An Empirical Review of Capital Structure Decision-Making

Mengxi Tan^{1,a,*}

¹School of Economics, Beijing Wuzi University, Beijing, 101149, China a. 2121190013@bwu.edu.cn *corresponding author

Abstract: The capital structure reflects the proportional relationship between a company's debt and equity, indicating the company's ability to repay debt and refinance. The quality of the capital structure determines the company's future profitability and development trend, serving as an indispensable indicator of the company's financial situation. However, with approximately 70 million companies in the global market, their scales and operating conditions vary in stability and growth. Additionally, their financial and asset structures differ significantly and are subject to macroeconomic fluctuations every year. The risk preferences and attitudes of managers and investors in every enterprise are subjective and affect the development plan of the enterprise. Moreover, tax and fiscal policies in different countries and regions also influence the capital strategies of enterprises. Furthermore, after a successful listing, the capital structure of the enterprise undergoes fundamental changes, diversifying the sources of funds and experiencing new changes in operating models, which is beneficial to the future operational planning and financial strength of funds. Nevertheless, not all companies that go public are beneficial to their development, such as Huawei, Heinz Group, Koch Industrial Group, etc., due to changes in capital structure after going public being detrimental to future corporate profits. Hence, the capital structure of enterprises in different countries, regions, or types of scale needs to be tailored to local conditions. Enterprises should analyze specific situations to establish a more reasonable capital structure with the aim of optimizing company operations.

Keywords: Capital Structure, Firm Performance, Managerial Decision-Making

1. Introduction

Against the backdrop of the increasing trend of globalization and the increasing competitive pressure among enterprises, capital structure has become a crucial part of the financial decision-making and strategic goal setting process for enterprises. Many scholars and talents working in the industry have turned their attention to the impact of capital structure on enterprise value creation and market performance [1]. Research on the capital structure can not only help investors gain a deeper understanding of a company's financial situation and potential risks, thus making more informed investment decisions but also help companies better optimize their capital structure and enhance market competitiveness. Academic and industrial research on capital structure has achieved fruitful results in the past few decades. These studies not only help us understand the impact of capital structure on corporate value creation and market performance but also provide valuable reference information for investors.

^{© 2024} The Authors. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (https://creativecommons.org/licenses/by/4.0/).

This article aims to explore how to reasonably choose a company's capital structure to maximize its value. Firstly, a review was conducted on the theory and models of capital structure, introducing the concept, influencing factors, and decision-making methods of capital structure. Secondly, through empirical research and case analysis of enterprises in different industries and regions, the issue of capital structure selection for enterprises based on their own situation and government economic policies was explored. Finally, based on the previous analysis and research, some practical suggestions were proposed to help enterprises make more reasonable capital structure decisions.

2. M&M Theorem

The MM theory is a capital structure model developed by two economists. The original theory did not consider the impact of income tax on capital structure and assumed that the total value of a company is independent of its capital structure. However, the revised theory takes into account the impact of income tax. It proposes that the higher the debt, the lower the weighted average cost of the company by adjusting financial leverage, and the higher the total value of the company. The optimal capital structure is considered to be the situation where the debt capital ratio is 100%. However, the initial and revised versions of the MM theory have limitations. They are based on idealized assumptions that are far from reality and ignore transaction costs in the actual market. Moreover, this theory analyzes data statically, without considering the impact of macroeconomic factors and changes in the company's business model on capital structure. Therefore, it needs more dynamism and timeliness. Despite these limitations, many scholars around the world have conducted empirical research on capital structure for decades to test the influencing factors and the optimal composition of capital structure. However, research has found that the empirical test results cannot strongly support the MM theory, which has limitations [2].

3. Capital Structure in the Different Industries

3.1. Capital-Intensive Industry

In the development process of capital-intensive industries, there are many applications of technology and equipment, and the manufacturing industry requires a large amount of investment. Enterprises rely heavily on large amounts of investment. For such enterprises, the expansion of revenue depends on the increase of production capacity, which in turn depends on the investment of capital, which requires the enterprise to engage in a large amount of debt and financing activities.

The real estate industry requires substantial financing to acquire land and construct buildings. Large real estate companies often possess higher credit ratings and lower financing rates, whereas small companies often have financing rates several points higher than large companies. This indicates significant net profit and valuation differences between large and small companies. Taking the Poly Group in China as an example, in terms of financing structure, Poly Real Estate maintains a high asset-liability ratio. It relies primarily on debt financing, with bank loans accounting for the majority. Nevertheless, bank loan operations are also affected due to the constant alterations in macroeconomic and fiscal policies. It can be inferred that an excessive reliance on bank credit can result in a decrease in the company's ability to withstand risks. In the event of a large volume of vacant and overstocked housing, the company will be unable to repay the principal and interest to the bank in a timely manner, leading to a breakdown in the company's capital chain. The entire real estate industry will face a crisis of survival and development. Examining the real estate industry, a substantial capital investment, a singular capital structure, and a prolonged project cycle result in sluggish fund withdrawal. Based on a substantial amount of advance receipts, the real estate industry must opt for larger sums of longterm bank loans to alleviate the tension in the capital chain. Nevertheless, excessive debt will undoubtedly increase the company's financial burden. At the same time, it is relatively sensitive to

bank interest rate hikes. As interest rate hikes increase, the company's present value and stock prices will decrease, greatly reducing the company's ability to withstand risks [3].

With the continuous expansion of cities around the world, cars have entered family life. The total amount of the automobile manufacturing industry is growing rapidly, the industrial scale is constantly expanding, and the production capacity is constantly enhancing. However, there is still an imbalance in the capital structure of the automobile manufacturing industry in most countries. According to data from the Chinese automotive industry, the low debt interest rates of listed companies reflect the insufficient utilization of the "financial leverage" effect. The so-called "financial leverage" effect is that regardless of the company's operating profit, the debt interest and preferred stock dividends are fixed and unchanged. When the pre-interest and tax profit increases, the fixed financial expenses borne by each yuan of the surplus will be relatively reduced, which can bring more surplus to ordinary shareholders. When the investment profit margin is greater than the debt profit margin, financial leverage will have a positive effect, and its consequence is that the owner of the enterprise will obtain greater additional income. The additional profits brought about by financial leverage are financial leverage benefits. When the investment profit margin is less than the debt profit margin, financial leverage will have a negative effect, with the consequence that the enterprise owner will bear greater additional losses. These additional losses constitute financial risks for the enterprise and even lead to bankruptcy. This uncertainty is the financial risk that a company bears when using its liabilities. Debt structure is another important aspect of a company's capital structure. In the analysis of listed companies in the Chinese automotive industry, it can be found that the proportion of short-term assetliability ratio of listed companies in the automotive industry is as high as 40% or more, and some companies even reach 50%, which is about 12 percentage points higher than other countries in the world. Therefore, although the total asset-liability ratio of Chinese automobile manufacturing listed companies is lower than the average level of other countries, their current liabilities to total assets ratio is relatively higher than the average level of foreign countries. Excessive short-term liabilities can cause listed companies to face significant debt repayment pressure, affect their normal investment activities, and even affect their refinancing ability and daily production and operation activities. In addition, the high cost of short-term liabilities is not conducive to the long-term development of the company [4].

3.2. Labor-Intensive Industry

The capital for labor-intensive industries mainly comes from three sources: their own accumulation, loans from financial institutions, and commercial credit. A majority of labor-intensive enterprises are family-owned enterprises that rely mainly on the internal generation of capital and retained earnings for their funding. However, a significant amount of capital investment is required during the industrial upgrading process. Given their relatively low profitability and positioning at the lower end of the value chain, labor-intensive enterprises need help to meet the financial needs of their upgrading and growth solely through internal means. Therefore, external financing becomes necessary, which often takes the form of borrowing from banks and other financial institutions [5, 6].

Various factors exacerbate the financing bottleneck facing labor-intensive small and medium-sized enterprises (SMEs). These include their small scale, limited capital, low industrial technology content, and strong dependence on the international market. Due to severe information asymmetry, commercial banks incur higher management and transaction costs when extending loans to SMEs. Additionally, the poor risk resistance and high operational risks associated with small and medium-sized enterprises, coupled with the high riskiness of their loans, lead banks to increase the loan threshold from a cost-effectiveness perspective. This results in a more pronounced financing bottleneck for these enterprises. Financial institutions tend to prefer high-tech SMEs when choosing loan targets, and the number of loans granted to labor-intensive SMEs is extremely limited.

According to data statistics, the author of the literature review concludes that profitable labor-intensive enterprises tend to prioritize the use of internal funds over external financing. They anticipate generating more internal funds through production activities and relying less on external debt. The leverage ratio of the enterprise is expected to decrease as profitability increases. Some companies opt not to utilize external debt capital to avoid interference with business activities, ensure control of the company, improve its profitability, and reduce dependence on debt. In the retail industry, intangible assets such as patents or contractual rights, goodwill, and replicas can obtain external financing rights and franchise rights, which can be utilized to support debt. However, if intangible assets encounter issues, it can lead to dishonesty, loss of loan opportunities, and unstable external financing sources.

3.3. Innovative Industry

Many technology-based companies are knowledge-based rather than relying on physical assets, making it challenging to predict the success and valuation of a product, as well as the company's future prospects. The industry faces financing difficulties, often resulting in capital shortages or acquisitions under adverse conditions for the company. However, attracting external funds for company development remains crucial.

In the literature, it is evident that the historical survey indicates that companies relying on technology as their mainstay face unique difficulties. Difficulties in funding are linked to the absence of tangible assets as collateral and minimal or no track record of performance. Since companies are new to the market, investors find it challenging to determine product value and company potential. Additionally, scientific and technologically innovative companies require large capital investments for research and development and higher manpower and material investments. The entire production line undergoes changes during the research and development phase, including repeated experiments, sample debugging, technical inspection, and final product generation. All these processes require substantial capital investment. Furthermore, during its development, the company is bound to encounter various risks and uncertainties, including market risks, technical risks, financial risks, and unforeseeable risks, which result in many sunk costs. However, compared to traditional industries, technology-based enterprises can attract more foreign debts and external equity [7].

The Company issues shares and sells equity to investors to obtain financing funds. Its high-quality IP and rapidly growing innovation potential can attract higher levels of external equity capital. However, different companies in different life cycles choose different financing modes. Small and medium-sized enterprises have a large capital demand in the initial stage and require government policies and capital support. Their capital source is usually creditor's rights financing. Generally speaking, the asset-liability ratio of technology-based SMEs is very high, and it is more obvious in the initial stage of enterprises, so many technology-based SMEs in the initial stage of financial indicators are not good-looking. In addition, SMEs often require temporary financing to address short-term liquidity shortfalls. However, the temporary financing of technology-based SMEs has the characteristics of fast capital demand. The short-term capital demand is small, but the time is tight, the requirements for "fast" are very high, and funds are required to be in place in time. Finally, due to their originality, small and medium-sized technology-based enterprises often do not have a large number of fixed assets, and their research and development results are mostly intangible assets, and intellectual property rights, which cannot be mortgaged. Combined with low credibility, it is often difficult to obtain credit loans. Most mature enterprises rely on bank credit financing to ensure the stability of the company's control [8].

4. Capital Structure in the Different Market

4.1. Developed vs. Developing Countries

The difference in financing structure between developed countries and developing countries is mainly caused by the difference in economic development level, financial market maturity, policy environment, social credit system and other factors. The differences in financing structure between developed and developing countries are mainly reflected in the following these aspects.

The proportion of direct financing and indirect financing is different. Developed countries have high economic development levels, deep marketization degrees, well-developed financial markets, and developed direct financing markets. Developing countries have low economic development levels, shallow marketization, immature financial markets, and underdeveloped direct financing markets, so they depend more on indirect financing. Therefore, developed countries mainly rely on direct financing, supplemented by indirect financing. Meanwhile, developing countries rely on indirect financing, supplemented by direct financing. Financial institutions in developed countries are of various large scale types, including commercial banks, insurance companies, securities companies, fund companies, and other financial institutions, which can provide diversified financial products and services, and the direct financing market is developed. However, the financial institutions in developing countries are relatively single and small, dominated by commercial banks. In contrast, non-bank financial institutions need to be more developed, resulting in a lack of diversification in the financial market and a lag in the direct financing market.

In addition, different countries have different policy environments and supervision systems. Developed countries have relatively stable policy environments, sound supervision systems, high degree of financial market liberalization, and financial institutions can make independent decisions to give full play to the role of market mechanism. However, the unstable policy environment, incomplete supervision system, low degree of financial market liberalization, and more government interventions in the financial market in developing countries lead to limited behaviors of financial institutions and market entities. Moreover, the sound social credit system and legal environment of developed countries can guarantee the rights and interests of investors and encourage the development of direct financing. However, the social credit system of developing countries could be better, the legal environment could be better, and there is no protection mechanism for investors, so the development of the direct financing market is restricted.

Examining the statistical data, it can be observed that the financing models employed by developed economies fall into two categories: the first being the securities financing-centered model, typified by the United States and Europe, where securities financing accounts for over 55% of the enterprises' external financing; the second being the bank loan financing-centered model, represented by East Asian countries like Japan, Korea, and Germany, where bank loan financing constitutes over 80% of the enterprises' external financing. However, in developing economies, the financing model is dominated by equity financing [9].

4.2. Emerging Markets in the Developing Countries

The financing structure of emerging market enterprises in developing countries is diversified, and various financing modes have their scope and limitations in different stages and fields. With the economic development and the improvement of market conditions, the financing structure of enterprises will be constantly changed and adjusted. Since the economic environment and market conditions in developing countries are often complex, endogenous financing has become the preferred mode of corporate financing. Second, equity financing is often the primary option for a corporate listing or private equity investment. Equity financing can help enterprises obtain a large amount of

capital and introduce the professional knowledge and resources of investors to enhance the competitiveness of enterprises. Compared with creditors' rights financing, which plays an important role in developed countries, the proportion of creditors' rights financing is relatively small in developing countries due to the relatively lagged development of the financial market. However, with the gradual improvement of the financial market, the importance of debt financing in developing countries will gradually increase. In addition, government policy financing has provided great assistance to growth enterprises. Many developing countries have policy financial institutions or loan projects, usually providing enterprises with low or non-interest loans. They are of great significance in supporting enterprise development and realizing national strategic objectives. There is also project financing. To meet the investment needs of a specific project, the enterprise or individual attracts investment by raising funds from investors and relying on the income expectation of the project. This financing mode has the advantages of high flexibility, high capital use efficiency, and risk dispersion. Still, it also requires detailed project planning, feasibility study, risk assessment, and other preliminary work.

The article introduces and analyzes the accounting and stock market data of the listed companies in Ho Chi Minh City, Vietnam, and studies the relationship between the capital structure of the listed companies and shareholder value. The actual data prove that the company development in Vietnam attaches great importance to financial leverage, and the debt financing cost is higher than the income, so the preferred capital structure is equity financing. This fact study strongly confirms the characteristics of enterprise capital structure in emerging markets of developing countries [10].

5. Conclusion

The capital structure of a company reflects its source and composition of funds, which directly affects the company's business decisions and financing capabilities. A reasonable capital structure can help enterprises better cope with market changes and challenges, while improving their profitability and risk tolerance, which is conducive to better growth and long-term development of enterprises. The capital structure of enterprises largely affects their investment decisions and innovation capabilities, thereby affecting economic growth. By optimizing capital structure, enterprises can better utilize funds, improve investment efficiency, promote technological progress and industrial upgrading, and thus promote economic growth. The capital structure of a company also reflects its financing methods and strategies, which have a profound impact on the financial market. A reasonable capital structure helps to improve the financing efficiency of enterprises, reduce financing costs, and also helps to stabilize the financial market, and reduce market risks.

This research found limitations in economic theory and idealization of model settings, so choosing a financing structure should be primarily based on the company's strategic goals. When a company seeks to expand market share and improve competitiveness, it may need more external financing to support its expansion plan. If a company wishes to improve profitability and maintain a stable operating condition, it may require more internal financing to support its daily operations and reduce financial risks. The capital structure of a company should be consistent with its strategic development goals. If the capital structure is unreasonable, it may hinder the implementation of the strategy, thereby affecting the development of the company. Therefore, companies should reasonably choose and adjust their capital structure based on their operating conditions and market environment. Financing costs and risks are also factors that must be considered. There are differences in the costs and risks of different financing methods. The company should analyze and compare the funding costs of various financing methods based on its own financial situation and business plan in order to select financing methods and combinations with lower funding costs. The risk of internal financing is minimal as its use is flexible and autonomous, and it does not increase the company's debt burden. The risk of external financing depends on the specific financing method and market environment.

Proceedings of the 3rd International Conference on Business and Policy Studies DOI: 10.54254/2754-1169/75/20241610

Companies should choose financing methods and combinations with controllable risks based on their own risk tolerance and market environment. Finally, the macroeconomic environment must be addressed. During periods of rapid economic growth, companies may need more external financing to support their expansion plans. When economic growth begins to slow down, companies may need to gradually shrink their debt financing scale and minimize using debt financing methods. Companies can make correct financing decisions and promote sustainable development by comprehensively considering these factors.

References

- [1] Myers, S. C. (2001). Capital structure. Journal of Economic Perspectives, 15(2), 81–102.
- [2] Gordon, M. J. (1989). Corporate Finance under the MM Theorems. Financial Management, 18(2), 19.
- [3] Liow, K. H. (2010). Firm value, growth, profitability and capital structure of listed real estate companies: an international perspective. Journal of Property Research, 27(2), 119–146.
- [4] Jani, R., & Bhatt, S. (2015). Capital Structure Determinants: A Case Study of Automobile Industry. International Journal of Research and Analytical Reviews, 2(1), 67-71.
- [5] She, R., & Guo, J. (2018). Capital Structure and Firm Performance: Empirical Research Based on Global E-Retailing Companies. 2018 IEEE 15th International Conference on e-Business Engineering (ICEBE).
- [6] Abdou, H. A., Kuzmic, A., Pointon, J., & Lister, R. J. (2012). Determinants of Capital Structure in the UK Retail Industry: A Comparison of Multiple Regression and Generalized Regression Neural Network. Intelligent Systems in Accounting, Finance and Management, 19(3), 151–169.
- [7] Coleman, S., & Robb, A. (2012). Capital structure theory and new technology firms: is there a match? Management Research Review, 35(2), 106–120.
- [8] Hui, X., Li, B., & Li, M. (2018). Entrepreneurial management equity allocation and financing structure optimization of technology-based entrepreneurial firm. Nankai Business Review International, 9(3), 395–412.
- [9] Akdal, S. (2011). How do firm characteristics affect capital structure? Some UK evidence. Social Science Research Network.
- [10] Vo, X. V., & Ellis, C. (2017). An empirical investigation of capital structure and firm value in Vietnam. Finance Research Letters, 22, 90–94.