

Research on the Evaluation of Financial Performance of Conch Cement's Continuous Mergers and Acquisitions

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Abstract. In recent years, Chinese cement enterprises have been facing overcapacity. Meanwhile, affected by the epidemic and the slowdown in infrastructure construction, the demand in the cement industry has remained weak with low prices, bringing pressure to the operation of the cement industry. It is difficult for enterprises to achieve development and get out of trouble relying solely on themselves, so continuous mergers and acquisitions (M&A) have become the key to breaking the deadlock. This paper takes Conch Cement as the research object, analyzes the motivations of the enterprise's continuous M&A from 2019 to 2024, conducts financial performance analysis combined with the entropy weight-TOPSIS method, and also analyzes Conch Cement's R&D and innovation capabilities as well as market expansion capabilities, and finally draws conclusions.

Keywords: Conch Cement, Continuous Mergers and Acquisitions, Entropy Weight-TOPSIS

1. Introduction

At present, affected by factors such as insufficient start-up of infrastructure projects in the domestic market and widespread continuous rainfall, the demand in the cement industry has remained weak with low prices, bringing pressure to the operation of the cement industry. Competition among enterprises has become increasingly fierce. In order to enhance their competitiveness, most enterprises have begun to continuously merge and restructure small and medium-sized enterprises. Through continuous M&A, enterprises can optimize the allocation of various resources in the short term and quickly obtain high-quality choices of resources, technologies and talents. This paper selects Anhui Conch Cement as the research object, analyzes its continuous M&A path, and uses the entropy weight-TOPSIS method to evaluate the long-term performance of its continuous M&A.

2. Basic situation of Conch Cement

2.1. Introduction to Conch Cement

Anhui Conch Cement Co., Ltd. was established on September 1, 1997, listed in Hong Kong in October of the same year, and listed on the Shanghai Stock Exchange in 2002. Headquartered in Wuhu City, Anhui Province, it is one of the world's largest cement producers. In recent years, affected by the epidemic and the slowdown in the growth rate of real estate and infrastructure

investment, the demand in the cement industry has remained weak with low prices, bringing pressure to the operation of the cement industry. In order to gain the ability to dominate the cement price in the regional market, large and medium-sized domestic cement enterprises have moved towards controlling production resources and cement prices, thus taking the path of continuous M&A. To get out of the predicament and enhance its own competitiveness, Conch Cement has actively sought high-quality enterprises and launched M&A against them, so as to optimize the allocation of various resources in the short term and quickly obtain high-quality choices of resources, technologies and talents. This paper mainly studies the impact of Conch Cement's continuous M&A from 2019 to 2024 on its financial performance.

3. Motivations for continuous mergers and acquisitions

3.1. Impact of national policies

In 2016, the General Office of the State Council issued the Guiding Opinions on Promoting the Steady Growth, Structural Adjustment and Efficiency Improvement of the Building Materials Industry, which strictly prohibited the addition of new cement production capacity. This policy forced enterprises to achieve expansion through M&A rather than the construction of new production capacity. The state has implemented measures such as strictly controlling new production capacity and eliminating backward production capacity. Driven by the policies, many cement enterprises have been unable to make profits, their living space has been damaged, and their market scale has been unable to expand, ultimately facing the fate of being eliminated by the market. To change this situation, most cement enterprises have accelerated the integration of inefficient production capacity to increase market share and speed up the extension to the upstream and downstream of the industrial chain [1].

3.2. Demand for internal development

When Conch Cement was first established, it was mainly engaged in cement production. However, due to the limitations of the sales scope of cement products and the emphasis on environmental protection, the layout of production capacity is crucial. Initially, Conch Cement's cement production and supply area was limited to Anhui. But with the gradual saturation of the Anhui market and the limitations of cement transportation, Conch Cement had to move to other provinces through continuous M&A. Due to the high transportation cost of cement, poor environmental adaptability, and the high production cost incurred by cement enterprises in the initial stage of development, relying solely on their own growth is slow and takes a certain amount of time for enterprises. Therefore, enterprises seek new regions to expand the demand space for cement, and it is easier to enter the region by merging small local cement plants. At the same time, it has increased the concentration of the cement industry to a certain extent and enhanced the pricing power of cement and clinker products in the local region [2].

3.3. Managerial overconfidence

The overconfidence of managers is the main reason for continuous M&A behavior. Conch Cement achieved performance growth after the initial M&A, which also triggered a wave of M&A among other cement enterprises, leading to a significant increase in the predicted M&A prices by large-scale cement enterprises. However, under the influence of asset restructuring strategies, managers are more likely to fall into an irrational state, and the managers of Conch Cement are no exception.

According to statistics, Conch Cement carried out 21 M&A transactions from 2018 to 2021, with a high frequency. It can be seen that the managers of Conch Cement have a psychological tendency of overconfidence [3].

4. Analysis of financial performance of Conch Cement's continuous mergers and acquisitions

4.1. Financial performance analysis

This paper mainly studies the impact of Conch Cement's continuous M&A from 2019 to 2024 on its financial performance. When analyzing Conch Cement's financial performance, the entropy weight-TOPSIS method is used for evaluation. By calculating the value of relative closeness degree and ranking the enterprise's financial risks according to the size of the closeness degree, it will have higher credibility. Combined with the characteristics of the cement industry and the development of Conch Cement during the continuous M&A period, based on Conch Cement's annual reports, the financial data of Conch Cement for 6 years before and after the continuous M&A, namely 2019-2024, are selected. A financial indicator evaluation system is constructed from 10 indicators in four capabilities: profitability, solvency, operational capacity and development capacity, so as to evaluate Conch Cement's financial performance [4]. Since the indicator data need to be standardized later, the financial indicators are divided into positive indicators and negative indicators here. Among the solvency indicators, the asset-liability ratio is a negative indicator, while the current ratio and cash ratio are positive indicators. All three selected indicators in profitability are positive indicators, and all selected indicators in operational capacity and development capacity are also positive indicators. At the same time, the weights of each indicator of the financial effect required by Conch Cement are calculated according to the indicator attributes [5].

By calculating Conch Cement's financial performance indicators from 2019 to 2024, the information entropy value, information utility value and final entropy weight of the 10 secondary financial indicators from 2019 to 2024 are obtained.

In terms of profitability, the entropy weight proportions of the secondary indicators are 18.988%, 1.510% and 12.0287% respectively, and the ranking of proportions is return on equity > profit margin on cost and expense > return on total assets. Among them, the entropy weight proportion of return on equity is 18.9886%, which is the highest among the profitability indicators. Therefore, it can be seen from Table 1 that return on equity plays an important role in the changes of the enterprise's profitability. However, the return on total assets is only 1.51%. At the same time, it can be seen that although Conch Cement's various profitability indicators have fluctuated greatly over the years, they are all better than the industry average, indicating that continuous M&A has contributed to the company's long-term profitability.

In terms of solvency, the entropy weight proportions of the secondary indicators are 0.501%, 1.112% and 1.083% respectively, and the ranking of proportions is current ratio > cash ratio > asset-liability ratio. Among them, the entropy weight proportion of the asset-liability ratio is 0.501%, which is the lowest among the 10 secondary indicators, indicating that the enterprise has strong solvency. It shows that Conch Cement's continuous M&A behavior has not brought debt pressure to the company, the company's overall debt scale is small, the financial risk is low, and the solvency is strong.

In terms of operational capacity, the entropy weight proportions of the secondary indicators are 5.205% and 5.666% respectively. Among them, the entropy weight proportion of the inventory turnover rate is 5.6668%, which is the highest in the operational capacity, indicating that the inventory turnover rate is the main factor affecting the enterprise's operational capacity.

Table 1. List of financial performance evaluation indicators of Conch Cement

Primary Indicators	Secondary Indicators	Attribute	Information Entropy Value (e)	Information Utility Value (d)	Entropy Weight
Profitability	Return on Equity	Positive	0.8992	0.1008	18.988%
	Return on Total Assets	Positive	0.992	0.008	1.510%
	Profit Margin on Cost and Expense	Positive	0.9362	0.0638	12.028%
Solvency	Asset-Liability Ratio	Negative	0.9973	0.0027	0.501%
	Current Ratio	Positive	0.9941	0.0059	1.112%
	Cash Ratio	Positive	0.9942	0.0058	1.083%
Operational Capacity	Total Asset Turnover Rate	Positive	0.9724	0.0276	5.205%
	Inventory Growth Rate	Positive	0.9699	0.0301	5.666%
Development Capacity	Total Asset Growth Rate	Positive	0.8474	0.1526	28.743%
	Operating Income Growth Rate	Positive	0.8665	0.1335	25.160%

In terms of development capacity, two indicators are selected: total asset growth rate and operating income growth rate, accounting for 28.74% and 25.16% respectively, which are the largest proportions. This indicates that total asset growth and operating income growth rate are important factors affecting financial performance. The indicators related to development capacity account for the largest proportion of the overall indicators. At the same time, Conch Cement has not maintained continuous positive growth for many years, and it can be found that the development has slowed down in recent years, indicating that the contribution of continuous M&A to the company's growth is decreasing.

4.2. Results of TOPSIS evaluation method

Through the above calculation of the entropy weight proportions of the secondary indicators, the positive and negative ideal solutions and relative closeness degrees calculated by TOPSIS are finally obtained. The relative closeness degrees are shown in Figure 1. Based on this, the financial performance over the years is evaluated and ranked. The final ranking is 2020, 2019, 2021, 2023, 2024 (Figure 1).

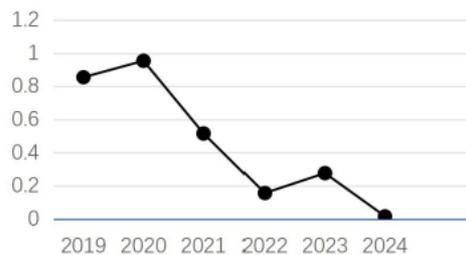


Figure 1. Relative closeness degree of Conch Cement from 2019 to 2024

By using the entropy weight-TOPSIS method, the Euclidean distance and comprehensive score index of Conch Cement's financial performance from 2019 to 2024 are calculated, and the advantages and disadvantages are ranked according to the relative closeness degrees over the years for evaluation. The results are as shown above. It can be seen that among Conch Cement's 2019-2024 fiscal years, the highest score of relative closeness degree is in 2020, and the worst is in 2024. From the data in Conch Cement's annual reports, it is found that the total score of the enterprise's financial performance is mainly affected by the development capacity. The relative closeness degree

score calculated by the TOPSIS method can directly reflect the financial performance level of the case enterprise. Since the continuous M&A in 2019, Conch Cement's relative closeness degree has basically maintained a downward trend in the next 6 years, reaching the highest in 2020 because the initial effect of continuous M&A is not obvious and cannot be revealed, but then it began to decline continuously. This indicates that Conch Cement's continuous M&A has had a negative effect on financial performance, dropping to the lowest in 2024, which shows that Conch Cement's continuous M&A has caused a long-term and profound negative impact on the financial aspect. Pure M&A behavior is not sufficient to ensure the improvement of enterprise performance; it also requires effective integration and management of resources after M&A.

4.3. Non-financial performance analysis

When analyzing enterprise performance, it is too one-sided to only analyze financial performance. Including non-financial performance will make the performance analysis of Conch Cement after continuous M&A more comprehensive and credible. Therefore, when analyzing non-financial performance, two aspects are selected: R&D and innovation capabilities and market expansion capabilities to analyze Conch Cement.

In terms of the proportion of R&D personnel, Conch Cement's R&D team has been continuously expanding in recent years, with the proportion of R&D personnel increasing from 21% in 2020 to 22.18% in 2024. From the above data, it can be found that Conch Cement's continuous M&A has promoted its own technological R&D capabilities. The total annual R&D investment of Conch Cement as a proportion of operating income has increased from 0.19% in 2019 to 3.75% in 2024, which indicates that Conch Cement has paid more attention to the improvement of R&D and innovation capabilities after M&A, and the continuous increase in R&D investment and continuous M&A have played a promoting role in Conch Cement's technological R&D capabilities.

In terms of market expansion capabilities, to get rid of the overcapacity in the cement industry, Conch Cement has extended the upstream and downstream industrial chains through M&A and expanded into new business areas, accelerating the extension to the upstream and downstream of the industrial chain. In 2024, the revenue of Conch Cement's aggregate business reached 4.691 billion yuan, a year-on-year increase of 21.4%, becoming a new growth point besides cement. At the same time, Conch Cement has set up more than 500 marketing departments in the market areas covered by its overseas markets, establishing a relatively complete marketing network.

4.4. Conclusions

When analyzing enterprise performance based on the motivations of enterprises' M&A, the entropy weight-TOPSIS method is used to establish a financial indicator evaluation system from four aspects: profitability, solvency, operational capacity and development capacity. A total of 10 secondary indicators are selected from the four capabilities for calculation to analyze the financial effects of enterprises before and after continuous M&A. The study found that the indicators related to Conch Cement's development capacity are important factors affecting financial performance, followed by the indicators related to profitability. The relative closeness degree score calculated by the TOPSIS method can directly reflect the financial performance level of the case enterprise. Since the M&A in 2019, Conch Cement's relative closeness degree has been in a downward state. By 2024, Conch Cement's score has reached the lowest point, indicating that Conch Cement's continuous M&A has inhibited the development of the enterprise's financial performance. In terms of non-financial performance, Conch Cement's R&D personnel have been continuously expanding,

and it has paid more attention to increasing R&D investment after M&A. In terms of market expansion capabilities, Conch Cement has actively sought new profit growth points, extended its market to overseas, and established a complete marketing network, which has effectively reduced its single dependence on the domestic market and maintained Conch Cement's competitive advantage in the cement industry.

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