

An empirical study on the financial competitiveness of A-share listed companies in Shanghai stock market under the reform of supply side

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Abstract: This paper takes 968 listed companies in A-shares of Shanghai Stock Exchange as an example. Through the construction of financial competitiveness system and the use of factor analysis method, this paper systematically studies the basic situation of the overall financial competitiveness of Shanghai A-share listed companies. And from the supply side point of view, by reducing the financial costs and operating costs, it can improve the Shanghai A-share listed companies in the financial competitiveness of the relevant recommendations.

Keywords: *supply side reform, financial competitiveness, factor analysis*

1. Introduction

In recent years, with the slowdown in world economic growth, China's economic downward pressure has also increased. In particular, since 2011, China's economy has entered a new normal state of slow growth at the bottom. Under the control of the previous expansionary fiscal policy, on the one hand, to create a structural imbalance between supply and demand, both the existence of excess capacity, there are mismatches of supply and demand. On the other hand, the proportion of low-value, high-consumption and high-emission industries is high, and there is also high value-added, green and low-carbon, and the proportion of international competitive industries is low. In this regard, the CPC Central Committee in the autumn of 2013 proposed, from the supply side of the point of view, to improve the quality of supply and production efficiency, and fully implemented the regulatory policy of "three-decreasing, one-removed and one-compensating". At present, from the perspective of the effectiveness of the reform, the effectiveness of its regulation is very significant. According to statistics, 2016 China's Shanghai companies on the difficulties, with the supply side of the structural reform, the rapid development of new manufacturing and consumption, new and old energy conversion efforts are increasingly apparent. Its overall quality of operation has improved. Among them, in 2016, Shanghai listed companies achieved a total operating income of 24.46 trillion yuan, up 4.55%, its net profit of about 2.18 trillion yuan, up 1.29%.

However, some enterprises still exist the deficiencies of "high production costs, business risk being too large, low production efficiency, comprehensive competitiveness being not strong"

and other issues. Among them, part of the Shanghai and Shenzhen A-shares of traditional enterprises overcapacity and market demand for structural contradictions have not yet been eradicated, the financial business risks still exist. And in some profitable companies, there are still some companies profit quality is not high. According to statistics, the first half of 2016, Shanghai listed companies profit is of 1.14 trillion. However, 177 companies experienced a loss of operating results. At the same time, in some resource-based and industrial structure emphasis on excess capacity of the provinces, structural adjustment tasks, business production and management difficulties.¹

2. An empirical study on the financial competitiveness of listed companies in Shanghai stock market

2.1 A review of related literatures on financial competitiveness

The results show that the financial competitiveness of listed companies in Jiangsu Province is second only to Shandong, Beijing and Yunnan provinces, and the competitiveness is very high in the whole country, and there is a clear upward trend.³ Huang Shiyong, Xu dry from the perspective of building a financial index system, through the construction of Liaoning listed companies competitiveness tevaluation index system. The results show that in the low-profit era of competitiveness, financial aspects must have a strong solvency and profitability.²Chen Hongming, Kang Yannan from the perspective of building a comprehensive financial competitiveness system, with the aid of factor analysis, they encourage China's textile and apparel companies to carry out research. The results show that the profitability of the enterprise has a direct impact on the overall financial competitiveness of the enterprise. Solvency, growth ability, and operational capacity to improve the comprehensive financial competitiveness of enterprises also play an important role.¹ Jin Bei, from the perspective of the competitiveness of enterprises, proposes the use of statistical methods to carry out research on the competitiveness of enterprises. The results show that the evaluation of the competitiveness of enterprises can only get the relative truth, and enterprise competitiveness itself is a dynamic and changing phenomenon.³

2.2 Data sources and treatment of relevant financial indicators

The data of the relevant financial indicators selected in this paper are mainly derived from the statistical data of Guotai a database. Because the classification criteria for the database are consistent with the classification criteria listed in the 2012 Guidelines for the Classification of Listed Companies in the SFC. Therefore, the relevant statistical information on the database can be used to carry out research on the problem.⁴

Specifically, this paper mainly takes advantages of the Cathay Pacific database to collect 2016 Shanghai A-share companies in the annual report data. Among them, this article removed the ST and ST *, and takes into account the lack of data companies, combined with

the needs of research problems through systematic screening and classification, the final selection of these 659 enterprises as a research sample. Therefore, it can be explained that the relevant issues can be explained.

2.3 Analysis on financial competitiveness analysis system of listed companies in Shanghai stock market

First, from the "risk management, profit management, growth management" three aspects to be set to study the sub-goal; again, this article is based on the three aspects set by the three aspects of the financial Sub-goals, and can also be further divided into the four primary goals. Finally, according to the setting of the target, 14 financial indicators are proposed as secondary targets.

In order to study the financial competitiveness of 659 listed companies in Shanghai A-share listed companies, this paper has selected 14 financial indicators in the final financial statements of various listed companies. And, the Shanghai A-share listed companies financial competitiveness analysis system design. ⁵

2.4 Using SPSS22.0 to reduce the dimension of the factor analysis, and come to the following related test and conclusions

2.4.1 KMO and Bartlett test

Table 1-KMO and Bartlett test

<i>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</i>		.617
	<i>Approx. Chi-Square</i>	3433.257
<i>Bartlett's Test of Sphericity</i>	<i>df</i>	91
	<i>Sig.</i>	.000

It is obtained by SPSS21.0 analysis. From the Table1 Through the KMO and Bartlett tests in the table, it can be seen that the KMO coefficient is 0.617 and greater than 0.5. Thus, it can be explained that the relevant requirements for factor analysis can be met. Therefore, we can continue to carry out the following related test and component analysis of the study. In addition, in Bartlett's sphericity test, the chi-square was 3433.257, with a significance level of 0.000. It can be seen that when the significant level is 95%, all Banings spherms are less than 0.05. Therefore, it can be determined that the sample data apply to factor analysis to carry out research on related issues.

2.4.2 Principal component analysis

From the Table 2 common factor variance can be seen, the extraction of the relevant financial indicators in addition to net profit and profit ratio of the factor being 0.268, the other financial indicators of the common factor variance coefficient is 0.5 or more, and great Most common factor variance coefficients are above 0.7. So, the factor information in the extracted

component already contains the vast majority of the original variable information.

Table 2 -Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
x1	2.771	19.793	19.793	2.771	19.793	19.793	2.688	19.203	19.203
x2	2.446	17.472	37.265	2.446	17.472	37.265	2.176	15.546	34.749
x3	1.287	9.196	46.461	1.287	9.196	46.461	1.431	10.222	44.970
x4	1.128	8.054	54.515	1.128	8.054	54.515	1.312	9.372	54.343
x5	1.063	7.592	62.107	1.063	7.592	62.107	1.080	7.711	62.054
x6	1.003	7.166	69.273	1.003	7.166	69.273	1.011	7.219	69.273
x7	.984	7.026	76.299						
x8	.944	6.742	83.041						
x9	.837	5.977	89.019						
x10	.501	3.578	92.597						
x11	.416	2.968	95.565						
x12	.300	2.142	97.707						
x13	.291	2.075	99.782						
x14	.030	.218	100.000						

Extraction Method: Principal Component Analysis.

In order to further determine the contribution rate of the eigenvalues and variance, the number of factors must be extracted. Under normal circumstances, extract the feature root is greater than 1 factor. In Table 2, the total variance explanation shows that the first six common factors have a characteristic root greater than 1, and the sum of the squared sums of the rotational loads reaches 69.273%, indicating that the first six factors can basically explain the original variables.

From the table 3 component matrix, it can be seen that the basic factor can be explained. However, it can be seen from the Table 2 component matrix that the financial index coefficients in component 5 and component 6 differ too much and do not show significant polarization. Therefore, it is contemplated that the component matrix is rotated. As shown in Table 5 after the rotation of the composition matrix.

After the rotation of the composition matrix, the flow ratio is 94.4%, the quick ratio is 97.3% and the cash ratio is 87.1%. These three financial indicators can reflect the solvency of the firm. Therefore, it can be called the solvency factor. In component 2, the total net profit margin is 54.5%, the return on net assets is 88.2% and the return on assets is 87.3%. These three financial indicators can reflect the profitability of enterprises.

Table 3-Component Matrixa

<i>Related financial indicators</i>	<i>Component</i>					
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>1</i>	-.145	.695	.278	.304	-.012	-.003
<i>2</i>	-.017	-.206	.122	-.675	.189	-.044
<i>4</i>	.230	.590	-.565	-.020	.126	.048
<i>6</i>	.013	.797	-.017	-.382	.016	-.017
<i>5</i>	-.016	-.010	.264	.048	-.102	.431
<i>8</i>	-.020	-.115	.293	.214	.647	.044
<i>9</i>	.143	-.015	-.760	.287	.192	.091
<i>10</i>	-.022	-.032	-.074	.009	-.733	-.012
<i>11</i>	.928	.045	.187	.033	-.003	-.032
<i>13</i>	.947	.080	.176	.112	-.040	-.020
<i>14</i>	.876	.011	.054	.055	-.044	-.004
<i>3</i>	-.386	.450	.250	.455	-.052	.002
<i>12</i>	.040	.002	-.017	-.102	-.009	.895
<i>7</i>	-.003	.843	.078	-.261	.048	-.014

Extraction Method: Principal Component Analysis. a. 6 components extracted.

2.4.3 Accounting score calculation process

According to the calculation formula of each component F1, F2, F3, F4, F5, F6, the scores of each component can be calculated. Then, according to the FZ summation formula, we can calculate the total score of each company, and then according to the size of the score, we can further conduct the research. However, due to the fact that this article selected 659 Shanghai stock market A-shares listed enterprises, the article did not calculate the Shanghai Stock Exchange A-shares listed companies FZ score. Therefore, the scoring order of the article can not be reflected in the order.

4. Related conclusions and suggestions

This paper uses the factor analysis method to study the financial competitiveness of Chinese listed companies in Shanghai. Through the analysis found that the current Shanghai A-shares on the company's overall capital structure is relatively reasonable, the financial risk factor is still not high, which is relatively strong in aspects of operation and debt service capacity. However, the Shanghai A-share listed companies in the profitability and development of the overall capacity is relatively weak. The reasons which gave rise to the current situation are as follows. First, it can be attributed to the short term fluctuations in financial indicators of the listed companies, because any financial indicators in a certain period of time will fluctuate.

Therefore, the fluctuation of financial indicators has an impact on financial competitiveness. Second, with the selection of the sample size, the industry span is too large. Because the Shanghai A-share listed companies involved in the industry too much, and the characteristics of the industry are different. Therefore, the financial competitiveness of listed companies is not balanced. ⁴Third, it is closely related to the differing sizes of the selected listed companies, because the Shanghai A-shares listed companies hold various development scales. Therefore, the accounting procedures have an impact. Fourth, it can be depicted as the changes in our country's macroeconomic policy, because of the "supply side reform", especially in the "three to one down one" policy implementation. Therefore, there is a significant impact on the operating results of listed companies. ⁵Fifth, it is due to the high cost in fields of production and operation of the Shanghai A-share enterprises, because the cost of production and management is high, which leads to the weak profitability and development capacity of the listed companies as a whole. Sixth, it can be ascribed to the different market structure in the listed companies in which the status is different, because some companies have a strong market forces. On the contrary, some companies are marginalized. Therefore, due to the different market conditions of the enterprises in which they situate, as a result, they show different financial competitiveness.

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