Analysis of Will's Acquisition of Omnivision

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Abstract. With the continuous development of the 5G era and artificial intelligence, the development of the semiconductor industry plays an important role in the gross international competitiveness and comprehensive strength. As a matter of fact, China's semiconductor chip industry started late but grew rapidly, which has occupied part of the market by taking advantage of cost. However, as a technology industry, the lack of core technology has become a barrier that blocks the development of China's semiconductor chip industry. Corporate mergers and acquisitions and restructuring have become a way for enterprises to obtain core technology. Therefore, this paper analyses the case of Will's acquisition of Omnivision Technology, introduces the whole basic situation of the case, explores the risks and countermeasures of Will's Shares. According to the analysis, this research summarizes some insights and suggestions, hoping to provide a reference for other enterprises. These results shed light on guiding further exploration of M&A analysis in semiconductor industry.

Keywords: Will's Semiconductor, Omnivision, acquisition analysis.

1. Introduction

Contemporarily, China's economy has been facing transformation and upgrading, shifting from a crude and traditional economic growth method to a refined and digitalized one. With the haze of the epidemic and economic recovery, coupled with the country's continuous promotion of the in-depth development of 5G networks, advocating the Internet of everything, the intelligent driving car industry and the rising VR/AR technology, the demand for semiconductor chips will be further released, and the industry will usher in great development. Nevertheless, China's semiconductor industry started late and is restricted by overseas development, the industry growth situation is treacherous, the key technology is only developed in recent years, the domestic products are mainly in the low-end electronic products consumption category. However, the acquisition of global top enterprises technology and quality resources can make up for China's current high-end devices in the industry's technological shortcomings and play an important role in promoting the semiconductor industry. Moreover, the acquisition of companies in all aspects of the value chain can help China's local companies towards the goal of IDM. Acquisition can effectively promote China's semiconductor localization substitution, and make it positively, independently develop. In such a context, Will's Shares acquisition development model is very meaningful.

Hossain and Dmpman, using 2,696 takeover announcements reported in Australia between 2000 and 2016, found that after controlling for firm and deal characteristics, serial acquirers trade with lower stock returns but higher risk compared to single acquirers [1]. Jhon and Johnston's study confirms that differences between M&A participants are a barrier to M&A success and shows that M&A outcomes can also be affected by post-merger integration duration (PMID) [2]. Specifically, slower integration can minimize conflict between M&A partners and enhance trust building, and reduce disruption to the existing resources and processes of both firms, which may be beneficial to the M&A. In contrast, fast integration that shortens the overall integration process may prevent the merged entity from quickly recognizing the expected synergies. In China's special era of the background of enterprise acquisition has a distinctive feature different from foreign countries. But the enterprises themselves are very different and the specific acquisition motives are not the same. Cai believes that there is a "policy arbitrage" behaviour [3], which refers to the merger of some enterprises with certain loss-making enterprises with financial subsidies or enterprises enjoying tax reductions, which in fact takes the preferential policies behind them as the ultimate goal. Sun and Yang argued that mergers and acquisitions can reduce transaction costs, and make the related products
circulate for use within the enterprise at the cheapest cost and avoids process costs [4]. Ji and Zhao took Alibaba Group's acquisition of Ele.me Takeaway, a typical M&A case in the industry, as an entry point and used the case study method [5], founding that the brand effect of Ele.me is of unique value to Alibaba. In order to obtain the synergistic effect on the brand, the merger and acquisition parties carried out the merger and acquisition. Yin took Meituan Dianping's merger and acquisition of Mobike as an example and studied the motivation of M&A of China's Internet platform, founding that the main purpose of merger is to achieve operational diversification and complementary advantages, pursue synergistic effect and improve competitiveness [6].

Based on the case of Will's acquisition of Omnivision Technology, this study analyzes the motivation of Will's participation in overseas acquisitions and potential risks of Will's Shares in the process of acquisitions by using the literature research method and the case study method, and probes its own measures and puts forward the risk management and controlling revelations and suggestions, achieving the purpose of risk avoidance and improvement of the company's performance of acquisitions, which provides experience for Chinese enterprises to reduce the risk of overseas acquisition and further improve their economic efficiency, and provide reference for other enterprises to carry out acquisitions.

2. Case Analysis

2.1. Basic Information of the Acquiring Parties

The global semiconductor industry is growing rapidly, and in the first three quarters of 2018, the semiconductor industry grew rapidly, with an overall growth of about 13.7% in the market size for the year compared to 2017. By 2019, the semiconductor industry slowed down due to international trade frictions. In 2020, the global semiconductor market size reached $440.4 billion, a year-on-year growth of 6.8%. China’s industry started late, and the development of the semiconductor industry has been even more difficult. Foreign countries in the early stages of development has been taking action to hinder the development of our industry. Later, with economic progress, the development of the semiconductor industry has gradually become an important influence on the country's comprehensive strength and national influence. The development of the semiconductor industry received national attention. Nowadays, China's semiconductor industry has gradually formed five major industrial clusters in the Pearl River Delta, Central and Western China, Xiamen-Fuquan, Bohai Rim and Yangtze River Delta [7]. Due to the different industrial foundations as well as regional advantages of each region, the semiconductor development model of each region is also slightly different. For China's semiconductor industry, the development of midstream and downstream industries develop well, but the upstream industry represented by integrated circuits is weak, special-purpose chips and other high-end general-purpose chip technology is backward, for foreign imports of strong dependence. For this reason, since 2008, our government has introduced many relevant policies to encourage and support the development of the semiconductor industry. Many governments have also launched relevant support policies from tax incentives, industrial funds and other aspects.

Will's Semiconductor Co., Ltd. Shanghai (hereinafter referred to as "Will's Shares") was founded on 15 May 2007, the company's main business includes integrated circuits, computer hardware and software, and a variety of semiconductor products. It was listed on the Shanghai Stock Exchange on 4 May 2017, the main legal representative of Ma Jianqiu. In 2020, due to work reasons, its main legal representative changed to Wang Song. Over the years, Will's Shares has taken advantage of its own strengths, accelerated the pace of market development, expanded the scope of application of the enterprise's products, and achieved stable growth. In 2020, the growth rate of the enterprise's total operating income reached 45.59%, and the growth rate of net profit reached 271.43%.

Beijing Omnivision-Group was established on 15 July 2015 and its business is mainly operated by its subsidiary, American Omnivision, and other subsidiaries. In this merger and acquisition, Will's Shares is mainly interested in acquiring Beijing Omnivision's wholly-owned subsidiary, American Omnivision, which was established in 1995. After years of development, it occupies a relatively strong
position in the field of CIS (CMOS image sensor chip), as shown in Fig. 1, and its semiconductors have a large market share, high product quality and more than 3,000 design patents. It has more than 3,000 design patents. In 2016, it was privatised by a Chinese consortium and became a wholly-owned subsidiary of Beijing Omnivision.

2.2. Review of Acquisition Events

The main subject company of this merger is Beijing Omnivision. In 2014 and 2016, Hua Capital Management Ltd., Beijing Junzheng and other companies made acquisition offers to Beijing Omnivision respectively. However, the offer failed due to Hua Capital Management Ltd.'s purchase price was too low and Beijing Junzheng was affected by the SEC's remediation. In May 2017, Will's Shares were listed, and due to the lack of core technological competitiveness, it can only engage in the distribution business with low technological content. To improve its market competitiveness, it plans to acquire the core competitiveness of semiconductors through acquisitions, thus improving the competitiveness of the enterprise itself, and the target of its planned acquisition is Beijing Omnivision, which has a strong market share and research and development capabilities. On 5 June 2017, it entered into a major suspension of trading and restructuring in connection with its planned acquisition of Beijing Omnivision and postponed the resumption of trading. Subsequently, it signed The "Framework Agreement" with 33 shareholders of Beijing Omnivision [8]. However, Zhuhai Rongfeng, then the largest single shareholder of Zhuhai Rongfeng, also worked for Wintech, and the latter also had the idea of acquiring Beijing Omnivision. And according to the relevant provisions of the documents signed in the privatisation process of Omnivision, the opposition of Zhuhai Rongfeng caused great obstacles to the merger and acquisition of Will's Shares. Will's first M&A plan failed.

On 29 September 2017, Beijing Omnivision made significant personnel changes. On 28 December 2017, Beijing Omnivision completed the change of shareholders. Zhuhai Rongfeng and Shenzhen Measurement, which did not sign an agreement with Will's Shares, withdrew, and the only new shareholder was Qingdao Rongtong Minhe Investment Centre ("Qingdao Rongtong"), which is one of the shareholders of Qingdao Rongtong. In May 2018, Will's Shares once again made a planned acquisition of Beijing Omnivision. In May 2019, Will's merger and acquisition programme came to a successful conclusion. It successfully acquired Beijing Omnivision, Superpix and Beijing Vision

![Figure 1. Market Share in the CIS Segment 2016.](image)
Source Technology by issuing shares, occupying 89.5%, 85.3% and 79.9% of the shares respectively, and became the de facto holding company of the three companies, effectively enhancing the core competitiveness of the enterprise itself.

2.3. Causes of the Acquisition of Will's Shares

Due to the lack of core technology, Will's Shares can only carry out the semiconductor distribution business for a long time, and there is a lack of semiconductor component R&D. The distribution business has greater uncertainty, in order to improve its market competitiveness, it decided to shift the company's focus to the semiconductor design and development, to the upstream business transformation, expand customer resources and improve their profitability. Over the past few years, Will's Shares and Beijing Omnivision have had a number of related transactions. Through mergers and acquisitions, it can effectively reduce the purchase of image sensors and other raw materials because of the related transactions, thereby reducing the intermediate costs incurred and the occupation of funds, improving the efficiency of the use of funds and lowering the enterprise's financial risk and operational risk. China's semiconductor market is lagging behind the development of foreign countries, and the trade deficit has remained high for a long time [9]. Owing to China's rapid economic development and large population base and other reasons, the domestic market demand for semiconductors is relatively large and supply is relatively insufficient. The huge gap between supply and demand creates a large profit margin, coupled with the support and encouragement of the national policy, it can see that the development of China's semiconductor market has broad prospects. And the structure of China's semiconductor market is not balanced, there are few domestic semiconductor companies which can achieve scale effect and also have core technology. The lack of core technology results in greater dependence on foreign countries. Most of the domestic semiconductor companies engaged in midstream and downstream business, which creates a huge market gap and technical barriers. This is both an opportunity and a challenge. Seize the opportunity can seize the initiative. Will's Shares also intends to improve its own R&D capabilities and technology gaps through mergers and acquisitions, so as to seize the market first, seize the opportunity of market vacancies, and promote the development of enterprises.

2.4. Acquisition Results and Evaluation

Seen from Table 1, the profitability of Will's Shares has improved since the completion of the merger and acquisition in 2019. In addition to the gross margin has maintained the upward momentum, the net profit margin recovered from 1.41% in 2018 to 5.17%, and in 2020, it even reaches 13.53%. Will's Shares operating capacity has declined but is still within reasonable limits, and its growth capacity has improved. Its solvency, although worse in 2018, is also due to the fact that Will's Shares also used borrowing in the process of merging and acquiring Beijing Omnivision in 2018. As can be seen in 2019 and 2020, the solvency of Will's Shares has recovered and even enhanced. Overall, the financial position of Will's Shares is relatively good. Additionally, its overall R&D capability has been significantly strengthened and its market share has increased. In 2019, the number of R&D headcount increased to 51.52% from 35.99% in 2017, the number of corporate patents increased to 3,957 from 27 in 2017, and the market share increased to 4.26% from 1.10% in 2017.

Table 1. Financial analysis of Will's Shares

<table>
<thead>
<tr>
<th>vintages</th>
<th>profitability</th>
<th>operating ability</th>
<th>growth capacity</th>
<th>solvency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>net profit margin</td>
<td>gross margin</td>
<td>Inventory turnover</td>
<td>Growth rate of operating income</td>
</tr>
<tr>
<td>2017</td>
<td>5.13%</td>
<td>20.54%</td>
<td>4.37 times</td>
<td>11.35%</td>
</tr>
<tr>
<td>2018</td>
<td>1.41%</td>
<td>24.27%</td>
<td>3.37 times</td>
<td>303.25%</td>
</tr>
<tr>
<td>2019</td>
<td>5.17%</td>
<td>27.39%</td>
<td>2.42 times</td>
<td>40.51%</td>
</tr>
<tr>
<td>2020</td>
<td>13.53%</td>
<td>29.91%</td>
<td>2.89 times</td>
<td>45.43%</td>
</tr>
</tbody>
</table>
3. Exploring the Risks of the Will's Shares Acquisition

3.1. Positive Impact

By acquiring companies with R&D capability strength in the semiconductor technology manufacturing industry, e.g., Omnivision Technology and Superpix in Beijing, Will's Shares has successfully entered the CIS track and made full efforts to lay out in the high, medium and low-end fields of CMOS image sensors, so as to become the world's third-largest enterprise in the field of CMOS image sensors, and to realize a major strategic shift. In addition to the new main business, Will's Shares also leveraged Beijing Omnivision's high-end technical services and Superpix's technical control capabilities to further improve the company's semiconductor product design capabilities and level, so that the company's business focus on semiconductor product design, expanding the company's business and upstream market share, which in turn increased the company's gross profit margins and brought economic benefits to the company as a whole.

The downstream customers of Will’s Shares and the subject company have a high degree of overlap, and there is obvious competition in the same industry. Most of their downstream customers are in the fields of smartphones, tablet PCs, safety and protection, medical devices, and smart driving, VR/AR, etc. After the completion of this merger and acquisition, the phenomenon of inter-industry competition is greatly weakened, which is also conducive to the benign and healthy development of the industry. Meanwhile, the company's main business products will also be greatly broadened, the level of technology will also rise to a new level. Its customer resources are no longer concentrated in the field of distribution, for which mergers and acquisitions will bring mobile communications, security, automotive electronics, medical and other areas of high-quality customer resources.

3.2. Possible Risks

The large period of the merger and acquisition, coupled with the impact of national policies, market environment, industry transformation, changes in industrial policies, increase or decrease in tax incentives, trade restrictions and economic sanctions, etc., may result in the future profitability of the acquired party being impaired, making it difficult to achieve the results expected at the time of the merger and acquisition. At this time, the huge amount of money brought by the valuation premium will bring a serious burden to the enterprise, making the enterprise face a greater valuation risk [10]. Because the merged party itself is very large, if coupled with a high premium, it will make financing very difficult for the main party and the burden more serious after financing.

Will's Shares mainly used the issuance of shares to carry out mergers and acquisitions, supplemented by cash payments, and repeatedly carried out the issuance of shares and raised funds. The part of the issuance of shares to purchase assets issued a total of 400,951,447 shares, accounting for approximately 46.67% of the total number of shares, and obtained RMB13,512,064,400 yuan, and the part of the non-public issuance of shares to raise matching funds issued a total of 7,007,711 shares, and obtained 404,147,090.48 yuan, which has a greater impact on its own shareholding structure, greatly diluting its shareholding, and may even have an impact on the right of control, thus creating payment risks.

Will's Shares and Beijing Omnivision, Beijing Vision Source Technology Development Co., Ltd., Cisco Systems, although, are the same field of upstream and downstream enterprises, and there is some cross, the management style, corporate culture, organizational environment and so on are different. Especially the subsidiary of Beijing Omnivision's, the American Omnivision, there are certain differences in the laws and regulations, accounting and tax system, business practices, corporate management system, corporate culture and other aspects of business management. There is still some uncertainty whether the integration effect and synergy effect can reach the expectation, and improper handling may even lead to conflict of interest leading to negative integration effect and synergy effect [11-13].
4. Measures to Prevent Takeovers by Will’s Shares

When deciding to implement the merger and acquisition plan, Will's Shares asked the relevant specialized agencies to carry out evaluations on some occasions. During this period, Zhongde Securities Co., Ltd. and Guoxin Securities Co., Ltd. issued independent financial advisor review opinions on several occasions to ensure the validity of the information between the two parties. Shanghai Lixin Asset Appraisal Co., Ltd. appraised the assets of Beijing Omnivision to ensure the validity and credibility of the appraisal value and to avoid serious premium in valuation. Beijing Tianyuan Law Firm issued special verification opinions on its share mergers and acquisitions, effectively reducing the huge risks caused by information asymmetry.

As shown in Table 2, before the merger and acquisition, Yu Rongren, its actual controller, had 61.32% of the shares, and the shares were concentrated in Yu Rongren, while the other 38.68% of the shares were minority shareholders, which provided conditions for share financing. Secondly, the relative dispersion of the shareholdings of Beijing Omnivision, Vision Source and Superpix makes the risk of the transfer of control and so on greatly reduced after share financing. In addition, Will's Shares has already acquired some of the shareholders of Beijing Omnivision in cash before the share acquisition, which further reduces the risk of share financing.

<table>
<thead>
<tr>
<th>Name of Shareholder</th>
<th>Shareholding (%)</th>
<th>Name of Shareholder</th>
<th>Shareholding (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yu Rongren</td>
<td>61.32</td>
<td>Yu Rongren</td>
<td>32.35</td>
</tr>
<tr>
<td>Other shareholders</td>
<td>38.68</td>
<td>Former other shareholders</td>
<td>20.41</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shaoxing Weihao</td>
<td>9.36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Qingdao Rongtong</td>
<td>7.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Seagull (A3)</td>
<td>3.59</td>
</tr>
<tr>
<td>Addition of other shareholders</td>
<td>27.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td>100.00</td>
<td>Subtotal</td>
<td>100.00</td>
</tr>
</tbody>
</table>

The company has not made any changes to its core staff for the time being [14, 15]. As can be seen from the relevant announcements, in the merger and acquisition of Beijing Omnivision, Superpix and Vision Source, there is no relevant transfer of its core personnel, but relevant personnel is dispatched to some important posts to gradually intervene in the daily operation of the acquired company and manage it. At the same time, gradually update the company's articles of association and management methods of the acquired enterprise, so that its system and corporate culture will gradually change to Will's Shares, maintain the overall consistency, and facilitate the future management of Will's Shares. To a certain extent, this also stabilizes the mood of the employees within the enterprise, ensures the effective operation of the internal operation of the enterprise, and avoids the loss of talents.

One also needs to improve talent management and improve talent incentive mechanism [16-18]. After the completion of the merger and acquisition, Will's Shares introduced its own talent management methods and talent incentive mechanism under the premise of ensuring the stability of the employees of the merged enterprise. Among them, the talent management method has been improved from talent recruitment, talent training and talent evaluation. Talent incentives were introduced in the form of a stock option incentive plan to improve the work motivation of employees. In 2018, Will's Shares actively carried out share repurchases and used the repurchased shares for the company's employee share ownership plan or equity incentive plan. In the 2019 stock option incentive plan, nearly 1,000 employees from the acquired company were granted stock options, which strengthened the overall sense of belonging of the employees and improved the overall operational efficiency of the company.
5. Implications and Recommendations

The way to acquire information is very important. Therefore, the early investigation includes the business situation, financial situation, the target enterprise's state, financial situation and human resources [19]. Through the combination of internal and external investigation, it is good to fully understand the situation of the enterprise itself and the target enterprise. As an example of the active investigation, Will's Shares not only took measures to become one of the directors of the target enterprise after the selection of the target object through the combination of internal and external ways, and even strove for the support of other shareholders, and eventually the actual controller of the enterprise had been itself. This way has improved the timeliness and effectiveness of the acquisition of information. Based on the investigated report, it also formulated a reasonable and suitable M&A plan.

The M&A measures of Will's Shares are divided into partial cash acquisitions and full share acquisitions [20]. The M&A measures were taken even before the merger. Firstly, it took the initiative to become one of the shareholders of Beijing Omnivision indirectly as one of the shareholders in Qingdao Rongtong. Then, it actively communicated with other shareholders to gain the support of other shareholders so that finally the actual controller of Will's Shares became the top management of Beijing Omnivision, which narrowed down the information gap. In the M&A process, after learning from the lessons of the first attempted M&A failure, it first merged some of the minority shareholders in cash to grasp a certain degree of power of speech to avoid circumventing the right of first refusal. Afterwards, it took the initiative to acquire the equity of each party step by step. These measures reduced the risk of too much dilution of equity and transfer of controlling rights.

After the M&A, Will's Shares did not carry out substantial changes to the merged enterprise, on the contrary. On the contrary, it chose to maintain the stability of the management and core personnel, etc. and send relevant personnel to be stationed. First of all, it made some changes on the key matters such as the articles of association etc., and maintained the consistency of the Will's Shares. And then, it made gradual adjustments to the enterprise gradually and progressively, and at the same time, it also continued to improve corporate governance, strengthen internal control, and improve the level of company management. At the same time, the company improved its corporate governance, internal control, and management level, so as to get twice the result with half the effort [21].

6. Conclusion

To sum up, semiconductor high-end technology has been monopolized by overseas leading semiconductor companies for a long time, coupled with the intensification of trade friction between China and the United States in recent years and the treacherous international situation. The main reason was that the key technology was still restricted by others. Under the trend of government support and domestic substitution, Will's Shares quickly broke down the technical barriers to achieve the strategic upgrading and transformation of the enterprise development. Therefore M&A of domestic and foreign science and technology leading enterprises had become a shortcut choice. This paper chooses the case of Will's acquisition of Omnivision Technology as an entry point to study the M&A events in the semiconductor chip industry. It studies how to cut from the emerging industry and try to solve the technical problems in the necklace area through the investment and M&A perspective, to achieve industrial upgrading and transformation. First of all, the paper involves the research background, significance and research status. Then, it analyses the case from four different perspectives including the basic situation of the acquiring company and acquired company, the whole event review, acquisition of the causes and acquisition of the results of the evaluation. On this basis, the paper analyses the acquisition of the pros and cons, which has the risk of valuation, payment and integration. In respect of the issues above, this paper explores the Will's Shares corresponding to the prevention of the measures to finally come up with three points. These results are useful for the development of related enterprises.
References