

Features of managing Chinese high-tech corporations

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Abstract. In recent years, Chinese high-tech enterprises have been experiencing a period of rapid development. Their scale and quantity have surpassed the figures of some developed countries in the world, and their share in the modern market structure has also increased. Discussing the characteristics of managing high-tech enterprises and managerial measures can not only help enhance the core competitiveness of these enterprises and establish their competitive advantages but also play a positive role in promoting market economy reforms. In the presented study, the author identifies the peculiarities of internal management in Chinese high-tech enterprises. Additionally, the article highlights issues in the management of high-tech enterprises and proposes measures for the improvement of management within this sector of the economy.

Keywords: Chinese industrial economy, high-tech sector, management philosophy, corporate risks

1 Introduction

1.1 Background of the study

The definition of high-tech enterprises in China is typically determined by the application of high-tech technologies, which consists of key elements such as technology, workforce, resources, and management. Under normal circumstances, such enterprises engage in research and development, production, and technical servicing of one or multiple high-tech technologies and their products. Their technical personnel involved in the research and development of high-tech products constitute over 10% of the total workforce of the enterprise, and the annual funds utilized by the enterprise for technological research and development constitute over 50% of the total annual sales volume. Simultaneously, these are scientific and technological enterprises with strong development potential or competitiveness in the future market.

High-tech enterprises base their development on advanced technologies and possess their own fundamental characteristics, such as high-risk innovation, high investment premium, high growth, short cycle, and high systemic integration. Compared to traditional enterprises, high-tech enterprises contain a higher level of scientific contribution and knowledge content, which shape distinct management characteristics of the enterprise.

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1.2 Review of the theoretical basis of the research:

Currently, Chinese high-tech enterprises have implemented integrated management of product research and development, production, sales, and after-sales service. From a capital operation perspective, their operational process becomes more intricate, yet gradually more flexible and diversified. Since high-tech technology accompanies social development and is a technology of gradual evolution, the sequence of capital operation processes differs from that of traditional enterprises, and the capital operation process of high-tech technologies will exhibit various stage differences [1, p. 337]. As a result, leaders of Chinese high-tech enterprises rely on the actual developmental needs of the enterprises. In accordance with different stages of development, managers formulate or adjust relevant capital management processes or control measures to ensure that capital operation and enterprise management keep pace with the times and comply with the laws of modern economics.

2 Materials and Methods

High-tech enterprises trace their roots back to the high-tech industry, and almost all their technical and managerial talents are among the elite of contemporary talents. Compared to employees of traditional enterprises, high-tech enterprise staff possess higher quality, stronger professional skills, greater social benefits, clearer awareness of rights protection, and higher personnel mobility. To avoid the loss of technical talents in the high-tech field, Chinese high-tech business managers have formulated a "people-oriented" management concept. It is necessary not only to establish a scientific and rational system of rewards and punishments, provide employees with the best social benefits, and integrate the "people-oriented" concept from the very beginning, but also to strengthen internal control within the enterprise, consider and solve problems from the employees' perspective, and implement the notion of "people-oriented," which stems from the essence of management [2, p. 41].

High-tech enterprises differ significantly from traditional companies. The survival of high-tech enterprises depends on entirely new theories of high technology and business, as well as entirely new management methods [3, p. 16]. High-tech enterprises need to establish a reliable information management system to ensure the transmission and shared utilization of relevant data. By creating a value chain analysis mechanism and consolidating the results of analysis, the company's strategic standards are reevaluated [4, p. 141].

To obtain accurate data for the development of enterprise development strategy standards, the application of value chain analysis is recommended. This will allow the enterprise to choose rational cost management methods according to its own cost management issues and achieve an overall level of cost management for the enterprise [5, p. 43]. From the perspective of production and operation of high-tech enterprises, innovations are not only reflected in products but also serve as powerful means of development and market capture [6, p. 84].

3 Results

Products developed by high-tech enterprises are at the forefront of global development, and innovative technologies, serving as the foundation for the advancement of high-tech enterprises, can not only help these enterprises quickly capture potential markets within a short period but also achieve minimal time investment for maximizing operational profit [7, p. 206]. Special

attention is given to the fact that high profitability should compensate for corresponding high market risks. Unlike traditional enterprises, the factors that induce business risks in high-tech enterprises are more complex and diversified [8, p. 15]. From the perspective of internal management and control, enterprises must fully comprehend potential risks in the business process and timely and effectively take various measures for risk prevention and mitigation. They should establish a reliable risk analysis and early warning system and employ a dependable internal management system to minimize the risks that may arise from the operation of the enterprise [9, p. 39].

The assessment system for a high-tech enterprise's business should encompass not only financial indicators of internal control but also specific non-financial indicators such as production structure, human resource structure, etc., provided that indicators related to the day-to-day operational activities of the enterprise are included in the business assessment system. The combination of financial and non-financial indicators has established a robust guiding standard and foundation for implementing internal management in high-tech enterprises, enhancing the effectiveness of management and control over managerial decisions.

Establishing a reliable internal management system, enhancing control over enterprise activities from within, and reducing various constraining factors that impact enterprise development are among the important issues that high-tech enterprises currently need to address. However, upon actual investigation, it becomes clear that the existing internal control system in China is primarily oriented towards industry management or industry associations, and a corresponding industry-specific internal management system has not been formulated to account for the particularities of high-tech enterprise development.

The majority of managerial personnel within the studied group of enterprises have technical backgrounds, and the enterprise management concepts and ideas they espouse do not necessarily fit with current demands [10, p. 67]. Insufficient levels of internal enterprise management and control also indirectly influence the external supervision mechanism of the enterprise, making it difficult for other managerial staff to enhance their management philosophies. This, in turn, hinders the development of the internal management system [11, p. 9].

With the continuous expansion of production and operation scales of high-tech enterprises, their organizational structures have become more complex, and their business models have become more modern. In this context, improving internal enterprise management can not only enhance the comprehensive market competitiveness of the enterprise but also help the enterprise avoid market risks and generate maximum benefits.

Practice shows that some high-tech companies in China still face numerous challenges in risk analysis and other areas. For instance, risks related to policy choices and changes triggered by China's tax policy; business risks emerging for enterprises due to internal strategic decisions and external economic and social environments; various factors in the process of technological research and development as well as innovation can impact high-tech enterprises and pose potential risks for future development; intangible assets, being a crucial productive force for the advancement of high-tech enterprises, are also susceptible to market price fluctuations and business risks; risks associated with the return of market capital to high-tech enterprises, and so forth.

4 Discussion

To address the aforementioned issues, it is extremely important to establish a reliable system of

internal management and control based on enterprise development, risk prevention, supervision, and assurances. The financial management of high-tech enterprises needs to formulate standards, rules, and operational algorithms that correspond to the level of enterprise development and organize regular training for financial personnel. At the same time, according to the enterprise assessment mechanism, assessment results are linked to the efficiency of employee performance, and the overall business level and comprehensive quality of corporate financial personnel are thoroughly enhanced based on well-chosen business algorithms [12, p. 98].

Cost control is another component of improving the management system in high-tech enterprises, allowing for the elevation of the comprehensive level of financial management system implementation. Primarily, strategic enterprise management and cost control are organically integrated, and cost control extends from the enterprise department to research and development of the enterprise's products, production, sales, after-sales service, and other aspects. It is also necessary to strengthen cost control at every lifecycle stage of technical product manufacturing, integrate the product lifecycle into the entire business activities of the enterprise, and adopt various management strategies for different stages of product development.

Managers must consider two factors - the enterprise's marketing strategy and the marketing cycle. When determining market prices for a product, they aim to achieve an acceptable level of profitability across different stages of the product's lifecycle to compensate for the overall cost of the product's lifecycle. In this regard, it is advisable to implement a cost control information system that can effectively and timely reflect the current financial information of the enterprise and ensure the authenticity of data and information about the enterprise [13, p. 64]. At the same time, this is also the best way to contribute to the implementation and support of corporate decision-making. Creating an information system can also facilitate the shared use of the enterprise's internal resources, and issues of customer feedback can be resolved at once, helping to enhance the core competitiveness of the enterprise [14, p. 62].

Furthermore, high-tech companies require significant improvement in the enterprise risk management system and the integration of a risk management system into the overall enterprise management system and process, which contributes to the effective prevention of risk realization. For this purpose, a comprehensive assessment of potential enterprise risks can be conducted, and corresponding plans can be formulated based on assessment results - identifying external environmental factors that could lead to risks for the enterprise and using statistical data and predictive information to effectively prevent various risks.

5 Conclusion

Being a product of the overall development of modern economy, society, as well as the scientific and technical community, the high-tech industry is a product of its time. This is because high-tech enterprises have distinctive capital operations, people-oriented management concepts, innovative production and operational strategies, which entail the coexistence of high profitability and high risks. Additionally, they involve a combination of financial indicators and a non-financial performance evaluation system, along with other management characteristics, the analysis of which becomes extremely important in modern conditions [15, p. 44].

In the process of management, various complex issues also arise, such as an imperfect internal management system, where leadership does not pay sufficient attention to management,

leading to the need for changes aimed at improving the quality of employees' work and comprehensive risk analysis.

Therefore, strengthening the internal management of high-tech enterprises, enhancing management's awareness of advanced enterprise management methods, comprehensively improving the quality and business opportunities of company employees, as well as enhancing various risk prevention measures, play a significant role in enhancing the competitiveness of enterprises and achieving sustainable development.

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