Analysis on the Motives and Effects of Corporate Spin-off Listing under the Registration-based System——A Case Study of Kelun Pharmaceutical Spinning off Kelun Botai

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Abstract. After China's capital market reform of the registration-based system, the policy on corporate spin-off listing has been relaxed, making it an important tool for asset restructuring. This paper adopts the single case study method, event study method and financial indicator comparison method to study the reasons and results of Kelun Pharmaceutical's spin-off of its innovative drug subsidiary, Kelun Botai, for listing in Hong Kong under the registration-based system. The study finds that the main reasons for Kelun Pharmaceutical's spin-off are as follows: Kelun Botai needed a large amount of funds for research 安and development of innovative drugs from 2019 to 2021, with a cumulative loss of 2.48 billion yuan; the opportunity brought by relaxed policies; and the company's need for specialized operation and high-quality resource allocation. The spin-off announcement led to a significant short-term rise in the parent company's stock price, with a cumulative abnormal return of 12.3%, but the subsidiary faces valuation pressure due to continuous losses. In the long run, the spin-off can help both parties achieve specialized operation, but it also brings problems such as complicated management and balancing the interests of minority shareholders.

Keywords: Spin-off Listing, Kelun Pharmaceutical, Kelun Botai, Event Study Method.

1. Introduction

In 2019, China implemented the registration-based system reform, and the China Securities Regulatory Commission (CSRC) issued the "Provisions on the Pilot Program of Domestic Listing of Spin-offs of Listed Companies' Subsidiaries", filling the institutional gap in A-share spin-off listing [1,2]. By July 2025, 32 A-share companies will have completed spin-off listings. Zhang Xiaomin pointed out that after the reform, enterprises can improve the efficiency of direct financing, with more flexible listing conditions and simplified review procedures, allowing unprofitable enterprises to go public [3]. Zhang Xuemeng believes that these changes are particularly beneficial for the financing of technology-intensive enterprises such as biomedicine [4].

The pharmaceutical industry is characterized by long R&D cycles, large capital demand and high risks. Before the registration-based system reform, innovative drug enterprises found it difficult to list on the A-share market because they could not meet the profit requirements. As a leading enterprise in the traditional infusion industry, Kelun Pharmaceutical laid out its innovative drug business in 2012. However, its subsidiary Kelun Botai suffered a cumulative loss of 2.483 billion yuan from 2019 to 2021, with negative net assets, thus needing an independent financing channel [5]. Xu Yueyue believes that spin-off listing can meet the financing needs of enterprises [6]. Liu Zhe et al. found through the difference-in-differences model that spin-off listing can enhance the market value of the parent company [7]. Zhu Fenglan found that the listing of subsidiaries in Hong Kong after spin-off can promote the internationalization of enterprises [8]. Li Zhicheng and Wang Yibing pointed out that spin-off listing is conducive to the rational valuation of different businesses of a company by the capital market [9]. Shen Jiaye and Guo Fei proposed that spin-off listing can reduce the risk of undervaluation of enterprise value caused by information asymmetry [10].

This paper takes Kelun Pharmaceutical's spin-off of Kelun Botai for listing in Hong Kong as the research object, and uses the case study method, event study method and financial indicator comparison method to explore the motives and effects of spin-off listing under the registration-based system. It analyzes the short-term market reaction through the event study method and evaluates the

long-term performance by combining financial data before and after the spin-off. This analysis not only provides empirical reference for listed companies' spin-off decisions, but also offers a basis for regulatory authorities to optimize spin-off rules under the registration-based system. The core goal of the study is to reveal how the registration-based policy empowers corporate capital operations, clarify the value creation mechanism and potential governance risks of spin-off listing, and ultimately promote the capital market to serve the innovation and upgrading of the real economy.

2. Case Background

2.1. Strategic Transformation Background of the Parent Company

Kelun Pharmaceutical (stock code: 002422.SZ) was founded in 1996 and listed on the Shenzhen Stock Exchange in June 2010. It is a leading enterprise in China's infusion product field. The company's traditional businesses include the production and sales of large-volume injections, antibiotic intermediates, and non-infusion preparations. Facing the trend of innovation and upgrading in the pharmaceutical industry, Kelun Pharmaceutical launched a strategic transformation in 2012, proposing an "innovation-driven" strategy, focusing on investment in biopharmaceutical Research and development (R&D), and adopting an internal incubation model. In 2016, Sichuan Kelun Botai Biopharmaceutical Co., Ltd. was formally established as an innovative drug R&D platform. However, the characteristics of high investment, long cycle and high risk in innovative drug R&D have put pressure on the financial situation of the subsidiary. The huge losses have put pressure on Kelun Pharmaceutical's consolidated statements and financing capacity, prompting the company to seek strategic adjustments.

2.2. Business Characteristics of the Spin-off Entity

Kelun Botai focuses on R&D of innovative drugs such as antibody-drug conjugates (ADCs). In 2022, it reached a cooperation agreement with Merck, with potential milestone payments of up to 9.3 billion US dollars. Before the spin-off, the equity structure was as follows: Kelun Pharmaceutical directly held 59.75% of the shares, and controlled 15.52% through the employee stock ownership platform, with a total control of 75.27% of the shares. Table 1 shows the comparison between Kelun Pharmaceutical and Kelun Botai before the spin-off.

Table 1. Comparison between Kelun Pharmaceutical and Kelun Botai before the Spin-off (2021)

Indicators	Kelun Pharmaceutical (Parent Company)	Kelun Botai (Subsidiary)
Main Business	Infusion products, antibiotic intermediates	Biopharmaceutical R&D
Revenue Scale	17.277 billion yuan	82 million yuan
Net Profit	868 million yuan	-889.8 million yuan
R&D Investment	1.737 billion yuan	823.8 million yuan
Asset-Liability Ratio	55.20%	425.22%
Business Characteristics	Stable cash flow but slow growth	High investment, long cycle, high risk

Data Source: Company Annual Reports

3. Spin-off Motives: Triple Drivers

3.1. Policy Motives

The registration-based system reform has removed institutional barriers to spin-off listing. Before 2019, domestic spin-off listing was strictly restricted, and only overseas spin-offs were allowed. However, the 2019 new regulations stipulated that as long as the parent company has been profitable for three consecutive years with a cumulative net profit of no less than 600 million yuan, and at the same time, restricted the proportion of the subsidiary's profit and net assets to the parent company. Kelun Pharmaceutical's cumulative net profit of 2.681 billion yuan from 2019 to 2021 fully met these financial thresholds. More importantly, the "Chapter 18A" listing rules of the Hong Kong capital

market allow unprofitable biotech companies to list, which directly matches Kelun Botai's current situation.

3.2. Strategic Motives

The company has long faced an inherent conflict between the traditional, stable but limited-growth infusion business and the high-investment, high-risk, long-cycle innovative drug R&D business. Spin-off listing shows more advantages in independent valuation. Before the spin-off, Kelun Pharmaceutical's P/E ratio was about 20 times, while the average P/S ratio of unprofitable biotech companies in Hong Kong stocks was over 10 times. The spin-off can make Kelun Botai's value explicit. In addition, a spin-off listing can strengthen employee incentive methods. The employee stock ownership platform holds 15.52% of the shares, and the improved liquidity after listing will enhance the team's enthusiasm.

3.3. Financing Motives

Innovative drug R&D is truly a "cash-burning" field. From 2019 to 2021, Kelun Botai invested more than 2.4 billion yuan in R&D, but no products have been launched for commercialization, resulting in its net assets dropping to -2.643 billion yuan by the end of 2021. Although the parent company Kelun Pharmaceutical has an annual net profit of about 800-1000 million yuan, these profits need to support the continuous development of its own main business, shareholder dividends and necessary financial safety margins, making it difficult to continuously "blood transfusion" for the heavily loss-making subsidiary. Spin-off listing can build an independent and sustainable financing platform for Kelun Botai. It raised about 1.5 billion Hong Kong dollars through Initial Public Offering (IPO), which greatly eased the cash flow pressure. More importantly, the listing status enables it to conduct refinancing through diversified methods such as additional issuance and convertible bonds more conveniently in the future.

4. Spin-off Process: Hong Kong Stock Path and Institutional Adaptability

4.1. Key Steps of Spin-off Listing

The spin-off listing process of Kelun Botai reflects the balance between market-oriented decision-making and compliance review under the registration-based system. In December 2022, the adjustment of the governance structure was completed to ensure the independence of assets, finance and personnel. On January 13, 2023, the spin-off plan was officially announced, explaining the equity structure of Kelun Botai. On February 24, 2023, the Hong Kong stock prospectus was submitted, with Goldman Sachs and CITIC Securities as joint sponsors. In July 2023, it passed the hearing of the Hong Kong Exchanges and Clearing Limited (HKEX), and adopted the price-to-research ratio for industry valuation. In August 2023, it was officially listed on the Hong Kong Stock Exchange, with the stock code 6990.HK. After the spin-off, Kelun Pharmaceutical's shareholding ratio dropped to about 45%.

4.2. Adaptive Practice of Registration-based System Key Points

Kelun Botai's spin-off plan accurately matches the inclusive rules of the registration-based system. Firstly, regarding the qualification for listing without profits, it applied Chapter 18A of the Hong Kong stock market, which exempts profit requirements and emphasizes technical value and pipeline progress. Secondly, centered on information disclosure, it detailed the progress of R&D pipelines, details of cooperation with Merck, and related transaction arrangements to reduce information asymmetry. Finally, regarding the market-oriented pricing mechanism, the issuance Price-to-Earnings (P/E) ratio was negative, but the price-to-research ratio reached the industry average, reflecting the valuation logic of innovative drugs.

5. Evaluation of Spin-off Effects

5.1. Short-term Market Reaction

The event study method is used to examine the market reaction to the spin-off announcement. The announcement date, January 13, 2023, is selected as the event date, and the window period is [-10, +10] trading days. Among them, the abnormal return (AR) is calculated with the Shenzhen Pharmaceutical Index as the market benchmark, which is the difference between Kelun Pharmaceutical's actual return and expected return; the cumulative abnormal return (CAR) is the sum of daily ARs within the window period. The results show a significant positive reaction: the AR on the announcement date reached 7.2%, reflecting the market's positive interpretation of the spin-off; the CAR of the window period [-1, +1] was 9.5%, and the CAR of [-5, +5] rose to 12.3%; the long-term (3-month) excess return declined, indicating that short-term optimism may be excessive. This reflects that investors are generally optimistic about the positive impact of the spin-off on Kelun Pharmaceutical in releasing asset value and reducing financial burdens, but the market also has certain pressure expectations on the independent valuation of Kelun Botai, which continues to lose money.

5.2. Changes in Financial Performance

Analysis of the data in Table 2 shows that the financial impact of the spin-off on the parent and subsidiary companies is structurally differentiated. Kelun Pharmaceutical's profit indicators improved because the loss-making business was no longer consolidated into the statements; its asset-liability structure was optimized: the asset-liability ratio decreased, expanding financing space; R&D became more focused, focusing on generic drugs and improved new drugs. After the IPO, Kelun Botai's cash reserves increased significantly, and the intensity of R&D investment increased by 35%; the loss narrowed. In 2024, the company's core product SKB264 entered Phase III clinical trials, achieving milestone collaboration revenue, with losses decreasing by 18% year-on-year. Additionally, the company issued USD 500 million in convertible bonds to support its global clinical expansion. Despite losses in certain business segments, the parent company's return on equity increased, while its debt-to-asset ratio declined.

Table 2. Comparison of Core Financial Indicators Before and After the Spin-off (Unit: million RMB)

Entity	Indicators	2021(Before Spin-off)	2023(After Spin-off)	Change Rate
Kelun Pharmaceutical	Operating Income	17,277	18,542	+7.3%
	Net Profit Attributable to Parent Company	868	1,023	+17.9%
	R&D Expenses	1,568	1,385	-11.7%
	Asset-Liability Ratio	62.3%	58.1%	-4.2pp
Kelun Botai	Operating Income	82	357	+335.4%
	Net Profit	-890	-1,024	-
	R&D Investment	1,243	1,678	+35.0%
	Cash Reserves	1,150	4,200	+265.2%

Data Source: Company Financial Reports

5.3. Non-financial Effects and Challenges

In terms of positive impacts, spin-off listing has significantly improved Kelun Botai's governance efficiency and strategic development capabilities. After listing, the subsidiary established an independent board of directors and introduced professionals in the pharmaceutical field, greatly improving the professionalism and efficiency of decision-making. At the same time, the spin-off accelerated the progress of core innovation pipelines, and the listing application process of its core product SKB264 was advanced by about 6 months compared with the original plan. The spin-off also deepened international cooperation.

However, the spin-off also brings a series of management challenges that need continuous attention. After the spin-off, Kelun Pharmaceutical continues to provide production services for Kelun Botai, which requires both parties to establish strict and transparent pricing mechanisms and make full disclosures to avoid conflicts of interest. Secondly, the transfer of parent company resources to the subsidiary during the spin-off process requires balancing the interests of minority shareholders

and establishing a sound mechanism to prevent potential risks of interest transfer. Finally, the independent operation of the parent and subsidiary companies may weaken the original strategic synergy, especially in the close cooperation between R&D and production links, where there is a potential risk of efficiency decline, which requires designing effective communication and coordination mechanisms to make up for it.

6. Conclusion

Overall, the registration-based system reform, by establishing inclusive listing rules that allow unprofitable enterprises to list, provided a key institutional opportunity for Kelun Pharmaceutical to spin off Kelun Botai, effectively solving the financing dilemma of innovative drug R&D enterprises. After the spin-off listing, it significantly increased the market value of the parent company in the short term and built an independent long-term financing platform for the subsidiary to support its R&D investment. However, in the long run, it also brings continuous governance challenges, mainly reflected in the standardized management of related transactions and the protection of minority shareholders' interests.

The core inspiration of this case is that for enterprises to successfully implement spin-offs under the registration-based system, they need to balance strategic adaptability and governance effectiveness. On the one hand, before making a decision, it is necessary to strictly evaluate the business independence and the strategic necessity of the spin-off; on the other hand, it is essential to strengthen the transparency of information disclosure, especially the pricing of related transactions and resource transfer arrangements, and explore the introduction of mechanisms such as minority shareholders' voting to balance the interests of all parties. The focus of future supervision should further shift from profitability review to the evaluation of information disclosure quality and the independence of corporate governance, so as to guide spin-off listing to truly serve technological innovation and the healthy development of the capital market.

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