The Review of Factors Affecting Merger Premium

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Abstract
As mergers and acquisitions (M&A) become more and more frequent around the world, the phenomenon of the extreme premium in mergers and acquisitions has begun to expose to the public and attract the widespread attention of scholars. In particular, in recent years, Chinese enterprises have been extremely overpriced in mergers and acquisitions. Based on this, the paper reviews the literature about the determinants of M&A premium and the related theories from three aspects: macro environment factors, business factors and management factors. Finally, the shortcomings of the existing research are analyzed and the prospect of the future research is put forward.

Keywords
M&A Premium, Information Asymmetry, Principal-Agent Theory

1. Introduction
In the face of the integration of world economy, more and more enterprises have actualized their first step of internationalization through cross-border M&A. The determination of price in transaction is the most concerned problem under market economy. In fact, the success of a transaction depends greatly on whether the parties can reach a consistent price. As a result, pricing, as the primary problem faced by the two parties in the process of overseas mergers and acquisitions, will have an important impact on efficiency of M&A.

According to the efficient markets hypothesis, the stock price of the company can accurately and comprehensively reflect the market value of its assets as well as the expected earnings of the future. Previous studies have found that enterprises are not always able to create value because of the premium in mergers and acquisitions, otherwise, excessive high M&A premium may even damage the
value of shareholders [1]. However, in fact, we can find that the price paid by the actively-merging enterprises is usually higher than the current stock price, that is, the premium is prevalent in the M&A activity. According to the M&A data released by Shanghai and Shenzhen in 2016, nearly 70% of the listed companies have a premium rate of over 50%, of which 164 companies have a premium rate of 1000%, and high premium mergers and acquisitions are common. In view of this phenomenon, scholars both at home and abroad have carried out a lot of relevant research.

Based on this, this paper first reviews the existing research on the influencing factors of M&A premium at home and abroad, and then expounds this subject from three parts, that is the emergence of the phenomenon of M&A premium, the factors affecting the degree of M&A premium and the future research directions. Finally, in order to provide some enlightenment for the study of M&A premium in China as well as bring some guiding significance to the Chinese enterprises, it analyzes the possible shortcomings in the existing research, and puts forward the future research direction on this basis.

2. The Development of Related Theories

2.1. Asymmetric Information Theory

The Asymmetric Information theory was put forward by American economists in 1970s. According to the theory, the distribution of information between different subjects is nonuniform in the market economic activities. Beside this, different subjects also have a different degree of mastery of information. Under these circumstances, a more fully informed economy is usually in a better position during the trading [2].

On the one hand, because of the social division of labor becomes more and more refinement and specialization, it appears a great difference between different subjects in the information distribution, which leads to the phenomenon of information asymmetry becoming more and more common. On the other hand, there are differences in the ability of individuals to search and understand information so that some information can only be transmitted in limited groups, resulting in asymmetric information. In the process of enterprise, and the main enterprise and merged the existence of information asymmetry in the strategic, financial and other aspects, limited information can only be supplemented by experience and the disclosure of the enterprise in the market to determine the purchase price, the purchase price paid due to the large amplitude and is often deviate from the true value of enterprise assets. When the real value of the acquisition price is below and corporate assets, the merger plan will lead to failure; when the true value of the assets is higher than the purchase price of mergers and acquisitions, mergers and acquisitions appeared high premium phenomenon, and may lead to the main and enterprise in trouble in the later integration and operation, will be the main and enterprise shareholder interests direct damage [3].
2.2. Value Creation Theory

The theory of value creation is the earliest theory used to explain the phenomenon of the emerging of M&A premium. According to the theory, through mergers and acquisitions, companies can achieve synergies in scale, finance and performance. In anticipation, the overall value generated after the merger will be higher than the sum of the values created by the two companies before the merger. That is, due to the synergy effects, the result can be described as “1 + 1 > 2” [4]. Therefore, in order to facilitate the mergers and acquisitions, and to share the expected value after the merger, the leading companies will pay more than market price when trading. For example, Bradley (1980), based on a sample of 161 M&A cases in the United States, found that when the control of a company moves during the merger, the acquired company will raise the price higher than the market price when it believes that the leading enterprise can get additional value through the merger [5]. In this case, the leading company has to pay partial premium to the acquired company in order to facilitate the merger.

2.3. Principal-Agent Theory

Although the expectation believes that mergers and acquisitions between companies can create new value, it is still unknown whether the company actually creates value and how much value they can create after mergers and acquisitions. In view of this, some scholars have suggested that it is not the leading enterprise’s expectation of value creation after mergers and acquisitions that determines the M&A premium [6] [7], but the principal-agent problem between the shareholders and the management that matters. Due to the inconsistency of the possible benefits between shareholders and management, the company may still insist on initiating mergers and acquisitions in order to increase the scale or other reasons even though the leading company has obviously expected that there would be losses [8].

The principal-agent theory is one of the main contents of the contract theory of institutional economics. The main reason for this problem lies in the separation of property rights and control rights of enterprises. On the one hand, for investors with capital, due to the constraints of time and energy, they have to get asset appreciation rely on the management of professional managers. On the other hand, for managers who lack of capital for investment, if they want to bring about their value, they can’t do without the help of investors. Therefore, investors act as consignor to entrust managers to act on behalf of the company’s management, while managers act as trustees to exercise management obligations according to the requirements of investors, which forms a complementary principal-agent relationship between them. However, due to the separation of ownership and management rights, managers become the real controllers of enterprises. If motivated by self-interest, managers tend to damage investors’ interests by transferring prices or arbitraging cash. When an enterprise invests, if managers can gain certain benefits from it, they may make irrational investment decisions and make investors lose their interests [3].
According to the existing research, the main reasons for emergency of the agency problem include the following points. Firstly, the ownership of the enterprise is separated from the management of the enterprise; secondly, the interests of management and shareholders are inconsistent; thirdly, people are self-interested. In the existing research, the scholars represented by Moeller (1969) regard the premium generated in M&A activities as the performance of the principal-agent problem in both sides of M&A. He points out that because the expansion of enterprise scale can bring considerable potential benefits to managers, for this reason, managers who are the real controllers of enterprises sometimes blindly conduct M&A for scale rather than efficiency.

2.4. Overconfidence Theory

Research on higher-order theory has shown that demographic characteristics and heterogeneity, such as age, gender and educational background, which represent the cognitive basis and sense of worth, can affect many aspects of enterprise behavior, including mergers and acquisitions. Since the higher-order theory, the research on the personal characteristics of managers has begun to rise, and the role of managers’ overconfidence in M&A activities has gradually attracted the attention of academia.

Cognitive psychology is the first subject to study managers’ overconfidence. It defines overconfidence as a belief that the accuracy of knowledge they have mastered is higher than that in fact [9] (Gervaris et al., 2002), which is a common psychological feature. Overconfident people tend to overlook information that is inconsistent with their beliefs and overestimate their likelihood of success [10]. Based on behavioral economics, the study of this phenomenon defines the cause of overconfidence as the prevalent psychological bias, and managers tend to have stronger psychological bias than the general public [11]. It has been proved that managers’ overconfidence will affect the decision-making of M&A [12]. Generally speaking, the more self-confident managers are, the more likely they are to take part in M&A [13]. When managers overestimate their abilities, they tend to overestimate the expected returns of the merged enterprises. In this case, mergers and acquisitions usually tend to be over-paid, that is, to bring a merger premium [14].

From the conclusion of the above literature, we can see that the mainstream value creation theory and principal-agent theory in the West have some rationality in explaining the causes of M&A premium. In fact, these theories are not completely mutually exclusive, but more complementary. Based on the above theories, it can be concluded that the motivation of capital development lies in the pursuit of maximum profits. When the M&A activity anticipates huge profits, the buyer’s bid will be higher and the premium will be higher; on the contrary, the premium will be lower.


There are many reasons for M&A premium. The most important reason is that
the optimistic expectation of M&A performance or the inaccurate valuation of the target enterprise by the merger and acquisition party, and the amount of the premium will further affect the success or failure of M&A and the performance after M&A. The existing research on the impact of premium level is mainly from three perspectives: institutional and industry characteristics, corporate characteristics and management characteristics.

3.1. Macro-Factors Influencing M&A Premium

1) Institutional distance and cultural distance

From the perspective of institutional and cultural differences between countries, the existing studies on the degree of M&A premium are discussed in terms of institutional completeness, corruption and risk perception. For example, Pan Xuying et al. (2014) studies on China's M&A market show that M&A activities are more active and the premium level is relatively higher in a market with marketization and investor protection [15]. Foreign scholars Rossi and Volpin (2004) have come to the same conclusion through comparative study of legal and other institutional factors between different countries, that is, the degree of protection of investors in the country where the merged enterprise is located is positively correlated with the M&A premium [16]. Subsequently, John et al. (2010) took the merged enterprise as a sample and got the same conclusion [17]. On this basis, Bris et al. (2008) incorporated the accounting standards of the host country into the research framework, and found that, like the degree of investor protection, with the improvement of accounting standards, the premium level of overseas M&A will be higher [18].

In addition, the relationship between other factors at the national level and the level of M&A premium has been correspondingly confirmed. The study on the relationship between government corruption and M&A premium shows that the higher the degree of corruption in the target country, the lower the M&A premium [19]. In order to explore the impact of political barriers on premium level between countries, Wan et al. (2009) used case analysis method to conduct a thorough study on the failure cases of China National Offshore Oil Mergers and Acquisitions (CNOOC), believing that the emergence of political barriers will greatly increase the cost of overseas M&A, and even lead to the final failure [20]. Wen Riguang (2015), an inland scholar, studies the five dimensions of M&A premium and cultural distance from the perspective of cultural differences [21]. The results show that power distance, collectivism and uncertainty avoidance are negatively correlated with the level of premium.

2) Industry characteristics

Previous studies have found that factors such as market environment and industry characteristics will affect the pricing decisions of enterprises when they are merged. Because of the additional M&A costs and benefits that may be brought about by the differences among industries, when M&A activities between enterprises involve two different industries, industry characteristics such
as scale, concentration, growth and market environment may have an impact on premium in M&A activities. And it affects the success of M&A. For example, Rhoaes (1987) found that compared with other markets, banks in high growth market environment have higher M&A premium in M&A [22]. At the same time, a large number of studies based on the banking industry show that the M&A premium of this industry will not only be affected by the potential value of the merged bank, but also be related to the financial ability, that is, the stronger the financial ability, the higher the M&A premium [23]. In addition, Laamanen (2007) draws a conclusion that technology-intensive enterprises, which are more specialized, small-scale and market-predicted, are more restricted by their own resources and capabilities by comparing technology-intensive enterprises with general enterprises based on the technical characteristics of the industry [24]. Therefore, the higher the R&D level of the merged enterprises and the more R&D investment, the higher the final premium degree.

In addition, the market environment of the industry also has an impact on the premium. On the one hand, prices do depend on a large extent on expectations of future development, which are often very different in different industries or economic environments [25]. A relatively good market environment may further lead to an overestimation of the synergies that target firms can bring about in the future, leading to higher premium levels [26]. On the other hand, when the level of marketization is high, it is more likely to cause excessive competition among enterprises. It has been proved that due to the existence of excessive competition, enterprises usually have to bear a higher price when merging in the open market, so the premium level is higher [27].

3.2. Influencing Factors at the Enterprise Level

In addition to the above macro-level factors, the size and characteristics of enterprises themselves, as the basis of M&A pricing decision-making, will also have an impact on premium. From the perspective of the target enterprise, the scale, ownership concentration and financial characteristics of the merged enterprise will affect the premium. Alexandridis et al. (2014), a scholar, studied the scale of the merged enterprise as a variable. It shows that with the increase of the scale, the probability of premium will decrease [28]. That is, there is a significant negative correlation between the M&A premium and the scale of the target enterprises [29]. This is because the relatively large enterprises usually disclose more information in the open market than the smaller, thus reducing the degree of information asymmetry between the merger and acquisition parties. Secondly, the ownership concentration of the merged enterprise will also affect the pricing decision in M&A. Ferguson (1994) found that the bargaining power of the merged enterprise will decrease with the increase of its ownership concentration, which will affect the pricing decision of the M&A [30]. As a result, the more concentrated the equity of the merged target enterprise, the higher the final premium. Conversely, if the equity of the merged enterprise is relatively dis-
persed, the final premium is relatively low [31]. In addition, existing studies have found that the financial characteristics of merged firms, such as P/E ratio and R&D investment, also affect the premium level. For example, Laamanen (2007) found that R&D investment and investment growth rate are positively correlated with M&A premium, while market book value ratio is negatively correlated with M&A premium. Subsequently, the scholar Zou Caifen (2011) further found that there is a negative correlation between the price-earnings ratio and premium of the merged enterprises [32].

Similar to the merged enterprise, the financial characteristics of the actively-merging enterprises also affect the M&A premium. On the one hand, M&A premium will be affected by the free cash flow of the actively-merging enterprises, and there is a significant positive correlation between them [33]. Further research also finds that different mode of payment also have an impact on the premium. Relatively speaking, the premium level paid by the main cash-paying companies is relatively low [34]. Relatively speaking, actively-merging enterprises that pay most in cash pay relatively low premiums [34]. On the other hand, the research of Nielsen and Michel (1978) confirms the negative correlation between the relative P/E ratio of the financial characteristics of the actively-merging enterprises and the M&A premium. The scholars Zhu Baoxian and Zhu Chaohua (2003) through the analysis of domestic M&A cases found that the premium will increase with the increase of the debt ratio or the decrease of the profit margin of the actively-merging enterprises [35].

It is noteworthy that, in addition to the actively-merging enterprises and passively-merged enterprises directly involved in M&A activities, other stakeholders involved will also affect the final premium. According to the theory of social network and organizational imitation, enterprises in the network will be affected by the behavior of other members of the network, and then have similar or even identical views or judgments. Therefore, in the pricing decision of mergers and acquisitions, the actively-merging enterprises will also be affected by the behavior of other stakeholders in the network. For example, Haunschild (1994) takes about 500 M&A cases in the United States in the past seven years as samples to explore the possible impact of inter-organizational relationship on M&A premium [6]. The results of regression analysis show that when there are chain directors in the board members of the actively-merging enterprises, the premium of the actively-merging enterprises is similar to that of the enterprise where the chain directors are located. At the same time, this positive correlation can also be applied to the intermediary organ employed by the actively-merging enterprises and the M&A premium. Beckman and Haunschild (2002) further confirmed this conclusion. Based on the regression analysis of M&A cases in manufacturing and service industries in the United States, they found that when there are experienced partners in the network of the actively-merging enterprises, the actively-merging enterprises tends to pay less premium. Moreover, if the partners in the network have the experience of M&A premium, it will significantly reduce
the premiums paid by the actively-merging enterprises.

Chahine and Ismail (2009) used M&A consulting fees as proxy variables to study the impact of the efforts of financing bank involved in M&A on premium [36]. The study finds that the consulting fee of the passively-merged enterprises has a significant positive effect on the M&A premium, while the consulting fee of the actively-merging enterprises has a significant negative effect on the M&A premium, and the higher the consulting fee paid by the actively-merging enterprises, the lower the final premium paid.

3.3. Influencing Factors Based on Managerial Level

According to the principal-agent theory, there is a general conflict of interest between the management and shareholders. On the one hand, in order to maximize shareholders’ profits, enterprises have to implement incentives for managers. On the other hand, managers are the actual controllers within the enterprise. In order to prevent managers from harming the interests of enterprises when they pursue their own interests, enterprises have to supervise and restrain managers. In view of this, many scholars at home and abroad take the management of enterprises as the subject investigated to study the factors affecting M&A premium.

M&A premium will be affected by the proportion of managerial ownership of the merged enterprise. However, there is no consensus on this issue in academic circles. On the one hand, as an incentive for managers, managerial ownership will make managers more active in mergers and acquisitions and strive for greater benefits for enterprises. On the other hand, previous studies have found that when the managerial ownership of the merged enterprise is high, the attitude of the merged enterprise towards mergers and acquisitions is more negative or even resists. In this case, the merging enterprises can only ensure the completion of M&A activities by raising bargain price, thus generating higher M&A premiums [37]. However, the principal-agent theory holds that the purpose of M&A is to satisfy the private interests of business managers or shareholders. The existing research has also demonstrated this view theoretically and empirically (Moeller, 2005). Considering that mergers and acquisitions may lead to the transfer of corporate control and thus threaten the private interests of the managers of the merged enterprises, some scholars have proposed that in order to obtain additional private interests such as retention, the CEO of the merged enterprises will deviate from the core interests of the enterprises in the merger negotiations, which will lead to the decline of premium level (Moeller, 2005).

The premium level will be affected by the overconfidence of the management of the actively-merging enterprises. Existing studies have found that M&A pricing behavior among firms is not entirely the result of rational analysis. Overinvestment by managers is very common [38], which is usually the result of managers’ blind self-confidence. Roll (1986) was the first scholar to explain the causes of M&A premium with management overconfidence [12].

Table 1 can be obtained by summarizing the above factors affecting M&A
Table 1. Summary of literature on M&A premium.

<table>
<thead>
<tr>
<th>Correlation Theory</th>
<th>Influence Factor</th>
<th>Major Elements</th>
<th>Related Scholars</th>
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<tbody>
<tr>
<td>Differences between National Culture and Institution</td>
<td></td>
<td>The degree of protection of investors and the perfection of accounting standards in the countries where the merged enterprises are located are positively correlated with the M&amp;A premium.</td>
<td>Rossi and Volpin, 2014; John et al., 2010; Bris et al., 2008</td>
</tr>
<tr>
<td>Differences between National Culture and Institution</td>
<td></td>
<td>Government corruption, political barriers and cultural distance in the countries where the merged enterprises are located are negatively correlated with the premium level.</td>
<td>Weitzel, 2006; Wan, 2009; Wen Riguang, 2015</td>
</tr>
<tr>
<td>Industry Characteristics</td>
<td></td>
<td>The high growth of industry market and the level of marketization are positively correlated with M&amp;A premium.</td>
<td>Rhoaes, 1987; Mandelker, 1974</td>
</tr>
<tr>
<td>Industry Characteristics</td>
<td></td>
<td>There is a negative correlation between the size of merged enterprises and the premium of mergers and acquisitions.</td>
<td>Li Yishi, 2014</td>
</tr>
<tr>
<td>Information Asymmetry Theory, Value Creation Theory</td>
<td>Size, Financial Characteristics and Equity Concentration of Passively-Merged Enterprises</td>
<td>Equity concentration is positively correlated with M&amp;A premium.</td>
<td>Ferguson, 1994; Ferris, 1977; Megginson, 1990</td>
</tr>
<tr>
<td>Information Asymmetry Theory, Value Creation Theory</td>
<td>Size, Financial Characteristics and Equity Concentration of Passively-Merged Enterprises</td>
<td>P/E ratio and book value ratio are negatively correlated with M&amp;A premium level, while R&amp;D investment and growth rate after investment are positively correlated with M&amp;A premium level.</td>
<td>Laamanen, 2007; Zou Caifen, 2011</td>
</tr>
<tr>
<td>Value Creation Theory</td>
<td>Financial Characteristics of Actively-Merging Enterprises</td>
<td>The free cash flow of the actively-merging enterprises is positively correlated with the premium; cash payment will lead to a lower premium.</td>
<td>Gondhalekar et al., 2004; Huang Benduo et al., 2009; de La Bruslerie, 2013</td>
</tr>
</tbody>
</table>
There is a positive correlation between the debt ratio of the merging enterprises and premium level.

Zhu Baoxian and Zhu Chaohua, 2003

The experience of chain directors, intermediaries and partners is negatively correlated with premium.

Haunschild, 1994; Beckman and Haunschild, 2012

The consulting cost of the merged enterprise is positively correlated with the M&A premium, while the consulting cost of the merging enterprise is negatively correlated with the M&A premium.

Chahine and Ismail, 2009

The managerial ownership of the merged enterprise is positively correlated with the M&A premium, but the retention of the CEO with a high share ratio is negatively correlated with the M&A premium.

Moeller, 2005; Song and Walking, 1993

Overconfidence of managers is positively correlated with M&A premium.

March and Simon, 1958; Roll, 1986; Hambrick, 1997

4. Future Research Directions

By reviewing the existing literature, we can find that the research paradigm of M&A premium has basically formed. The research angle also began to diverge outward gradually, no longer focusing on the study of enterprise factors. Nevertheless, the existing research on M&A premium is still insufficient. Firstly, although the research angle has been expanding in recent years, there is still interspace for further study. In future research, we can consider carrying out research on this problem in the context of interdisciplinary knowledge. For example, by combining the theory of asymmetric information, game theory, enterprise strategy and other theories with this project, we hope to enrich the research on M&A premium.

Secondly, future research on this topic should be based on specific contextual scenarios. On the one hand, through combing the existing literature, we can find that the existing research is still based on the research of foreign scholars, that is, the mature capital markets in Europe and the United States as the research
background. However, with the continuous development and growth of emerging economies, M&A activities in emerging economies have become increasingly active. On the other hand, as one of the trends of management research, situational research has always been emphasized by academia. Unlike previous studies, which blindly included China as a whole in emerging countries, existing studies suggest that considering China’s current special institution and cultural environment, China, as a typical emerging economy, has a certain difference with other emerging market countries and even developing countries. Therefore, it is of theoretical and practical significance to study the influencing factors of premium by taking Chinese situation as a special situation.

Thirdly, there is still a slight lack of research on macro-factors affecting the M&A premium. How institutional and cultural differences, regional laws and regulations, and market business models affect the emergence and level of M&A premium will still be a major concern in the future.

Finally, it is worth noting that the research on the premium of enterprises traces back to whether the pricing decision in M&A activities is scientific and reasonable. Domestic scholars Lei Yu and Wu Shinong (2007) found that only a few hypotheses are significant through the correlation analysis of Western M&A premium theories such as principal-agent theory and value creation theory [26]. Among them, only the related theories of agency motivation are applicable to the study of enterprise premium in China. From this, we can see that the mainstream theory of M&A premium in the West is very limited in emerging economies, such as China. At present, more and more enterprises in emerging economies are engaged in M&A activities, including overseas M&A activities. In these M&A activities, there is also a phenomenon of M&A premium. Whether the determinants of M&A premiums found in existing studies can explain the phenomenon of M&A premiums in emerging economies theoretically, whether they can help emerging economies to determine the reasonable payment price when making overseas M&A, whether they are applicable to the pricing problem of foreign M&A in emerging economies, or whether they are applicable to small-scale M&A transactions, etc., are all issues worthy of attention in follow-up studies.

5. Summary

On the basis of reviewing the literature on Influencing Factors of M&A premium, this paper summarizes the existing literature, and discusses in detail the factors affecting M&A premium. Merger and Acquisition Premium is a research focus in the field of merger and acquisition. At present, scholars have made a lot of achievements in the study of the relationship between merger and acquisition premium. In recent years, there have been many literature reviews or comments. However, there is still much room to expand the research on the subject of merger and acquisition premium, which needs further demonstration in the future research process.
Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References


