# Comparative Analysis of High-Tech Enterprises and Non-High-Tech Enterprises——Software and Information Technology Services

# Kaijin Zhao

College of management, Shanghai University, Shanghai, 201800, China 1821917858@qq.com

ABSTRACT. High-tech industries are knowledge-intensive and technology-intensive industries. The leading technology of the product must belong to the identified high-tech fields and must include technologically advanced technological breakthroughs in the high-tech field. This paper chooses the software and information technology industry that relies on technological innovation to conduct financial analysis and research on high-tech enterprises and non-high-tech enterprises, discuss the similarities and differences between high-tech enterprises and non-high-tech enterprises, and study the comparative advantages of high-tech enterprises. Try to encourage enterprises to improve their technological innovation capabilities and improve their competitiveness and profitability.

KEYWORDS: High-tech, financial analysis, information technology

## 1. Introduction

Under the background of globalization of market economy, diversification of market demand and popularization of information technology, enterprises are facing increasingly cruel competition environment. In order to cope with the fierce competition environment, enterprises need to increase innovation and enhance their competitiveness. In order to implement the spirit of the relevant documents such as the opinions of the CPC Central Committee and the State Council on deepening the reform of system and mechanism and accelerating the implementation of innovation driven development strategy, and better encourage the high-tech industry, the state has constantly improved the relevant documents and regulations such as the administrative measures for the identification of high-tech enterprises, issued preferential tax policies, and attracted non-tech enterprises to transform into high-tech enterprises, This will promote economic restructuring, supply side reform and

steady economic development. It is of great practical significance for the society to strengthen the research on high-tech enterprises.

Software and information technology service industry refers to the business activities that use computer, communication network and other technologies to produce, collect, process, store, transport, retrieve and utilize information, and provide information services. The software and information technology service industry is highly dependent on technology innovation and belongs to technology intensive industry. At the same time, the software and information technology service industry has the outstanding characteristics of rapid technology update, high product added value, wide application field, strong penetration ability, low resource consumption, full utilization of human resources, etc., which plays an important role in supporting and leading the economic and social development. Therefore, this paper chooses software and information technology service industry to study the financial differences between high-tech enterprises and non high-tech enterprises.

#### 2. Identification of high-tech enterprises

High and new technology industry refers to a collection of enterprises engaged in the research, development, production and technical service of one or more high and new technologies and their products on the basis of high and new technology. The key technology development of this industry is often difficult, but once the development is successful, it will obtain higher economic and social benefits than the general.

With the continuous breakthrough of science and technology, along with the influence of the trend of global economic integration, the proportion of high and new technology in China's economic development is increasing day by day; high and new technology enterprises are also gradually highly concerned by the state. High and new technology enterprises refer to the organizations that continuously carry out research and development and transformation of technological achievements, form core independent intellectual property rights of enterprises, and carry out business activities on this basis, and register in China (excluding Hong Kong, Macao and Taiwan) for more than one year. Generally speaking, enterprises with independent intellectual property rights can be recognized as high-tech enterprises after enterprise application, expert evaluation, review and identification.

For enterprises applying for high and new technology, being a high and new technology enterprise can not only conform to the national development strategy and promote their own development, but also enjoy tax preference and relevant policy support. For high and new technology, it is easy for its industry or technology to develop rapidly, whether it is to obtain the financial support of local governments and industry organizations, or to attract the credit tendency of venture capital institutions and financial institutions.

# 3. Financial comparative analysis of high and new technology enterprises and non high and new technology enterprises

#### 3.1 DuPont financial analysis system

As an indicator of the return on capital of high-tech enterprises, the return on net assets can reflect the level of return on shareholders' equity and measure the efficiency of enterprises in using their own capital. This paper uses DuPont property analysis system to comprehensively evaluate the financial situation of high-tech enterprises and non-high-tech enterprises.

Equity net interest rate	2013	2014	2015	2016	2017
No	0.1098	0.109	0.1044	0.1075	0.0971
Yes	0.1086	0.1033	0.081	0.088	0.0728

Table 1 Equity net interest rate

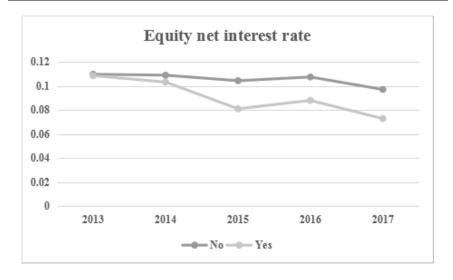


Figure. 1 Equity net interest rate

It can be seen from Figur.1 and Table 1 that high-tech enterprises are inferior to non-high-tech enterprises in terms of equity net interest rate. This does not mean that the profitability of non-high-tech enterprises is better. In order to better understand the reasons for the low equity net interest rate of high-tech enterprises, the equity net interest rate is divided into operating net interest rate, total asset turnover rate and equity multiplier to analyze.

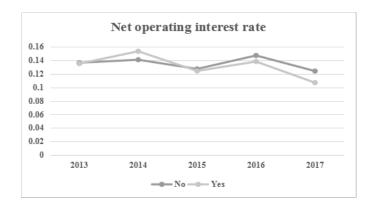


Figure .2 Equity net interest rate

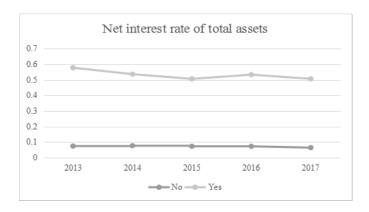


Figure. 3 Net interest of total assets

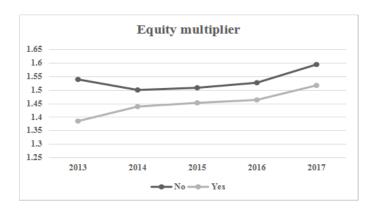


Figure. 4 Equity multiplier

It can be seen from figures. 2, 3 and 4 that in terms of operating net interest rate, there is little difference between high-tech enterprises and non high-tech enterprises. The net interest rate of total assets of high-tech enterprises is far higher than that of non high-tech enterprises, while the equity multiplier is lower than that of non high-tech enterprises. This shows that high-tech enterprises should be significantly better in terms of asset utilization efficiency, leading to the equity of high-tech enterprises. The reason why the net interest rate is lower than that of non-high-tech enterprises is that the equity multiplier of non-high-tech enterprises is higher. The reason for this phenomenon is that the high-tech enterprises can get the government's tax preference and policy support, as well as the industry's financial support, so the pressure on capital is lower.

#### 3.2 Development capacity analysis

The development ability of an enterprise, also known as the growth of an enterprise, is the development potential formed by the continuous expansion and accumulation of an enterprise through its own production and operation activities. The core of enterprise development ability measurement is enterprise value growth rate. The healthy development of an enterprise depends on many factors, including external business environment, internal quality and resource conditions. This paper mainly compares and analyzes the net profit growth rate, operating income growth rate and equity growth rate of enterprises.

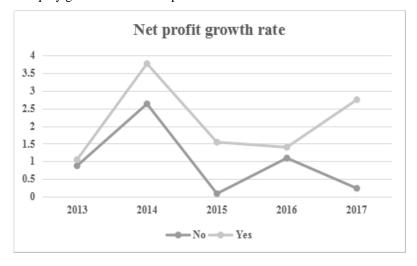


Figure. 5 Net profit growth rate

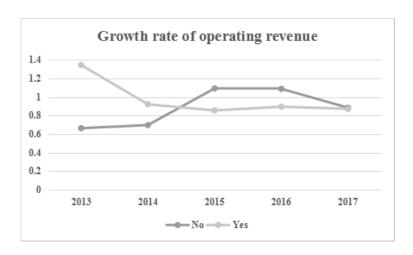


Figure. 6 Growth rate of operating revenue

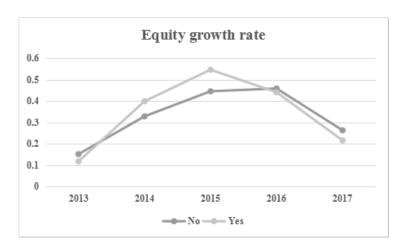


Figure. 7 Equity Growth rate

It can be seen from Figures. 5, 6 and 7 that the net profit growth rate of high-tech enterprises is stable higher than that of non high-tech enterprises, which shows that high-tech enterprises are better in the growth of profitability, and high-tech enterprises can maintain a higher and stable profitability. Moreover, there is no significant difference between the growth rate of business income and the growth rate of equity between high-tech enterprises and non high-tech enterprises, which shows that the resource utilization efficiency of high-tech enterprises is higher.

## 3.3 Profitability analysis

Profitability refers to the ability of an enterprise to obtain profits, also known as the capital or capital appreciation ability of an enterprise, which usually shows the amount and level of the enterprise's income in a certain period of time. This paper analyzes the profitability of high-tech enterprises and non-high-tech enterprises by selecting gross operating interest rate, net total asset interest rate and net operating interest rate.

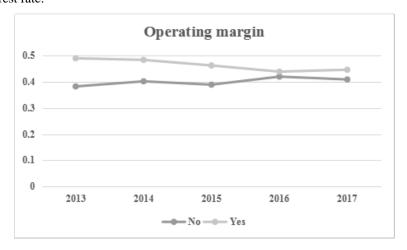


Figure. 8 Operating marginrate

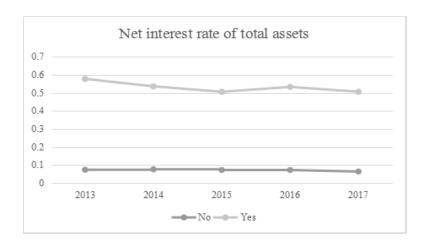


Figure. 9 Net interest rate of total assets

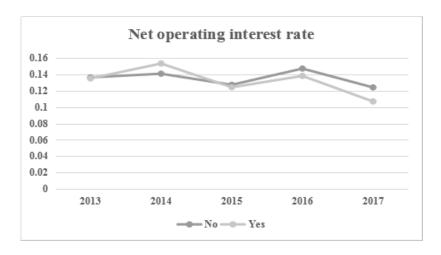


Figure. 10 Net operating interest rate

It can be seen from Figures. 8, 9 and 10 that the operating gross profit rate and the total net asset rate of high-tech enterprises are higher than those of non high-tech enterprises, while the difference between the two is not significant. With a high gross profit margin, the pricing of its products is more flexible. It occupies a favorable position in the price war, which is often used by domestic enterprises, and has more advantages in the product market. Therefore, high-tech enterprises not only have high efficiency of resource utilization, but also their products are more advantageous in the market competition, so high-tech enterprises are more competitive than non high-tech enterprises.

# 4. Conclusion

With the continuous development of China's social economy, the deepening of reform and opening up, the continuous improvement of the socialist market economy system, high-tech enterprises have a variety of advantages, and their status in China continues to improve. For high-tech enterprises, to become high-tech enterprises can not only conform to the national development strategy and promote their own development, but also enjoy tax preferences and relevant policy support. For high and new technology, it is easy for its industry or technology to develop rapidly, whether it is to obtain the financial support of local governments and industry organizations, or to attract the credit tendency of venture capital institutions and financial institutions. References

Innovation is the core power of enterprise development. Applying the innovation ability to the development of high and new technology and guiding the enterprise to follow the development path of independent innovation and continuous innovation will enable the enterprise to have strong technology innovation ability and high-end

technology development ability, which is conducive to the enterprise's development of domestic and foreign markets and rapid growth from technology content and scale extension.

Software and information technology service industry itself has the characteristics of rapid technology update, mainly relying on advanced technology, and the technology update technology is very fast, the market elimination rate is high, the industry has strong instability, so enterprises should reasonably estimate the input-output ratio to avoid low investment efficiency or waste of resources in innovation.

#### References

- [1] Tian Tian, Zhang Ningshan. Research on the identification and evaluation index system of high-tech enterprises [J]. Reform and opening up, 2017 (12): 77-78
- [2] Deng Bing. Evaluation model and empirical analysis of sustainable competitive advantage of high-tech enterprises [J]. Economic mathematics, 2016,33 (03): 57-66
- [3] Lu Quan. Financial management and performance evaluation of high-tech enterprises [J]. China International Finance and Economics (Chinese and English), 2017 (07): 27-30
- [4] Xu Lingling, Liu Fang. High tech enterprise identification, financial development level and enterprise innovation [J]. Journal of Finance and accounting, 2018 (22): 37-45
- [5] Liu Fengxia, Wang Baoshi. Summary of research on performance evaluation and motivation of R & D personnel in high-tech enterprises [J]. Science and technology management, 2015, (S1): 120-123
- [6] Yang Chunli, Zhao Ying. Study on the construction of equity incentive performance evaluation system of new technology enterprises [J]. Learning and practice, 2016, (08): 39-47
- [7] Wang Yubei. On the innovation mode reform of financial management of hightech enterprises [J]. China International Finance and Economics (Chinese and English), 2017 (07)
- [8] Meng Xianchun. Analysis of financial management status and innovation strategy of high-tech enterprises [J]. Economic and trade practice, 2016 (24)