

The Study on Employee Motivation and Financial Performance

Chenxin Ling^{1,a,*}

*¹Business School, Soochow University, No.1 Shizi Street, Suzhou, China
a. 2110411079@stu.suda.edu.cn*

**corresponding author*

Abstract: Equity-based incentives are an indispensable component of corporate incentive mechanisms, aligning the interests of business operators and managers with those of shareholders. This alignment encourages operators to prioritize shareholder value, thereby significantly impacting a company's financial performance. The equity reward scheme has become extensively accepted by Internet and high-tech enterprises worldwide. This study looks at SMIC's equity incentive program. SMIC is an example company that is listed on the Sci-Tech Innovation Board (STAR Market). By analyzing SMIC, the study aims to gain more insight into the benefits of equitable incentive programs, identify the current challenges associated with these systems, and propose strategies to help companies effectively address the challenges posed by equity incentive mechanisms. Technology-driven businesses can retain critical staff and foster innovation by offering equity incentives. It is recommended that other companies listed on the STAR Market consider SMIC's approach as a reference, tailoring equity incentive plans to their specific developmental stages and technological needs to achieve sustainable technological progress, market expansion, and enhanced competitive advantages.

Keywords: Equity-based incentives, Financial performance, Financial statement.

1. Introduction

The equity incentive system originated in the early 20th century in the United States. The earliest form of equity incentive involved companies granting stock options to senior management, allowing them to purchase company stock at a predetermined price in the future. The primary objective of this mechanism was to align the interests of management with those of shareholders, thereby mitigating agency problems, i.e., the potential conflicts of interest between management and shareholders.

The formalization of equity incentive systems in China started in 2005 with the release of the Administrative Measures for Equity Incentives of Listed Companies (Trial) by the China Securities Regulatory Commission (CSRC). This legislation laid the groundwork for the growth of equity incentives in China by establishing the terms, processes, and information disclosure requirements for the application of equity incentives by listed businesses. China's equity incentive scheme has improved and been continuously innovated in recent years due to changes in regulatory regulations and the market environment. The CSRC amended the administrative measures in 2016 and 2018, further relaxing pre-approval conditions, enhancing internal corporate supervision and market constraints, and strengthening information disclosure requirements. Additionally, these revisions

supplemented and refined incentive elements, providing companies with greater flexibility in decision-making.

Equity incentives refer to a motivational mechanism by which a company grants its management or employees shares or options, thereby aligning their personal interests with the long-term development of the company to enhance work motivation and improve corporate performance. The theoretical foundation of equity incentives is primarily derived from Agency Theory. Proposed by Jensen and Meckling, this theory suggests that there is information asymmetry and a conflict of interest between shareholders and management, which equity incentives can mitigate by granting management ownership in the company, thereby reducing such conflicts [1]. Additionally, Human Capital Theory emphasizes the importance of employees' knowledge, skills, and experience for the success of a company. Becker points out that high-quality human capital is key to gaining a competitive advantage [2]. As a long-term incentive mechanism, equity incentives can attract and retain highly skilled talent, making them a part of the company and contributing to its long-term development. This incentive mechanism is particularly crucial in knowledge-intensive industries such as high-tech and internet companies. Lazear's research on Incentive Theory also supports equity incentives, arguing that they enhance a company's ability to attract and retain high-caliber talent, thereby improving overall corporate performance [3].

Wu et al. examined the effects and mechanisms of equity incentives on corporate innovation, demonstrating that while these incentives are designed to synchronize the interests of management and shareholders, they can unintentionally shift management's focus toward maximizing their own financial rewards. This shift in focus may undermine corporate innovation by discouraging long-term, risky projects in favor of short-term gains [4]. He et al., using fixed-effects models and mediation models, investigated how the development of fintech influences corporate innovation investments and the role of equity incentives in this process. Their research indicates that equity incentives greatly enhance the positive influence of fintech on innovation investments, especially in non-state-owned enterprises where market forces are more prominent [5]. Zhao and Lu performed a meta-analysis to quantitatively evaluate the correlation between the extent of equity incentives and a company's financial performance. Their analysis confirmed a significant positive correlation, indicating that higher levels of equity incentives generally lead to improved financial outcomes for firms [6]. Huang et al. constructed a three-tier governance framework, encompassing shareholders, directors, and executives, to analyze the conditions under which innovation thrives. They discovered that in high-tech enterprises, equity incentive policies have a notably stronger positive impact compared to non-high-tech firms, likely due to the higher dependence on innovation in these sectors [7]. Zhang and Zhang incorporated the concept of core competencies in their investigation of the link between equity incentives and financial performance. Their findings revealed that equity incentives have a notable positive impact on the financial performance of companies in the growth phase, with core competencies playing a partial mediating role. This introduces a strategic element to the incentive framework [8].

On the contrary, Chen et al.'s empirical research highlights potential downsides to equity incentive schemes. They found that significant disparities in equity incentives between executives and key employees can severely hamper corporate innovation output. These disparities not only reduce the overall innovation capacity but also lead to a degradation of the firm's patent portfolio in terms of both quantity and quality over time [9]. Additionally, Tang et al., using panel data from A-share listed companies on the Shanghai and Shenzhen stock exchanges between 2006 and 2014, revealed that the implementation of equity incentive plans did not significantly curb managerial on-the-job consumption. This finding suggests that in the context of China, the intended incentive effects of equity plans may not be as effective, indicating potential shortcomings in the design or implementation of these programs [10].

This paper will examine SMIC, a leading company listed on China's Sci-Tech Innovation Board (STAR Market), to investigate how equity incentive systems influence corporate financial performance. Chapter 2 will detail the specific equity incentive system implemented by SMIC, highlighting its strategies and details. Chapter 3 will examine the changes in SMIC's financial performance under the current economic environment and equity incentive system. Chapter 4 will review the impact of SMIC's equity incentive system on its financial performance and offer suggestions for the company's future growth, considering the present economic environment.

2. Case Analysis of SMIC's Equity Incentive Plan

2.1. SMIC's Equity Incentive Plan

Semiconductor Manufacturing International Corporation (SMIC) is a global leader in the semiconductor foundry industry and a key player in integrated circuit manufacturing in mainland China. With cutting-edge manufacturing capabilities, significant production capacity, and extensive service support, SMIC offers 8-inch and 12-inch wafer foundry and technical services to clients worldwide. Recently, SMIC announced the granting of 67.5352 million shares of restricted stock to 3,944 participants at an issue price of 20 RMB per share.

According to the announcement, SMIC's Chairman Zhou Zixue, Vice Chairman Chiang Shang-Yi, Co-CEO Zhao Haijun, and Co-CEO Liang Mong-Song were each granted 400,000 shares. The company's CFO Gao Yonggang and Executive VP of Technology R&D, Zhou Meisheng, received 360,000 shares each, while the Senior VP of Operations and Engineering, Zhang Xin, was awarded 320,000 shares. In total, 2.8 million shares, or 3.7% of the total equity granted in this round, were allocated to SMIC's board members, senior executives, and key technical personnel. Middle and senior management were allocated 10.20%, while technical and business experts received the majority share at 75.37%. An additional 10.73% of the equity has been reserved for future use.

SMIC's 2024 equity incentive plan aims to motivate the core team and enhance the company's competitive edge by granting stock options to employees and third parties, thereby driving sustainable, long-term growth. Over the next four years, the plan will gradually issue approximately 120 million stock options to qualified employees and third parties.

2.2. Objectives of SMIC's Equity Incentive Plan

The equity compensation program enhances SMIC's ability to attract top talent, reduces employee turnover, and provides a solid foundation for SMIC's continued growth. The primary objective of SMIC's equity incentive is to retain the company's technical talent. In addition to equity incentives, SMIC has implemented various other measures to retain employees. For example, the second phase of the SMIC Garden residential community in Tangzhen will soon be open, providing more than 1,500 units of 60-square-meter and 80-square-meter apartments and employee dormitories, addressing housing needs for thousands of employees and their families.

Equity incentive plans are typically tied to corporate performance targets, effectively motivating employees and improving the company's overall performance. Through equity incentives, the interests of shareholders, management, and employees are aligned, contributing to a more stable corporate governance structure.

2.3. Details of SMIC's Equity Incentive Plan

The incentive targets mainly include senior management, key technical personnel, and business leaders who have made significant contributions to the company. Vesting conditions are tied to company performance indicators, individual performance, and other factors, ensuring the

effectiveness and fairness of the incentive plan. The exercise price is set based on market conditions, typically at a price lower than the market rate at the time of granting to boost the program's attractiveness. The vesting period for this incentive plan is four years, with the options exercisable in phases each year to mitigate risk.

2.4. Impact of the Equity Incentive Plan on SMIC's Future Development

SMIC can further strengthen its core competitiveness and retain important personnel by implementing the equity incentive plan. This will support technological innovation and business growth for the corporation, enabling it to hold its dominant position in the semiconductor market.

Employee motivation can be effectively increased by implementing an equity incentive scheme, which will improve business performance. This will increase value for shareholders and help the company reach its development objectives.

The plan helps to optimize corporate governance by balancing the interests of various stakeholders and improving decision-making efficiency and stability. This will enable SMIC to maintain its competitive edge in the fiercely competitive semiconductor market.

By implementing the stock-based compensation plan, SMIC can draw in and maintain more talented individuals, enhancing the company's capacity for technological innovation and market competitiveness. This will support the company's sustainable development in the future, creating greater value for shareholders and society.

SMIC can further strengthen its core competitiveness and retain important personnel by implementing the equity incentive scheme. This will support technological innovation and business growth for the corporation, enabling it to hold its dominant position in the semiconductor market. Employee motivation can be effectively increased by implementing an equity incentive scheme, which will improve business efficiency. This will increase value for shareholders and help the company reach its development objectives.

3. Correlation Analysis of Financial Factors

3.1. Expense Accrual of Equity Incentives and Profitability

The implementation of equity incentives increases the SMIC's operating costs, primarily reflected in payroll expenses. According to SMIC's (Semiconductor Manufacturing International Corporation) financial reports, equity incentive expenses are amortized annually and included in administrative or selling expenses. Under IFRS requirements, the company must calculate the equity incentive cost based on the equitable value of the shares on the grant date and recognize it progressively over the vesting period.

In 2020, SMIC went public on the STAR Market of the Shanghai Stock Exchange, raising approximately RMB 53 billion, marking the largest IPO in the history of the semiconductor industry in mainland China. The substantial post-IPO financing provided the company with the necessary funds to develop more advanced process technologies. Although SMIC's revenue surged significantly in 2020, high R&D investments and capital expenditures impacted net profits to some extent. In 2021, the global chip shortage intensified, leading to strong market demand. SMIC benefitted from this robust demand, achieving record financial results with net profits reaching approximately RMB 10 billion. In 2022, while SMIC's net profit remained at high levels, the company's performance faced pressure due to macroeconomic factors and technical constraints. SMIC continues to lead in mature process technologies (such as 28nm and above) but faces substantial challenges in advancing to cutting-edge processes below 7nm.

Despite the inclusion of equity incentive expenses, SMIC's net profit margin did not show a significant decline. Typically, in the short term, net profits may decrease due to increased incentive

costs. However, in the long run, equity incentives can enhance employee motivation, leading to revenue growth that compensates for these costs. Since its listing, SMIC has transitioned from losses to gradual profitability, achieving steady growth in recent years. Notably, following its 2020 IPO on the STAR Market, the company reached a historic high in net profits. However, future net profit growth will continue to depend on market demand, technological advancements, and external policy environments.

3.2. Shareholder Returns and Earnings Per Share (EPS)

Equity incentives usually involve the issuance of additional shares, which may erode current shareholders' shareholding and raise the company's overall share capital. This dilution effect often directly impacts EPS, as net profits are distributed over a larger number of outstanding shares.

Table 1: Changes in SMIC's Earnings Per Share (EPS) from 2020 to 2023

Year	Earnings Per Share (EPS)	Growth Rate
2020	\$0.16	-
2021	\$0.27	+68.75%
2022	\$0.48	+77.78%
2023	\$0.14	-70.83%

Data Source: East Money, Wind

Although SMIC's EPS grew significantly in 2021 and 2022, shareholder returns declined during the same period. This may suggest that market expectations for the company's future prospects did not rise in tandem with EPS growth. The high shareholder returns in 2020, despite a relatively modest EPS increase, may reflect market optimism about the company's future. The sharp increase in EPS in 2021 and 2022, contrasted with the decline in shareholder returns, could be attributed to concerns about other factors such as the broader market environment or competitive pressures. In 2023, despite a significant drop in EPS, shareholder returns recovered, potentially indicating improved market expectations for the company's future.

The increasing tendency is still evident when comparing SMIC's EPS movements before and after the execution of its equity incentive plan, especially the diluted EPS. This indicates that the company has successfully improved its overall performance through equity incentives, offsetting the dilutive impact of additional shares. According to SMIC's 2024 equity incentive plan, 120 million stock options will be gradually granted over the next four years. If the company's net profit growth is sufficient to counterbalance the dilution effect of the increased share capital, the decrease in diluted EPS will be limited, and it may even continue to grow.

3.3. Equity Incentives' Effect on Revenue and Net Profit

As a long-term incentive tool, equity incentives are frequently linked to business performance. The terms of exercising SMIC's equity incentive plan might be examined in order to examine trends in the company's net profit and revenue. The question arises as to whether equity incentives have driven overall revenue growth. For instance, has the company achieved breakthroughs in core technological innovation or market expansion, benefiting from equity incentives and thereby increasing revenue?

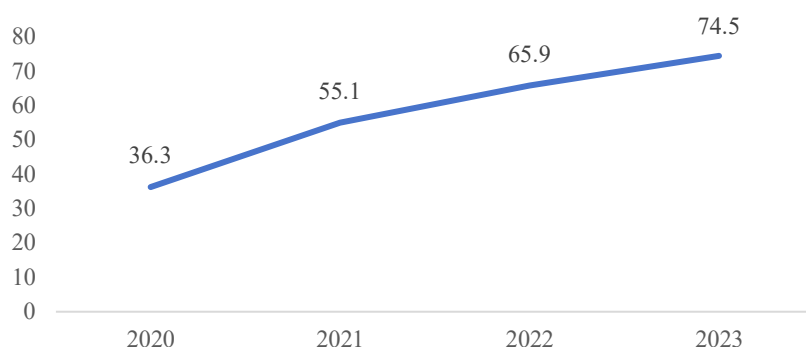


Figure 1: SMIC's Revenue from 2020 to 2023 (in USD billions).
Data Source: East Money, Wind

Since its listing, SMIC has experienced steady revenue growth. With advancements in technology and increasing market demand, from USD 3.64 billion in 2020 to USD 7.45 billion in 2023, the company's sales grew dramatically. This is a reflection of the business's steady rise within the sector and increasing market share. It also suggests that the cohesion and motivation driven by the equity incentive plan have translated into tangible performance outcomes.

3.4. Long-term Financial Sustainability

Ensuring the ongoing development of the company is the primary goal of the equity incentive plan by retaining top talent over the long term, thereby driving technological breakthroughs and market expansion. While SMIC continues to increase its R&D investments, it also incentivizes key technical personnel to maintain technological leadership.

In 2021, R&D expenditure accounted for approximately 28% of total revenue, and SMIC continued to make large-scale investments in advanced technologies and capacity expansion. In 2022, the R&D expenditure ratio slightly increased to 29%, with the company intensifying its focus on next-generation semiconductor technologies, such as 5nm and below. By 2023, the R&D expenditure ratio stabilized at around 30%, indicating the company's growing emphasis on technological development.

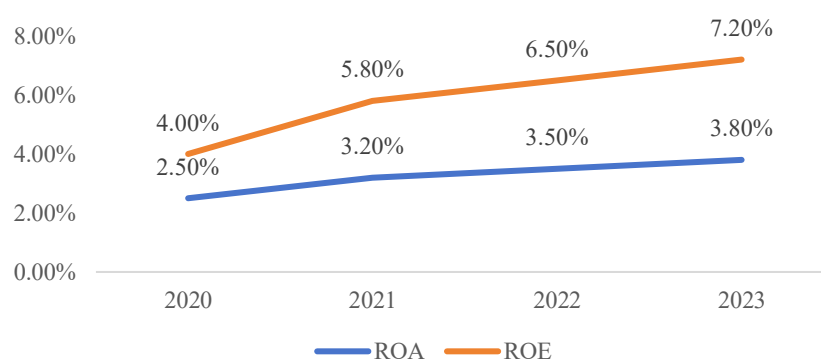


Figure 2: Trends in SMIC's ROA and ROE from 2020 to 2023.
Data Source: East Money, Wind

From 2020 to 2023, ROA demonstrated a gradual upward trend, reflecting improvements in the company's asset management and operational efficiency. Although ROA was relatively low in the early stages after listing due to significant expansion and R&D investments, it steadily increased as the company advanced its technology and expanded its market presence. The year-over-year growth

in ROE following the listing indicates enhanced profitability and shareholder returns. As the company continuously optimized operational efficiency and technological investments, it also improved returns for its shareholders.

In summary, SMIC's financial data provides a comprehensive basis for analyzing the impact of the equity incentive plan on the company's profitability, shareholder returns, market performance, and long-term financial sustainability.

4. Conclusion

This study offers a comprehensive analysis of SMIC's equity incentive plan, looking at its particulars, goals, and implications for the future growth of the business. It also looks at how equity incentives affect SMIC's financial metrics, such as revenue, net profit, earnings per share (EPS), accrual of expenses, net profit, and long-term financial sustainability.

The equity incentive plan effectively motivates employees, enhancing the company's technological innovation capabilities and driving revenue growth. The long-term pattern of net profit and EPS growth indicates the beneficial effect of the plan on overall performance, even though equity incentive fees may temporarily raise operating expenses. The upward trends in ROA and ROE reflect improvements in asset management efficiency and profitability. Equity incentives are a valuable tool for technology-driven companies to retain key talent and promote innovation. It is recommended that other companies listed on the STAR Market take SMIC's approach as a reference, tailoring equity incentive plans to their specific development stage and technological needs. By attracting and motivating top talent, companies can achieve sustainable technological progress, expand market presence, and enhance their competitive advantage.

References

- [1] NT Candemir. (2005). *Agency theory: an extended conceptualisation and reformulation*.
- [2] Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. University of Chicago Press.
- [3] Lazear, E. P. (2000). *Performance pay and productivity*. *American Economic Review*, 90(5), 1346-1361.
- [4] Wu, W., Liu, Y., & Zhang, A. (2024). *Can equity incentives promote corporate innovation?—A perspective based on the heterogeneity of incentive targets and modes*. *Accounting Research*, (04), 98-111.
- [5] He, Y., Wang, K., Zhang, Y., & Xie, L. (2024). *Research on the effects and mechanisms of fintech on corporate innovation investment*. *Theory and Practice of Finance and Economics*, 45(02), 25-32.
- [6] Zhao, X., & Lu, J. (2024). *A meta-analysis of the impact of equity incentives on financial performance of listed companies in China*. *Journal of Northwest Normal University (Social Sciences)*, 61(02), 127-137.
- [7] Huang, Z., Deng, X., Xu, Y., Zheng, W., & Cui, L. (2024). *Incentives and supervision: Why is innovation governance different between high-tech and non-high-tech enterprises?—A qualitative comparative analysis (QCA) based on listed companies on the Growth Enterprise Market*. *Nankai Business Review*, 1-30.
- [8] Zhang, J., & Zhang, H. (2021). *Equity incentives, core competencies, and financial performance in growing enterprises—An empirical study based on data from listed companies in China*. *Study and Exploration*, (04), 120-127.
- [9] Chen, W., Wang, X., & Jia, S. (2023). *The gap between executive and key employee equity incentives and corporate innovation output: Promotion or inhibition?* *Journal of Zhejiang University (Humanities and Social Sciences)*, 53(11), 62-85.
- [10] Tang, Y., Zhou, R., Yang, X., & Yang, Y. (2017). *Research on the effectiveness of equity incentives in Chinese listed companies*. *Theory and Practice of Finance and Economics*, 38(04), 57-61.