments (Gopalan et al. 2014).

3.1.1 Executive Stock Option Valuation

Hall & Murphy (2002) report that, traditionally, ESOs have been priced using the Black & Scholes model. Options are based on the idea that option positions can be perfectly hedged through continuous trading, for example short selling the stock. According to Black & Scholes (1973), options are priced under the assumption that investors are risk neutral and that all assets earn the title of risk-free rate. Under the assumptions, the value of an option can be determined by discounting the expected payoff at the exercise date, with the expected return on the underlying stock equals the risk-free rate. The assumption of risk-neutrality is fundamental to basically all modern option-pricing models, including the Black-Scholes model (Hall & Murphy, 2002).

$$C = S_0 N(d_1) - K e^{-rT} N(d_2) \tag{1}$$

Equation 1. Black-Scholes Model (Black & Scholes 1973)

Hall & Murphy (2002) report that several consultants and academics continue to calculate the value of ESOs using the Black-Scholes model. The assumptions of the Black-Scholes model are well for outside investors who are free to trade and hedge their positions, the assumptions are not appropriate for valuing ESOs in practice. Managers cannot trade their options, nor do they have right to hedge the company's stock to protect themselves from market fluctuations or stock price declines. The ability to hedge would eliminate the alignment of interest between managers and shareholders that option-based compensation is intended to create. Furthermore, managers' personal wealth is typically undiversified, as a significant portion of it is tied to the firm they work. For these reasons, Hall and Murphy argue that ESOs should be valued using the Certainty Equivalent approach rather than Black-Scholes model.

$$\int U(W_T^V)\, f(P_T)dP_T \equiv \int U(W_T)f(P_T)dP_T \tag{2}$$

Equation 2. Certainty Equivalent (Hall & Murphy, 2002).

Certainty Equivalent considers the managers' risk aversion, initial wealth and the degree of wealth diversification. According to an empirical study by Hall & Murphy (2002), managers with different proportions of their wealth invested in the company value stock options differently. In their example, manager p3 has a larger share of his wealth invested in the company 67 percent, while manager p2 has 50 percent invested. The study shows that the option values for manager p3 are lower because a higher share of his wealth is already tied up in firm-specific risk, which reduces the additional value he assigns to an extra unit of company risk. The option values for manager p2 are higher, since he is more diversified and less exposed to firm-specific risk, making the option more valuable to him. Figure 3 also shows that the Black–Scholes model would value the options much higher, because it assumes perfect diversification and does not account for the factors included in the Certainty Equivalent approach.

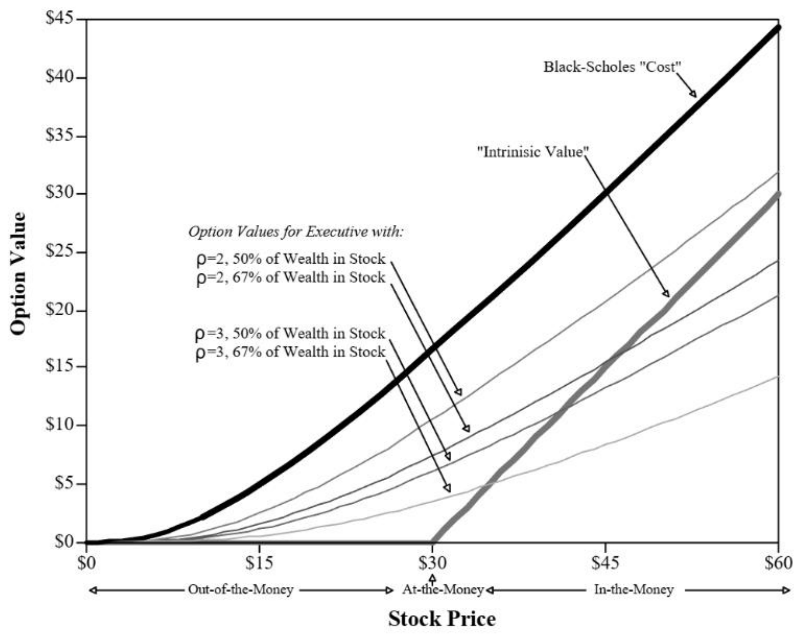

Figure 3. Black-Scholes vs. Certainty Equivalent (Hall and Murphy, 2002).

Based on the results reported by Hall & Murphy (2002) on managers' option values under different costs, stock prices, risk aversion, and diversification levels, a clear difference emerges between Black-Scholes model and Certainty Equivalent approach. Figure 4 shows that an option with Black-Scholes' value of 30.11$ is worth only 69.1% of that value to manager p2 who has 50% of his wealth tied up in company stock. For manager p3, who has 67% of his wealth tied up in company stock and is more risk averse, the same option is worth only 27.8 % of the Black-Scholes' value. The figure illustrates the ratio of option value to cost which increases as the stock price rises. The results show that Black-Scholes model is useful for estimating the company's costs of granting options, but it systematically overvalues ESOs (Hall & Murphy, 2002).

Stock price	B–S cost	$\rho = 2$; 50% stock (%)	$\rho = 2$; 67% stock (%)	$\rho = 3$; 50% stock (%)	$\rho = 3$; 67% stock (%)	Payout probability (%)
\$5	\$0.39	24.5	13.4	5.8	2.2	*13.1*
\$15	\$4.95	49.7	31.6	22.3	10.7	*51.5*
\$30	\$16.55	63.5	44.8	36.7	21.1	*77.9*
\$45	\$30.11	69.1	51.2	44.0	27.8	*88.4*
\$60	\$44.40	71.9	54.9	48.0	32.0	*93.3*

Figure 4. Executive Stock Option Values (Hall & Murphy, 2002**)**

3.2 Executive Stock Options as an Incentive Mechanism

Stock options shape management behavior and act as an incentive mechanism for them. Stock options create two key incentive components. The incentive components are delta and Vega, where delta creates an incentive to take less risk and Vega encourages increased risk. According to Coles et al. (2006) article, pay for performance, or delta, defines the sensitivity of management's wealth to the company's share price. If delta increases, managerial wealth becomes more sensitive to changes in the stock price. Therefore, a higher delta means that management is working more efficiently and in the best interests of shareholders, as they share profits and losses with shareholders. However, according to empirical studies by Coles et al. (2006), management becomes more risk averse the higher the delta. Empirical findings show that management is becoming a more conservative investor. With a higher delta, CAPEX costs increase and management takes on fewer riskier projects and looks at short-term results. According to a more recent study by Brisker, Park, Song (2022), higher delta shapes CEO behavior so that in the short term, CEOs are willing to make a temporary loss to maximize long-term company value. This in turn strengthens shareholder value.

Coles. et al (2006) describes in their article the volatility sensitivity of management options, or Vega. Higher Vega leads to riskier R&D investments, CAPEX investments decrease, and debt and stock return to volatility increases. Coles. et al (2006). Vega is formed by the rigid structure of options. High Vega can also lead to suboptimal situations where management prefers debt financing over equity to maximize management's own option portfolio, even if it is not good for the long-term growth of the company and in the interest of shareholders. Their research also proves that even in over-leveraged companies, management favors debt financing if Vega is high. (Dong, Wang & Xie, 2010).

According to the research results of Dong, Wang & Xie (2010), it is bad for the shareholder if Vega is too high because it encourages management to take excessive risk, jeopardizing the company's long-term profit maximization. They further argue that high Delta is a lesser concern but still creates problems in that management is afraid to take enough risks to maximize the company's profit, and thus shareholders lose out in the situation. The incentive must be added in another way. According to Dong, Wang & Xie (2010), stock options should be assigned to management with caution, as their convex return pro-file leads to undesirable outcomes from the perspective of shareholders.

3.3 Optimal Contract Design for ESO Plans

The idea behind ESOs is to align management’s interest with those of shareholders and ensure that managers act in the shareholders’ best interests (Jensen & Meckling, 1976).

Since management is more exposed to undiversified firm-specific risk, the option portfolio must account for the effects of delta and Vega (Brisker, Park & Song, 2022). Therefore, it is important to examine what constitutes an optimal contract design for management so that shareholder value is maximized.

Optimal Eso design requires finding the right balance for managing risk, as agency costs may arise if management underperforms or overperforms relative to the firm's optimal risk level (Gormley & Matsa, 2016). Delta links management's wealth directly to the company's stock price, creating a pay-for-performance incentive for managers (Coles et al., 2006). However, when delta becomes too high, management's exposure to firm-specific risk increases, which may cause managers to avoid riskier positive NPV investments and adopt a more conservative investment approach, leading to risk aversion (John & John, 1993; Guay 1999).

Coles et al. (2006) mention in their article that delta and Vega push management's decision making in different directions and placing too much weight on either measure can create problems for shareholders and it is important that optimal delta-Vega balance is established. Coles et al. (2006) report that Vega can offset the effects of managerial risk aversion that arise from rigid compensation structures, and that risky R&D projects contribute significantly to long-term shareholder value when undertaken in a controlled manner. Their findings also emphasize that there is no single universally optimal Delta-Vega balance, instead the appropriate level depends on the company's characteristics, and the objectives set by the board. However, the most effective solution is to create Delta-Vega balance that supports the company's long-term growth and thereby enhancing shareholder value (Coles et al. 2006).

An optimal compensation system for maximizing shareholder value also requires a long-term orientation, and vesting schedules are a critical part of the system. Edmans, Fang & Huang (2022) show that when a large portion of compensation vests at short intervals, managers are more likely to engage in actions that boost the stock price in the short term. Their research demonstrates that short vesting schedules create myopic incentives that do not support shareholder value maximization. According to their findings, optimal contracting therefore requires longer vesting periods to ensure managerial incentives align with shareholder value creation and the sustainable long-term development of the company.

Edmans & Gabaix (2016) emphasize that the board of directors plays a central role in determining the structure of executive compensation contracts. The board decides on the number of options granted to the CEO and the associated vesting schedules. This is beneficial from the shareholders' perspective because the board must engage with investors regarding the content of the compensation agreement, even though it ultimately makes the final decision (Edmans, Gosling & Jenter, 2023). A high-quality board is independent, sufficiently large and professionally competent. Such a board helps create long-term value and reduces the likelihood of rent extraction contracts, which refers to agreements that do not incentivize managers to focus on long-term value creation (Edmans, Gosling & Jenter, 2023). Optimal contracting is therefore essential for establishing effective incentives in executive stock option plans (Edmans et al., 2023).

4 Impact of Executive Stock Option Programs on Shareholder Value

This chapter evaluates how executive stock option programs influence shareholder value by synthesizing the theoretical mechanisms introduced in chapter 2 and the empirical evidence discussed in Chapter 3. The aim is to assess whether the findings support H1 or H2. After individual summaries, all these summaries are combined and examined as a larger whole to examine how ESOs create or reduce shareholder value.

4.1 Theoretical and Empirical Evidence of Value Creation

According to the Agency theory, executives may prioritize their own interests over those of shareholders (Jensen & Meckling, 1976). ESOs were originally designed as a mechanism to drive these incentives together. Hall & Murphy (2002) argue that through the delta component, ESOs strengthen this pay-for-performance relationship by tying management's wealth to the firm's stock price. This supports the first hypothesis. Greater sensitivity to firm's stock price enhances firm value and reduces agency costs. This happens when incentives encourage managers to internalize the consequences of their decisions.

The empirical research findings support this perspective but add some nuance. Brisker, Park & Song (2022) show that higher delta leads management to prioritize long-term positive company development even if short-term losses could occur. This is related to shareholder value maximization and reinforces the theoretical assumption that delta increases long-term alignment between management and shareholders.

Research findings related to Vega pose challenges in creating a good ESO design. Coles et al. (2006) report that Vega increases management's willingness to take on riskier projects such as R&D investments and leads to excessive debt even if the company is already indebted. Although risk-taking can increase the value of the firm, excessive volatility or leverage increases the financial fragility of the firm. This provides empirical support for H2 and demonstrates that ESOs can create a value-reducing incentive for management if Vega dominates Delta.

Hall & Murphy (2002) argue that vesting works as a commitment tool and encourages managers to stay with the company long enough to achieve long-term improvements. Gopalan et al. (2014) add that the vesting horizon directly affects the timing of a company's decisions. This shows that short vesting schedules create short-term incentives, while longer horizons promote alignment with long-term shareholder value. Edmans, Fang & Huang (2022) similarly found that vesting events can shape management behavior regarding buybacks and acquisitions. This indicates that vesting planning plays a key role in determining whether stock options support or undermine shareholder interests.

Non-trade ability of executives and forfeiture risk increase management's exposure to firm-specific risk. This strengthens the incentive alignment that results from ESOs (Bettis, Bizjak & Lemmon, 2005). However, they can also increase undiversified risk, leading management to shift toward risk aversion unless it is reduced or reversed by Vega.

This area shows that the value-forming factors of ESOs are decision-dependent and not universal. Delta, long vesting horizons and non-trade ability support H1. Instead, high Vega and poorly timed vesting periods support H2. The empirical evidence thus shows that both the potential and limitations of ESOs highlight the importance of correct contract design.

4.2 Theoretical Benefits of Executive Stock Options

As in the previous chapters mentioned, incentive alignment is for reducing agency costs (Jensen & Meckling, 1976). Incentive systems work as a commitment mechanism for helping to reduce agency problems. This way, the financial consequences of management decisions are included in the manager's own wealth. As the value of the option increases with the development of the stock price, executive wealth is linked to the development of shareholder value (Hall & Murphy, 2002). This alignment of incentives supports efficient decision-making and long-term value creation, as hypothesized in Hypothesis H1.

The study finds strong support for theoretical findings. Brisker, Park & Song (2022) show that executives with higher delta are more likely to pursue strategies that increase the long-term value of the firm. Equity-based compensation also improves firms responding to new growth opportunities by enabling more efficient investment allocation (Bryan et al. 2000). Also longer vesting periods enhance management commitment in the interests of shareholders and promote long-term value creation. Taken together these findings indicate that such incentive structures reduce agency costs and are consistent with H1.

Governance mechanisms interact with these incentives. Fama & Jensen (1983) argue that incentive alignment must operate within a broader control system that ensures transparency and accountability. The effectiveness of ESOs depends on institutional safeguards that prevent incentive distortions, otherwise managerial discretion may lead to outcomes consistent with H2.

The theoretical benefits of ESOs are significant, they strengthen pay-for-performance sensitivity, support long-term orientation, and improve capital allocation. However, these benefits materialize only when risk incentives are balanced. Vesting structures support long-term performance, and governance systems help to prevent managers' opportunistic behavior. Under such contract design, ESO programs support H1. If these conditions fail, incentive misalignment might lead to the value-reducing outcomes described in H2.

4.3 Risks and Challenges

Jensen & Meckling (1976) argue that incentive programs can create agency problems if they direct management to act in ways that diverge from shareholders' interests.

Residual losses arise when management incentives cannot be perfectly aligned, even if monitoring and bonding mechanisms are in place. These limitations imply that ESOs may unintentionally create behavioral responses that are against shareholder value. These arguments are consistent with H2. Hill & Jones (1992) also support this, and information asymmetry and power imbalances weaken the effectiveness of incentive programs. This situation can increase the likelihood that managers exploit their positions in their own interests despite formal alignment mechanisms.

Empirical evidence highlights several risks associated with ESO-based compensation. Coles, Naveen & Naveen (2006) found that higher Vega encourages management to take riskier investments and increase leverage, which may not maximize shareholder value. Vega can distort M&A decisions by incentivizing management to favor deals that increase the value of their ESOs, even if such deals do not support long term value creation. (Dong, Wang & Xie, 2010). This produces short-termism rather than long term firm performance and does not support shareholder value. So poorly balanced risk incentives can yield outcomes consistent with H2.

Vesting periods can also lead to distortion. The length of vesting periods affects the timing of management decisions (Gopalan et al. (2006). Short vesting periods are associated with short-term actions such as share buybacks and opportunistic acquisitions (Edmans, Fang & Huang, 2022). Vesting periods should be designed so that management cannot exploit short-termism. However, if vesting periods are poorly designed, managers can exploit them in their own interest. If this happens, it leads to short-term profit seeking rather than long-term positive firm development. So, poorly designed vesting periods support the H2.

In addition, the non-tradebility of ESOs exposes managers to undiversified firm-specific risk (Bettis, Bizjak & Lemmon, 2005). Non-tradebility can make managers excessively risk-averse, discouraging them from pursuing profitable but uncertain opportunities (Hall & Murphy, 2002). Without sufficient governance oversight, non-diversifiable firm-specific risk can be underlined, and it may increase the likelihood of risk aversion. Fama & Jensen (1983) and show that weak governance allows managers to influence contract design. In this case they benefit themselves rather than shareholders and thereby reducing the effectiveness of ESOs as an incentive mechanism.

These findings indicate that ESO programs can create significant risks when risk incentives favor volatility, vesting schedules encourage short-term behavior, or if governance structures fail to adequately monitor managerial discretion. Such conditions increase the likelihood of value-destroying outcomes consistent with H2. The effectiveness of ESO programs therefore depends not only on their structural features but also on the governance environment that shapes how managers respond to these incentives.

4.4 The Role of Corporate Governance in Enhancing Shareholder Value

Corporate governance systems are used to reduce agency costs and to ensure that managers act in the best interests of shareholders. Corporate governance serves as a mechanism for shareholders to ensure that managers generate returns on the capital they invest (Shleifer & Vishny, 1997). Governance structures help to mitigate conflicts arising from the separation and ownership and control (Jensen & Meckling, 1976). The effectiveness of ESOs depends on the contract design and the governance environment in which the board operates.

The board exercises its decision-making power by monitoring and reinforcing management actions. By separating decision-making from control, the board can limit managers' opportunistic behavior and reduce information asymmetry (Fama & Jensen 1983). Monitoring also strengthens ESOs' ability to act as incentives for long-term value creation, for example, by appropriately shaping vesting periods. This supports H1. Conversely, weak board monitoring may allow managers to exploit compensation structures to their own advantage. This is consistent with H2.

Governance models shape the design of ESO contracts. If the board is not independent or lacks expertise, managers' influence on compensation decisions can increase (Shleifer & Vishny, 1997). The quality of corporate governance determines whether ESO compensation structures are in shareholders' interests (Edmans, Gosling & Jenter 2023). If management influences compensation decisions increase, it may weaken the link between executive pay and firm performance. Strong and independent boards prevent these suboptimal situations from arising. Strong boards are more likely to implement vesting periods and delta-Vega balances, along with incentive conditions that promote long term value creation. On the other hand, weak boards can accept arrangements that encourage management to take excessive risk and engage short-termism.

As noted earlier in the paper, information asymmetry emphasizes the need for strong governance. Typically, managers have more knowledge of a company's operations, assets and risk profile than shareholders (Hill & Jones, 1993). An effective control system reduces information asymmetry by separating management's decision-making responsibilities from the boards oversight roles (Fama & Jensen, 1983). The governance board serves as a safeguard for shareholders against opportunistic behavior. Board oversight, external evaluation, and transparency requirements enhance the effectiveness of ESO contracts. Ensuring that managers cannot exploit informational advantages.

Governance quality is a decisive factor in determining whether ESO programs enhance or undermine shareholder value. Strong governance enhances the incentive properties of ESOs by reinforcing monitoring, improving contract design, and limiting managerial opportunism, thereby supporting H1. In other hand a weak governance allows distortions in contract structure and managerial behavior, increasing the risk of value-reducing outcomes consistent with H2. ESOs do not function independently, their effectiveness depends on the broader governance environment in which managerial incentives are formed and enforced.

5 Conclusion

This thesis examined whether executive stock options serve shareholders' interests and whether they create or reduce shareholder value. This research is primarily based on agency theory, corporate governance and valuation methods of ESOs. Two hypotheses guided my work. The first hypothesis states that well-designed ESOs enhance shareholder value by aligning managerial incentives with shareholder interests. The second hypothesis states that poorly structured ESOs may reduce shareholder value by encouraging short-termism or excessive risk taking. The results of the literature review strongly support both hypotheses and shows that the effects of ESOs depend on the design of the ESO contract.

ESOs can increase shareholder value if they are designed to work in line with long-term performance. Delta is a very important factor here. It shows how sensitive management's wealth is to changes in the share price. Delta also better aligns management decisions with shareholder value. ESOs granted at market prices include long vesting periods and use clear performance conditions that guide managers to act in line with the company's long-term value creation. Research shows that investment discipline, decision-making, and operational performance improve when delta weighting and vesting periods are in place. Under these circumstances, ESOs reduce agency costs and thus improve shareholder value. These results directly support the first hypothesis.

ESOs can reduce shareholder value if the structure of ESOs leads to managers acting in their own interests at shareholders' expense. Vega is an important factor in explaining this problem. Vega measures how sensitive the value of ESO is to volatility. High vega motivates managers to pursue risky strategies that increase stock price volatility without improving company performance. Poorly structured ESO contracts have short vesting periods, repricing provisions, weak performance requirements and limited downside exposure. Empirical studies have shown that ESO structures encourage managers to engage in earnings management and to take excessive risk and prioritize short term stock price movement. In these situations, ESOs increase agency costs and weaken shareholder value. This supports the second hypothesis.

Taken together, the evidence shows that ESOs work as a conditional governance tools. They can support long-term value creation when their structure increases delta, controls Vega and ties managerial wealth to long-term performance. If these conditions are not met, ESOs can encourage behavior that conflicts shareholder value maximization. Boards and compensation committees should therefore pay close attention to vesting schedules, performance measures and risk exposure. The goal should be to design ESOs that reward long-term value creation rather than short-termism or excessive risk taking.

Overall, this thesis shows that well-designed ESOs can reduce agency problems, while poorly structured ESOs can amplify them. The effectiveness of ESOs depends on detailed design of the contract and on the governance framework that surrounds them.

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Appendices

Appendix 1. Writing notes

The ChatGPT 5.1 model was used only for identifying and correcting grammatical errors and typographical mistakes in this thesis. The entire text of the thesis, including all the arguments, references, and conclusions was written and developed by the author.