

Study on the effects of successive mergers and acquisitions from the perspective of market value management: The Case of TRS

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Abstract. M&A as a means of market value management for listed companies, companies are eager to achieve transformation and upgrading through M&A, and many companies have embarked on the road of continuous M&A after their first M&A. The software industry, as a rapidly developing industry with high industry barriers and the need to break technical barriers through M&A, has seen frequent M&A. This paper takes a series of M&As of TRS as an example and uses the market value management evaluation model to analyze the effect of its M&As as a market value management approach. The study finds that a series of M&A only produces effects in the M&A period, but not in the long term, providing a reference for companies expecting to achieve synergy effects through successive M&A.

Keywords: Sequential M&A; Market Value Management; M&A performance.

1. Introduction

In May 2014, the release of the new Article 9 conveyed the government's signal to promote the implementation of market value management; in 2015, the State-owned Assets Supervision and Administration Commission (SASAC) repeatedly promoted central enterprises to carry out market value management to revitalize resources of listed companies and maximize asset value; in 2018, market value management was listed as an important content of state-owned assets management and was widely used in the new round of state-owned enterprises and state-owned assets reform. Driven by the central government, market value management has set off a boom in A-shares. Since 2021, the SFC has repeatedly stressed that it will continue to adhere to the "zero tolerance" policy and always take the protection of investors, especially small and medium-sized investors, as the starting point and anchor point of capital market supervision. As a means of market value management for listed companies, M&A enables listed companies to rapidly expand production scale and obtain scarce resources or technologies, optimize resource allocation, save transaction costs, reduce competitors to obtain monopoly excess profits, and reduce operator agency costs, thereby achieving growth in company value. Companies are eager to achieve transformation and upgrading through M&A, and many of them have embarked on the path of successive M&A after their first M&A. However, the insiders who have control over the company are trying to obtain private gains at the expense of the interests of small and medium shareholders, artificially creating mergers and acquisitions that cannot bring long-term value growth to listed companies but are beneficial to the short-term rise of the company's stock price. This kind of "market value management" in the name of high "cash out" practice, not only caused the mismatch of capital market resources, but also harmed the interests of small and medium investors. This kind of M&A with market value management is often accompanied by high performance commitments and high goodwill. In order to further regulate the M&A market and protect the legitimate rights and interests of stakeholders, the CSRC has issued a number of regulations to rectify the chaos in M&A restructuring. The software industry, as a rapidly developing industry with high industry barriers and the need to break technical barriers through mergers and acquisitions, has seen frequent mergers and acquisitions. TRS has made successive mergers and acquisitions after its listing. This paper selects this case to analyze the motivation and consequences of a series of frequent mergers and acquisitions after its IPO, then analyzes the reasons for the poor

results of its mergers and acquisitions, and makes suggestions for the regulation of companies with such problems in the market.

2. M&A information

2.1 The acquirer

In 1993, Beijing TRS Information Technology Co., Ltd. was officially established, after years of development, has a broader business scope, involving data mining, software development, information security, artificial intelligence and other sectors. 2011, TRS was listed on the Shenzhen Stock Exchange (stock code 300229), after which the company has been steadfastly implementing a two-wheel drive strategy, while maintaining strong organic growth capabilities and increasing the speed of outward expansion. It has maintained a strong endogenous growth capability while increasing the speed of outward expansion. As a big data technology service provider, TRS has developed its own innovation and industry integration, independently developed and launched the Haibei big data management platform, providing competitive big data application solutions for government, media, security, finance, education, large enterprises and other fields.

2.2 The acquiree

In 2013, TRS acquired a 30% stake in Guangzhou Keyun, which was formally established in 2001 to develop big data technology as its core business. In the course of its development, the company has shown great emphasis on R&D innovation, and over the years has continued to increase its financial investment in technology research and development, and now has more than ten products with intellectual property patents, with extremely prominent development advantages. Because of this, the company has received a large number of government subsidies, plus the support of the Science and Technology Fund, and the company already has a strong technological advantage. Guangzhou Keyun has received a number of certifications and has been awarded the title of Outstanding Enterprise at national and provincial level several times. After this acquisition, which was carried out through over-raising funds, TRS combined the technology related to TRS Big Data of Guangzhou Keyun with its own products and explored a new technology application model in the process of integration.

In 2014, in order to expand the business scope of the enterprise and enter the information security field, TRS chose to acquire 100% of the equity of Tianxing Net Security, which is named Beijing Tianxing Net Security Information Technology Co Ltd, established on 21 January 2000, with an initial registered capital of RMB 500,000 yuan. During the period, it experienced six equity transfers and four capital increase activities. The company has been developing in the domestic network information security industry for a long time, and is one of the earliest developing companies in this industry, and now has a strong comprehensive strength and has been widely praised in the information security application industry, and can be called a leading company. Tianxing Net Security has been committed to the research and development of data security technology, through continuous technological innovation, the enterprise is able to provide customers with a higher degree of data security protection, making the value of data higher, its products and services have now been widely welcomed by the government, military, public security, education and other industries, coupled with quality after-sales service, Tianxing Net Security has an extremely high reputation in the industry, and in turn has won a number of honours, including "National High-tech Enterprise" and "Zhongguancun High-tech Enterprise", etc. The acquisition has given the company access to the information security market and has completely opened up the industry value chain, achieving an increase in the company's overall strength.

In 2015, in order to further highlight the competitive advantages of the enterprise and achieve product perfection, the enterprise once again acquired Guangzhou Keyun, holding a total of 51% of Guangzhou Keyun's shares, in addition to this, TRS also acquired 55% of the equity of Netconcept, which is fully known as Netconcept Network Technology (Beijing) Limited, with a registered capital

of 13 million yuan, the enterprise has always been The company has always been based on the development of the Internet media marketing industry, and has now achieved a leading level in China. The company has gone through six years of development, in which the enterprise is committed to providing customers with the highest quality service, service industry involves a number of fields, many large and medium-sized Internet enterprises have purchased the products and services of Netconcepts, in all major industries have a high degree of praise. In addition, the company is not only famous in the domestic market, but also in the United States, Japan, New Zealand, the United Kingdom and other international markets to accumulate more customer resources, has a strong development strength, in the entire Internet marketing industry has a pivotal position. In addition, the company initiated the creation of the China SEO University and SEO ranking, promoting the development of the domestic SEO industry, and the international TopSEOs organisation rated Netconcept as the best SEO company in China. The acquisition has enabled the company to expand its overall scale, while facilitating the development and launch of new products.

In 2016, TRS continued to use the overcapital to acquire 57.2% of Guangzhou Sungoal in order to continue to deepen the strategic development direction of specialized search services in niche industries. In 2002, Guangzhou Sungoal was formally established and has been developing continuously in the field of big data technology since then, mainly serving public security systems, providing them with services such as big data platform construction, data collection and analysis, and search engine optimization. Since its inception, the company has not reduced the intensity of its technological research and development, and thus has always been at the forefront of the industry in this area. Its products have been widely used in the big data systems of public security organs in various regions of the country, and have won high praise. At present, the company's products have passed a number of authoritative certifications, and the overall strength of the enterprise has been enhanced, with strong development potential. The company also increased its capital by RMB4.9 million, and after the completion of the acquisition, TRS will hold a total of 60% of Guangzhou Sungoal equity.

In 2017, The Company continued to acquire 12% equity interest in Guangzhou Sungoal, acquiring a cumulative 72% equity interest.

In 2018, TRS continued to increase its shareholding in Guangzhou Keyun by issuing shares to purchase assets, eventually holding 86.43% of Guangzhou Keyun's shares.

In 2019, 72.01% of Guangzhou Sungoal was sold to the original shareholders for a low price of \$8 million (0.88% appreciation).

In 2020, 10% stake in Netconcept, was sold to the original shareholders for a low price of 12 million (80.31% appreciation).

3. Motivation for M&A

3.1 Gaining economies of scale and increasing control over the market

In the stimulating market competition, TRS need to constantly introduce new technologies and products if they want to maintain their development advantage. However, in terms of the actual situation of the information's technology industry, most of the technology iterations are extremely fast, if we only rely on our own research and development, not only will the research and development costs increase rapidly, but also because the research and development is not timely enough, the company may lose a lot of development opportunities, the risk of being overtaken by enterprises in the industry.

3.2 Breaking industry barriers and improving the industry chain

At the same time, some industries have high confidentiality requirements for IT services, such as government, military, banks, etc. which require companies providing products or services to have relevant qualifications and certifications. As a result, new entrants are not qualified to enter such markets because they cannot obtain the relevant certification in a short period of time; customers will

also give preference to those with high credibility to establish long-term relationships for the sake of confidentiality, and new entrants will not be able to accumulate customer loyalty in the short term.

For the above two reasons, TRS has chosen the dual strategy of accelerated internal growth and continuous external expansion in order to achieve its long-term goals. External development is mainly through mergers and acquisitions of companies related to the business of the company, which will enable the company to quickly possess unique competitive advantages and achieve synergies throughout the process of resource integration to help the company's sustainable development. Therefore, TRS started its outward M&A path in 2013.

4. Analysis of "market value management" outcomes of successive mergers and acquisitions

4.1 Market value management performance measurement

This section is about to follow the market capitalisation management evaluation system for listed companies issued by the Centre for Market Capitalisation Management in 2016, with data obtained from each annual report and relevant databases, as well as a detailed analysis based on information quantifying its level of market capitalisation management, in order to explore the results of the market capitalisation management of TRS.

The values underlying the calculation process for the three levels of indicators are shown in Table 1.

Indicators of value creation are shown in Table 2.

The results for the three levels of value realisation indicators are shown in Table 3.

Indicators of value realisation are shown in Table 4.

The three levels of value relevance indicators are shown in Table 5 below.

The results of the Tier 3 indicators are obtained from the calculations in Tables 3, 4 and 5, and the results of the Tier 2 indicators for value creation, value realisation and premium factors will continue to be assigned.

The secondary indicators of value creation are shown in Table 6

The value realisation indicator secondary indicators are shown in Table 7.

The secondary indicators of value relevance are shown in Table 8.

The results of Tables 6 7 8 are used to obtain the results of the secondary indicators, which will be followed by the assignment of values to obtain the results of the primary indicators.

Market value management level indicators are shown in Table 9.

Table 1. TRS base value and growth value base indicators

Projects	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
EVA (billion)	0.37	0.20	0.44	0.48	0.67	0.93	0.31	0.13	0.30	0.15
Capital efficiency (%)	0.05	0.02	0.04	0.03	0.04	0.05	0.02	0.07	0.14	0.05
Operating profit margin (%)	33.60	27.30	28.40	26.40	18.10	20.70	10.90	18.30	26.50	26.70
Return on net assets (%)	9.30	7.90	6.79	8.01	8.34	8.77	3.29	7.59	14.72	9.59
Earnings per share	0.36	0.33	0.45	0.26	0.29	0.34	0.13	0.33	0.45	0.34
EVA growth rate (%)	-5.10	-4.59	120.00	9.10	39.60	38.80	-66.70	-58.10	130.80	-50.00
Capital efficiency growth rate (%)	-39.30	-48.80	63.10	22.20	21.50	32.30	-68.10	308.60	111.80	-62.20
Operating profit margin growth (%)	-8.70	-18.80	4.00	-7.00	-31.40	14.40	-47.30	67.90	44.80	0.80
Return on net assets growth rate (%)	-5.60	-15.10	-14.10	18.00	4.10	5.20	-62.50	130.70	93.90	-34.90
Earnings per share growth rate (%)	-48.60	-8.30	36.40	-42.20	11.50	17.20	-61.80	153.80	36.40	-24.40

Table 2. Weighting of TRS Value Creation Level 3 Indicators

Projects	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
EVA (20%)	0.07	0.04	0.09	0.10	0.13	0.19	0.06	0.03	0.06	0.03
Capital efficiency (20%)	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.03	0.01
Operating margin (20%)	6.72	5.46	5.68	5.28	3.62	4.14	2.18	3.66	5.30	5.34
Return on net assets (20%)	1.86	1.58	1.36	1.60	1.67	1.75	0.66	1.52	2.94	1.92
Earnings per share (20%)	0.07	0.07	0.09	0.05	0.06	0.07	0.03	0.07	0.09	0.07
Basic values	8.66	7.08	7.13	6.98	5.43	6.09	2.90	5.22	8.33	7.30
EVA growth rate (20%)	-1.02	-0.92	24.00	1.82	7.92	7.76	-13.34	-11.62	26.16	-10.00
Capital efficiency growth rate (20%)	-7.86	-9.76	12.62	4.44	4.30	6.46	-13.62	61.72	22.36	-12.44
Operating margin growth (20%)	-1.74	-3.76	0.80	-1.40	-6.28	2.88	-9.46	13.58	8.96	0.16
Return on net assets growth rate (20%)	-1.12	-3.02	-2.82	3.60	0.82	1.04	-12.50	26.14	18.78	-6.98
Earnings per share growth rate (20%)	-9.72	-1.66	7.28	-8.44	2.30	3.44	-12.36	30.76	7.28	-4.88
Growth value	-21.46	-19.12	41.88	0.02	9.06	21.58	-61.28	120.58	83.54	-34.14

Table 3. TRS Value Realisation Base Indicators

Projects	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Tobin Q	1.78	1.94	2.71	7.47	3.69	3.09	1.81	2.36	2.33	2.29
Total Market Capitalisation MV (\$ billion)	15.47	18.66	42.57	134.97	76	68.34	46.06	58.29	65.8	85.37
Total market capitalisation growth rate (%)	6.76	26.06	128.14	217.05	-43.69	-10.08	-32.6	26.55	12.88	29.74
Market Value Added MVA	7.54	10.05	28.44	119.86	59.66	50.31	27.53	37.59	44.12	59.74
Market value added growth rate	7.10	33.29	182.98	321.44	-50.23	-15.67	-45.28	36.54	17.37	35.40
MVA rate	86.57	104.69	181.38	663.31	289.33	227.65	103.69	130.11	156.07	160.33

Table 4. Weighting of TRS Value Realisation Level 3 Indicators

Projects	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Tobin's Q (40%)	0.71	0.78	1.08	2.99	1.48	1.24	0.72	0.94	0.93	0.92
Total Market Capitalisation MV (\$bn) (40%)	6.19	7.46	17.03	53.99	30.40	27.34	18.42	23.32	26.32	34.15
Total market capitalisation growth rate (%) (20%)	1.35	5.21	25.63	43.41	-8.74	-2.02	-6.52	5.31	2.58	5.95
Total Market Capitalisation MV	8.25	13.45	43.74	100.39	23.14	26.56	12.63	29.57	29.83	41.01
Market Value Added MVA (40%)	3.02	4.02	11.38	47.94	23.86	20.12	11.01	15.04	17.65	23.90
Market value added growth rate (40%)	2.84	13.32	73.19	128.58	-20.09	-6.27	-18.11	14.62	6.95	14.16
MVA rate (20%)	17.31	20.94	36.28	132.66	57.87	45.53	20.74	26.02	31.21	32.07
Market Value Added MVA	23.17	38.27	120.84	309.18	61.64	59.39	13.64	55.67	55.81	70.12

Table 5. TRS value correlation base indicators

Projects	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
eva ranking	871	1025	907	933	913	1077	1544	1000	621	931
Market Capitalisation Ranking	2032	2103	1643	961	1640	2031	1995	1806	2134	2023

Table 6. TRS value creation secondary indicators

Projects	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Base value (50%)	4.33	3.54	3.57	3.49	2.71	3.05	1.45	2.61	4.17	3.65
Growth value (50%)	-10.73	-9.56	20.94	0.01	4.53	10.79	-30.64	60.29	41.77	-17.07
Value creation	-6.40	-6.02	24.51	3.50	7.24	13.84	-29.19	62.90	45.94	-13.42

Table 7. TRS Value Realisation Secondary Indicators

Projects	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total market capitalisation MV (60%)	4.95	8.07	26.24	60.23	13.88	15.93	7.58	17.74	17.90	24.61
Market Value Added MVA (40%)	9.27	15.31	48.34	123.67	24.66	23.75	5.46	22.27	22.32	28.05
Value Realisation	14.22	23.38	74.58	183.90	38.54	39.69	13.03	40.01	40.22	52.66

Table 8. TRS Value Correlation Level 2 Base Indicator Profile

Projects	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Value relevance	-1161	-1078	-736	-28	-727	-954	-451	-806	-1513	-1092

Table 9. TRS market capitalisation management level 1 indicators

Projects	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Value creation (30%)	-1.92	-1.80	7.35	1.05	2.17	4.15	-18.54	18.87	13.78	-4.03
Value realisation (50%)	7.11	11.69	37.29	91.95	19.27	19.84	6.52	20.01	20.11	26.33
Value relevance (20%)	-	-	-	-5.60	-	-	-90.20	-	-	-
	232.20	215.60	147.20		145.40	190.80		161.20	302.60	218.40
Market value management performance	-	-	-	87.40	-	-	-	-	-	-
	227.01	205.71	102.56		123.96	166.81	102.22	122.32	268.71	196.10

4.2 Analysis of the results of the market value management evaluation

4.2.1 Value creation level analysis

As can be seen from the analysis above, in terms of underlying value, TRS earnings per share, return on net assets and operating profit margin from 2012-2021 all show a fluctuating trend, with return on net assets rising year on year from 2012-2017 and operating profit margin and earnings per share rising from 2012-2014 and starting to fall thereafter, indicating that TRS profitability was stronger in the first few years due to Tops started continuous M&A in 2014, the performance commitment of the M&A targets drove the subject company to create value during the performance commitment period, however, the profitability continued to weaken in the latter years, mainly due to the expiry of the performance commitment period of the M&A targets, the subject company's profitability issues gradually thundered, resulting in TRS taking goodwill impairment against the blind M&A targets.

Similarly TRS EVA has also experienced significant fluctuations and unstable performance during the period 2012-2021, rising from \$37 million in 2012 to \$93 million in 2017 and then plummeting to \$31 million in 2018, down 66.7% year-on-year, indicating that the wealth created by TRS for shareholders gradually increased from 2012-2017 and began in 2018. The wealth created for shareholders gradually decreased in 2018, which is related to the disfigured performance of its subsidiaries acquired several times in the early stage and the impairment of goodwill. The impact of TRS blind acquisitions has not yet been effectively mitigated.

In terms of growth value, the operating profit margin, capital efficiency growth rate, return on net assets growth rate and earnings per share growth rate of TRS, except for 2019 and 2020 due to the low value of the previous period indicators can lead to a large increase in the current period, in 2012-2018 in the trend of sharp fluctuations, of which the indicators are in negative value before the opening of continuous mergers and acquisitions in 2012-2013, TRS. In 2014, after the formal opening of successive mergers and acquisitions, the indicators rose to positive values, but with the advancement of time the poor quality of the subject of mergers and acquisitions highlighted and the occurrence of shareholders' cash out behavior, the indicators show a significant decline, and lower than before the successive mergers and acquisitions, to investigate the reasons, TRS in order to enhance the performance of pushing up the stock price homeopathic cash out, a single-minded expansion of the scale of operations, continued to carry out mergers and acquisitions, the use of performance commitments to improve revenue, so that the The profitability of the enterprise indicators soared, but did not create value for the enterprise sustained.

4.2.2 Value realisation level analysis

As can be seen from the above analysis, the market value of TRS rose from 1.547 billion yuan in 2012 to 13.497 billion yuan in 2015, and then fell to 8.537 billion yuan in 2021. Subsequently, the major shareholder made a profit of RMB 540 million in the secondary market by precisely reducing its shareholding at the peak of the share price, which made market investors see the "pseudo market

value management" behavior of TRS and sell their shares, resulting in the evaporation of its market value and share price. This led to the evaporation of market capitalisation and a fall in share price.

In addition, TRS Tobin's Q value is greater than 1 from 2012 to 2021, especially in 2015, it is as high as 7.47, indicating that TRS market value is higher than the replacement cost and has a return on investment. The difference is not significant, indicating that TRS successive acquisitions have not brought sustainable market capitalisation, but rather that the majority shareholders have profited from them, and that TRS market capitalisation may be overvalued in light of its actual performance.

4.2.3 Value relevance level analysis

From the above calculation results, it can be seen that the EVA ranking and market capitalization ranking of TRS 2012-2021 are not high among listed companies, where EVA ranking represents value creation ranking and market capitalization ranking represents value realization ranking, in general, the value realization ranking is relatively higher than the value creation ranking, where the gap between value creation and value realization ranking from 2012 to 2015 gradually narrowed, and then gradually widened from 2016 onwards, indicating that the gap between the intrinsic value and extrinsic value of TRS gradually narrowed from 2012 to 2015, and the matching degree of internal and external value increased, especially in 2015, when the matching degree of internal and external value reached the highest point, and then due to the precise arbitrage behavior of major shareholders' shareholding reduction and the decline of profitability of the M&A target companies, resulting in its value creation and value realization. However, in 2019 and 2020, due to the sale of the stakes in the target companies of the previous acquisitions, Netconcept and Guangzhou Keyun, and the divestment of poor quality assets, the value creation ranking has rebounded, but as the profitability due to the sale of assets is only transient and unsustainable, the market capitalisation ranking of the enterprise, i.e. the value realisation ranking, continues to decline at the same time, indicating that the asset sale of TRS. Overall, the series of "pseudo-market value management" actions of TRS major shareholders in successive mergers and acquisitions have only brought a short-lived improvement in value creation and value realisation, but not sustainable value creation and realisation for the company.

5. Conclusions and insights

In this paper, by analyzing the M&A of TRS as a market capitalization management behavior, it is found that only the value creation and value realization of the enterprise in the M&A period brought a short-lived enhancement, and could not create value and realize value for the enterprise continuously. This indicates that its market value management is poor. Further analysis through the market value management results reveals that the high goodwill of M&A, poor insider motivation, pre-M&A and post-M&A holdings reduction and the dumping of non-performing assets are the reasons why it did not produce good market value management results. It is hoped that the regulator will regulate the behaviour of insiders such as controlling shareholders, directors and supervisors of listed companies by increasing penalties. Cracking down on the manipulation of share prices by major shareholders, precise shareholding reduction and other ways to regulate insider behaviour and better protect the interests of small and medium shareholders.

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