

Research on the Performance of Different Types of Assets Reorganization of Listed Companies

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Abstract: Asset reorganization is one of the effective measures for enterprises to expand their competitive advantages in the market and achieve rapid development. This article will use empirical analysis to select 138 listed companies on the Shanghai and Shenzhen stock markets that completed asset restructuring activities in 2018 as sample companies. Based on relevant data and financial data before and after the reorganization, nine indicators are selected from profitability. From four perspectives: capability, operating capability, per share index, and development capability, the principal component analysis method is used to research and analyze the restructuring performance of listed companies. The results show that most listed companies can improve their performance in the short term after asset reorganization, but in the long run their performance has not improved significantly.

1. Introduction

Listed companies are an important part of my country's capital market and an important force to promote my country's economic growth. However, with the continuous improvement of my country's capital market and the rapid economic development, listed companies also need to integrate high-quality resources, expand their business scope, and achieve strategic goals through asset reorganization to enhance their overall strength and strengthen their competitive advantages. According to statistics, the scale of mergers and acquisitions in my country's capital market reached its peak in 2017 and 2018. However, with the unprecedented intensity of my country's major asset restructuring in 2019, market activity and the amount of disclosed mergers and acquisitions have declined.

In this context, studying the performance of different types of asset restructuring of listed companies has not only theoretical value, but also practical significance. At present, the main research direction for the performance of corporate asset restructuring in my country is to compare whether the performance of the enterprise before and after the reorganization has been improved. However, according to my country's relevant laws, regulations and policies and the basic situation of listed company asset restructuring, asset restructuring methods include asset acquisition, asset divestiture, Equity transfer, asset replacement, etc., which means that different types of asset reorganization are likely to have completely different effects on the future development of listed companies.

Therefore, on the basis of empirical research, this article will select 138 listed companies that completed asset restructuring activities in Shanghai and Shenzhen stock markets as sample companies. From four perspectives: operating capability, per share index and development capability, the principal component analysis method is used to research and analyze the performance of listed companies' restructuring, analyze the impact of different types of asset reorganization methods on the performance of listed companies, and how to choose appropriate asset restructuring methods for listed companies. Propose corresponding suggestions for future development.

2. Research Design

2.1 Research Method Selection

The principal component analysis method is generally applicable to the situation where there are many variables and there are correlations with each other. While reducing the dimensionality to synthesize several representative comprehensive variables, the information reflected by the original variables should be retained as much as possible. Using this method to study the performance of corporate asset restructuring, on the one hand, multiple financial indicators can be refined into several comprehensive variables, which can in-depth study of factors that affect the performance of corporate asset restructuring; on the other hand, it can effectively avoid subjective behavior such as artificial assignments. Evaluate the adverse effects of asset restructuring performance.

2.2 Variable Selection

Analyzing whether the asset reorganization of listed companies has achieved results is not only reflected in the profitability, but more attention should be paid to whether the business status of the company has been substantially improved after the asset reorganization. At the same time, it is difficult to reflect the results of asset reorganization with only one or two variables. Instead, multiple variables should be used to evaluate the performance of the asset reorganization of the sample companies from multiple perspectives. Therefore, this article selects nine financial indicators from four perspectives of profitability, operating ability, per share indicators, and development capabilities to establish an evaluation system, including earnings per share, net assets per share, total asset turnover, return on net assets, and net assets. Profit growth rate, etc., to evaluate the performance of the asset restructuring of the sample companies.

2.3 Empirical Model

This article will use the principal component analysis method to construct a comprehensive score function to analyze the financial data of the sample listed companies before and after the reorganization of the sample, and recombine the original multiple indicators with certain correlations into a new set of uncorrelated comprehensive indicators. , Derive a few principal components from the original variables, so that they retain the information of the original variables as much as possible, and they are not related to each other. Then calculate the comprehensive evaluation score of each sample listed company based on the score value of each principal component and the corresponding variance contribution rate. The higher the score, the higher the performance level of the listed company. The formula is as follows:

$$F = \alpha_{i1}F_{i1} + \alpha_{i2}F_{i2} + \alpha_{i3}F_{i3} + \cdots + \alpha_{ik}F_{ik}, \quad \alpha_{ik}(i = 1, 2, 3, \dots, k), \quad F_{ik}(i = 1, 2, 3, \dots, k)$$

3. Empirical Result Analysis

3.1 Principal Component Analysis Test Results

The KMO test and Bartlett sphericity test were performed on the financial data of the sample companies from 2017 to 2019, and it was found that the nine financial indicators selected by the 138 sample companies were all relevant, and the KMO values from 2017 to 2019 Both are greater than 0.5, indicating that the degree of overlap between the variables is not very high. These indicators are suitable for principal component analysis. At the same time, the significance level (Sig.) of each year is also less than 0.05, indicating that the data has structural validity and principal component analysis can be used.

3.2 Select Principal Components, Establish Scoring Function and Evaluation Model

Analyzing the contribution rate and cumulative contribution rate of the principal components extracted from the original variables, it is obtained that the characteristic values of the principal components obtained from 2017 to 2019 are all greater than 1, and the cumulative contribution rates are 71.456%, 83.462%, and 85.278%, respectively, indicating that they were extracted separately. Several principal components of can reflect most of the information of the selected indicator.

The rotation component matrix expresses the relationship between the original variable and the selected principal component, and the absolute value of the correlation coefficient greater than 0.5 indicates a strong correlation. Then use the rotating component matrix to name each principal component, which are profitability F_1 , equity expansion ability F_2 , operating ability F_3 , and development ability F_4 .

According to the score coefficient matrix of the principal components, the score functions of the principal components are established respectively. Then, according to the degree of interpretation of the original information by the principal components, that is, the variance contribution rate, the weight of the impact of each principal component on the performance is obtained, and the comprehensive evaluation model of the asset restructuring performance is finally obtained.

3.3 Calculate the Average Composite Score

Bring the data scores into the above comprehensive evaluation model to obtain the comprehensive scores of the asset restructuring performance of each sample company from 2017 to 2019.

Table 1 Average Comprehensive Scores of Various Types of Asset Restructuring

| Reorganization type | 2017 | 2018 | 2019 | Mean |
|---------------------|---------|---------|---------|----------|
| Equity transfer | -0.0442 | -0.0327 | -0.016 | -0.03097 |
| Asset acquisition | -0.0386 | -0.057 | -0.0232 | -0.0396 |
| Divestiture | -0.0129 | -0.0183 | -0.0201 | -0.0171 |
| Asset swap | 0.0811 | 0.1223 | 0.0368 | 0.080067 |

According to Figure 1, it can be seen that the performance of the sample companies in the year of reorganization compared with the previous year showed signs of improvement, only equity transfer and asset replacement, indicating that these two types of reorganization had a positive effect on performance in the current year. In addition, the performance of the two types of asset acquisition and divestiture reorganizations declined during the year. However, in the first year after the asset reorganization, the company's performance showed a greater upward trend, indicating that the performance of these two types of asset restructuring was relatively high. Good, it can bring a positive effect to the company's business development. However, the performance of asset replacement companies has shown a downward trend after reorganization, which indicates that asset replacement has a weaker effect on the optimal allocation of resources.

4. Conclusion

Based on the empirical research on asset restructuring related theories and asset restructuring performance, this paper conducted a performance study on 138 sample companies that carried out asset restructuring activities in 2018, and compared the financial indicator research method to analyze the performance of the asset restructuring year and the previous year. Finally, The main conclusions are as follows:

(1). From the analysis of the research results of the above four types of asset restructuring, it can be concluded that in addition to the decline in the performance of the capital replacement sample companies, the performance of the equity transfer, asset acquisition and asset divestiture sample companies has improved. That is, the operating conditions of the asset reorganization year and the following year have been significantly improved.

(2). Among the four types of reorganization, the performance of the equity transfer reorganization has improved steadily before and after the reorganization, indicating that the equity transfer asset reorganization has a certain positive effect on the improvement of the operating conditions of the sample companies.

(3). In the empirical study of all 138 sample listed companies, it is found that the performance of most listed companies can be improved in the short term after asset reorganization, but the company performance has not improved significantly in the long run. This also shows that when Chinese listed companies choose to carry out asset restructuring activities, they are more aimed at solving

current financial problems and improving operating conditions, rather than long-term strategic considerations. Therefore, the impact of asset restructuring on performance is mostly short-term.

To sum up, we must first improve various laws and regulations related to asset reorganization. Second, listed companies need to proceed from long-term interests, focus on strategic objectives, highlight their core competitiveness, achieve sustainable development, and finally strengthen the marketization of asset reorganization. And standardization to reduce excessive government involvement.

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