The Impact of Equity Incentives on Corporate Performance: A Case Study of Hikvision

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Abstract. In recent years, with the rapid development of the knowledge economy and the intensification of market competition, technological innovation has gradually become the source of enterprise development. As a long-term incentive mechanism, equity incentives have gained increasing favor among enterprises in reducing the agency costs arising from equity segregation, improving corporate performance, and attracting high-end talent. Taking Hikvision as an example, this article explores the relationship between equity incentives and corporate performance from two levels: implementation motivation and implementation effect. The study found that Hikvision chose to implement a long-term and stable equity incentive plan in order to face the increasingly fierce competition in the security industry, attract and retain talent, and reduce agency costs. In terms of implementation effects, equity incentives have a positive market response, with varying degrees of impact on financial performance.

Keywords: equity incentives, corporate performance, Hikvision

1 Introduction

In recent years, shareholders of various listed companies have begun to adopt equity incentives as a means to promote corporate innovation, enhance market competitiveness, and improve business performance[10]. Equity incentives involve granting company shares to certain employees, thereby forming a community of interests with the enterprise, stimulating employees' enthusiasm[8], increasing the company's operating profits, and promoting long-term development[9]. This system can reconcile the conflicts arising from information asymmetry between shareholders and managers regarding the distribution of residual profits, and alleviate the problem of entrusted agency[7].

From a theoretical analysis of development trends, the equity incentive system is expected to gain increasing favor among enterprises. However, whether equity incentives can improve a company's financial performance, reduce personnel turnover, and attract outstanding talent remains a question that requires careful study. Therefore, this paper will take Hikvision as a case study and, in conjunction with the actual situation in the security industry, investigate whether equity incentives can enhance a company's market performance.

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2 Case Description

2.1 Company Profile

Hangzhou Hikvision Digital Technology Co., Ltd. (hereinafter referred to as "Hikvision") was established in 2001 and listed on the Shenzhen Stock Exchange in 2010. It is a leading high-tech state-controlled company in China. Hikvision is a provider of intelligent Internet of Things (IoT) solutions and big data services with video at its core. The company currently operates in two main segments: traditional business and innovative business. The traditional business encompasses video and audio decoding, video and audio storage, video image processing, and more. The innovative business includes subsidiaries such as Ezviz Networks, Hikrobot, Hikvision Automotive Electronics, and Hikvision Intelligent Storage.

2.2 Equity Incentive Implementation History

Hikvision has implemented equity incentive plans over the years as a means to align the interests of its employees with those of the company, stimulate their enthusiasm, and ultimately drive the company's long-term growth. These equity incentive plans have typically involved granting shares or share options to eligible employees, allowing them to share in the company's future success. The specific details, including the timing, scope, and conditions of these plans, have varied over time and have been tailored to the company's strategic objectives and market conditions.

Table 1. Main contents of equity incentives for Hikvision in each period.

	The first phase of equity incentive program	The second phase of equity incentives program	The third phase of equity incentives program	The fourth phase of equity incentive program	The fifth phase of equity incentive program
Grant date	2012.8.23	2014.10.24	2016.12.23	2018.12.20	2022.1.18
excitation pattern	Restricted Stock				
Stock source	Targeted issuance of new shares				
period of validity	10 Years				
Lock-in period	24 months from the date of grant				
Unlocking period	From 24 months to 60 months after the grant				
Grant price (yuan/share)	10.65	9.25	12.63	16.98	29.71

Grant condition	At the company level	The return on equity shall not be lower than the higher of the following three: a) The first equity incentive is 15%, and the remaining four equity incentives are 20%; b) 50th percentile of the previous year's benchmark companies in the same industry; c) 50th percentile of the average level of benchmark companies in the same industry for the first three years. 2. The growth rate of the company's operating revenue in the financial year prior to the grant date compared to the previous year, as well as the compound growth rate compared to three years ago, shall not be lower than the higher of the following three: a) The first and second equity incentives are 30%, the third and fourth equity incentives are 20%, and the fifth equity incentive is 10%; b) 50th percentile of the previous year's benchmark companies in the same industry; c) The 50th percentile of the average level of benchmark companies in the same industry for the first three years, where the second and third equity incentives require a simultaneous revenue growth rate of no less than 0%.
	At the level of incentive targets	Granting the individual performance evaluation results of the previous financial year to be qualified or above, and meeting specific conditions such as legality and non controlling shareholders.

By collecting Hikvision's annual reports and Restricted Stock Plan (Draft Revision) from the Cninfo website, the data on the various elements of the five equity incentive plans implemented since the company's listing have been compiled (as shown in Table 1). According to Table 1, the intervals between the first four equity incentive plans were all two years, while the fifth equity incentive plan was delayed by approximately one year due to the impact of the pandemic. This demonstrates the relative stability of Hikvision's equity incentive policy.

Table 2. Historical Incentive Objects of Hikvision Equity Incentives.

Hikvision's incentive targets over the years						
time		2012	2014	2016	2018	2022
Incentive target (Person)	senior executive	0	10	18	6	6
	Middle management	32	17	91	134	135
	first-line managers	176	744	151	434	836
	Core backbone	412	364	2730	5768	8976
	total	620	1135	2990	6342	9953
Proportion of total share capital		0.46%	1.33%	0.88%	1.37%	1.07

By analyzing the Restricted Stock Plan (Draft Revision) of Hikvision published on the Cninfo website, detailed information on the equity incentive recipients is summarized in Table 2:

The equity incentive program covers a comprehensive range of job positions, with the number of incentive recipients gradually increasing over time. During the first incentive period, the company was in a high-speed development stage, emphasizing innovation and business expansion. Therefore, the focus of the incentive was on middle-level managers and core staff. In 2014, the equity incentive program included 10 senior executives, reflecting the company's transition into a more mature development stage after two years of rapid growth. At this point, incentivizing senior executives helped maintain the stability of the corporate management structure and enhance corporate performance. Since then, Hikvision has continued to implement a stable equity incentive plan, significantly increasing the number of core staff members to stabilize key talents and promote the sustainable development of the enterprise.

3 Case Analysis

3.1 Motivation Analysis

3.1.1 Intense Competition in the Industry.

China's security industry has developed rapidly, with an average growth rate exceeding 10%, significantly higher than other industries. However, with the advent of the 5G era, smart locks and smart homes have become ubiquitous, pushing the anti-theft alarm segment of China's security market into a saturation period and stagnating development. This immense competitive pressure compels Hikvision to enhance the competitiveness of its products.

3.1.2 Stabilizing High-Tech Talent and Enhancing Corporate Competitiveness.

The security equipment sector is characterized by high product integration, complexity, long R&D cycles, and rapid iterative improvements. Technological innovation in this field is highly dependent on human resources. As a typical technology-intensive high-tech enterprise, Hikvision's core competitiveness lies in its product R&D innovation and technology. Equity incentives can fulfill the company's strong demand for core technical talents, establish a human resource advantage[4], and inject new momentum into the company's sustained and rapid development.

3.1.3 Achieving Corporate Co-governance and Reducing Agency Costs.

Among employees, to prevent differences in risk exposure due to shareholding, the employee stock ownership incentive system mandates that all equity incentive recipients participate in various innovative business ventures, enabling all employees to share risks and benefits[5]. Between employees and the company, a community of interests is formed, promoting mutual promotion and checks and balances[6], achieving co-governance by shareholders, management, and employees, and reducing moral hazard among agents[3].

3.2 Short-Term Market Performance

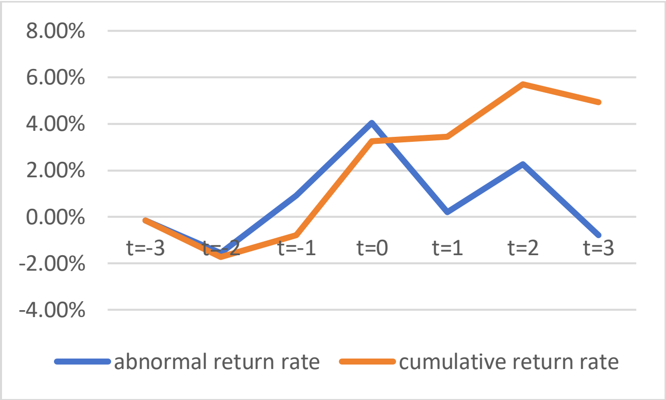

Fig. 1. Market Reaction to Hikvision Equity Incentives in 2012.

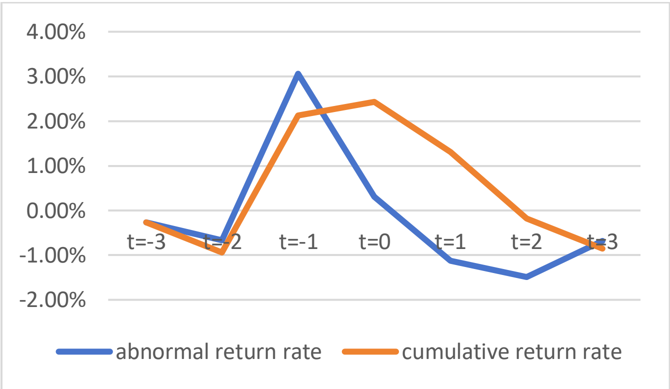

Fig. 2. Market Reaction to Hikvision Equity Incentives in 2014.

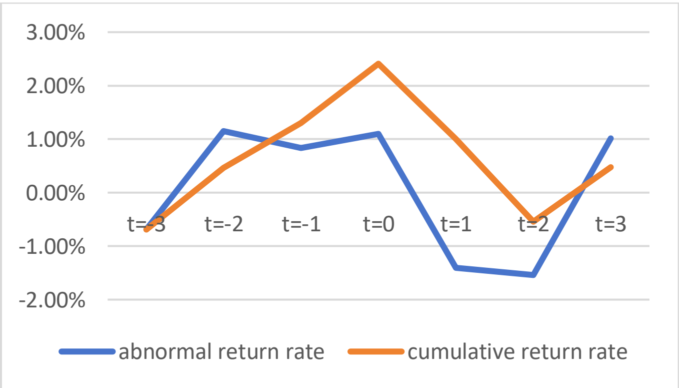

Fig. 3. Market Reaction to Hikvision Equity Incentives in 2016.

Fig. 4. Market Reaction to Hikvision Equity Incentives in 2018.

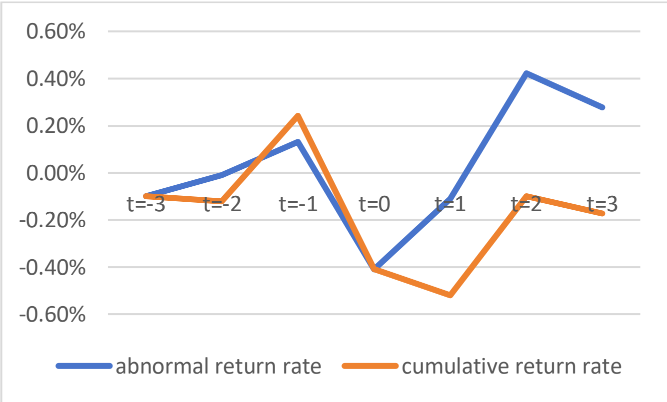

Fig. 5. Market Reaction to Hikvision Equity Incentives in 2021.

This paper selects the [-3, 3] day period around the announcement date of Hikvision's various equity incentive plan drafts as the event window to examine the capital market's reaction to the introduction of the equity incentive plans. As can be seen from Fig. 1 to Fig. 5, except for the equity incentive plans in 2014 and 2016, the cumulative returns of the other three plans showed significant improvements after the announcement of the drafts, indicating that the equity incentive plans received positive market reactions and that the market generally approved of the equity incentives introduced by Hikvision[2].

Regarding the second equity incentive plan, Fig. 2 shows that the Abnormal Return (AR) suddenly turned positive from negative on the day before the announcement of the equity incentive draft, and on the day of the announcement (Window 1), the AR reached its highest value, with the Cumulative Abnormal Return (CAR) also turning positive. This suggests that there may have been information leakage beforehand, and some investors and investment institutions that had advance knowledge of the inside information had already purchased shares in advance. Additionally, from the third day after the announcement, the AR began to rebound, demonstrating a positive market reaction[1]. It can be seen that Hikvision's second equity incentive plan was favored by investors.

The negative market reaction to the third equity incentive plan is likely due to the fact that compared to the second plan, the performance metrics required in the third plan were lower. For example, the required growth rate of the company's operating revenue was reduced by 10%, which may have sent a signal to the market that the company's future performance was not optimistic, causing concerns among investors.

In summary, Hikvision's equity incentive plans have received positive market reactions overall.

3.3 Financial Performance

3.3.1 Profitability Analysis.

Table 3. Hikvision's Profitability Indicators from 2012 to 2023.

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
ROM	27.70 %	31.21 %	36.27 %	35.28 %	34.58 %	34.96 %	30.99 %	30.53 %	27.72 %	28.99 %	19.62 %	19.64 %
ROA	24.48 %	27.48 %	29.76 %	26.45 %	23.60 %	22.21 %	21.92 %	20.19 %	18.89 %	19.44 %	13.60 %	11.89 %
Net Profit Margin on Sales	29.67 %	28.63 %	27.16 %	23.28 %	23.25 %	22.38 %	22.84 %	21.62 %	21.54 %	21.51 %	16.30 %	16.96 %
ROE within the Same Industr	20.19 %	20.67 %	20.31 %	20.42 %	18.80 %	17.57 %	16.08 %	17.27 %	11.91 %	0.58%	0.34%	-1.99 %

As shown in Table 3, after the second, fourth, and fifth equity incentive plans, Hikvision's Return on Equity (ROE) decreased, primarily attributed to the decline in industry prosperity and the impact of trade wars on the security industry. Nevertheless, Hikvision's ROE consistently remained higher than the industry average, and the gap between the two continued to widen. Furthermore, following the implementation of the first equity incentive plan, the Return on Total Assets (ROTA) experienced a significant boost but later declined sharply due to a decrease in profit growth rates. The Net Profit Margin on Sales generally demonstrated a downward trend, and the introduction and implementation of equity incentive plans did not stimulate its growth. Based on these developments, it can be concluded that Hikvision's equity incentives have played a positive role in promoting its profitability, which has remained robust over the past twelve years.

3.3.2 Analysis of Operating Capacity.

Table 4. Operational Capability Indicators of Hikvision from 2012 to 2023.

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
account receivable turnover	5.67	4.8	4.81	4.07	3.3	3.23	3.18	3.04	2.93	3.38	2.97	2.72
Inventory turnover rate	4.1	4.6	5.15	5.92	5.61	5.35	5.15	3.67	2.99	3.08	2.6	2.6

Total Asset turnover	0.76	0.87	0.97	0.98	0.89	0.9	0.87	0.83	0.77	0.85	0.75	0.69
Industry total asset turnover rate	0.75	0.74	0.78	0.8	0.79	0.79	0.78	0.77	0.65	0.61	0.49	0.46

As shown in Table 4, From 2012 to 2023, Hikvision's Total Asset Turnover gradually surpassed the industry's overall level, indicating that after implementing equity incentive plans, the company's ability to utilize its assets to increase revenue and efficiency has gradually improved, enabling it to generate more revenue. However, the company's Accounts Receivable Turnover and Inventory Turnover generally showed a declining trend. This is primarily due to the gradual strengthening of the company's credit sales strategy, as well as the transition from zero inventory management to an independent procurement and production system, where more inventories are stockpiled to ensure the growth of business scale. Overall, the impact of the five rounds of equity incentives on operating capacity was not significant, and the effects were relatively weak.

3.3.3 Analysis of Solvency.

Table 5. Short-term Solvency Indicators of Hikvision from 2012 to 2023.

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
current ratio	4.65	4.25	3.13	2.6	3.01	2.6	2.17	2.72	2.39	2.58	2.85	2.55
quick ratio	4.11	3.76	2.75	2.32	2.7	2.31	1.94	2.24	2.03	2.04	2.3	2.12
Industry current ratio	4.97	4.42	3.4	2.98	3.3	3.27	3.02	3.54	3.81	3.68	4.58	4.05

Table 6. Long-term Solvency Indicators of Hikvision from 2012 to 2023.

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Asset liability ratio	18.11%	21.03%	30.11%	36.35%	40.80%	40.66%	40.21%	39.66%	38.58%	37.04%	38.80%	40.82%
Industry asset liability ratio	30.07%	34.35%	36.37%	38.10%	36.46%	36.80%	38.53%	36.68%	34.20%	35.14%	32.90%	34.44%

The analysis is conducted from two aspects: short-term solvency and long-term solvency. Short-term solvency includes current ratio and quick ratio, both of which show a similar trend of decline overall. After four equity incentive plans, both the current ratio and quick ratio exhibit more pronounced declines, consistently remaining below the industry average (for details, please see Table 5). For long-term solvency indicators, the primary focus is on the asset-liability ratio. Following the implementation of equity incentives, Hikvision's asset-liability ratio rose significantly and then gradually stabilized, exceeding the industry average (for details, please see Table 6). This indicates that the company is able to leverage external funds for operations more effectively, demonstrating its strong solvency and good growth potential.

3.3.4 Analysis of Growth Capability.

Table 7. Growth Capability Indicators of Hikvision from 2012 to 2023.

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Growth rate of main business income	37.89%	48.96%	60.37%	46.64%	26.37%	31.22%	18.93%	15.69%	10.14%	28.21%	2.14%	7.42%
net profit growth rate	44.38%	43.76%	52.12%	25.67%	26.21%	26.38%	21.37%	95.20%	97.32%	28.02%	-22.58%	11.79%
Growth rate of total operating revenue in the industry	23.50%	22.03%	29.40%	30.94%	30.25%	39.14%	23.18%	27.57%	68.80%	12.35%	-33.60%	62.60%

According to Table 7, during the period from 2012 to 2014, Hikvision was in a stage of rapid development, with significant growth in its growth capability indicators. This trend was largely attributed to the efforts of the incentive recipients to enhance corporate performance in order to meet the vesting conditions. However, due to factors such as weak demand caused by epidemic prevention and control measures, delays in the implementation of some projects, and declining performance in Europe and North America, the growth capability indicators declined after 2014, with a particularly sharp drop in net profit growth rate in 2022. As consumer demand gradually recovers in 2023, Hikvision's multiple new products have successively entered the market for promotion and mass production, presenting a promising outlook for revenue growth. This fact fully demonstrates the positive effect of equity incentives on enhancing growth capability.

4 Conclusion

Since its listing, Hikvision has entered a stage of rapid development but also faces increasingly fierce competition in the industry. To attract high-tech talents, reduce agency costs, and promote long-term high-quality development, Hikvision has launched five consecutive restricted stock incentive plans at regular intervals. By tying the core management, business, and technical talents to the company, this plan has achieved positive market response and improved both profitability and growth capability. Moreover, based on its own development stage and corporate characteristics, the plan has reasonably set the grant objects and quantities, grant prices, and unlocking conditions, effectively helping the company to expand its market. In summary, Hikvision's five equity incentive plans have played a positive role in promoting the company's high-quality long-term development.

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