



Case Analysis of the Motives and Effects of Mergers and Acquisitions of Listed Companies Taking Liuyao's Acquisition of Vantone Pharmaceuticals as an Example

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Abstract. Since the outbreak of the COVID-19 pandemic at the end of 2019, the pharmaceutical industry has entered a period of rapid development. Enterprises have adjusted resources through mergers and acquisitions to achieve scale expansion and synergy effects, thereby enhancing their strength. This paper analyzes the case of Liuzhou Pharmaceutical Co., Ltd.'s acquisition of Wantong Pharmaceutical in 2018, quantitatively examines various financial indicators from 2014 to 2019, explores the feasible paths for the future development of small and medium-sized pharmaceutical companies, and explores the specific motives and effects of mergers and acquisitions by listed companies through the "PE + listed company" type of merger and acquisition approach, providing a reference for optimizing merger and acquisition strategies.

Keywords: M&A drivers, M&A effects, "PE+ listed companies" M&A methods.

1 Introduction

1.1 Background

The outbreak of the COVID-19 pandemic at the end of 2019 has significantly increased large-scale mergers and acquisitions in the pharmaceutical industry. To enable enterprises to gain more benefits from mergers and acquisitions, this paper, based on the current merger and acquisition environment in China, analyzes the merger and acquisition methods and related data of case companies, with the aim of providing certain reference for future mergers and acquisitions of pharmaceutical enterprises in China, thereby enriching the analysis of mergers and acquisitions and performance of Chinese pharmaceutical enterprises and promoting their sustainable and high-quality development^[1].

1.2 Research Purpose and Significance

The significance of this topic lies in supplementing the theoretical aspects of mergers and acquisitions (M&A) and synergy effects in the pharmaceutical industry. This paper adopts a quantitative analysis approach, comprehensively evaluating the performance of M&A from aspects such as revenue, income, cost, and return on net assets, to objectively and comprehensively analyze the motives and synergy effects of M&A, thereby providing reference value for the motives and performance of M&A in China's pharmaceutical enterprises.

In practice, this paper takes the M&A of Wan Tong Pharmaceutical by Liuzhou Pharmaceutical Co., Ltd. as an example, analyzes its performance and subsequent development, with the aim of providing beneficial references for Liuzhou Pharmaceutical's subsequent industrial chain expansion and offering reference significance for companies that need to carry out M&A in the future.

1.3 Literature Review

Berkovitch and Narayanan (1993)^[2] believed that the main motivations for mergers and acquisitions were synergy effects, agent factors, and managerial hubris, and through empirical research, they concluded that the synergy between enterprises would have a positive effect. Kode ·Ford· Sutherland (2003)^[3] believed that the motivation for mergers and acquisitions lay in coordination effects and proposed a model for evaluating the synergy of mergers and acquisitions. In terms of the research on the effects of mergers and acquisitions, Michael E. Porter (1985)'s value chain theory regarded the synergy of mergers and acquisitions as tangible, intangible, and competitive business units based on their correlation^[4]. Hiroyuki Itami (1987) proposed the concepts of "static synergy effects" and "dynamic synergy effects"^[5].

In the early 1990s, China's mergers and acquisitions activities and theories had distinct Chinese characteristics (Zheng Haihang et al., 1999)^[6]. Xu Mingbo (1997) and Feng Qiaogen (1999) proposed the financial synergy effects that commonly existed in China and affected the price-earnings ratio, as well as the comprehensive leverage effect related to the time value^[7]. Yan Li and Wang Xiaoyan (2011) utilized the BP algorithm to construct the non-correlation between the synergy effect of mergers and acquisitions and various factors, thereby enabling the realization and evaluation of the synergy effect of mergers and acquisitions, and further refined the influencing factors and calculation indicators of the synergy effect of mergers and acquisitions^[8].

2 Research on the M&A Model of "PE + Listed Company"

2.1 Introduction to the M&A Model of "PE+ Listed Companies"^[9]

As a prevalent model integrating industry and finance, the "PE + Listed Company" paradigm endeavors to propel enterprise investment and mergers and acquisitions by leveraging the professional acumen and informational superiority of PE institutions, thereby effectuating the acceleration of industrial capital integration through financial

capital^[10]. The two parties stipulate the management purview of the merger and acquisition fund, engage in a division of labor and collaboration, and prioritize the sale of the invested enterprises to the listed company upon exit. The merger and acquisition process encompasses fund establishment, project selection, post-investment management, and the takeover of the target company.

2.2 Compared to Other Merger and Acquisition Models

Advantage. The "PE + Listed Company" M&A model, based on the cooperation of listed companies, conducts in-depth exploration and meticulous cultivation within the industry to foster a powerful alliance. This is beneficial for listed companies to enhance their strength and scale, improve their performance and market value, and also provides a guarantee for the return of the fund, with a relatively certain exit for the project. For listed companies, it reduces the acquisition risk.

Disadvantage. In view of the limitations of the industry, if any issues arise with the target enterprise, the acquiring enterprise, or the PE institution, significant risks will be incurred for both the fund and the project. Additionally, this M&A model demands a relatively high level of professionalism, involving a long research cycle and judgment within the industry^[11].

3 Analysis of Merger and Acquisition Cases

3.1 Optimal Decision Analysis

In this case, the acquirer is Guangxi Liuzhou Med Co., Ltd. in Guangxi, a local comprehensive listed pharma with a 60-year-plus history. As per Table 1, in 2017, it had a revenue of 9.4 billion yuan and a net profit of 402 million yuan, with only 49 million yuan (0.5%) in TCM production^[12]. The target is Guangxi Wantong Pharm Co., Ltd. in Guangxi, a well-known TCM patent medicine maker, focusing on R&D, production, and sales, with strong production tech edges. As Table 1 shows, in 2017, it had a revenue of 120 million yuan and a net profit of 66 million yuan. From Jan. to Sept. 2018, its operating income was 99 million yuan and net profit was 50 million yuan, with steady operating performance growth.

Table 1. Revenue and Net Profit Data Table of Liuyao and Wantong from 2017/1 to 2018/9

| | | 2018/1-2018/9 | 2017/1-2017/12 |
|------------------------|-----------------|---------------|----------------|
| Liuyao Group | Business income | 8.71bn | 9.447bn |
| | Net profit | 0.3899bn | 0.4018bn |
| Wantong Pharmaceutical | Business income | 9.844M | 0.124bn |
| | Net profit | 5.074M | 6.567M |

3.2 Merger and Acquisition Process

In Dec. 2016, Guangxi Liuzhou Med Co., Ltd. (previously named Guangxi Liuzhou Medicine Co., Ltd.) jointly launched the Health Industry M&A Fund, Liuzhou Med Tianyuan, with Shenzhen Qianhai Tianyuan Huitong, Zhejiang Yinxinhe, and Gongqingcheng Chuangjie Investment. As an intermediate partner, it contributed 100 million yuan, accounting for 13.30% of the total.

In Jan. 2017, Gongqingcheng Liuzhou Med Tianyuan Investment Management Partnership acquired 98% equity of Guangxi Wantong Pharm Co., Ltd. from the original shareholders for 18.605 million yuan. The price was negotiated based on Wantong Pharm's 2016 net profit.

On Sept. 29, 2018, Guangxi Liuzhou Med Co., Ltd. announced the acquisition of 60% shares of Guangxi Wantong Pharm Co., Ltd. for 716 million yuan to gain control, via the "Liuzhou Med Tianyuan" fund. The post-acquisition equity distribution is shown in Fig. 1. After this, the company would recognize 624 million yuan of goodwill. The company claimed this as a vertical integration within the pharmaceutical industry, facilitating the extension of the industrial chain's strategic layout^[13].

4 The Synergy Effects Generated by the M&A of the Case

4.1 Operating Synergy

Increase Income. As shown in Figure 1, from the end of 2017 to the end of 2018, the operating revenue of Liuyao Group increased from 9.458 billion to 11.74 billion, with a return on equity of 14.33%, a year-on-year increase of 19.02%. From the end of 2018 to the end of 2019, the operating revenue increased from 11.74 billion to 14.89 billion, with a return on equity of 16.85%, a year-on-year increase of 17.59%. From the data from 2017 to 2019, it can be seen that the operating income of Liuyao Group has steadily increased, and the return on equity is also at the upper level of the pharmaceutical industry, which reflects the company's enhanced profitability.

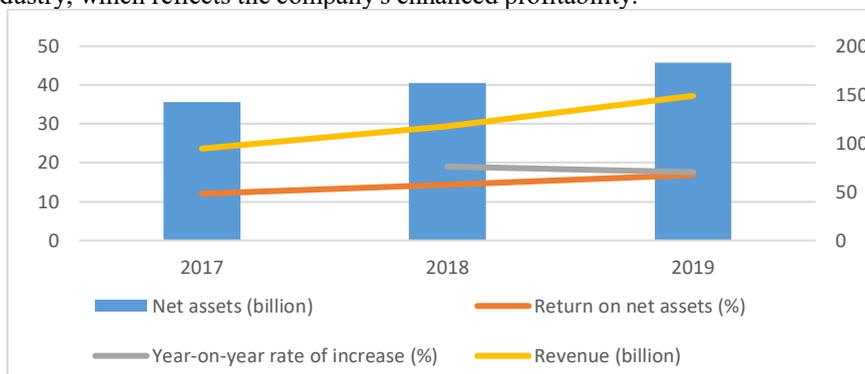


Fig. 1. Growth of Return on Equity of Liuyao Co., Ltd. from 2017 to 2019

Reduce Costs. Owing to the upstream expansion via M&A, Guangxi Liuzhou Med Co., Ltd. achieved scale and scope economies. Its enhanced purchasing power got better procurement prices from upstream, cutting intermediate costs. Local tax incentives also reduced costs; in 2018, Guangxi Wantong Pharm Co., Ltd. had a 15% reduced income tax rate. From Figures 2 and 3, since the 2018 acquisition, while both revenue and costs grew, cost growth was slower, meaning cost decreased relative to profit. The 2018 - 2019 reduced revenue-cost ratio further proves cost reduction.

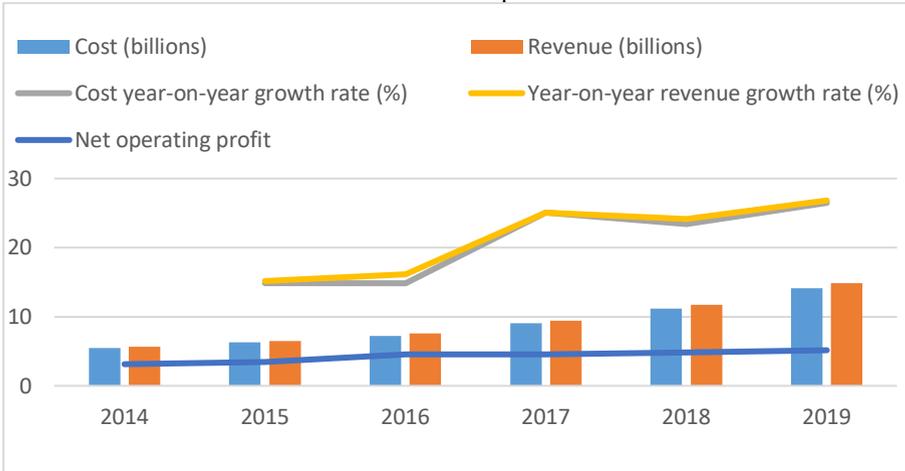


Fig. 2. Growth of Return on Equity of Liuyao Co., Ltd. from 2014 to 2019

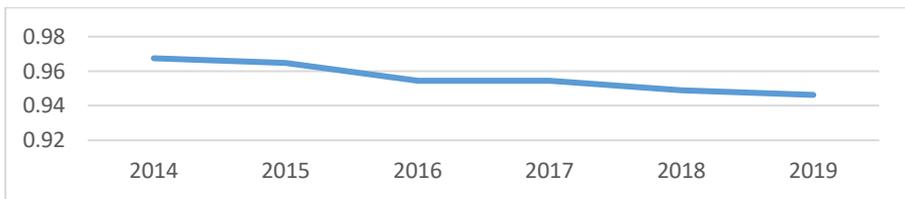


Fig. 3. 2014-2019 Liuyao Stock Revenue Cost Ratio

4.2 Financial Synergy Effect

Reducing Operational Risks. In January 2017, Gongqingcheng Liuyao Tianyuan Investment Management Partnership acquired 100% equity of Wantong Pharmaceutical for 700 million yuan. In September 2018, Liuyao Co., Ltd. decided to acquire Wantong Pharmaceutical for 716 million yuan in cash. According to the income method evaluation, the total equity value of Wantong Pharmaceutical's shareholders as of August 31, 2018 was 1.259 billion yuan. Therefore, by adopting the "PE+listed company" model, Liuyao Co., Ltd. paid relatively less cash to complete the acquisition of Wantong Pharmaceutical while maintaining its current operating conditions. The "PE+listed company" model is equivalent to locking in the exit channel for M&A companies in advance, increasing the leverage effect of cash.

Enjoy preferential policies. Due to the fact that Liuyao Group chose to acquire 60% of the shares of Wantong Pharmaceutical through equity merger during the acquisition, it can be exempted from paying income tax, value-added tax, turnover tax, and land value-added tax when calculating taxes, and can continue the tax benefits of the target enterprise. As shown in Figure 4, Liuyao Group's taxes and surcharges in 2017 were 34.66 million yuan, while in 2018 they were 31.54 million yuan. Combined with the data of Figure 3's operating income, Liuyao Group's taxes and surcharges significantly decreased in the year of acquiring Wantong Pharmaceutical. Although the taxes and surcharges in 2019 seem to have grown rapidly, their ratio to the current year's revenue is still lower than that of 2016 and 2017 compared to the data before the merger. This reflects Liuyao Group's involvement in the acquisition of Wantong Pharmaceutical. After pharmaceuticals, companies can enjoy corresponding tax incentives, invest more funds in their development, and generate positive financial synergies

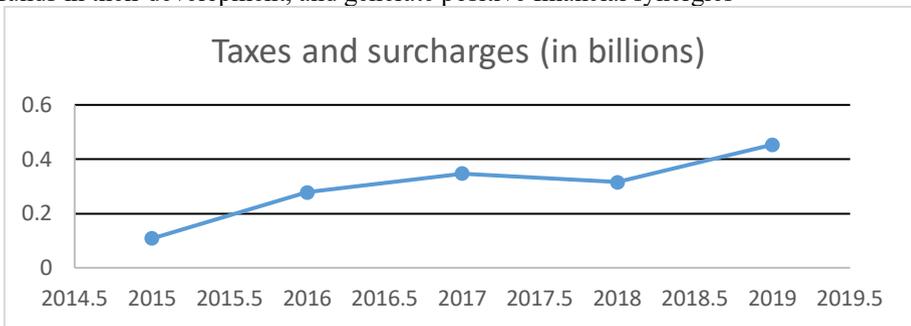


Fig. 4. 2016-2019 Liuyao Co., Ltd. taxes and surcharges

Negative impacts in merger and acquisition cases. The Shanghai Stock Exchange issued an inquiry letter in October 2018, inquiring whether Liuyao Group's acquisition of 624 million yuan in goodwill and lack of performance commitments were reasonable, whether its goodwill was too high, and whether there were any performance commitments. The response from Liuyao Group stated that it has strong technology and products that can continue to make profits, which is of great help to the company's profit structure. Both mainstream views and scholars believe that the recognition of huge goodwill is not a good thing for Liuyao Group, which also affects the company's image to a certain extent.

5 Summary

5.1 Conduct a Thorough Investigation

After the M&A, the company should leverage the resources of both parties to achieve resource sharing and enhance its value. Liuyao Group started preparing for the acquisition of Wantong Pharmaceutical a year in advance, observing the target through third-party institutions and investment funds, understanding the target company, formulating post-merger strategies, and reducing cash flow risks during the acquisition.

5.2 Reduce Negative Market Effects

After the merger, both sides should quickly disclose information. After the handover, hire experts to evaluate the merged enterprise's assets, with partial public release to ease industry concerns. For Liuyao Co., Ltd., the acquisition with high goodwill and no performance requirements has led to skepticism, with trading partners being cautious, increasing Liuyao's risk and causing stock price swings. Liuyao Group should ask a third party to explain its goodwill in detail, covering valuation standards, data and plans.

5.3 Business Strategy after Merger and Acquisition

When a company adopts horizontal mergers and acquisitions, the scale of the enterprise expands. To achieve synergy effects from the merger, it is necessary to integrate similar or identical product types after the restructuring, share technology and equipment, and optimize product processing processes. In the long run, these short-term adjustments have a positive impact on reducing future production costs and improving production capacity.

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