

Research on the financing efficiency of high-tech enterprises in the provinces along the “Belt and Road”

Xinxin Shi

Liaoning University of international business and economics, Financial management department, Dalian 116052, China

Abstract: With the rapid development of high and new technology industry, high-tech industry and its industry have become the engine of economic and social development, and also an important symbol to measure the strength of a country. The high quality development of high-tech industry is of great significance to drive the vigorous development of economy. With the gradual strengthening of the role of high-tech enterprises in economic growth, the problems of insufficient funds and financing efficiency have become increasingly obvious, which seriously hinder their development. With the implementation of Belt and Road policy, will the financing efficiency of high-tech enterprises be improved? Based on the financing data of 24 innovative listed enterprises along the Belt and Road provinces for 5 years, this paper will analyze this problem and put forward countermeasures and suggestions.

Keywords: “Belt and Road”; Financing Efficiency; High-tech Enterprises

1. Background

According to the Outline of the 14th Five-Year Plan for National Economic and Social Development of the People’s Republic of China and 2035 Long-term Goals and General Secretary Xi’s 20th CPC report, China will actively build a new development pattern to further promote high-quality development of “Belt and Road”. It can be seen from this that promoting the high-quality development of “Belt and Road” is the future development direction of the country, and the high-tech industry is the vane of leading the high-quality development. The “Belt and Road” initiative enables China’s open economy to be extended vertically, with the opportunity to optimize its capital structure and achieve a high level of external financing.

2. The development challenges of China’s high-tech industry

In the development process of China’s high-tech industry, it has also faced some problems and challenges, mainly including the following aspects:

Firstly, problems of the transformation of scientific and technological achievements. Secondly, technical standards and norms are backward. The most importantly, the financing difficulty is the high-tech industry needs a lot of financial support, but the financing difficulty is a common problem. Financing difficulties will also lead to a series of low financing efficiency problems, such as high financing cost, long financing cycle and single financing method.

In response to these problems, the government and enterprises have adopted a series of policies and measures, to further promote the development of high-tech industries. In this context, whether China’s high-tech enterprises have successfully gone abroad and effectively conducted external financing, so that we will further study the issue.

3. The impact of the “Belt and Road” initiative on the China’s high-tech enterprises

On the push to build the silk road economic belt and vision and action of the maritime silk road in the 21st century, we can see along the Belt and Road provinces focus on 18 provinces, specific is: Xinjiang, Shanxi, Gansu, Ningxia, Qinghai, Inner Mongolia, such as north-west six provinces, Heilongjiang, Jilin, Liaoning and other northeast 3 provinces, Guangxi, Yunnan, Tibet and other southwest 3 provinces, Shanghai, Fujian, Guangdong, Zhejiang, Hainan and other 5 provinces, inland areas is Chongqing. In addition, the plan also mentioned the role of Hong Kong, Macao and Taiwan in the “Belt and Road”.

Qiao Minmin pointed out that the new round of scientific and technological revolution and industrial transformation makes the global

science and technology present a new development characteristics, that is, the international competition is gradually transformed into the standard competition, especially in the high-tech industry.

4. Theories and current situation related to the financing efficiency of high-tech enterprises

4.1 Financing efficiency theory

Diversified financing structure, diverse financing methods, the same input and output, naturally efficient comparison, Mr. Zeng Kanglin was the first to propose the concept of financing efficiency in China. The second is the transaction efficiency, which is divided into integration and the transaction efficiency of the market. It is the concept of time to evaluate the degree of the transaction time. Finally, the efficiency of resource allocation is achieved. Capital is also competitive and exclusive. Limited resources should flow to the sector with the largest output, which is the efficiency of resource allocation. Therefore, the above three aspects should be considered comprehensively in the study of financing efficiency, and the micro enterprise operation and the national macro market mechanism, so as to improve the financing efficiency.

4.2 Current situation of financing efficiency of high-tech enterprises along Belt and Road

Shen Yanbo made an empirical analysis of the financing data of 50 listed companies in 2017-2021 and found that the financing efficiency of the board enterprises is not high, only 9 effective average DEA, low scale efficiency is the key reason for the low comprehensive technical efficiency; the asset-liability ratio, operation and management level and the financing efficiency, profitability, liquidity ratio and the financing efficiency of the capital efficiency and the financing efficiency is not significant.

4.3 Current situation of financing efficiency of high-tech enterprises in provinces along Belt and Road

In order to study the current situation of financing efficiency of high-tech enterprises in provinces along the Belt and Road, based on Shen yanbo's research result, we selected the above 50 listed science and innovation enterprises, among which 24 of them are in provinces along the Belt and Road: Shanghai, Guangdong, Liaoning, Fujian, Zhejiang and other provinces.

Table 1 List of financing efficiency of some listed enterprises on the science and Technology Innovation Board in provinces along the Belt and Road in 2017-2021

order number	Enterprise referred to as	Security Code (SZ)	In the province	In 2017,	In 2018,	In 2019,	In 2020,	In 2021,	mean
1	SMIC	688981	Shanghai	1.32	1.31	1.26	1.22	1.19	1.26
2	Longyan new energy	688196	Fujian	0.31	0.47	1.43	1.95	1.75	1.18
3	Transsion holding	688036	Guang-dong	1.07	1.09	1.24	1.13	1.15	1.14
4	Chengda Biotechnology	688739	Liaoning	1.16	1.13	1.09	1.06	1.21	1.13
5	Hangzhou Kolin	688611	Zhejiang	1.25	1.07	1.01	1.09	1.05	1.09
6	ShenGong Shares	688233	Liaoning	1.36	1.56	1.31	0.36	0.58	1.03
7	GCH Technology	688625	Guang-dong	1.06	1.01	1.07	1.11	0.50	0.95
8	Haohai Bio-Tech	688366	Shanghai	1.13	1.13	1.11	1.01	0.21	0.92
9	ZJ Bio-Tech	688317	Shanghai	1.04	1.08	0.54	1.14	0.62	0.88
10	Jie te biological	688026	Guang-dong	0.53	1.02	1.01	0.51	0.46	0.71
11	Hao yuan medicine	688131	Shanghai	0.39	0.58	0.91	0.51	0.40	0.56
12	Yi Rui technology	688301	Shanghai	0.40	0.38	0.56	1.01	0.40	0.55
13	Titan technology	688133	Shanghai	0.67	0.62	1.00	0.28	0.17	0.55

14	Jiayuan technology	688388	Guang-dong	0.20	0.30	1.03	0.30	0.15	0.40
15	Bayi Space LCD Technology	688181	Heilong-jiang	0.28	0.44	0.47	0.33	0.32	0.37
16	Holystar Electrical Technology	688330	Shanghai	0.23	0.29	0.49	0.54	0.28	0.37
17	SuperTech Advanced Material	688398	Fujian	0.07	0.28	0.50	0.38	0.35	0.32
18	Lante Optics	688127	Zhejiang	0.45	0.50	0.15	0.26	0.18	0.31
19	Headman Machinery	688577	Zhejiang	0.23	0.31	0.33	0.29	0.28	0.29
20	JDL	688057	Shenzhen	0.19	0.20	0.21	0.32	0.23	0.23
21	HIUV New Materials	688680	Shanghai	0.13	0.09	0.37	0.33	0.21	0.23
22	Autowell Technology	688516	Liaoning	0.13	0.13	0.18	0.15	0.16	0.15
23	South Asia new material	688519	Shanghai	0.14	0.12	0.21	0.15	0.13	0.15
24	Swancor Advanced Materials	688585	Shanghai	0.09	0.04	0.21	0.11	0.03	0.10

Resource: Shen Yanbo. Research on the financing efficiency measurement and influencing factors of science and technology innovation enterprises.

Table 2: Distribution of enterprise financing efficiency value

Distribution of enterprise financing efficiency value				
Form of business enterprise	Efficiency value interval	Number	Proportion (%)	Enterprise
Financing of highly efficient enterprises	Efficiency value = 1	5	21%	SMIC\Longyan new energy\Transsion holding
Enterprises with medium financing efficiency	0.6 < efficiency value < 1	5	21%	GCH Technology、Haohai Bio-Tech、ZJ Bio-Tech
Enterprises with low financing efficiency	Efficiency values were < 0.6	14	58%	Autowell Technology, South Asia New material, Swancor Advanced Materials

From the overall perspective of analysis, 5 companies are in the high financing enterprises SMIC, Excellence New Energy, Transsion Holdings, etc., 5 companies are in the medium financing efficiency, Shenghe Technology, Haohai Shengke, Zhijiang Biology, and 14 companies are in the low financing efficiency, Ottaway, Nanya New Material, Shangwei New Material. From the time dimension, the financing efficiency of high-tech enterprises in the provinces along the Belt and Road line is generally low.

5. Financing efficiency and countermeasures of high-tech enterprises in provinces along the Belt and Road

5.1 Financing problems for high-tech enterprises in provinces along the Belt and Road

(1) The overall financing efficiency situation of science and technology innovation enterprises is not optimistic. The average financing efficiency of only 5 enterprises reaches 1, and the financing efficiency of most enterprises is low and there is more room for improvement.

(2) At present, most of the listed companies have not made effective use of the background advantages of the provinces along the Belt and Road, nor have they continued to introduce internal and external financing.

5.2 Solutions to the low financing efficiency of high-tech enterprises in provinces along the Belt and Road

(1) Improve the utilization rate of funds and broaden the financing channels. Enterprises should not only conduct in-depth analysis of

their own capital structure, and clarify the proportion and use of all kinds of funds (such as working capital, fixed capital, etc.),but also enterprises can expand financing channels and methods to improve financing efficiency.

(2) Focusing on the Belt and Road financing policy. First of all, enterprises should pay attention to the Belt and Road and green finance related policies issued by the government, Then we should strengthen economic and trade cooperation with countries and regions along the Belt and Road, promote the establishment of multilateral financial cooperation mechanism,

References

[1] Wang Zhihao. Analysis of financing efficiency and influencing factors of new Third Board high-tech enterprises. Henan University of Economics and Law, Henan, 2019

[2] Qiao Minmin. Research on the agglomeration effect of high-tech industries in the provinces along the “Belt and Road” [J]. Social Focus, 2021,25-26.

[3] Li Juncheng. Research on Chinese Enterprise Financing, Overseas Investment and Financial Performance under the “Belt and Road” initiative [D]. Beijing: Central University of Finance and Economics, 2020.

[4] Li Chen. A Study on the impact of the “Belt and Road” initiative on enterprise financialization and investment efficiency [D]. Shanxi Normal University, 2022.

[5] Shen Yanbo. Research on the financing efficiency measurement and influencing factors of science and technology innovation enterprises [J]. Business Accounting, 2023 (05) 29-32.

About the author:

Shi Xinxin (1994.10), female, Han Nationality, born in Dalian, Liaoning province. master, Assistant Professor, research direction on management accounting and Financial risk control.

Graduation from: University of North Florida

University-level Scientific Research Project (general project): This paper is the research result of “Research on the Financing Efficiency of High-tech Enterprises in provinces along the” Belt and Road “” (2023 XJLXYB20) of the university-level scientific research project of Liaoning University of International Business and Economics in 2023.