Research on the Optimal Design of Soccer Robot based on the Mechanical Analysis

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Abstract: With the wide application of electronic information technology in the field of production and the continuous deepening of economic globalization, revolutionary changes have taken place in the mode of production around the world. There are two main financing channels for SMEs: direct financing and indirect financing. However, these two financing channels for SMEs in China are not smooth, and there are some problems. The healthy development of small and medium-sized enterprises cannot be separated from the vigorous support of various funds, which generally come from endogenous financing and external financing. Endogenous financing refers to the process in which small and medium-sized enterprises continuously convert their depreciation and retained earnings into investment. The research and analysis passed by this paper put forward some countermeasures and suggestions for solving the financing difficulties of SMEs. The ideal SME financing system should be composed of commercial small and medium-sized banks and cooperative loan financial institutions. We should improve the creditworthiness of enterprises, expand financing, and learn from the successful experiences of other countries. Make the financing problem of SMEs better solved, thus promoting China's economic development.

1. Introduction

With the wide application of electronic information technology in the field of production and the continuous deepening of economic globalization, revolutionary changes have taken place in the mode of production in all countries of the world [1]. The most prominent manifestation is that the high-tech industry with IT as its main content has become the leading force in promoting economic development, and the small and medium-sized high-tech enterprises, including our country, have therefore formed and developed rapidly [2]. The operational difficulties of SMEs, especially the financing difficulties, have gradually become the focus of discussion. This discussion has greatly promoted our understanding of SMEs and has had a positive impact on policy level [3]. The healthy development of small and medium-sized enterprises cannot be separated from the vigorous support of various funds, which generally come from endogenous financing and external financing. Endogenous financing refers to the process in which small and medium-sized enterprises continuously convert their depreciation and retained earnings into investment [4]. Whether the financial system is perfect and effective depends to a large extent on the extent to which the system itself can solve the problem of information asymmetry [5]. The financial system makes it possible to transfer funds from economic agents who lack productive investment opportunities to those who have such opportunities [6]. Most of the SMEs in China are labor-intensive, so many companies are denied outside the direct financing market.

There are two types of financing channels for SMEs: direct financing and indirect financing. However, these two financing channels for SMEs in China are not smooth, and there are certain problems [7]. The development of high-tech industries is inseparable from the investment of funds. The special national conditions in China have led to the problem of financing difficulties in SMEs in China. The difficulty of financing has also become a bottleneck for the growth of China's SMEs. External financing refers to the process of absorbing the idle funds of other economic entities and transforming them into their own investment, mainly including bank loans, non-bank financial institution loans, issuing corporate bonds and stock listing financing [8]. The financial system can

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effectively complete this process, otherwise, the economic system will not operate well and economic growth will be blocked. When the information transparency of the enterprise is high, the risk compensation required by the fund provider when transferring funds is low, so the enterprise does not have to bear excessive additional risk compensation [9]. In order to allocate economic resources more reasonably, activate our market economy, and enhance the vitality and sustainability of our economic development. It is particularly important to solve the financing problems of small and medium-sized enterprises in China and promote their substantial development.

2. Materials and Methods

Because of the financial risks involved, it is difficult for SMEs to issue corporate bonds with the approval of relevant government departments. Moreover, investors are worried about the credit of SMEs issuing bonds and lack confidence in purchasing them. Policy guarantee and commercial guarantee are difficult to coexist, and each city is different. For example, the financing guarantee industry in Hangzhou is mainly composed of commercial guarantee institutions, which account for more than 80% of the guarantee institutions in Hangzhou. The biggest obstacle that SMEs encounter in financing is information asymmetry between banks and enterprises. Small and medium-sized financial institutions, originating from the grass-roots level, are familiar with the small and medium-sized enterprises in the region. It has a strong popularity and geographic, and only operates within a certain geographical range. Therefore, we can quickly understand the actual situation and financing needs of SMEs, and effectively avoid the problem of information asymmetry. As a kind of credit guarantee, SME credit guarantee insurance has great commonality with the insurance industry. It is a kind of property insurance business with the characteristics of insurance and guarantee. After introducing credit guarantee insurance between SMEs and banks, combined with insurance company's investment consulting and risk management, it can effectively improve the financing environment for SMEs.

The enterprise funding system can help individuals develop business opportunities. The enterprise education system can enhance the opportunity recognition ability of enterprises. The optimization of the enterprise environment will provide more business opportunities for enterprises. This will help individuals develop new businesses and expand into new markets, thus contributing to the implementation of the opportunistic business model. Table 1 shows the results of empirical analysis of corporate policies and corporate attitudes.

Variable	Perceptual skills	Perceived opportunity	Enterprise willingness	Fear of failure
Enterprise funding	0.069	0.155	0.058	0.281
Enterprise Education	0.067	0.248	0.061	0.374
Enterprise environment	0.029	0.086	0.042	0.029
Economic Types	0.023	0.078	0.089	0.017

Table 1 Empirical analysis of corporate policies and corporate attitudes

SMEs have an advantage that large state-owned enterprises cannot match in terms of an active market economy and an increase in the vitality of China's market economy. This is because SMEs are more reasonable and sufficient in the use of economic resources. The difference in the amount of loans to SMEs between different financial institutions. Whether it is a bank financial institution or a non-bank financial institution, there are significant differences in the amount of loans to SMEs by different financial institutions. SMEs may play different roles in different countries because of the different characteristics of the basic aspects of economic operations in different countries. Among the various factors that reflect the basic differences between countries, the economically decisive factor is the national factor endowment structure [10]. In the process of development and

growth of small and medium-sized enterprises, financing difficulties have always been the primary problem that troubles them. However, as a source of financing, SMEs are faced with the situation that financial institutions are unwilling to lend to SMEs in the process of applying for loans from financial institutions. The demand for SMEs'loans is difficult to meet. Because of the lack of government background and the small size of commercial guarantee institutions, it is difficult for banks to agree to take corresponding responsibilities.

Innovation-driven economies scored higher on corporate policy than investment-driven economies. This is mainly due to the higher level of economic development driven by innovation, the more perfect policy system and the higher efficiency of enterprise resource allocation. Figure 1 is a conceptual model of the impact mechanism of enterprise policy on enterprise behavior.

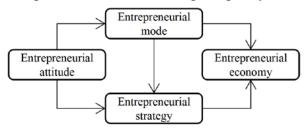


Fig.1. Conceptual model of the impact of corporate policy on corporate behavior

3. Result Analysis and Discussion

In the process of continuous development of the market economy, China's SMEs pay more attention to economic interests and short-term interests, but lack long-term planning, so credit issues have not received enough attention. The so-called factor endowment structure is the composition of capital, labor and natural resources among the production factors owned by the state at different times. According to the theory of optimal resource allocation, countries with different factor endowments should choose different ways of production organization. SMEs have evaded bank debts in the name of bankruptcy and restructuring. The non-performing asset ratio of SMEs is far higher than that of large enterprises. The low willingness and loan quota of financial institutions to SMEs is due to the credit problems of SMEs. The financing of small and medium-sized enterprises is also the main business of city commercial banks, and the government background of both parties enables city commercial banks to meet the conditions put forward by guarantee agencies on the proportion of responsibility sharing and preferential interest rates.

Due to the characteristics of factor endowment in China, labor-intensive industries in China can generally create more economic surplus. Therefore, it has made great contributions to capital accumulation, factor endowment structure upgrading and economic growth. So far, we have realized the special significance of developing small and medium-sized enterprises for China. Data mining process in financial analysis is generally composed of five main stages: determining the object of financial analysis, data preparation, data mining, result analysis and knowledge assimilation, as shown in Figure 2.

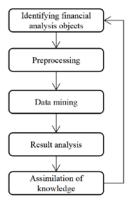


Fig.2. Data mining process in financial analysis and management

In the process of studying international enterprises, it is often proposed to study related concepts from the extension of resources. Entrepreneurs effectively lead and unite employees, and drive the enthusiasm of employees to work, which is conducive to the improvement of corporate performance. Sensitivity analysis can be performed for each influencing factor of a single project, and the risk management of the project can be performed from the results of the analysis. Table 2 shows the sensitivity analysis of enterprise risk assessment.

Table 2 Risk assessment sensitivity analysis

	Evaluation value	Post-change score
Environmental risk	0.745	0.748
Production risk	0.844	0.894
Management risk	0.733	0.766
Technology risk	0.635	0.643
Market risk	0.716	0.794

In order to provide a good financing environment for small and medium-sized enterprises, the government should focus on the laws and regulations of the construction of financial institutions. Provide good financial system guarantee and policy coordination for SMEs'financing. In addition, capital market innovation is particularly important. Small and medium-sized financial institutions also have the advantages of flexible mechanism, short agency chain, clear property rights and good risk control ability. They can carry out the financing work of small and medium-sized enterprises quickly and well. Generally speaking, as an individual financial provider, it is impossible to accomplish this task. This requires fund users to improve the transparency of operating conditions by means of information disclosure, fair accounting, auditing and other third-party supervision. Therefore, in addition to requiring a relatively complete social notarization mechanism to achieve the above transparency, the direct financing method also requires the capital users to be large-scale enterprises. The larger the size of the guarantee institution, the stronger the ability to resist risks. In terms of direct financing, SMEs should be guaranteed to enter the capital market with ease and provide a good SME listing environment. In order to promote the listing work, provide financing opportunities for listed companies with growth, and encourage SMEs to go public.

4. Conclusion

The development of small and medium-sized enterprises is an important part of China's economic development. Solving the financing difficulties of small and medium-sized enterprises is an important problem facing economic development. SMEs are an important factor in prospering China's economic market and promoting the rapid and sound development of China's socialist market economy. In view of the financing difficulties of SMEs, the development of small and medium-sized financial institutions is the best solution. China's resource endowment characteristics determine the development of labor-intensive SMEs is the best choice for the development of the economy at present and in the future. The research and analysis passed by this paper put forward some countermeasures and suggestions for solving the financing difficulties of SMEs. In order to develop small and medium-sized financial institutions, we must remove some major obstacles, including solving the operational difficulties of state-owned enterprises and state-owned banks. In order to solve the financing difficulties of small and medium-sized enterprises, it is necessary to improve their own problems and correct them in time. The ideal financing system for SMEs should consist of commercial SMEs and cooperative lending financial institutions. These financial institutions are mainly local financial institutions. We should improve the credit of enterprises, expand financing and learn from the successful experience of other countries. To solve the financing problem of small and medium-sized enterprises better, so as to promote the economic development of our country.

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