The Determinants on the Success of Mergers and Acquisitions

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Abstract. In recent years, economic globalization has deepened and the number of problems faced by enterprises has increased, and some of them have undertaken mergers and acquisitions (M&As) in order to better face the challenges brought about by the changes of the times. At the end of the 20th century, the merger of the two American oil giants, Exxon and Mobil, caused a great uproar and played a major role in the growth of the scale of M&A in the future. However, for enterprises, its purpose is not only to pursue the expansion of the scale of the form, but to bring greater benefits, to reach the internal integration. Not all mergers and acquisitions can achieve the purpose of its overall efficiency, which, a considerable part of the factors for the performance of mergers and acquisitions have an impact. Synergies, core technologies and cultural differences are the most important determinants. Synergy effect pursues M&A to achieve the effect of "1+1>2", core technology. Technology M&A emphasizes the important role of technological innovation. And cultural differences involve all aspects of harmony between enterprises. Therefore, in the process of M&A, it is necessary to fully consider the impact of these three aspects of each enterprise on the overall, in order to maximize the benefits of M&A.

1 Introduction

In today's globalized business environment, all industries are facing fierce competition. In this context, mergers and acquisitions (M&A) have become one of the most important means for enterprises to realize strategic growth and complete market expansion. As an important business activity, M&A has a history of more than a hundred years. The earliest M&A case in the world took place in the United States at the end of the 19th century. With the continuous development of economy and science and technology, corporate mergers and acquisitions activities in the global scope is gradually developing and getting more and more mature. In 1999, the American oil companies Exxon and Mobil merged. The transaction price was up to 77.2 billion U.S. dollars, making this large-scale merger become an important symbol of the era that the size of corporate mergers and acquisitions grows dramatically [1].

In China, M&A activities started late, with a development history of just over 30 years. And it was only in the early 1980s that Chinese enterprises gradually began to explore M&A strategies [2]. At this stage, M&A activities were mainly mergers between state-owned enterprises (SOEs), which aimed to help SOEs solve their financial or operational problems [2]. With the continuous practical exploration and summarization of M&A activities by Chinese enterprises, corporate M&A activities have been developing and becoming more and more mature. In addition, after the establishment of China's securities market and the improvement of the industry system, whether the main body is a listed company or a non-listed company, M&A activities are becoming more and more common. This indicates the gradual expansion of M&A from mergers between state-owned enterprises to investment in private enterprises. Entering the 21st century, the Chinese government established a new regulatory authority and carried out equity reform, and M&A activities have new institutional safeguards [3]. Enterprises have ushered in new opportunities, and M&A activities have burst into more vigorous vitality.

There are many reasons for enterprises to engage in M&A activities. On the one hand, M&A can help accelerate the development and expansion of enterprises, improve their market competitiveness and profitability, and realize their long-term steady growth. On the other hand, M&A can also help enterprises cope with the challenges brought by market competition and industrial changes, solve the deficiencies of enterprises in technology, market or resources, and enhance the risk-resistant ability and development potential of enterprises.

Although companies can use M&A to achieve market expansion, combat risks, and other objectives, not all M&A events result in achieving the company's goals. M&A activities that achieve the desired goals and create sustained value can be considered successful M&A events. The success of an M&A is determined by a combination of factors. Synergies, core technologies, and cultural differences between the parties involved are the main determinants of an M&A case’s success. Each of these three aspects affects the results of M&A in different directions and jointly affects the results of M&A. This paper mainly adopts the literature research method to summarize and explore the role of these three key determinants in enterprise M&A, and analyze their
influence mechanism on the success or failure of M&A cases. Through the study of these determinants, people can better understand the complexity of the process of enterprise M&A and provide more comprehensive and in-depth reference for enterprise decision makers, so as to improve the probability of success of M&A and realize the smooth implementation of enterprise strategic objectives.

2 The impact of synergy on M&A performance

Synergy is the main motivation for mergers and acquisitions between enterprises. Synergy refers to the fact that after the completion of an M&A between two or more enterprises, the overall benefits generated by the combined enterprise are higher than the sum of the benefits generated by the individual operations of each enterprise, so that the M&A achieves the effect of "1+1>2". The synergy effect can bring higher benefits to the merged enterprise in many aspects, such as operational synergy, management synergy and financial synergy. The synergistic effect can be reflected in several aspects, mainly as follows. To begin with, the merged enterprise can achieve economies of scale, enhance the negotiating power of the enterprise in the upstream and downstream of the supply chain, and reduce costs. Additionally, the merged enterprise will carry out departmental integration and reduces duplicated departments and functions, so as to optimize the allocation of resources and reduce the management costs. Last but not least, the merged enterprise may have more advanced technology and expand new markets and product lines, so as to increase revenues. Synergy effect is both the main reason for corporate mergers and acquisitions and one of the important factors in measuring the success of a merger and acquisition event. If the M&A event realizes more significant synergies, or achieves the effect of cost reduction and efficiency, then the M&A is more successful. If the M&A event does not realize synergies, it is not a successful merger and acquisition.

2.1 M&A case analysis: WuXi biologics

WuXi Biologics is a biopharmaceutical technology company headquartered in San Jose, California and listed on the Hong Kong Stock Exchange in 2017. WuXi Biologics made three large acquisitions in 2020 and 2021. In December 2020, the company acquired Bayer's biopharmaceutical stock solution manufacturing facility for approximately €150 million in order to expand its production capacity. In March 2021, the firm acquired the entire equity of Pfizer Biopharmaceuticals (Hangzhou) Co. for approximately $110 million. Meanwhile, the firm acquired Suqiao Bio by stock of approximately ¥1.59 billion.

Zhong studied WuXi Biologics' M&A events and researched the three M&A events with synergies as the main factor. She firstly improved the balanced scorecard evaluation method and assessed the synergies of vertical mergers and acquisitions of pharmaceutical companies. She used entropy value method, fuzzy comprehensive evaluation method and other calculation methods to evaluate the pharmaceutical enterprises before and after the M&A from four dimensions of operation, management, finance and market. Finally, she found that WuXi Biotech achieved certain M&A synergies as well as reasonably controlled the risks of the M&A [4]. It was concluded that these vertically integrated M&A activities were successful [4]. Zhong's study shows that synergy is the most important and commonly used factor to measure the success of an M&A event. Before M&A, enterprises should reasonably predict the possible synergies and assess the potential risks of M&A, and formulate practical M&A strategies. During M&A, enterprises should pay attention to the changes in the policy and market environment, and adjust the M&A process in a timely manner. After M&A, enterprises should carry out integration and management in order to give full play to synergies.

2.2 Mechanisms of synergy effects on different types of M&A

Synergies not only directly affect the performance results of M&A, but also affect the ultimate benefits indirectly. Through empirical research, Ban found that for different types of M&A, the degree of realization of synergies have a possible impact on the impairment of goodwill [5]. Ban firstly put forward the hypothesis based on the theory of synergy effect, and then took the successfully completed M&A events of A-share manufacturing companies in Shanghai and Shenzhen between 2014 and 2017 as the research samples. He collected the financial statement data disclosed by these listed companies, and designed the test model to verify the hypothesis put forward. The final results of the study show that in the case of horizontal M&A, if the M&A parties realize a higher degree of operational synergy and management synergy, then the amount of goodwill impairment required to be accrued after the M&A will be reduced [5]. And in the case of vertical M&A and hybrid M&A, the same situation applies too [5]. In other words, the higher the degree of realization of overall synergies, the lower the goodwill impairment resulting from the business combination. Ban's research confirms that the benefits brought by synergies to M&A enterprises are not only reflected in the traditional dimensions of operation, management, and financial synergies, but also affect the enterprise's intangible assets and other indicators, which will generate even greater benefits. His study further proves the importance of synergies for M&A events. The realization of significant synergies is not only a benefit in itself, enabling the M&A firm to achieve cost reduction and efficiency gains, but also acts as an intermediate variable, affecting factors such as goodwill impairment, which can further lead to the success of the M&A event.

To summarize, synergies are of great significance in measuring the success of M&A events. Synergy effects can directly and indirectly affect the actual value and
3 The Impact of technology on M&A performance

Core technology is also one of the important determinants that enterprises consider in mergers and acquisitions. In a highly competitive market environment, enterprises must continuously carry out technological innovation if they want to maintain competitiveness and continuously expand market share. Technological innovation is an important factor for enterprises to realize sustainable development and long-term competitive advantage. It is one of the indispensable driving forces and core competitiveness to push enterprises forward. The importance of technological innovation to enterprises is self-evident, and many enterprises attach great importance to the technological innovation of their products. Therefore, technology M&A is currently the main type of M&A in corporate mergers and acquisitions. For technology M&A events, core technology is also an important factor to measure the success of M&A events. Core technology mainly affects the performance of enterprises after M&A in the following two directions. First, technology M&A directly affects the independent innovation ability of enterprises, thus affecting the benefits of enterprises. Second, enterprises obtain new technology through technology M&A to avoid market competition, thus enhancing performance.

3.1 The Impact of technological M&A on corporate innovation performance

Technology mergers and acquisitions in general improve firms' innovation performance. Zhang constructed a fixed effects and Tobit econometric model to empirically investigate the M&A innovation performance of Chinese pharmaceutical listed companies from 2015 to 2017. The study shows that there is a significant positive relationship between technology M&A and firms' innovation performance [6]. Absorptive capacity has a positive promotion effect on innovation performance after M&A and mediates between technology M&A and innovation performance [6]. Besides, dynamic capacity positively moderates the relationship between technology M&A and innovation performance, absorptive capacity and innovation performance [6]. Therefore, enterprises need to focus on the improvement of absorptive capacity and dynamic capabilities when enhancing innovation performance through technology M&As.

3.2 The Impact of technological M&A on corporate innovation capability

Conducting technology mergers and acquisitions can enhance the innovation performance of firms in two directions. On the one hand, the firm's independent innovation capability is enhanced, resulting in better performance in innovation performance. On the other hand, the firm directly acquires and utilizes the new technology of the acquired party, thus enhancing innovation performance. Generally speaking, it is easier to directly utilize existing new technologies, while the mechanism of technology M&A's impact on an enterprise's independent innovation capability is much more complex.

Wei and Ma believe that technology mergers and acquisitions have a significant positive impact on the independent innovation capability of enterprises [7]. They conducted an empirical study on the relationship between technology mergers and acquisitions and enterprises' independent innovation capability. They took the M&A events of Shanghai and Shenzhen A-share listed enterprises from 2013 to 2017 as a sample, using the fixed effect model, and introduce the knowledge absorption capacity of the M&A parties as a mediating variable. The empirical results show that technology mergers and acquisitions have a significant positive impact on the independent innovation capability of enterprises, and the knowledge absorption capacity of M&A parties as a mediating variable positively moderates technology mergers and acquisitions and independent innovation capability before technology mergers and acquisitions [7]. The study of Wei and Ma shows that technology M&A enhances the independent innovation capability of enterprises. Firms that complete technology M&A have increased their ability to independently develop new technologies and products, and are further able to expand into new product lines and larger markets to enhance efficiency. Firms' M&A can also draw insights from their studies that firms should focus on cultivating their own R&D capabilities before M&A since their pre-merger knowledge absorption capabilities have a positive effect on their independent innovation capabilities.

With the deepening of the research, some scholars believe that the influence mechanism of technology M&A on the independent innovation capability of enterprises is more complicated and needs to be categorized and discussed [8]. Kong further analyzed the impact of different types of technology M&A on the independent innovation capability of enterprises. He argued that not all types of technology M&A have a positive impact on an enterprise's independent innovation capability [8]. He screened out 37 technology M&A events in China's electronics and communication equipment manufacturing industry and conducted an empirical study on the impact of different types of technology M&A on the independent innovation capability of enterprises by constructing an innovation network model. His study finds that different types of technology M&A have different impacts on firms' innovation capability. Technology-substituting and technology-irrelevant M&A events reduce the innovation capability of R&D developers, and technology-enhancing M&A enhances the independent innovation capability of enterprises [8]. Kong's study makes up for the shortcomings of Wei and Ma's study
and proves that only technology-enhancing M&A has a significant positive effect on an enterprise's independent innovation capability. Therefore, enterprises should research and analyse the types of technology M&A before they conduct technology M&A so that they can better predict the impact of M&A on the innovation capability of enterprises.

All in all, technology M&A is the main type of enterprise M&A, and core technology is one of the main motives considered by enterprises in M&A. Technology M&A is of great significance to enterprises, which can not only accelerate innovation and technological breakthroughs, improve enterprise competitiveness and profitability, but also realize strategic objectives and business growth, and lay a solid foundation for long-term development of enterprises. Therefore, when enterprises formulate and implement M&A strategies, they should give full consideration to the importance of core technologies and the types of technology M&A, and actively seek suitable technology partners to realize better benefits and value creation.

4 The impact of cultural differences on M&A performance

Cultural differences between the participating parties are also one of the important determinants in measuring the success of an M&A event. Especially in cross-border M&A, cultural differences are often objective and unavoidable. Cultural differences are a factor that cannot be ignored by enterprises when conducting M&A. Large cultural differences can hinder cultural understanding and absorption between the two sides of an M&A firm, making it difficult to integrate resources after the M&A, and finally lead to a negative impact on M&A performance.

4.1 The Impact of cross-border M&A on corporate innovation performance

Cultural differences between the parties involved in a merger and acquisition event often have a negative impact on firms' innovation performance [9]. Qiao organized and reviewed the existing literature on cross-border technology M&A and firms' innovation performance, and put forward the research hypotheses based on resource base theory and institutional theory. Then, taking the cross-border technology M&As of A-share listed companies in China from 2009 to 2018 as a sample, she analyzed the cross-border technology M&A as an independent variable, exploratory and exploitative innovation performance as a dependent variable, institutional distance and cultural difference as a moderating variable, and firm size, firm age, R&D investment, asset-liability ratio, and industry type as a controlling variable by means of multivariate regression analysis, and applied Stata 15.0 to analyze the cross-border technology M&As and innovation performance. Through multiple regression analysis, Stata 15.0 was used to empirically investigate the relationship between cross-border technology M&A, and the performance of exploratory and exploitative innovation, as well as the moderating effects of institutional distance and cultural differences. The study shows that cross-border technology M&As have a positive impact on firms' innovation performance [9]. Compared with utilization innovation performance, cross-border technology M&As have a more significant effect on exploratory innovation performance [9]. Institutional distance positively moderates the relationship between cross-border technology M&As and firms' innovation performance, and the moderating effect of institutional distance on cross-border technology M&As and exploratory innovation performance is more significant than that on utilization innovation performance. Cultural differences negatively regulate the relationship between cross-border technology M&As and firms' innovation performance. Compared with utilization innovation performance, the moderating effect of cultural differences on cross-border technology M&As and exploratory innovation performance is more significant.

4.2 The impact of cultural differences on cross-border M&A performance

Excessive cultural differences between the two parties involved in an M&A event can also have a negative impact on the overall results of the M&A. Gao took the cross-border M&A events of Chinese listed companies as a sample. She measured and calculated the cross-border M&A performance of enterprises by using the accounting research method and the factor analysis method, and studied the impact of cultural differences on the performance of cross-border M&A through the multiple regression model. She found that the greater the cultural distance, the greater the negative impact on corporate M&A performance through analysing and researching [10]. In particular, the greater the difference between the two dimensions of uncertainty avoidance and power distance in Hofstede's five-dimensional model of culture, the more significant the negative impact on M&A performance. Therefore, before conducting cross-border M&A, enterprises should not only pay attention to the laws and regulations and other systems of the country and region where the partner is located, such as taxation, but also fully understand the culture of the other country and take the cultural differences as an important reference factor in their operation and management. Gao's study fully explains the impact of cultural differences between the two parties involved in an M&A on corporate performance, illustrating the importance of considering cultural differences in corporate M&A [10].

In a nutshell, considering cultural differences between the participating parties is an important factor when conducting M&A in multinational enterprises. Cultural differences involve the enterprise's values, management style, communication style, decision-making mode and other aspects, which play a crucial role in the operation after M&A. Only by fully understanding and respecting the cultural differences between the two parties and actively dealing with
cultural conflicts can corporations promote the smooth implementation and successful conclusion of M&A.

5 Conclusion

The success of an M&A is affected by a variety of factors, mainly including synergies, core technologies and cultural differences. Each of these three aspects will affect the outcome of M&A in different directions and together affect the outcome of M&A.

The first is the synergy effect. Synergy effect refers to the fact that after the completion of the merger and acquisition of two or more enterprises, the overall benefits generated by the merged enterprise are higher than the sum of the benefits generated by the individual operation of each enterprise, so that the merger and acquisition of enterprises to achieve the effect of "1+1>2". The synergy effect can bring higher benefits to the merged enterprise in many aspects, including operational synergy, management synergy and financial synergy. If both sides of the merger and acquisition can effectively realize the synergistic effect, then the post-merger and acquisition enterprise will have higher market competitiveness and economic benefits, and then promote the success of the merger and acquisition. Synergy effect can directly affect and as a mediating variable indirectly affect the benefits of enterprise after M&A integration. In general, synergistic effect can bring the effect of cost reduction and efficiency, the greater the synergistic effect, the higher the benefit of the enterprise, the more successful the M&A event.

The second is core technology. In today's era of rapid technological development, the possession of core technology and innovation is one of the keys for enterprises to maintain their competitive advantage. In the process of M&A, if the acquired party owns important core technologies or patents, the value of this technology will become one of the important considerations for M&A. Whether the merging parties can effectively integrate and share the core technology, and whether the merger and acquisition can promote technological innovation and product research and development directly affects the success of the merger and acquisition. In addition, the type of technology M&A also affects firm performance. Technology-enhancing M&A will enhance the independent innovation capability of the enterprise, while technology-substituting and technology-irrelevant M&A events will reduce the innovation capability of R&D developers. Therefore, when enterprises formulate and implement M&A strategies, they should give full consideration to the importance of core technologies and the types of technology M&As, and actively seek suitable technology partners to realize better benefits and value creation.

Finally, there are cultural differences. In the process of mergers and acquisitions, especially in multinational enterprise mergers and acquisitions, if there are large differences in the cultures of the merging parties, it may lead to problems such as communication barriers, management conflicts and employee maladjustment, thus affecting the integration and implementation of the merger and acquisition. Therefore, the merging parties need to fully understand each other's cultural characteristics, respect and tolerate cultural differences, and establish common values and codes of conduct to promote cultural integration and team cohesion, and promote the successful realization of the M&A.

Synergies, core technologies and cultural differences are all important factors affecting the success or failure of M&A. The merging parties need to take these three aspects seriously in the M&A process, strengthen communication and coordination, and reasonably plan and implement integration strategies to maximize the value and potential of the M&A and achieve the successful goals of the M&A.

References

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