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Article

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Cogent Economics & Finance

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Suggested Citation: Xiang, Ping; Qu, Lu (2018) : The influential factors for the performance of Chinese enterprises' international takeovers, Cogent Economics & Finance, ISSN 2332-2039, Taylor & Francis, Abingdon, Vol. 6, Iss. 1, pp. 1-19,
<https://doi.org/10.1080/23322039.2018.1442631>

This Version is available at:

<https://hdl.handle.net/10419/194768>

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Received: 11 October 2017
Accepted: 15 February 2018
First Published: 23 February 2018

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FINANCIAL ECONOMICS | RESEARCH ARTICLE

The influential factors for the performance of Chinese enterprises' international takeovers

Ping Xiang^{1*} and Lu Qu²

Abstract: In recent years, Chinese enterprises' overseas mergers and acquisitions have become increasingly active. The method of overseas mergers and acquisitions can be regarded as a low-cost and good-effect way for the growth of Chinese enterprises, except their own accumulations. However, compared with the firms in western countries, Chinese enterprises' overseas mergers and acquisitions can be affected by three factors: the ownership of acquiring enterprise, the types of target industries and the previous experience. In addition, Chinese and foreign scholars do not have a consistent conclusion for the enterprises' performance, which is after their overseas mergers and acquisitions. Therefore, the study of the influential factors for Chinese enterprises' overseas acquisitions is useful to the practice. This paper firstly analyzes the theoretical background of influential factors for the performance of overseas mergers. Then, this paper tests the three hypotheses of the influential factors. At last, this paper puts forward some effective suggestions.

Subjects: Accounting; Strategic Management; International Business

Keywords: mergers and acquisitions; CAPM mode; government and regulatory issues

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PUBLIC INTEREST STATEMENT

Since ancient times, the Eastern and Western societies have been curious and explored for each other. The communication between the East and the West includes diplomacy, language, art, life style, science and education. Nowadays, influenced by global integration and other world economic organizations, frequent economic cooperation between East and West enterprises becomes an important form of social communication.

Overseas acquisition of enterprises is an active pursuit of internationalization for the East and the West, and also an important channel for enhancing understanding about each other.

This paper analyzes the performance of Chinese enterprises in overseas acquisitions, and finds that compared with Western enterprises, overseas acquisitions of Chinese enterprises are affected by three factors: ownership, target industry type, and past experience. This paper is conducive to better understanding of the problems existing in overseas acquisitions, and to promote international trade, market economy and the communication between the East and the West.

1. Introduction

Although there were traumatic economic events in 2011 and continuous challenges in the banking sector and the Eurozone, the 2012 Grant Thornton business report, investigated 12,000 enterprises in 40 economies. Its result indicated, the enterprises worldwide had a stronger interest on mergers in 2011 (34%), which was more than that in 2010 (26%) (Mike, 2012). All around the world, there are many enterprises building their acquisition plan to increase the profit in the next three years. Meanwhile, those enterprises in the US and Canada account for the largest proportion in their domestic enterprises. What follows is the mainland Europe, which displays an increasing expectation in merger and acquisition, especially in France (34%) and Germany (18%). In addition, the above results of BRIC economy fluctuate over the past five years, but there are increasing acquisition activities because more and more cooperations come out between BRIC countries and other countries.

The research of Chinese firms' overseas acquisition in 2011 from PSW demonstrates that Chinese enterprises' overseas acquisition activities increase in scale over 10% and in quantity over 12% in comparison with 2010, which peak up at all-time highs. Then, the international acquisitions of resources and energy industry are still dominant. But because Chinese firms continue to introduce foreign advanced process, technology and intellectual property, the overseas acquisitions of consumer goods and industrial goods are also developing rapidly. In addition, Chinese enterprises are active to look for opportunities to introduce advanced technology and brand to develop their own strength. As a result, in 2011 the number of Chinese firms' international acquisitions, which are in North American and Europe, is close to half of the total of Chinese firms' cross-board takeovers.

The influential factors for the performance of Chinese firms' overseas acquisitions are assumed to be ownership of the acquirers, the types of target industry and previous acquisitions' experience. Firstly, although the state-owned enterprises can get the support from Chinese Government, especially financial support, government intervention can lead to the host countries' dissatisfaction (Zhang & Haico 2011). From the view of Western countries, it is hard to understand Chinese state-owned firms' operation (Zhang & Haico 2011). Secondly, the types of target industry can affect the performance of the international takeovers because host countries relate their own security to some sensitive-resource industries. The politics is playing an more important role in the overseas mergers and acquisitions because many acquisitions are not solely dependent on financial rationales. A host country will restraint an acquisition, which is likely to impact on its own country's security. Thirdly, previous experience of international acquisition will be benefit to trade promotion. The accumulation of experience in solving different problems, which the companies face after previous trades, can increase the possibility of success (Dikova, Sahib, & van Witteloostuijn, 2009).

At present, the research of the performance of overseas acquisition mainly uses listed company as research samples. As the listed company's mergers can affect their stock price and financial index, the mainstream research methods are divided into two kinds: one kind is the investigation of stock price changes named "Event study"; another kind is "financial index method," which is the investigation of financial index changes. The relevant research only uses one method of event study or financial index method, and the analysis of the performance of the acquisitions always separates risk from performance. In fact, the short-term and long-term performance and financial risk of enterprises' international acquisitions are closely related, and they should be considered when making decisions of overseas acquisitions. Therefore, this paper comprehensively uses event study and financial index method in the performance analysis, which is to make up for the shortage of the existing research methods.

This paper combines event study and financial index method to find those factors, which affect the performance of Chinese international takeovers. In this paper, the analysis of short-term performance of Chinese firms' overseas acquisition uses event study, which applies CAPM model to the evaluation of short-term performance. Then, the analysis of long-term performance and risk uses financial index method: the analysis of long-time performance uses Tobin's Q value model to

evaluate the enterprise's value after merger and acquisition; another one using Z value model to research the risk of bankruptcy that acquirer faces.

2. Literature review

2.1. *The review of foreign scholars' researches in the acquisitions' performance*

In general, the company can improve the efficiency of management through acquisitions, thus it is able to improve the company's return on assets. Dodd and Ruback (1977) through the analysis and research of the 172 typical acquisition events during 1973–1976 found that: no matter a takeover is success or not, in the first 13 months of the acquisition events, acquirer's shareholder can get quite significant positive abnormal return, and the target company can also get a significant positive abnormal return in the event day. However, the results of the study (Agrawal & Jaffe, 1992) show that the performance of the firms became worse after mergers and acquisitions. Langertieg (1978) stated that the performance of the company didn't get markedly improvement after the merger, although the shareholder in the enterprise, which was merged, obtained significant abnormal earning, whether in the short-time window, 3–5 days before or after acquisition, or in the long-time window, 3–5 years before and after the acquisition, the shareholders' wealth in acquisition enterprise decreased significantly (Jensen & Ruback, 1983). Jarrell and Poulsen (1989) through the analysis of the 663 cases of successful mergers during 1960–1985, found that the target company's average excess return was more than 20%. But, the excess return of acquiring companies were only 1.14%, and the excess return of acquiring companies in 1980s shows that the excess profits was even negative (–1.1%).

From that, it shows there is no unanimous conclusion in the economic performance of acquisition, and synergistic effects hypothesis is in a huge challenge. Therefore, some new theories which can explain the poor earning performance of the acquirers after the mergers come into being, including Roll's Hubris Hypothesis, Jensen's free cash flow hypothesis, and Shleifer and Vishny's arbitrageur Hypothesis.

Bruner (2002) pointed out that the mainstream of current research in the performance of merger and acquisition was the method of empirical research, it included event study, accounting index method, clinical diagnosis research, and questionnaire survey method. Among the four methods above, the former two are the main methods in the international academic researches in the performance of firms' mergers and acquisitions.

Event study can be dated back to the 1930s, but its completion and widely application are after the reports of Ball and Brown (1968) and Fama (1969) which are the empirical researches on accounting earnings report's usefulness for market and the effectiveness of the research on the stock market. Event study has developed into a mainstream method to the value of acquisition which measures the performance of the event through investigating the abnormal returns produced in the acquisition event.

For the research method of financial indicators, its basic idea is to use the financial statements and accounting data, business performance's evaluation standards with net revenue, net assets income rate, liquidity ratio, and earnings per share as well as the change of the performance before and after the acquisition to measure the merger and acquisition's performance. Many scholars try to use financial data to test the hypothesis about the value of mergers and acquisitions. King (2002) pointed out that even it use the internal financial data which are return on investment, income growth, and yield per share to assess the merger and acquisition is success or not, this approach is flawed.

As for some achievements about the acquisition's performance Western scholars made, Bruner (2002) had set up a summarization on these research results in the *Journal of Applied economics*: the two methods these scholars apply to study the cases of mergers and acquisitions are mentioned

above: event study and accounting index method. The content of summarization includes: the earnings of target company's shareholders in acquisitions, the earnings of acquiring company's shareholders in acquisitions, and the comprehensive income of target company and acquiring company's shareholders in takeovers.

Acquisition can bring the abundant benefits to target company. Generally speaking, the average excess yields are from 10 to 30%. Jensen and Ruback (1983) reviewed 13 articles about the acquisitions completed in United States in 1970s, and found that the target companies' shareholders obtained the excess profits around 20 to 30% in the successful takeovers. Schwert studied 1814 takeovers in 1975–1997 and concluded that: in the event window period, the cumulative average excess return of target company's shareholders was 35%. Bruner (2002) summarized other scholars' relevant 21 studies in the benefits of target company's shareholder obtained from takeovers. Generally speaking, the average excess yield of target company's shareholders is range from 20 to 30%.

2.2. The review of Chinese scholars' researches in the acquisitions' performance

In China, there have been quite a number of scholars who examine the value creation from Chinese enterprises' acquisitions. Their researches are also the applications of event study and financial index methods in the studies of the takeovers' performance. In some degree, the amount of the scholars who use financial index method is more than the amount of scholars who use event study method.

In the field of event study: Chen and Zhang (1999) studied the listed companies' mergers and acquisitions in 1997, and the results showed that from 10 days before the acquisition's announcement to 20 days after the acquisition's announcement, although the acquiring companies' accumulative abnormal returns increased, there was no significant difference between statistics results and zero. Yang, Cai, and Liu (2000) used Chinese firms' international mergers which happened in 1998 as a sample to study, and found that there is a significant excess profit in the announcement window (40, + 20). Yu and Yang (2000), studied some acquisitions happened in Shanghai and Shenzhen in 1993–1995, and analyzed the changes in the value of both target company and acquiring company. Their conclusion showed that: in the takeover, the target company's value increase, but the acquiring company's value do not increase or decrease, basically remain unchanged. Therefore, the target company obtained the excess rate of return in acquisition, but acquirer did not benefit from takeover. Li and Chen (2002) applied the method of event study to analyze the acquisitions in Shanghai and Shenzhen in 1999–2000, and the empirical result is: takeover can bring about significant increases in wealth to target company's shareholders, but the effect of wealth for target company's shareholders is not significant. Sun and Li (2003) inspected the 133 large acquisitions by China's listed companies from 1997 to 1999, results showed that the average excess profits of listed company's shareholders obtained is 18.89%. Liang (2002) stated that: "Chinese companies' merges do not bring the enhancement of the enterprises' efficiency and China's stock market is not an effective market; Market react coolly to Chinese companies' mergers and acquisitions and there is no positive evaluation in market." To some extent, it states the limitations of event study.

In the field of financial index method: Yuan and Wu (1998) indicated that the acquiring companies' asset–liability ratio declined in the first year after the acquisitions, and all of the rest index rose. There is a relationship between index's variations and the way of reorganization. However, Sun and Wang suggested that the transfer of equity has an obvious effect in improving the business status of listed companies, but overseas acquisitions do not obviously improve the business status of the listed company. Both of them use the samples in 1997 to research, but they obtain contrary conclusion. The main cause is that the researches' samples and the selection of financial index are different.

In view of the influence of achievements in different ways of acquisitions, many scholars also conducted a number of researches. Guo and Wu thought that mixed acquisitions had obvious effect

to improve the listed company's operating conditions, vertical merger's effect is not apparent, and horizontal mergers worsen the listed company's performance. Feng and Wu (2001) showed that the value of horizontal merger is better than that of mixed acquisition, and the worst one is vertical merge. Before the acquisition, the proportion of listed company's largest shareholder was positively correlated with the first-year's performance. Fang and Yan (2002) stated that the horizontal merger's performance decline in narrow, and the overall performance increase; Vertical merger's performance has a decrease in the period of expansion; Mixed acquisition's performance has a significant decrease in the first year, but in the second year it increase obviously.

2.3. Summary

In summary, foreign scholars tend to use the method of accounting research to study the long-term performance in enterprises' mergers. It is not formed a clear and common conclusion in the existing researches, and there is no index model which is able to completely describe the evaluation of merger's performance. In addition, as the selection method, time and standard of the sample are different, the conclusions are also different. Bruner (2002) indicated that the event study and the accounting index study which are used to measure the acquisition's performance have their own research approach and index system of performance evaluation, so it is hard to avoid their own advantages and disadvantages. Of course, for the shortcomings of these two empirical methods in evaluating acquisition's performance, it mostly belongs to the technical aspect, and many scholars make a lot of improvement. It is said that the different conclusions in the empirical research on takeover's performance, which to some extent are attributable to the lack of unified ideas of empirical research, the methods of empirical research and the index system performance evaluation, which cause the scholars obtain different conclusions from different approaches, empirical methods, and samples of researches. Franks, Harris, and Titman (1991) found that there was a significant correlation between the changes of stock price after acquisition and baseline period. When using the same weighted index, it will get a negative income after acquisition. However, when using the different investment combinations, it has no significant abnormal income, and when using the value weighted index, the enterprise's performance improved dramatically after acquisition. Through the comparison of the research results in literature review, it is found that takeover's performance depends on the selection of research methods. Langertieg (1978) stated that when adjusting the right to manage the company in the same industry, the abnormal returns have no significant improvement after the merger. Magenheimer and Mueller discovered that the performance of the merger decreased. However, Bradley and Jarrell used different method in the same sample, and found that acquisition's performance did not significantly reduce after 3 years. These researches show that, for the same sample, if it use different methods for performance measure can come to different results.

Therefore, it is lack of objectivity only using one paper's result as criterion of the acquisition. The judgment of takeover's performance in a certain period need analyze from different angles, including choosing different samples and using different methods. Through a lot of literature review, many scholars believe that the company's overall business performance after the mergers will be improved. Although the performance of acquiring company either increase or decrease after acquisitions, the target company's performance increase after the takeover.

No matter using what kind of methods and ideas in researches, Chinese scholars do not have a clear conclusion, and their researches also exist some defects: first of all, the time of study is too short, and it does not indicate the long-time influence for the performance of enterprise's merger. Secondly, the selection of evaluation index on long-term performance is relatively single, and it does not take the influence from no-financial indicator into account. Whether using event study or financial index method, there are divergences in the empirical study of the company's operating performance after the merger which obtains the similar conclusion with foreign studies. In general, most results show that some enterprises' mergers and acquisitions promote the company management's performance, some enterprise mergers and acquisitions lead to the deterioration of the company's business performance, and some enterprises' merger and acquisition do not significant improve the

business performance of the company. Because these researches' methods are different, the choice of sample is the main factor which determines the different results.

3. Theoretical background and hypotheses

3.1. Ownership of acquiring company

According to the basic idea of the institutional economics, the property right is important to social and economic, so that ownership can be thought as an important factor, which affects the host country's social system (North, 1991). As the state-owned enterprise in overseas acquisition plays an important role and Chinese state-owned enterprises' ownership has a close relationship with the host countries' system, this paper focuses on analyzing the influence of state ownership in international acquisition. In previous Chinese state-owned enterprises' overseas takeovers, there are many thought-provoking cases. For example, in 2004 China Minmetals group company failed in purchasing Canadian mining company Nolan, and in 2005 CNOOC failed in acquiring American oil company Unocal, and in 2009 Aluminum Corporation of China got another setback in buying Australia Rio Tinto company.

These failures let people think about the problems that Chinese state-owned enterprises came across in overseas acquisition. Although Chinese state-owned enterprises have financial advantage (Support from Chinese Government), solid strength, and competitiveness in overseas purchase, success or failure of the international acquisition is also determined by the reaction of the target country on all aspects. The support, which Chinese state-owned enterprises obtained from their government in overseas acquisition, can lead to the host countries' political concern, and it is also vulnerable to be charged with unfair competition. As a result, in the consideration of national security and to protect their local enterprises, the departments of examination and approval in host countries refuse to approve Chinese state-owned enterprises' application for merger and acquisition. For Western countries, the transparency of Chinese state-owned enterprises has always been questioned. They think, Chinese state-owned enterprises are often aiming at achieving political goals from Chinese Government, instead of making the best use of resources (Antkiewicz & Whalley, 2007). To sum up, the uncertainty and complexity of merger and acquisition for Chinese state-owned enterprises are becoming significant.

The negative reaction of host countries for Chinese state-owned enterprises varies with the different social system. Social system is a broaden concept, which can be analyzed from the level of marketization and the level of democratization. Firstly, in the market economic system, the government's intervention for the market is very limited, and private ownership is a kind of extensive ownership, which is highly accepted by the public. But under the planning economic system, the government's intervention is common, so that state-owned enterprises enjoy various priority. As a result, in a country with a higher degree of marketization, state-owned enterprises will face more pressure than in a country with a lower degree marketization. Secondly, the democratic society implements multi-party system, so in their society there is some bias perspectives of the leadership of the Communist Party of China. In countries with high democratization, the behaviors of the state-owned enterprises are often thought as a representative of their government or party, the acquisition of Chinese state-owned enterprises is often seen as a political action or a global-expansion tool of Chinese Government, and it is very hard to succeed.

Hypothesis 1: The private enterprises perform better than the state-owned enterprises, which means the private enterprises have a higher excess rate of return, a higher Tobin's Q ratio and a higher Z-score.

3.2. Types of target industry

From the view of industry, the industrial properties have a direct influence on the establishment and implementation of enterprise' strategy (Porter, 1980). But the internal interaction between social system and industrial property can also affect the implementation of the enterprises' strategies. In

practice, a successful process of acquisition is not completely determined by the market. In most countries, acquisition should be authorized by the examination and approval department. According to the analysis of Bittlingmayer and Hazlett (2000), the approval procedure has three main motives: private profit, bureaucratic interest, and rent-seeking of the government. But for Chinese enterprises' overseas acquisition, there is another important motive, which is national security. Many countries have regulation to limit foreign investment in some sensitive industries (Including the energy and other scarce resources products, military products, important infrastructure, and so on) besides the competition law. For these non-market factors, which should be considered, the examination and approval departments often prevent this target industries' acquisition from overseas, which is to maintain national security and protect local enterprises. Chinese enterprises' overseas acquisition is always affected by various non-market factors. The most outstanding one is the acquisition in energy industry, in which the government always makes Chinese overseas acquisition unsuccessful.

There are two problems of Chinese overseas acquisition in resource and energy industries. Firstly, political risk has been a sensitive and complex problem in international takeovers, especially in the acquisition of strategic resources and energy industries. Besides, "China threat theory" has been widely spread all over the world. Political risk generally includes: the target country's political stability, the target country's policy risk, the relation between target country and the country of purchase, the opening level of the target country's market, the intervention from related interest group, the intervention from the third country, and so on. As Chinese enterprises' overseas acquisitions are often related to the host countries' national security, these takeovers are imposed by strict supervision from the host countries' government. Some acquisitions' plans are not able to pass the host countries' censorship. The failure of CNOOC buying American oil company is an evidence for national security problem in strategic resources. Secondly, resource-based enterprises' overseas merger and acquisition should pay much attention on the behavior of their opponent. The competitors can come from the host countries' domestic enterprises, or can be some international competitors. As the takeovers in resource and energy industries need a large amount of money, these opponents have solid strength and good preparation. As a result, the resource-based enterprises' international takeovers face more pressure than those enterprises in other industries.

Hypothesis 2: The performance of energy and sensitive-resource industries' takeovers are worse than other industries, which means that the acquisitions in energy and sensitive-resource industries have a lower excess rate of return, a lower Tobin's Q ratio and a lower Z-score.

3.3. Acquiring company's experience

The organizational routine, which stemmed from the experience of organization, was the core concept in the theory of behavior study (Levitt & March, 1988). Routines were programs of action, which reflected the prior organizational experience with a specific task (Nelson & Winter, 1982). The routines were under inertial pressures once they were formulated through experience (e.g. Szulanski, 1996). The literature of organization provided sufficient evidence, which indicated that more experience the organization's members had in a specific strategic action or direction, they were more likely to repeat it (e.g. Amburgey, Kelly, & Barnett, 1993). Routines sometimes even replaced the formal strategic decision-making rules by calculation, because it become a source of competitive advantage and often played a key role in the establishment of a firm's strategic choices (March, 1999). A company can become competitive and professional in a certain routine when it accumulated abundant experience in this routine. Coming to the acquisition, Amburgey and Miner (1992) met the strategic dynamic parameters. Specifically, they reported that the acquirers were more likely to make the same acquisition in their familiar fields. Also, Baum and his co-author (2000) stated that previous experience is important for the future overseas acquisition in the study of the Canadian nursing home chains.

Firms' previous experience can be identified as an important factor in acquisition activity (Hitt, 1998). Although there were no the two same acquisitions, the takeovers' process were similar. As for

that previous experience is beneficial, there were two main reasons. First of all, most processes always repeated, and the company must learn new skills through previous experience. Secondly, the enterprises will know more about problems through previous acquisition, such as integration and cultural problems, so the former experiences are lessons from the past mistakes. Haspeslagh and Jemison (1991) indicated the acquisitions' similarity, through the capital appropriations of standardization and disciplines in company's decision-making process. They (1991) also highlighted takeovers' differences, such as their sporadic properties, general manager experience, and the opportunistic nature.

Hitt (1998) also pointed out that two thirds of successful companies in acquisition had quite a lot of experience in the change of prior takeovers. The accumulated experience from complicated situations made the company become more flexible and more capable in dealing with a new acquisition. Hitt (1998) also found that careful and deliberate choices and behaviors in the negotiations with the target company were crucial, because they reduced the payment of the premium's possibility. This skill was undoubtedly obtained after previous experience of acquisitions. Experience itself was not enough to ensure the success of takeover (Finkelstein & Haleblan, 2002). An important practical experience was a key factor of the acquisition's success which the firm should learn. Haspelagh and Jemison (1991) thought when the company had formal acquisition review mechanism in place, it can learn the previous experience. The enterprises' learning abilities were also influenced by the experience of prior takeovers (Finkelstein & Haleblan, 2002).

Hypothesis 3: The performance of an experienced acquirer is better than one without experience, that is to say, the experienced acquirers have a higher excess rate of return, a higher Tobin's Q ratio and a higher Z-score.

4. Data

This paper chooses eight typical international takeovers of Chinese firms, which have the three features mentioned in the hypotheses (Ownership, industry, and experience). The eight Chinese firms' acquisitions are following: (1) Industrial and Commercial Bank of China acquired Standard Bank Argentina in 23/02/2012; (2) China National Chemical Corporation purchased Israeli Chemical company named Makhteshim Agan in 17/10/2011; (3) Haier Company acquired Japanese electrical company Sanyo Electrical Company in 20/10/2011; (4) Perfect World Company Limited purchased American online game studio which is Cryptic Studios in 10/08/2011; (5) China Minmetals Corporation acquired African energy company named Anvil Mining Limited in 13/02/2012; (6) Petro China Company Limited purchased Canada petroleum company which is Mac Kay River in 03/01/2012; (7) Dalian Tianbao Green Food Limited Company purchased Japanese Hokudai Company in 21/10/2011; (8) Guangdong Haid Group Company Limited acquired Vietnamese forage enterprise named Panasia Company in 09/12/2011.

The data, which are the stock price of the eight companies and the market index of Shanghai Composite Index, Shenzhen Index, Hang Seng Index and NASDAQ Index, are obtained from yahoo finance. Then, the financial index of these companies is obtained from annual reports of these companies.

Based on the hypotheses above, the data will be divided into three groups and each group has four samples, with a variable and the other two constants. For example, in group one, the variable of ownership changes between state-owned enterprises and other firms, at the same time, the constants of industry and experience remain unchanged. In group two, the variable is industry, while the constants are ownership and experience. In group three, experience is the variable and the other two constants are ownership and industry (Table 1). The three groups are as follow.

Table 1. The samples of Chinese firms' overseas acquisitions

Group 1	Ownership	Types of target market	Experience
Industrial and Commercial Bank of China	State-owned business	Other (no energy and sensitive-resource industries)	With experience
China National Chemical Corporation	State-owned business	Other	With experience
Haier Company	Private enterprises	Other	With experience
Perfect World Company Limited	Private enterprises	Other	With experience
Group 2			
Industrial and Commercial Bank of China	State-owned business	Other	With experience
China National Chemical Corporation	State-owned business	Other	With experience
China Minmetals Corporation	State-owned business	Energy and sensitive-resource industries	With experience
Petro China Company Limited	State-owned business	Energy and sensitive-resource industries	With experience
Group 3			
Haier Company	Private enterprises	Other	With experience
Perfect World Company Limited	Private enterprises	Other	With experience
Dalian Tianbao Green Food Limited Company	Private enterprises	Other	Without experience
Guangdong Haid Group Company Limited	Private enterprises	Other	Without experience

5. Methodology

5.1. The evaluation of short-term performance in Chinese firms' overseas merger and acquisition

The event study of excess return, which based on the CAPM model, is mainly used to research on the influence from the listed company's information disclosure on its share price. This paper applies this method to evaluate the short-time performance in Chinese firm' overseas acquisition, through the investigation in the company's average or accumulated excess earnings in the window period, which is a certain period before and after the announcement of Chinese firm's overseas takeover. For the calculation of abnormal return, basically there are three methods including constant mean income model, market-adjusted model, and market model. Previous studies using the three methods show the market-adjusted model is more reasonable than other two models, and it is also applicable to Chinese current market environment. This paper agrees to the above viewpoint, so this paper uses the market-adjusted model to calculate the market's abnormal returns.

The steps are as follows: first of all, according to the CAPM model calculate the normal rate of return of listed companies' stocks.

CAPM model is as follows: $E(R_{it}) = R_{ft} + \beta_i(R_{mt} - R_{ft})$ (1)

In the formula (1), the R_{it} is the company I's rate of return in t day. The rate of return per day is equal to the natural logarithm of P_t/P_{t-1} . P_t is the closing price in the I day, and P_{t-1} is the closing price in the I-1 day. R_{ft} is the risk free rate. R_{mt} is the market index returns, using the Shanghai stock exchange index, shenzhen stock exchange index, the hang seng index, and the nasdaq index to calculate the index returns in different samples. Market index return equal to the natural logarithm of I_t/I_{t-1} . It is the closing index in the I day, and I_{t-1} is the closing index in the I-1 day.

From the formula (1), Estimated CAPM model can be obtained as follows:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_i \quad (2)$$

In the formula (2), before estimating the model's parameters, make sure that time of event occurrence, event window period and normal valuations period in Chinese firm's overseas acquisition. In general, the time of event occurrence uses the data, which is for the first time of overseas takeover's announcement, as the base data. The window period is the period before the firm's acquisition event. In the past, there are many different perspectives of the study how to determine the event window period. The event window period in this paper is $[-4, 4]$, and this paper holds that four trading days before and after the first time, at which the company announce the overseas acquisition, can make a reasonable evaluation for market's reaction to the acquisition. It can reduce the influence of short-term speculative trades.

Normal valuations period is a period, in which the company's share price is not influenced by its acquisition event, so it generally selects the period before the announcement of the acquisition. This paper selects 50 trading days before the announcement of the acquisition as the normal valuations period, and this paper holds a perspective that, 50 trading day before the announcement of the acquisition can reflect the influence of short-term performance of company's overseas takeover to the largest extent. According to the data of listed company's share price in normal valuations period, apply the formula (2) in every sample, and obtain α_i and β_i . Thus, the normal rate of return $E(R_{it})$ of listed company's stock in window period can be calculated as follow:

$$E(R_{it}) = \alpha_i + \beta_i R_{mt} \quad (3)$$

Secondly, on the basis of normal rate of return, calculating the excess rate of return of the list company's stock. The calculation formula of daily excess return calculation is:

$$AR_{it} = R_{it} - E(R_{it}) \quad (4)$$

The calculation process of the abnormal return as in Equation (4) is as follow:

ICBC (Rit = 0.00006 + 0.44053Rmt)							
Date	Closing price	The natural logarithm of P_t/P_{t-1}	Stock exchange index	The natural logarithm of I_t/I_{t-1}	E (Rit)	ARit	Total excess rate of return
16-Feb-12	4.39		2,356.86				
17-Feb-12	4.4	0.000988156	2,357.18	5.89618E-05	8.99494E-05	0.000898207	
20-Feb-12	4.4	0	2,363.60	0.001181234	0.000584341	-0.00058434	
21-Feb-12	4.46	0.005882182	2,381.43	0.003263839	0.001501785	0.004380398	
22-Feb-12	4.45	-0.000974848	2,403.59	0.004022568	0.001836025	-0.00281087	
23-Feb-12	4.44	-0.000977041	2,409.55	0.001075554	0.000537786	-0.00151483	
24-Feb-12	4.44	0	2,439.63	0.005388023	0.002437545	-0.00243754	
27-Feb-12	4.43	-0.000979244	2,447.06	0.001320653	0.000645758	-0.001625	
						-0.00052771	
							-0.003693983
China National Chemical Corporation (Rit = -0.00066 + 1.33533Rmt)							
12-Oct-11	7.27		2,420.00				
13-Oct-11	7.62	0.02042056	2438.79	0.00335904	0.003830131	0.016590429	
14-Oct-11	7.6	-0.001141379	2431.37	-0.001323352	-0.00242242	0.001281044	
17-Oct-11	7.63	0.001710946	2440.4	0.001609963	0.00149453	0.000216416	
18-Oct-11	7.34	-0.016828478	2383.49	-0.010247682	-0.01433938	-0.0024891	

19-Oct-11	7.34	0	2377.51	-0.001090982	-0.00211213	0.002112131	
20-Oct-11	7.12	-0.013216066	2331.37	-0.008511149	-0.01202053	-0.00119554	
21-Oct-11	6.93	-0.011746759	2317.28	-0.00263269	-0.00417083	-0.00757593	
							0.008939449
Haier Company (Rit = -0.00083 + 1.33129Rmt)							
14-Oct-11	9.86		2,431.37				
17-Oct-11	9.93	0.003072334	2440.4	0.001609963	0.001316689	0.001755645	
18-Oct-11	9.76	-0.007499431	2383.49	-0.010247682	-0.01446925	0.006969821	
19-Oct-11	9.75	-0.000445202	2377.51	-0.001090982	-0.00227905	0.001833844	
20-Oct-11	9.36	-0.017728767	2331.37	-0.008511149	-0.01215743	-0.00557134	
21-Oct-11	9.29	-0.003260135	2317.28	-0.00263269	-0.0043315	0.00107137	
24-Oct-11	9.78	0.022323141	2370.33	0.0098303	0.012260326	0.010062815	
							0.016122154
Perfect World Co., Ltd. (Rit = -0.00142-0.24326Rmt)							
5-Aug-11	17.12		2,345.38				
8-Aug-11	15.99	-0.029655297	2341.84	-0.000655998	-0.00157718	-0.02807812	
9-Aug-11	16.96	0.025577384	2380.43	0.007098195	0.000309094	0.02526829	
10-Aug-11	16.77	-0.004892785	2511.48	0.023274309	0.004244072	-0.00913686	
11-Aug-11	17.42	0.016515088	2523.45	0.00206498	-0.00091528	0.017430366	
12-Aug-11	17.51	0.002237995	2555.2	0.005430195	-9.6661E-05	0.002334656	
							0.007818337
China Minmetals Development Co., Ltd. (Rit = -0.00004 + 1.75169Rmt)							
8-Feb-12	24.82		2,347.53				
9-Feb-12	24.2	-0.010986411	2349.59	0.000380934	0.000622659	-0.01160907	
10-Feb-12	24.15	-0.000898231	2351.98	0.000441539	0.000728821	-0.00162705	
13-Feb-12	24.26	0.001973661	2351.85	-2.40052E-05	-8.6669E-05	0.002060331	
14-Feb-12	24	-0.004679555	2344.77	-0.00130937	-0.00233823	-0.00234132	
15-Feb-12	24.56	0.010017121	2366.7	0.004042962	0.007037399	0.002979722	
16-Feb-12	24.29	-0.004800848	2356.86	-0.001809425	-0.00321417	-0.00158667	
17-Feb-12	24.65	0.006389409	2357.18	5.89618E-05	5.86632E-05	0.006330746	
							-0.005793322
Petro China Co Ltd (Rit = 0.00053 + 0.57183Rmt)							
30-Dec-11	9.74		2,199.42				
4-Jan-12	9.74	0	2169.39	-0.005970536	-0.00288708	0.002887076	
5-Jan-12	9.81	0.003110051	2148.45	-0.004212383	-0.00188172	0.004991766	
6-Jan-12	9.96	0.006590331	2163.39	0.003009567	0.002247992	0.004342339	
							0.012221181
Dalian Tianbao Green Foods Co., (Rit = 0.00008 + 0.82551Rmt)							
14-Oct-11	17.35		10,438.26				
17-Oct-11	17.27	-0.002007142	10513.49	0.003118796	0.00265481	-0.00466195	
18-Oct-11	17.33	0.001506225	10226.93	-0.012001623	-0.00982722	0.011333447	
19-Oct-11	16.89	-0.011168913	10105.74	-0.005177163	-0.00419357	-0.00697534	
20-Oct-11	16.41	-0.012521069	9796.23	-0.013509147	-0.0110717	-0.00144937	
21-Oct-11	16.28	-0.00345418	9697.21	-0.004412172	-0.00356207	0.000107887	
24-Oct-11	16.45	0.004511502	9957.62	0.011508748	0.009580785	-0.00506928	
25-Oct-11	16.9	0.011720802	10203.4	0.010589364	0.008821826	0.002898977	
							-0.003815636

Guangdong Haid Group Co., Ltd. ($R_{it} = 0.00116 + 0.51789R_{mt}$)							
2-Dec-11	19.18		9,808.23				
5-Dec-11	18.7	-0.011006996	9,586.08	-0.009949592	-0.00399242	-0.00701458	
6-Dec-11	18.76	0.001391228	9,586.94	3.89603E-05	0.001180602	0.000210626	
7-Dec-11	18.8	0.000925015	9,606.25	0.000873876	0.001613	-0.00068798	
8-Dec-11	19.09	0.006648079	9,580.52	-0.001164803	0.000557179	0.0060909	
9-Dec-11	19	-0.002052327	9,480.27	-0.004568376	-0.00120551	-0.00084681	
12-Dec-11	18.5	-0.011581873	9,376.28	-0.004790138	-0.00132036	-0.01026151	
13-Dec-11	17.7	-0.019198462	9,190.88	-0.008673472	-0.00333152	-0.01586694	
							-0.028376305

In formula (4), AR_{it} is the excess return of company I in t day. R_{it} is the actual rate of return of company I in t day. $E(R_{it})$ is the normal rate of return of company I in t day. According to the formula (4), the daily abnormal rate of return in $[-4, 4]$ can be worked out and then total excess rate of return in each firm can be calculated. This paper compares each company's total excess rate of return, and the higher the excess rate of return, the better the short-time performance of firms' overseas acquisition.

5.2. The evaluation of long-term performance in Chinese firms' overseas mergers and acquisitions

After the firm's overseas takeover, event study method can only reflect the short-term performance's influence in the window period, and it cannot reflect the influence on firm's long-term performance. This paper uses modified Tobin's Q ratio to analyze the firm's long-term performance after acquisition.

Tobin's Q ratio is defined as follow: Tobin's Q ratio = the company's market price/company's replacement cost. If a company's Tobin's Q ratio is larger than 1, it indicates that the market value of the company is higher than its own replacement cost. If a company's Tobin's Q ratio is less than 1, it indicates that the market value of the company is lower than its own replacement cost. Usually, scholars use the company's book value of the total asset to replace its replacement cost, and the market price is regarded as the sum of common stock's market price and book value of the debt. Then the Tobin's Q ratio = (equity's market price + the book value of long-term debt + the book value of short-term debt) / the book value of the total asset = (equity's market price + the book value of long-term debt + the book value of short-term debt) / (equity's book value + the book value of long-term debt + the book value of short-term debt).

In order to make the Tobin's Q ratio reflect the performance of Chinese listed company better, this paper modifies Tobin's Q ratio in consideration of the reality of Chinese listed firm.

First of all, all the shares of Chinese listed companies before 2004 are divided into tradable and non-tradable shares, and non-tradable shares are divided into state-owned shares and corporate shares. By the end of 2004, state-owned shares and corporate shares mainly use non-marketable trading, including the agreement transfer, auction, collateral and equity investment, and the principle of their valuation bases on the listed company's net asset per share. Therefore, this paper holds that it is fair to use the listed company's net asset per share instead of non-tradable share's market price.

Secondly, tradable shares are divided into A stocks, B stocks, H stocks, and other foreign stocks. As the price of H stock and other foreign shares is close to the net asset per share in long term, this paper still uses net asset per share to stand for the market price of H stocks and other foreign stocks. Then, the original formula is modified as follow:

Tobin's Q ratio = the company's market price/company's replacement cost = (negotiable market value at the end of the year + non-tradable shares account for the amount of the net assets + long-term total liabilities + short-term total liabilities) / total assets at the end of the year.

In the modified Tobin's Q ratio: negotiable market value at the end of the year = negotiable market value in A share + negotiable market value in B shares market value + net asset per share \times H shares and foreign shares.

Non-tradable shares account for the amount of the net assets = net asset per share \times non-tradable shares.

5.3. The evaluation of financial risk in Chinese firms' overseas mergers and acquisitions

This paper holds that the takeover's financial risk not only exists in the period before the acquisition or in the process of the takeover, but also has a significant influence after the completion of the acquisition. Financial ratio analysis combines financial analysis indicators as a whole, and it is able to make a systematic and comprehensive evaluation to the enterprise's financial situation and the state of operation. In 1968, Altman applied multiple discriminated analysis to put forward Z-score which weights five kinds of financial ratio for the sake of making a judgment for the financial risk the listed company faces. This method has been widely used in the prediction of company's financial risk after acquisition. The formula of Z-score is as follow:

$$Z = 1.200X_1 + 1.400X_2 + 3.300X_3 + 0.600X_4 + 0.999X_5 \quad (5)$$

In the function (5), X_1 = working capital/total assets = (current assets-current liabilities) /total assets, it mainly reflects cash ability of enterprise's asset. X_2 = retained earnings/total assets, it mainly reflects enterprise's total profitability. X_3 = earning before interest and tax/total assets, it mainly reflects the utilization efficiency of enterprise's capital which creditor and owner invest. X_4 = market value of shareholders' equity/total liabilities, it mainly reflects the enterprise's financial structure and the size of the company's value. X_5 = current sales' revenue/total assets, it is the turnover rate of enterprise's total assets and mainly reflects efficiency of enterprise total assets. Altman studied and analyzed the Z value model and found that there was an inversely proportion between Z value and enterprise's probability of occurring financial crisis. The small the Z value, the bigger the financial risk enterprises face. According to the past analysis of the statistical data, Altman concluded that an empirical critical value in American enterprise, which is $Z = 3.0$. If Z value is higher than 3.0, it shows the firm's financial situation is safe. However, if Z value is less than 3.0, it exists enterprise's financial crisis or bankruptcy risk. In addition, Altman studied the firms which were already in bankruptcy and found that an enterprise's Z value less than 1.8 showed the enterprise had potential bankruptcy. Although the Z value model was initially used in manufacturing enterprises, the test's results show that the model is still available in other types of enterprises. Altman in 2000 revised this model on the base of the original model one:

$$Z = 0.717X_1 + 0.847X_2 + 3.107X_3 + 0.420X_4 + 0.998X_5 \quad (6)$$

In the function (6), X_1 = working capital/total assets, X_2 = retained earnings/total assets, X_3 = earning before interest and tax/total assets, X_4 = market value of shareholders' equity/total liabilities, X_5 = current sales' revenue/total assets. Altman's research using this index showed that the enterprise faced bigger bankruptcy risk when Z value is lower than 1.23, the enterprise's financial situation was relatively good when Z value is greater than 2.90, and the enterprise's business existed financial hidden trouble when Z value was between 1.23 and 2.90.

Table 2. Short-time performance of Chinese firms' overseas acquisitions

Group 1	Regression equation	Total excess rate of return
Industrial and Commercial Bank of China	$Rit = 0.00006 + 0.44053Rmt$	-0.00369
China National Chemical Corporation	$Rit = -0.00066 + 1.33533Rmt$	0.00894
Haier Company	$Rit = -0.00083 + 1.33129Rmt$	0.01612
Perfect World Company Limited	$Rit = -0.00142 - 0.24326Rmt$	0.00781
Group 2		
Industrial and Commercial Bank of China	$Rit = 0.00006 + 0.44053Rmt$	-0.00369
China National Chemical Corporation	$Rit = -0.00066 + 1.33533Rmt$	0.00894
China Minmetals Corporation	$Rit = -0.00004 + 1.75169Rmt$	-0.00579
Petro China Company Limited	$Rit = 0.00053 + 0.57183Rmt$	0.01222
Group 3		
Haier Company	$Rit = -0.00083 + 1.33129Rmt$	0.01612
Perfect World Company Limited	$Rit = -0.00142 - 0.24326Rmt$	0.00781
Dalian Tianbao Green Food Limited Company	$Rit = 0.00008 + 0.82551Rmt$	-0.00382
Guangdong Haid Group Company Limited	$Rit = 0.00116 + 0.51789Rmt$	-0.02838

Altman's Z value model is widely used in China, and Chinese scholars' studies also show that Z value model in Chinese capital market is relatively effective. Therefore, this paper applies modified Z value model to analyze the financial risk of Chinese enterprises' overseas acquisition.

The CAPM model is used in the valuation of the short-term performance of Chinese firms' overseas acquisition, and Tobin's Q ratio is used in the valuation of the long-term performance of Chinese firms' overseas acquisition, and Z-value is used in the valuation of the financial risk of Chinese firms' overseas acquisition. Put the CAPM, Tobin's Q ratio and Z-score in one system, it can obtain a more comprehensive evaluation of Chinese enterprises' overseas acquisitions.

6. Result

Table 2 presents the results of the CAPM model, which are the indicators of Chinese enterprises' short-time performance after international takeovers. Group 1 compares the short-time performance between Chinese state-owned enterprises and Chinese private firms. Group 2 shows the different short-time performance between energy and sensitive-resource industries and other industries. Group 3 indicates the different short-time performance in Chinese firms with previous experience and without previous experience.

In group 1, the total excess rates of return of the two Chinese private companies are greater than zero, but those of the other two Chinese state-owned firms are less than zero. To some extent, it explains Chinese private companies' short-time performance is better than state-owned companies' short-time performance. In group 2, the results between energy and sensitive-resource industries and other industries are volatile and it cannot prove short-time performances of the other industries are better than that of energy and sensitive-resource industries. In group 3, it clearly demonstrates that the short-time performance of the firms with previous experience is much better than that of the firms without previous experience.

Table 3 presents the results of the Modified Tobin's Q ratio in three periods before and after Chinese firms' international takeovers, and these results are the indicators of Chinese enterprises' long-time performance after international takeovers. In group 1, it compares the long-time performance between Chinese state-owned enterprises and Chinese private firms. In group 2, it shows the different long-time performance between energy and sensitive-resource industries and other industries. In group 3, it indicates the different long-time performance in Chinese firms with previous experience and without previous experience.

Table 3. Long-time performance of Chinese firms' overseas acquisitions

Group 1	Modified Tobin's Q ratio		
Industrial and Commercial Bank of China	2011-9-30	2011-12-31	2012-3-31
	0.96345	0.96067	0.95900
China National Chemical Corporation	2011-9-30	2011-12-31	2012-3-31
	0.76059	0.76348	0.76084
Haier Company	2011-6-30	2011-9-30	2011-12-31
	0.76444	0.78788	0.77711
Perfect World Company Limited	2011-6-30	2011-9-30	2011-12-31
	0.24927	0.33759	0.32965
Group 2			
Industrial and Commercial Bank of China	2011-9-30	2011-12-31	2012-3-31
	0.96345	0.96067	0.95900
China National Chemical Corporation	2011-9-30	2011-12-31	2012-3-31
	0.76059	0.76348	0.76084
China Minmetals Corporation	2011-9-30	2011-12-31	2012-3-31
	0.80600	0.77953	0.79131
Petro China Company Limited	2011-9-30	2011-12-31	2012-3-31
	0.53152	0.53088	0.53511
Group 3			
Haier Company	2011-6-30	2011-9-30	2011-12-31
	0.76444	0.78788	0.77711
Perfect World Company Limited	2011-6-30	2011-9-30	2011-12-31
	0.24927	0.33759	0.32965
Dalian Tianbao Green Food Limited Company	2011-9-30	2011-12-31	2012-3-31
	0.48457	0.49401	0.47829
Guangdong Haid Group Company Limited	2011-9-30	2011-12-31	2012-3-31
	0.51463	0.52607	0.50353

In group 1, the results of Modified Tobin's Q ratio are decreasing in the three period times of Chinese state-owned enterprises, but these results are increasing in the three period times of Chinese private enterprises. It demonstrates the long-time performance of Chinese state-owned enterprises' overseas acquisitions is worse than that of Chinese private companies' international takeovers. In group 2, although the results are fluctuating in three periods between energy and sensitive-resource industries and other industries, the magnitudes of other industries are smaller than that of energy and sensitive-resource industries. In some ways, it indicates that the long-time performances in other industries are better than those in energy and sensitive-resource industries. In group 3, it clearly shows that the changes of the Modified Tobin's Q ratio in the firms with previous experience are increasing in long-term, however, those in the firms without previous experience are decreasing in long-term. It demonstrates that the long-time performance of the firms with previous experience is much better than that of the firms without previous experience.

Table 4 presents the results of the Altman's Z-Score in three periods before and after Chinese firms' international takeovers, and these results are the indicators of Chinese enterprises' financial risk after international takeovers. In group 1, it compares the financial risk between Chinese state-owned enterprises and Chinese private firms. In group 2, it shows the different financial risk between energy and sensitive-resource industries and other industries. In group 3, it indicates the different financial risk in Chinese firms with previous experience and without previous experience.

Table 4. Financial risk of Chinese firms' overseas acquisitions

Group 1	Altman's Z-score		
Industrial and Commercial Bank of China	2011-9-30	2011-12-31	2012-3-31
	0.20183	0.28327	0.15795
China National Chemical Corporation	2011-9-30	2011-12-31	2012-3-31
	1.30401	1.61352	0.69525
Haier Company	2011-6-30	2011-9-30	2011-12-31
	1.53236	2.05343	2.55224
Perfect World Company Limited	2011-6-30	2011-9-30	2011-12-31
	2.62489	1.86483	2.02185
Group 2			
Industrial and Commercial Bank of China	2011-9-30	2011-12-31	2012-3-31
	0.20183	0.28327	0.15795
China National Chemical Corporation	2011-9-30	2011-12-31	2012-3-31
	1.30401	1.61352	0.69525
China Minmetals Corporation	2011-9-30	2011-12-31	2012-3-31
	2.34940	3.61110	0.78806
Petro China Company Limited	2011-9-30	2011-12-31	2012-3-31
	1.83578	2.56040	1.51252
Group 3			
Haier Company	2011-6-30	2011-9-30	2011-12-31
	1.53236	2.05343	2.55224
Perfect World Company Limited	2011-6-30	2011-9-30	2011-12-31
	2.62489	1.86483	2.02185
Dalian Tianbao Green Food Limited Company	2011-9-30	2011-12-31	2012-3-31
	1.66860	1.85790	1.19654
Guangdong Haid Group Company Limited	2011-9-30	2011-12-31	2012-3-31
	3.61371	4.25969	1.17658

In group 1, the results of Altman's Z-Score of Chinese state-owned enterprises are declining in the three periods, however, the results of Chinese private firms are increasing in the three periods. It indicates that the financial risk of Chinese state-owned firms is bigger than that of Chinese private enterprises after overseas takeovers. In group 2, both of the results in energy and sensitive-resource industries and other industries are fluctuating in the three periods, but the magnitudes of other industries are smaller than those of energy and sensitive-resource industries, stating that the financial conditions of other industries are better than that of energy and sensitive-resource industries. In group 3, the results of Altman's Z-Score are dramatically decreasing in the firms without previous experience while it shows that the financial conditions of the firms with previous experience are better than that without previous experience.

7. Conclusion

In the valuation of the performance of Chinese firms' international acquisition, this paper holds the perspective that the effect of financial risk is more important than the other two indexes, and the effect of the long-term performance is more important than that of short-time performance.

Consider the influence of the acquirers' ownership, although the state-owned enterprises can get the support from Chinese Government, especially financial support, government intervention can lead to the host countries' dissatisfaction, and Western countries are hard to understand Chinese state-owned firms' operation (Zhang & Haico, 2011).

The first suggestion is to construct a special capital market for Chinese firms' overseas acquisition. First of all, the policy of overseas acquisition should be shifted from encouraging the state-owned enterprises to carry out overseas mergers and acquisitions to just supporting those high-quality enterprises (Including state-owned businesses, collective enterprises, private firms, and foreign companies) to carry out overseas mergers and acquisitions. Secondly, allow and encourage foreign investment and private enterprises to buy the state-owned enterprises' shares, and then the foreign capital enterprises, Chinese private enterprises and Chinese state-owned enterprises can establish joint venture. Thirdly, construct a capital market system, which has a complete structure and complementary function. Finally, the internationalization of capital market should be promoted actively and steadily. In the process of capital market's internationalization, it must achieve two goals at the same time, which are self-improvement of Chinese domestic capital market and smooth run of the capital market's internalization. The internationalization of Chinese capital market will provide a good social system, which is useful for Chinese enterprises' overseas merger and acquisition. It can eliminate Chinese state-owned enterprises' bad influence from social system background in their overseas takeovers, which comes from the joint venture of foreign capital, Chinese private enterprises and Chinese state-owned enterprises. At the same time, the joint venture enterprises can also bring the previous experience in their future overseas merger and acquisition.

From the results above, it clearly states that Chinese private companies' financial conditions are better than Chinese state-owned firms' financial conditions, and the long-term performance of Chinese private companies is better than that of Chinese state-owned enterprises, and Chinese private companies' short-term performance is better than Chinese state-owned enterprises' short-term performance. It indicates that Chinese private companies do better than Chinese state-owned business in overseas acquisition, which certifies hypothesis 1 is correct.

For the influence of the types of target industry, consider the impact of the types of target industry, it can affect the performance of the international takeovers because host countries will restraint an acquisition in sensitive-resource industry, which is likely to impact on its own country's security.

The additional suggestion is to study the non-economic risk factors for overseas mergers and acquisitions to cope with these interferences and eliminate negative effects. Because of many non-economic risk factors, the situations that Chinese enterprises' overseas acquisitions face in different countries and different industries are different. This requires Chinese enterprises to do a comprehensive study of the different situations and make a systemic evaluation of the non-economic interference factors. Enterprises can through the large international investment consulting company and Chinese state-owned enterprises' branches in the target countries to understand target market's political status, legal status, social status, and the credit condition of investment projects, which can avoid participating in the international acquisitions that have a huge political resistance and a lot of legal barriers. Secondly, Chinese enterprises should strengthen communication with host countries, to let host countries' government and the public fully understand the construction of Chinese market economy system, Chinese foreign policy, and Chinese enterprises' self condition, which can eliminate the misunderstanding of Chinese firms by maximum. In addition, Chinese enterprises need to study about how to obtain some help from host countries' international friendly organization and the public for the sake of eliminating the negative influences from various obstructions. And enterprises will promote the process of mergers and acquisitions according to the market rules.

From the results above, it demonstrates that the financial risk of Chinese firms' international acquisitions in other industries is higher than that in energy and sensitive-resource industry, and the long-term performance of Chinese firms' international acquisitions in other industries is better than that in energy and sensitive-resource industry. Although, the short-time performance of Chinese firms' international acquisitions between energy and sensitive-resource industries and other industries do not have obvious difference, it is able to declare that the long-term performance of Chinese firms' international acquisitions in other industries is better than that in energy and sensitive-resource industry, and which proves the hypothesis 2.

Given the impact of the previous acquisitions' experience, the accumulation of experience in solving different problems, which the companies face after previous trades, can increase the possibility of success (Dikova et al., 2009).

The last suggestion is to increase the enterprises' experience in the overseas mergers and acquisitions. First of all, Chinese enterprises can establish a database of overseas takeover events, which should include all of Chinese enterprises' overseas merger and acquisition, including failing cases and successful cases. After that, all of these Chinese enterprises, which make a contribution to the database, can share the data in their future overseas mergers and acquisitions. Secondly, Chinese enterprises should look for some similar places from the previous experience of international acquisitions before they carry out a new overseas acquisition. Enterprises should study from previous successful experience and make a good use of them. At the same time, the reference of the similar previous failing cases can avoid the same mistakes in a new acquisition. Finally, because the accumulation of previous experience in overseas mergers and acquisitions is long-term and complex, it needs all Chinese firms, which carried out overseas mergers and acquisitions, to make effective co-operation. Only in this way can they achieve a win-win situation.

From the results above, in short-term performance, in long-term performance and in the valuation of financial risk, Chinese firms with previous experience always do much better than Chinese firms without previous experience. It obviously demonstrates that Chinese firms with previous experience in international takeovers do much better than Chinese firms without previous experience, which certifies hypothesis 3 is right.

In general, the ownership of acquiring company, types of target industry, and acquiring company's previous experience are three of the influential factors in Chinese firms' international acquisition. When the other conditions are keeping the same, Chinese private companies will do better than Chinese state-owned enterprises, and firms in other industries will do better than firms in energy and sensitive-resource industries, and firms with previous acquisitions experience will do better than the firms without previous takeover experience.

Funding

The authors received no direct funding for this research.

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Citation information

Cite this article as: The influential factors for the performance of Chinese enterprises' international takeovers, Ping Xiang & Lu Qu, *Cogent Economics & Finance* (2018), 6: 1442631.

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