Data Analysis of M&A Performance in Automobile Industry-Taking Geely Auto as an Example

Wei Weng[a], Lulu Sheng[b], Jieru Su[c], and Lingyan Niu[d, *]

Yunnan Normal University, Kunming 650500, China

[a]vemal@163.com, [b]56375754@qq.com, [c]13888351538@163.com, [d]9039253@qq.com

*Corresponding author

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Abstract: Mergers and acquisitions are more and more common in the automobile industry. Based on the case of Geely Holding Group acquiring Dongfeng Nanchong Automobile Co., Ltd. in 2016, this paper analyzes and evaluates its M&A performance. It aims to provide some assistance for the M&A performance information users and stakeholders in making reasonable decisions.

1. Introduction

The reason for the rapid development of M&A in the automobile industry is that the global automotive manufacturing industry is shifting, especially to China. According to the relevant analysis report of the trend of the automobile industry, the industrialization and urbanization will go hand in hand in China by 2025, and the automobile consumption market is promising. The important reason why Geely Auto is taken as a merger and acquisition case in this paper is that the market share of self-use vehicles is larger than that of commercial vehicles under the context in which the consumption level of Chinese residents continuously improves and automobiles are almost available to all civilians. Adopting the EVA theory, this paper studies the case of Geely Holding Group acquiring Dongfeng Nanchong Automobile in 2016 and analyzes and evaluates its M&A performance, aiming to provide reference data for future M&A decisions.

2. Case Introduction and Analysis

2.1 A Brief of Geely Holding Group

Geely Holding Group is an automobile manufacturer, focusing on development, manufacturing and sales of passenger vehicles. The company sells most of its products in the China market and has also expanded its sales through export to other developing countries. The company is headquartered in Hangzhou, China. Exporting products to foreign markets has become an important part of its trade transactions.

2.2 Analysis of M&A Case

On the morning of March 4th, 2016, at the Southwest United Property Rights Exchange, Dongfeng Nanchong Automobile Co., Ltd. officially held the signing ceremony for equity transfer. This transfer means strategic reorganization for the company, because it introduces the automobile partners with advantages and establishes R&D and production projects for Nanchong new energy commercial vehicles.

The reasons for merger and acquisition are summarized as follows: 1. Reducing costs and making rational use of resources. After the completion of the M&A, Geely Holding Group's operation scale is expanded to fully utilize resources, and the company's various costs from production to sales to management can be reduced. 2. With the expansion of the Geely Holding Group, its production capacity and sales capacity will gradually increase, and its market share in the automobile industry will increase steadily. At the same time, the competitiveness of company will be improved as a result of rational use and allocation of human resources, management resources. 3. In this M&A event, Geely acquires not only the assets of Dongfeng Nanchong Company, but also the company's production technology, sales methods and management philosophy. All of these are beneficial to promote the value of the company and drive the development of the Geely Holding Group to a higher level. 4. After the acquisition, Geely Holding Group will enter the commercial vehicle and new energy vehicle market, and it will enhance its strategic position through diversified development.

3. Analysis of M&A Performance

3.1 Data Sources

Since there was no significant financial risks for the company from 2014 to 2018, this paper selects the corresponding data in the financial statements of semi-annual report for 2014-2018 published by Geely Holding Group. This paper calculates the EVA indicators and analyzes its operation status and performance. The benchmark interest rate of the 3-5 year bank loan used in the calculation comes from the website of the People's Bank of China.

3.2 Calculation of EVA Value

(1) Relevant formula

EVA = NOPAT-TC*WACC, i.e. net operating profit after tax - total capital * weighted average cost of capital

In the above formula, EVA tax adjustment is involved. Due to the differences in various industries, there are up to hundreds of adjustment items involved in the general tax adjustment, but in this paper, corresponding adjustments are made in combination with the automobile industry.

In summary, the specific formula for EVA is as follows:

Net operating profit after tax (NOPAT) = operating profit + minority interest income + financial expenses - EVA tax adjustment

Where: EVA tax adjustment = income tax expense + (financial expenses + non-operating expense - non-operating income) * 25%

Total capital (TC) = total equity + total liabilities - cost of construction in progress

Where: total equity = common equity + minority equity

Total liabilities = short-term borrowing + long-term borrowing + bonds payable

Weighted average cost of capital (WACC) = market value of the firm’s equity / (market value of the firm's equity + market value of the firm's debt) * cost of equity+market value of the firm's debt (market value of the firm's equity + market value of the firm's debt) * cost of debt * (1-25%)

Where: cost of equity = risk-free rate + equity risk premium

Referring to the relevant scholars' point of view, this paper takes 3% (1 year commercial bank fixed-term deposit rate) as the risk-free rate and 4% as the risk premium based on the development of the automotive industry.

Due to the long loan period of auto companies, the benchmark interest rate of 6.55% for medium and long-term bank loans of 3-5 years is selected as the cost of deb.

(2) Calculation and analysis of EVA

Table 1 Calculation of Geely's net profit after tax for 2014-2018 (Unit: 10,000 yuan)

Item	2014	2015	2016	2017	2018
Operating profit	143,077.60	169,399.20	236,995.90	527,417.40	773,710.70
Plus: minority interest income	121.88	149.52	226.46	428.25	658.75
Financial expenses	275.50	2,104.30	2,287.70	926.60	-1,739.70
Minor: EVA tax adjustment	21,978.15	26,623.97	41,231.10	115,550.75	173,778.15
Net operating profit after tax	121,496.83	145,029.04	198,278.96	413,221.50	598,259.00

Table 2 Calculation of Geely's total capital for 2014-2018 (Unit: 10,000 yuan)

Item	2014	2015	2016	2017	2018
Total equity	1,709,978.40	1,874,623.00	2,136,955.10	2,831,676.90	3,942,825.10
Common equity	1,692,592.90	1,854,370.50	2,113,265.40	2,802,486.70	3,901,831.20
Minority equity	17,385.50	20,252.50	23,689.70	29,190.20	40,993.90
Total liabilities	94,196.76	120,219.05	126,988.52	220,873.66	310,349.24
Short-term borrowing	86,231.97	117,219.05	123,733.52	220,873.66	297,112.38
Long-term borrowing	7,964.79	3,000.00	3,255.00	0	13,236.86
Bonds payable	0	0	0	0	0
Cost of construction in progress	0	0	0	0	0
Total capital	1,804,175.16	1,994,842.05	2,263,943.62	3,052,550.56	4,253,174.34

Table 3 Geely's EVA and its difference for 2014-2018 (Unit: 10,000 yuan)

Item	2014	2015	2016	2017	2018
Net operating profit after tax	121,496.83	145,029.04	198,278.96	413,221.50	598,259.00
Total capital	1,804,175.16	1,994,842.05	2,263,942.62	3,052,550.56	4,253,174.34
Weighted average cost of capital	0.0676	0.0673	0.0675	0.0667	0.0667
EVA	-465.41	10,776.17	45,462.77	209,616.38	314,572.27
EVA growth		11,241.58	34,686.60	164,153.61	104,955.89
EVA growth rate		24.15 times	3.22 times	3.61 times	0.51 times

As can be seen from Table 3, from 2015 to 2018, the EVA values are positive, indicating that the company gradually improved in the these years and created value each year. But this does not reflect whether the ability to create value increased, so the EVA growth and EVA growth rate were introduced to analyze the ability to create value before and after the merger and acquisition.

After the company's merger and acquisition in 2016, its growth rate changed from 3.22 times to 3.61 times, indicating that the company's performance increased in the year of merger and acquisition; in the following year, i.e. from 2017 to 2018, the performance of the company did not develop as expected. The growth rate of EVA dropped from 3.61 times to 0.51 times, showing a state of slow growth.

4. Comparison and analysis of financial indicators according to financial indicator system

Table 4 Geely's profitability indicators for 2014-2018 (Unit: 10,000 yuan)

Item	2014	2015	2016	2017	2018
Net profit margin (%)	11.08	10.67	10.28	11.13	12.54
Operating profit margin (%)	14.11	12.95	12.58	13.47	14.85
Return on equity (%)	6.58	7.57	9.03	15.50	17.09

Table 5 Indicators of Geely's ability to pay off debt for 2014-2018 (Unit: 10,000 yuan)

Item	2014	2015	2016	2017	2018
Current ratio	1.43	1.27	1.23	1.21	1.09
Quick ratio	1.31	1.19	1.17	1.08	0.95

(1) Profitability indicators

It can be seen from Table 4 that Geely Holding Group's net profit margin and operating profit margin in 2016 decrease by 3.66% and 2.86% respectively compared with those in 2015, while the net profit margin and operating profit margin in 2017 increase compared with those in 2016. This indicates that in the year of M&A, Geely Holding Group's profitability decreased significantly. The reason is that the various costs incurred by Geely Holding Group were higher in the year of M&A. In the following year, i.e. 2017, both of the above indicators increase, indicating that after one year of merger and acquisition, the company improved its profitability through various integration. In the two years after the merger, Geely Holding Group's profitability was also rising. It shows that Geely Holding Group's asset income and profitability have a good development trend.

(2) Indicators of ability to pay off debt

It can be seen from Table 5 that from 2014 to 2018, the current ratio and quick ratio of Geely Holding Group are decreasing year by year, indicating that the ability to pay off short-term debt is not effectively improved after the merger and acquisition. Compared with the standard value, the current ratio of Geely is 1.09 in 2018, indicating its ability to pay off short-term debt was weak; the quick ratio of 0.95 indicates that its ability to pay off long-term debt was slightly insufficient. From the perspective of inventory size, from 2016 to 2018, the inventory size of Geely Holding Group increased by 80.4%, indicating that there is still a large amount of inventory not sold, which can be concluded that its ability to pay off short-term debt is actually weaker.

5. Analysis of other factors other than financial indicators

In the case, the target company Dongfeng Nanchong Automobile Co., Ltd. is mainly engaged in the design, manufacture and sale of trucks and automobile engines. After more than 60 years of development, the company has built a number of well-known local brands. With the support of the government, the company has established a number of subsidiaries and popular brands. A series of industrial chains have been formed, so Dongfeng Nanchong Automobile is a strong competitor in the industry. Thus Geely Holding Group's assessment of the target company and its rationality become the influencing factors of M&A performance.

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