

Research on Motives and Performance of Cross-Border M&A-- Case of Mindray Medical's M&A of Hytest

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Abstract. With the acceleration of globalization, cross-border M&A by enterprises have become an important strategic means to achieve resource integration, market expansion, and technological innovation. This paper analyzes the case of Mindray Medical's acquisition of Hytest to explore the motives and performance impact of enterprise cross-border M&A. Firstly, the paper reviews the merger background and clarifies the status of both merging parties. Secondly, the article combines the internal needs of the enterprise and the external environment driving force to point out the main purpose of the merger. Finally, the article shows the merger performance of the enterprise by evaluating its financial and non-financial performance after the merger. The study finds that the M&A combined a variety of key factors and had a positive impact on Mindray Medical in both financial indicators and non-financial aspects. The analysis of this article provides theoretical support and practical inspiration for transnational M&A in other companies.

Keywords: Cross-border M&A; M&A Motivations; Performance of M&A.

1. Introduction

In the context of the global economy, cross-border M&A have become one of the important strategies for enterprises to seek rapid economic growth and internationalization. In recent years, the medical industry has faced opportunities and challenges in its rapid development, more and more domestic medical enterprises are expanding their international market share, improving their technology levels and enhancing their innovation capabilities through cross-border M&A. As a leading enterprise in China's medical device industry, Mindray Medical has expanded its market share and enhanced its international competitiveness through a series of cross-border M&A.

This paper mainly adopts the case analysis method, by conducting a thorough analysis of Mindray Medical's acquisition of Hytest, to explore its M&A motives and outcomes. The aim is to clarify the main motives, evaluate the actual effects and provide corresponding management suggestions to help other enterprises effectively avoid risks and optimize resource allocation when implementing similar strategies.

2. Literature Review

2.1. Research on the Motives of M&A

In addition to traditional M&A motives such as policy promotion, industry characteristics, technological needs, resource acquisition, strategic assets, brand and market [1], current domestic scholars' research on M&A motives also includes fiscal decentralization [2], perfecting the industrial chain, reshaping the value chain to obtain high value-added [3], exploring new businesses and developing new products, digital transformation, etc. as new merger and acquisition motives.

2.2. Research on the Performance of M&A

Guan et al. have established a performance evaluation system for Cross-border M&A of enterprises in terms of four aspects: profitability, debt repayment capacity, operation ability and development potential [4]. Regarding the research on the wealth effect before and after M&A, most of scholars explore the impact of internal and external factors on the performance of M&A of

enterprises [5]. Most of them believe that transnational M&A can bring wealth effects. Zhang and Zhang concluded that Cross-border M&A can improve financial performance in the long run [6].

3. Company Profile and Case Overview

Founded in 1991 and headquartered in Shenzhen, China, Mindray Medical is a leading high-tech medical equipment R&D and manufacturing enterprise in China. Its main business covers the research, production, and sales of medical equipment, including products in the fields of life information and support, IVD, and medical imaging.

The company acquired in this merger, HyTest Invest Oy (simply referred to as HyTest), was established in 1994 and is headquartered in Turku, the old capital of Finland. It is a globally renowned professional supplier of IVD raw materials and a leading enterprise in the production of raw materials for the industry. It focused on the research and production of high-quality immunodiagnostic reagents, antibodies, and antigens for biomedical products.

Cross-border M&A in the medical device industry is an important means of industry integration, technological innovation, market expansion, and resource allocation optimization in the context of globalization economy. On September 22, 2021, Mindray Medical acquired 100% equity of HyTest and its subsidiary companies through its wholly-owned subsidiary in cash, with the total acquisition price being 532 million euros.

4. Analysis of Merger Motivation for Mindray Medical's Acquisition of Hytest

This paper mainly analyzes from the perspectives of internal needs of enterprises and external environment driving.

4.1. Internal Motives

4.1.1 Technological Integration and Self-reliance and Control

Mindray Medical's M&A of Hytest aims to strengthen its core R&D capabilities in chemiluminescence products and raw materials, and optimize its globalized upstream and downstream supply chain. Hytest has extensive layouts and superior capabilities in antigens, antibodies, innovation, original research, and self-production in fields such as cardiac markers, inflammation markers, infectious diseases, and coagulation. The integration of these technologies will help Mindray Medical improve the clinical performance and quality of its reagents, ensure supply safety, and solve the problem of upstream raw material supply in the field of in vitro diagnostics.

4.1.2 Enhance Market Competitiveness

Mindray Medical's acquisition of Hytest will enable it to quickly enhance its raw material R&D capabilities and boost its market competitiveness in the field of in IVD. Hytest's professional team, scientific innovation process, and application of new technologies provide technical support for Mindray Medical's long-term development.

4.1.3 Expand the Product Line

Through the M&A of Hytest, Mindray Medical has not only strengthened the self-research and self-production ability of core raw materials, but also used Hytest in the academic and clinical exploration of new biomarkers to support product research and development with high performance requirements, so as to expand its product line and meet broader market demand.

4.2. External Motives

4.2.1 The Trend of Integration

The acceleration of the integration of the medical device industry is an inevitable trend. Through M&A, resources can be quickly integrated to achieve a double breakthrough in technology and market.

Mindray Medical's M&A are in line with this development trend in the industry, which helps the company occupy a more favorable competitive position in the global market.

4.2.2 The Growth of Market Demand

With the intensification of the global aging trend and the continuous improvement of people's pursuit of high-quality medical resources, the demand for the medical device market continues to grow. Mindray Medical can better seize market opportunities and meet the growing medical demand through the M&A of Hytest.

4.2.3 Policy Support

In recent years, China has continuously promoted the reform of the medical and health system and mechanism, and continuously introduced domestic priority policies for medical devices and industry support policies, which has strongly promoted M&A in the medical device industry [7]. With the "Belt and Road" initiative put forward by the Chinese government, the pace of internationalization of domestic enterprises has gradually accelerated. National policies encourage listed companies to integrate the upstream and downstream of the industrial chain through M&A and restructuring to improve industrial synergy. Mindray Medical's M&A are supported at the policy level, which is conducive to the company's accelerated development and market expansion.

5. Analysis of the Impact of Mindray's M&A of Hytest on Enterprise Performance

The data is collected from the annual report of Mindray Medical.

5.1. Analysis of Financial Performance

5.1.1 Profitability

From table 1, it can be seen that since the consolidation in 2021, the net profit margin, return on net assets, return on total assets, and gross profit margin have all maintained a good growth trend, and reached their highest values in the latest 2023 annual report. The higher net profit margin and return on total assets, stable return on net assets, and high gross profit margin all to some extent reflect the positive promotion of profitability brought about by the merger to the enterprise.

Table 1. 2019-2023 Mindray Medical Profitability Related Data Indicators

	2019	2020	2021	2022	2023
NPM (%)	28.30	31.67	31.67	31.65	33.15
ROE (%)	27.91	32.29	31.92	33.38	33.64
ROTA (%)	19.83	22.60	22.42	22.65	24.46
GPM (%)	65.24	64.97	65.01	64.15	66.16

5.1.2 Liquidity and Solvency

The data shows that although M&A may bring short-term financial pressure, the financial indicators after the merger of Mindray Medical show that its debt repayment ability is stable. According to the latest financial data, Mindray Medical's current ratio and quick ratio both show strong short-term debt repayment ability in 2023. The asset liability ratio is 30.4%, indicating that the company's debt level is moderate and its financial structure is stable.

Table 2. 2019-2023 Mindray Medical Debt Repayment Capacity Related Data Indicators

	2019	2020	2021	2022	2023
D/A (%)	27.37	30.07	29.22	31.55	30.44
CR	3.713	2.626	2.472	2.600	2.660
QR	3.264	2.196	2.059	2.258	2.266

5.1.3 Operational capabilities

Before and after the merger, the total asset turnover rate of Mindray Medical has remained above 0.7 with a small increase, indicating that the company's efficiency in generating income from total assets has improved; the accounts receivable turnover rate has steadily increased from 2019 to 2021, but began to decline after the merger in 2021, indicating that the company's speed of collecting receivables has slowed down. Taking these two indicators into consideration, it can be seen that Mindray Medical faces certain challenges in asset management, but has achieved certain success in improving the efficiency of asset utilization.

Table 3. 2019-2023 Mindray Medical Operational Capabilities Related Data Indicators

	2019	2020	2021	2022	2023
ART (times)	9.966	13.00	15.18	13.64	11.73
TAT (times)	0.701	0.713	0.708	0.716	0.738

5.1.4 Development ability

Mindray Medical's two development capacity indicators remained above 20% between 2019 and 2022, and only the year-on-year growth of operating income in 2023 fell to 15.04%, which shows that the performance growth rate of Mindray Medical is slowing down. However, during this period, both operating income and attributable net profit maintained a growth trend. Generally speaking, the company's performance growth trend has not been greatly affected. Mindray Medical's competitiveness in the field of medical equipment is still strong, and the company's growth strategy and market expansion ability have also been verified by the market.

Table 4. 2019-2023 Mindray Medical Development Capacity Related Data Indicators

	2019	2020	2021	2022	2023
Total operating income increased yoy(%)	20.38	27.00	20.18	20.17	15.04
Attributable net profit increased yoy(%)	25.85	42.24	20.19	20.07	20.56

5.2. Analysis of Non-financial Performance

Non-financial performance usually includes employee satisfaction, brand influence, market share, technological innovation ability, quality and service, etc. These impacts are often difficult to directly quantify, but they are of great significance to the long-term development of enterprises. After the M&A of Hytest by Mindray Medical, the company has shown positive changes and potential long-term benefits in terms of non-financial performance.

5.2.1 Integrated work

In the nearly three years since the completion of the acquisition, Mindray Medical has made remarkable progress in the integration. The company launched the industry-leading high-sensitivity troponin hs-cTnl in 2023, and in the updated reference table of the performance of troponin reagents of the world's major IVD manufacturers updated by the International Alliance of Clinical Chemistry and Laboratory Medicine (IFCC), Mindray Medical's hs-cTnl reagents in all hs-cT Ranked first in nl reagents. In addition, Mindray Medical's effective talent integration strategy maintains the stability of employees and may improve employees' job satisfaction and loyalty by providing more career development opportunities and resource sharing.

5.2.2 Technical Advantages

After the M&A, Mindray Medical's investment in research and development has been increasing, and the proportion of operating income has remained stable at about 10%. Through the merger and acquisition of Hytest, Mindray Medical has not only realized the autonomy and control of core technologies in the field of chemiluminescence raw materials, but also improved the technical level of instruments in the field of IVD through independent research and development, and continued to release many blockbusters new products. This helps to improve the company's competitiveness in the IVD market, especially the revenue growth rate of more than 60% in the myocardial marker project.

In addition, on the basis of further expanding the performance advantages of myocardial marker products, the company has also launched a number of innovative raw material products in the fields of Armour force, hormones, infectious diseases and other packages to promote the innovation of reagent technology and product transformation.

Table 5. 2020-2023 Mindray Medical R&D Investment

	2020	2021	2022	2023
R&D investment (100 million yuan)	20.96	27.26	31.91	37.79
Proportion of revenue (%)	9.97	10.79	10.51	10.82
YOY (%)	27.04	30.08	17.06	18.43

5.2.3 Market expansion

Table 6. 2020-2023 Mindray Medical Domestic and foreign operating income

	2020	2021	2022	2023
Domestic operating income (100 million yuan)	111.10	152.59	186.67	152.52
Foreign operating income (100 million yuan)	99.16	100.10	116.98	135.50

It can be seen from table 6 that Mindray Medical continues to expand overseas while maintaining domestic operating income. After the M&A of Hytest, Mindray Medical's layout in overseas markets has been strengthened, especially in the international development of the field of IVD; the market space available for chemiluminescence business overseas is nearly 40 billion US dollars, and the proportion of medium and large sample customers' accounts for more than 70%. In 2023, Mindray Medical's domestic chemiluminescence installed more than 2,000 units, of which the proportion of high-speed machines reached nearly 60%. The breakthrough of large-volume customers continued to accelerate, helping the company's chemiluminescence business to surpass an imported brand for the first time in the domestic market share. By integrating resources, the company has improved the overseas supply chain platform and obtained an excellent international talent team for IVD, which is conducive to improving the research and development of IVD products and the support of quality control products and calibration products.

5.2.4 Brand Influence

The M&A of Hytest has not only enhanced the technical strength of Mindray Medical, but also enhanced the company's brand influence. Especially in the international market, Mindray Medical has achieved a breakthrough in the high-end customer base through M&A. In the field of IVD, Mindray Medical has broken through nearly 140 new high-end customers, and nearly 60 high-end customers have achieved horizontal breakthroughs of more products, including 61 third-party chain laboratories, such as Unibio, a private chain laboratory with 31 branches in France, and Europe's TOP 2 Lock laboratory Cerba Group, Euromedica, the top 8 chain laboratory in Greece, etc. This lays the foundation for the company's long-term internationalization strategy.

6. Conclusion

Mindray Medical's M&A of Hytest stems from the joint promotion of the internal needs of the enterprise and the external environment. It is not only based on the needs of the company's internal technology integration, improving competitiveness and expanding product lines, but also conforms to the general environment of external industry integration trends, market demand growth and policy support for M&A. From the perspective of comprehensive financial performance and non-financial performance, this transnational merger and acquisition has generally had a positive impact on Mindray, and also provided valuable experience for Chinese medical enterprises in globalization, technological innovation and M&A integration.

There are still shortcomings in this article about the motives and performance analysis of cross-border M&A of enterprises. Firstly, when analyzing financial and non-financial performance, the

impact of factors other than cross-border M&A on enterprises is not taken into account. The integration process of cross-border M&A is usually complex and long, especially in terms of culture, management, operation mode, etc., so the conclusions drawn may be slightly biased. Secondly, the analysis of this article is based on a single case of Mindray Medical's M&A of Hytest, so there are certain limitations. There may be significant differences in the causes of M&A between different enterprises and industries, so this case alone may not fully reflect the general law of cross-border M&A.

Future research should explore the evolution of long-term performance after M&A in more depth, analyze the challenges and risks in the process of M&A integration, and make comparative analysis in combination with M&A cases in more industries to improve the wide applicability of conclusions.

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