

*Original Research Article*

# On the Practical Application of Financial Engineering in Corporate Financial Management

Xi Xie\*

School of Cybersecurity, Northwestern Polytechnical University, Xi'an 710129, Shaanxi Province, China. E-mail: Xiexi2021@126.com

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**Abstract:** The proportion of income and operating expenses will be out of balance once there is no appropriate financial management on the basic finance of corporate operation. The improving of corporate financial management has become the focus of many companies, especially for modern enterprises of strong competitiveness. However, many Chinese companies still adopt traditional financial management techniques, and their effects of risk management are obviously decreasing. Financial engineering is beneficial to the implementation of company's new management plans. It is essential and plays a critical role in all aspects of business operations. Improvement and innovation should also be made with effort in the process of application.

**Keywords:** Financial Engineering; Corporate Financial Management; Practical Application; Analysis

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## 1. Introduction

With the progress of society, the main preventative problem for many companies is financial risk. To realize balanced and orderly development, companies need to properly adjust their development goals, financial management contents and various management systems. Besides, management structure should be constantly improved to minimize the transaction costs, agency and information costs of corporate finance, and to improve the investment and operational efficiency of enterprises.

## 2. Shortcomings of traditional corporate financial management

There are plenty of uncertain factors in the practical business operation process with the adoption of traditional financial management methods. Uncertainties include financial forecasting, financial decision-making, financial planning, financial control and financial analysis. For example, interest rate changes bring uncertainties to the financing cost. The exchange rate affects the import and export, and also brings high risks to companies. Price fluctuation of commodities may increase production cost, and government policies as well as regulatory measures can also have an impact on corporate development. It can be seen that the effect of traditional financial management is influenced by the changing external financial environment and the financial needs of companies in different development periods. Under the background of the constant innovation in economic market, the improvement and perfection of traditional financial management methods is the main strategic goal for companies. While financial engineering, an innovative way to solve financial problems, provides a new solution to the reform of corporate financial management.

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## **2.1 Single financing channel**

Company's development funds have been always coming from the self-raised funds which is of limited financing space. The single financing channel, of narrow fund sources and poor flexibility, makes it harder for companies to raise funds, and brings serious financial risks at the same time. The reduced financing methods contribute to the failure to play the due role of a series of financing channels, such as financial leasing, bill discounting and bill transfer, in corporate financing. Currently, the Chinese capital market structure has relatively big shortcomings. There is only one level of stock exchange in the market, lacking a diversified capital market system suitable for all companies' financing needs. Besides, there is little communication between private equity capital market, capital suppliers and the demand side. The development of bill market is very low for a long time. Under such circumstances, mechanism for companies to raise funds through the capital market isn't qualified. Therefore, the direct corporate financing mode has not yet started, and it is very difficult to finance funds through the capital market at this stage.

## **2.2 Improperly implement of early warning mechanism of financial risk**

First of all, there are many deficiencies in corporate financial risk management. Companies who have less analysis on financial risk with low accuracy, will have weaker control abilities when facing risks, and the awareness of risk prevention is not strong enough. Moreover, companies lack a financial risk identification system. With an appropriate system, companies can improve their financial risk management ability, analyze financial data and arrange it effectively. Causes of risks will be found out and corresponding solutions to risks can be put forward through the reasonably analysis on the existing data. However, in the practical operation, the corporate financial risk management system isn't perfect, and the prediction of the external environment isn't accurate enough, which brings certain impacts on the company operation, and leads to a financial crisis and the increasing financial risks of the company.

# **3. The application of financial engineering in corporate financial management**

## **3.1 The application of financial engineering in corporate finance**

With the continuous development of economy, there are plenty of financing methods for companies, such as bank loans that can bring some funds to enterprises. And the formation of financial projects is the diversified applications of these methods. In this respect, the main purpose for using financial engineering is to formulate relevant rules, so that companies can occupy a dominant position in all financing, and form a more flexible capital structure to cope with the market environment effectively. There are currently two main financing channels for companies, which are group loans and bank loans. One single financing method not only limits the company's development, but also brings certain financial risks. Therefore, enterprises should broaden the financing channels and change the financing status through financial markets. Companies should first improve their credit and strengthen their own hematopoietic function on the basis of their own development situation, which can improve their interests and reduce financial risks. Besides, enterprises can raise their commercial credit by discounting and reducing the cost of financing. In addition, Internet platforms can be used to raise funds and solve the problem of single financing channel. The characteristics of Internet platform financing are that it can diversify financing methods, and at the same time, it can reduce financing costs too. It is convenient for enterprises to carry out financing on the Internet, which help to improve their financing ability and promote their development.

## **3.2 The application of financial engineering in enterprise investment**

Financial engineering can adjust the structure of corporate investment department effectively, making it more effective to build investment portfolio. At the same time, financial engineering can protect company's economic interests, and preserve the value of funds. However, it can not fully realize its due role as there is a lack of perfect financial engineering. When investing an enterprise, it is possible for the enterprise to take greater risks if the tools provided are not matched properly. In terms of financial instruments, there are still some spot-based forward transactions, option transac-

tions and futures transactions, which are helpful for companies to effectively lock costs, which is more practical in face of the ever-increasing commodity market categories.

Companies need to constantly improve economic investment environment if they want to have a sustainable development economy. First of all, the economic policy and financial system should be established and improved. Effective competition in financial market is very helpful to improve the bank's service to enterprises. However, there is no way to solve the problem of economic investment simply by relying on the competition. At present, the policy banking system and economic development are asymmetrical with each other, so it is urgent to establish an economic policy financial system. Moreover, laws and regulations system of economic and financial support should be improved. The ownership structure of the domestic economy is quite complex. Investment legislation and system is mainly formulated through the meaning of ownership, which leads to different companies begin with operations in a different starting line of competition. There is of no contribution to the sustainable development of companies. Therefore, it is necessary to integrate the financial support into legalization as soon as possible.

### **3.3 The application of financial engineering in financial risk aversion**

There are three main management aspects considering the use of financial engineering to prevent financial risks. The first is to manage interest rate risks. Financial engineering uses risk management to undertake corporate finance, and prevents risks by analyzing market phenomena according to interest rate fluctuations. The second aspect is to use exchange rate management. Exchange rate is the inevitable connecting factor for companies to carry out foreign trade. Meanwhile, the exchange rate also has impacts on the market in China. Therefore, risks can be effectively avoided by determining the exchange rate and using it as a risk management tool for enterprises. The other aspect is price risk management, which may adopt hedging strategy.

First, companies need to improve their early warning mechanism of financing risk to improve borrowing capacity. They should start with corporate financial data to ensure its authenticity, and then analyze the data accurately and find out the source of risks. In addition, companies should strengthen the management of all links in the financing process. Before financing, they must consider risks and benefits, control risks, and formulate flexible measures. In order to ensure that unexpected problems can be dealt with flexibly, it is not enough to analyze data only in corporate financing risk management. Companies should strengthen professional analysis of financing risk management and formulate risk prevention measures through scientific analysis<sup>[1]</sup>.

Secondly, risk assessment systems to ensure the smooth progress of fund-raising should be established. The financing of enterprises is composed of different elements, and the financing channels of enterprises are diversified. Enterprises can build different financing combinations according to the actual situation and raise funds reasonably. Ideally, companies use most of their funds for projects with high recovery rate and stable interests, not only ensuring the profits of enterprises, but also reducing the risks of enterprises, which is of great help to the financial development of enterprises. Companies need to analyze financial data accurately before financing. Through scientific and reasonable technical support, financial indicators should be analyzed, the current financing situation should be judged, and reasonable measures to prevent the financing risks need to be formulated, and the losses brought by risks need to be reduced, so as to improve the financial management system. and to better promote the development<sup>[2]</sup>.

Finally, internal control and financial risks control need to be strengthened. Internal control is the most basic for the financing risk management of enterprises. To a certain extent, strengthening the internal control of enterprises is contribution to reduce the losses caused by financing risks, and also help enterprises to formulate financing methods that are more suitable for development. Therefore, the establishment of a sound internal control system can reduce the financial risks and improve the development.

Financing work of companies develops slowly and starts late in China with low technical level of management. In practical work, cost from the superficial situation may reduce if only the Chinese side manages the risks. On the contrary, however, the cost will increase a lot due to a poor effect of risk management, which will seriously lead to the failure of the project. At the present stage, companies do not have risk management abilities. They often invite some foreign

investment experts when investing, and employees of Chinese enterprises, meanwhile, participate actively and learn from experience. Employees put forward opinions in combination with China's national conditions, increase the awareness of risk management, and improve the risk management level of companies as soon as possible<sup>[3]</sup>.

## 4. Conclusion

Generally speaking, the use of financial engineering in enterprise financial management can stabilize the future cash flow, contribute to the preparation and procurement of the whole financial investment plan, and minimize uncertainties. However, operations will bring some negligence and fail to identify big risks. Therefore, it is necessary for companies to train professionals. What's more, China's imperfect securities trading market and derivatives trading system leads to some varieties that are sold in small quantities, which brings many inconveniences in practical application. Companies should be able to try mature financial instruments to match the cash flow and their financial plan.

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