Analysis on Financing of Domestic Substitution Enterprises

- Taking Huawei as an Example

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Abstract. Under the background of global industrial chain reconstruction and intensified international competition, domestic substitution has become an important strategic trend for China's high-quality economic development. Domestic substitution not only indicates the independent control of core technologies, but also relates to the national industrial security and economic lifeline. However, the domestic substitution process is often accompanied by the characteristics of high investment, high risk and long cycle. From technology research and development to production capacity landing and to market expansion, every link cannot be separated from sufficient financial support. Due to enterprise financing is a key link to ensure the smooth progress of domestic substitution projects, the efficiency and quality of it directly affect the speed and depth of domestic substitution. This paper takes Huawei, a domestic substitution enterprise, as the research object, focusing on the financing situation of the enterprise, and analyzes the development status, financing mode, typical cases and key factors affecting financing of the enterprise, so as to provide reference for domestic substitution enterprises to solve financing problems and improve their financing ability, and help the effective implementation of China's domestic substitution strategy.

Keywords: Domestic substitution, enterprise financing, Huawei

1 Introduction

Under the background of domestic substitution strategy, as Huawei is a leading enterprise in the industry, its financing situation has attracted much attention. Domestic substitution strategy aims to realize the independent control of core technologies, reduce dependence on foreign technologies, and ensure national industrial security and stable economic development. Huawei has deeply practiced domestic substitution in communication, chips, intelligent terminals and other fields, and has achieved remarkable results from the core components of 5G communication equipment to the independent research and development of mobile phone chips. This paper deeply analyzes Huawei's business layout, development status and financing situation in

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domestic substitution, which is of great significance for similar enterprises and provides financing reference for them.

2 Overview of Financing Theory of Enterprises

Enterprise financing refers to the economic activities that enterprises raise funds through some channels and ways to meet the needs of production and operation, technological innovation and scale expansion [1]. Common financing theories include trade-off theory, pecking order theory and agency theory [2,3]. Trade-off theory holds that enterprise financing decision is a trade-off between the income, finance and cost of debt financing. Pecking order theory advocates that corporate financing should follow the order of internal financing, debt financing and equity financing [4]. In the agency theory, there is a principal-agent problem in the process of enterprise financing, and the conflict of interests between shareholders and creditors, management and shareholders will affect the financing decision of enterprises. In addition, diversity theory and machine learning theory are also widely used in enterprise financing [5,6,7].

3 Huawei's Business Layout and Development Status

Founded in 1987, Huawei started as an agent of PBX in Hong Kong and gradually embarked on the journey of independent entrepreneurship and innovation. In the early stage of development, Huawei focused on the research and development and production of communication equipment, and gradually emerged in the domestic communication market by continuously investing in research and development funds to improve the technical level of products. With the expansion of business, Huawei began to actively expand overseas markets, and won a place in the international communication market with its cost-effective products and excellent services. Today, Huawei has become the world's leading ICT infrastructure and intelligent terminal provider. In terms of business layout, Huawei mainly covers communication equipment, chips and intelligent terminals.

3.1 Business Layout

In the field of communication equipment, Huawei actively promotes domestic substitution in the construction of 5G base stations and optical communication networks. In the 5G base station, the chip independently developed by Huawei has realized the localization of key chips and greatly improved the performance of the base station. In the field of optical communication, Huawei has accelerated the realization of domestic production and built an independent and controllable industrial chain system in terms of the products like optical modules, optical fibers and cables.

In the field of chips, hisilicon is the chip research and development department of Huawei, which continues to make progress in mobile phone chips, communication baseband chips, artificial intelligence chips, etc. Kirin chip has excellent performance in graphics processing AI computing power, which has partially replaced foreign high-end chips. Huawei Ascend chip has broken foreign monopoly in the field of artificial intelligence computing, and widely been used in intelligent security, intelligent transportation and other scenarios.

In the field of smart terminals, Huawei's mobile phones have continuously increased the proportion of localization from operating systems to key components. The introduction of HarmonyOS operating system has built a domestic operating system ecosystem and realized the possibility of replacing Android system. In terms of components such as cameras and display screens, Huawei has worked closely with domestic suppliers to promote the localization and upgrading of related industries.

3.2 Development Status

In the global 5G communication market, Huawei's market share has been in the forefront for a long time, reaching 31% in 2024, and its domestic market share is over half. In the field of smart phones, despite the external pressure, Huawei's mobile phone market share in China has gradually picked up, reaching 28% in the fourth quarter of 2024, becoming the leader of domestic mobile phone brands.

The number of Huawei's patents in the communication field continues to grow. By the end of 2024, the number of 5G patents exceeded 4,000, accounting for 18% of the global 5G patents. In terms of chip technology, Huawei's advanced chip research and development of 7nm and below has made progress in stages, laying a firm foundation for subsequent domestic substitution.

In addition, Huawei has promoted the development of a large number of small and medium-sized enterprises in China through supply chain cooperation. In the field of chip manufacturing, SMIC has provided OEM services for Huawei, which has accelerated the upgrading of the domestic chip manufacturing industry. In the field of electronic components, Tri-ring Group supplied Huawei with high-performance circuit boards, electronic ceramics and other products, and realized the domestic substitution of related products, forming a coordinated development of domestic substitution industry ecology.

3.3 Huawei's Role in Domestic Substitution

In the process of domestic substitution, Huawei plays the role of core promoter and leader. In the field of communication equipment, with its strong R&D capabilities, Huawei has realized the domestic substitution of key components such as core chips and RF devices of 5G base stations, breaking the long-term monopoly of foreign enterprises and enhancing the competitiveness of China's communication industry. Huawei independently developed the plough chip, which greatly improved the integration and performance of 5G base stations, reduced the construction cost and promoted the rapid popularization of 5G networks in China. In the field of smart phones, through continuous investment in R&D, Huawei has achieved domestic substitution breakthroughs in core components such as chips, operating systems and camera components. Its mate series mobile phones have a domestic substitution rate of over 90%, and Kirin chips have returned to realize the 5G function, demonstrating Huawei's strong strength in high-end chip research and development. Huawei's successful practice not only promoted the coordinated development of upstream and downstream enterprises in the domestic industrial chain, but also provided valuable experience and demonstration effect for other enterprises to promote domestic substitution.

4 Huawei's Main Financing Model

4.1 Equity Financing

Employee Stock Ownership Plan.
Huawei's unique employee stock ownership plan is an important way of equity financing. By 2024, the shareholding ratio of Huawei employees reached 99.25%, and the number of employees participating in the shareholding exceeded 100,000. Through employee stock ownership, Huawei not only raised a lot of money, but also deeply bound the interests of employees with the interests of the company, enhancing the sense of belonging and loyalty of employees. For example, in the early stage of research and development of 5G technology, employees invested more than 50 billion yuan by holding shares. It provides strong financial support for research and development.

Strategic Investment and Cooperation.
Huawei actively introduces strategic investors and conducts in-depth cooperation with upstream and downstream enterprises in the industrial chain. In the field of smart cars, Huawei cooperates with Changan and other car companies to obtain strategic investment for the research and development and promotion of smart car solutions. In 2024, Huawei's cooperation project with Changan Automobile won an investment of 5 billion yuan from Changan Automobile, which accelerated the commercialization of Huawei's intelligent driving technology.

4.2 Bond Financing

Bank Loans.
Huawei has maintained good cooperative relations with many banks at home and abroad and obtained a lot of credit support. Domestically, large state-owned banks such as Industrial and Commercial Bank of China and China Construction Bank are Huawei's main cooperative banks. In 2024, the loan amount provided to Huawei exceeded 80 billion yuan, the loan interest rate ranged from 3% to 4%, and the loan period was mostly 3-5 years, which was used for projects such as the construction of communication equipment R&D and production bases. Internationally, HSBC, Standard Chartered Bank, etc. provided cross-border loans to Huawei, and the amount of cross-border loans reached 3 billion US dollars, which met the requirements of overseas business development funds.

Bond Issuance.

Huawei has issued bonds at home and abroad for many times. In 2024, Huawei issued two corporate bonds in China, with a total scale of 10 billion yuan, with a coupon profit of 3.2% and 3.5% respectively, with a term of 3 years and 5 years. The funds raised were used for 5G R&D and innovation. In overseas markets, Huawei issues 5-year and 10-year US dollar bonds. Coupon rate is 2.8% and 3.5% respectively. The issuance scale is nearly $2 billion, which broadens the financing channels and optimizes the debt structure.

4.3 Internal Fund Accumulation

Retained Profits.

With its strong market competitiveness and innovative ability, Huawei has achieved sustained profitability, and retained profits have become the main source of funds for Huawei. In 2024, Huawei achieved a net profit of 110 billion yuan, a year-on-year increase of 38%, and the retained profit rate reached 60%. About 66 billion yuan was used for R&D investment and business expansion. For example, the continuous optimization and ecological construction of HarmonyOS system, part of the funds come from retained profits. It has promoted the domestic substitution process of operating system.

Fund Operation Management.

Huawei has established an efficient operation and management system to improve the efficiency of fund use by optimizing the management of accounts receivable and reasonably arranging the occupation of inventory funds. In 2024, Huawei's average collection period was shortened from 90 days in 2019 to 75 days, releasing over 20 billion yuan, increasing the inventory turnover rate by 25%, saving about 15 billion yuan, effectively alleviating the financial pressure and enhancing the self-sufficiency of internal funds.

5 Key Factors Affecting Huawei's Financing

As a leading enterprise in the communication industry, Huawei's financing situation has attracted much attention. Huawei has deeply practiced domestic substitution in communication, chips, intelligent terminals and other fields, and has achieved remarkable results from the core components of 5G communication equipment to the independent research and development of mobile phone chips. This section mainly analyzes the key factors that affect Huawei's financing.

Enterprise's Own Factors.

This aspect is mainly reflected in technological innovation ability, enterprise scale and market positioning, and enterprise reputation and brand image. In terms of technological innovation capability, Huawei's strong technological innovation capability is the key to attracting financing. Huawei invests more than 15% of its sales revenue in R&D every year. In 2024, its R&D investment reached 220 billion yuan, accounting for 18% of its revenue. It has a large number of core patents in the fields of 5G, chips and artificial intelligence. By the end of 2024, the number of patent applications worldwide exceeded 120,000, and the number of authorized patents exceeded 40,000. This technical strength makes investors full of confidence in Huawei's future development and willing to provide financial support.

In terms of enterprise scale and market position, as the world's leading communication equipment and intelligent terminal enterprise, Huawei's enterprise scale and market position provide a solid guarantee for financing. In 2024, Huawei's revenue reached 810 billion yuan and its net profit reached 110 billion yuan, ranking first in the global communications industry. In the domestic market, Huawei occupies an important share in communication equipment, smart phones and other fields. Its huge scale and stable market reduce the financing risk, so bank investors are more willing to provide funds.

In terms of corporate reputation and brand image, Huawei's long-established good reputation and brand image have had a positive impact on financing. Globally, Huawei is famous for its high-quality products and services, and its brand value continues to improve. In 2024, Huawei's brand value reached 90 billion US dollars, ranking among the top brands in the world. Good reputation gives Huawei advantages in bond issuance and commercial credit financing. In business cooperation, suppliers are willing to provide Huawei with more relaxed payment terms and indirectly provide financial support for Huawei. In the bond market, the credit rating of Huawei bonds has maintained a high level, reducing the financing cost.

Market and Industry Factors.

The main factors affecting Huawei's financing in this respect include: The development prospect of the industry and the synergy effect of the industrial chain. In terms of industry development prospects, the broad development prospects of communications, semiconductors, intelligent terminals and other industries create favorable conditions for Huawei's financing. With the acceleration of 5G network construction, the popularity of artificial intelligence and the rise of the Internet of Things, the market size of the communication industry continues to grow. It is estimated that the global 5G market size will reach 3 trillion US dollars from 2025 to 2030. As a core basic industry, semiconductor industry has great market potential driven by domestic substitution demand. This industrial development prospect has attracted a large amount of capital inflows. As a leading enterprise in the industry, Huawei has naturally become the focus of investors' attention, providing sufficient sources of funds for its financing.

In terms of industrial chain synergy, the development of Huawei's industrial chain has promoted its financing. Huawei has established close cooperative relations with many domestic suppliers through supply chain cooperation, forming an industrial ecology of coordinated development. In the communication equipment industry chain, Huawei has cooperated with enterprises such as Fiberhome Communication to realize the domestic supply of optical fiber cables, optical modules and other products. This industrial chain synergy enhances the stability and competitiveness of Huawei's supply chain, enhances investors' information about Huawei, and is conducive to Huawei's financing.

Policy and External Environmental Factors.

The influencing factors mainly include the support of national industrial policy, the capital market environment and the international economic environment.

In terms of national industrial policy support, the state's policy support for industries such as communication semiconductors has provided a strong guarantee for Huawei's financing. In the field of communication, the country issued the Fourteenth Five-Year Plan for the Development of Information and Communication Industry, and increased support for the construction of 5G networks and the innovation of communication industry, which created a good policy environment for the development of Huawei's 5G business. In the semiconductor field, the state supports the development of the semiconductor industry through policies such as large fund investment and tax incentives. Huawei Hisilicon chips and other businesses have benefited from this policy and won the favor and support of strategic investors. The investment in Hisilicon chip business in the second phase of the Big Fund has driven the follow-up of other social capitals and injected a strong impetus into the financing of Huawei chip business.

In terms of capital market environment, domestic market reforms and methods have provided Huawei with more opportunities. The launch of Science and Technology Innovation Board provides a direct financing platform for science and technology innovation industries, and the reform of registration system simplifies the listing process of enterprises and improves the financing efficiency. Science and technology innovation board's high valuation and investors' preference for scientific and technological innovation enterprises give Huawei an advantage in negotiating with strategic investors and obtain more favorable financing conditions.

In terms of international economic policy environment, the international political and economic environment has had a complex impact on Huawei's financing. On the one hand, external sanctions and trade restrictions have brought some pressure on Huawei's financing, and some international banks have reduced their loan support to Huawei under the pressure of sanctions. On the other hand, these external pressures have also stimulated the enthusiasm of domestic investors and financial institutions to support Huawei. Domestic banks have increased their credit supply to Huawei, and domestic investors have also actively participated in Huawei's financing projects, forming an internal circulation financing support system, which has alleviated the negative impact of external pressures on Huawei's financing to some extent.

6 Opportunities and Challenges Faced by Huawei

Under the background of domestic substitution, Huawei faces many opportunities. On the one hand, with the country's great attention to self-controlled technology and strong support for domestic technology enterprises, Huawei has obtained strong protection at the policy level. The government has issued a series of industrial support policies, including tax incentives, research and development subsidies, etc., to accelerate the realization of domestic substitution of key technologies. In terms of chip research and development, the government gave Huawei special research and development funds to support its research in the field of semiconductor technology and promote the independent research and development process of domestic chips. On the other hand, the demand for domestic high-tech products in the domestic market has shown explosive growth. In the fields of communication equipment, intelligent terminals, cloud computing, etc., the recognition of Huawei products by domestic enterprises and consumers is constantly improving, which provides a broad market potential for Huawei. In the process of digital transformation, enterprises prefer to choose Huawei's domestic ICT solutions to ensure their own information security and the stability of the supply chain. This enables Huawei to further expand its share in the domestic market and enhance its brand influence.

However, Huawei is also facing severe challenges. Some countries, led by the United States, imposed all-round sanctions and technical blockades on Huawei, restricting Huawei's access to key technologies and components. In the field of chips, Huawei was unable to obtain OEM services for advanced chip manufacturing, which had a serious impact on its mobile phone business and the production of some high-end communication equipment. At the same time, in terms of software, Huawei is also facing the restrictions of foreign software suppliers in operating systems, databases and other fields, and needs to speed up the pace of independent research and development of alternative software.

7 Conclusion

The financing situation of domestic substitution enterprises is related to the realization of China's core technology independent controllable strategy. At present, Huawei, a domestic substitute enterprise, is developing rapidly under the dual drive of policy support and market demand. Its financing mode is diversified, but it still faces the problems of high risk and high financing cost. Through concrete analysis, the enterprise's own strength, financial situation and policy support are the key factors affecting financing. In the future, enterprises need to enhance their competitiveness, the government should optimize the policy environment, and financial institutions should innovate the service model to solve the financing problem of domestic substitution enterprises.

Reference

1. Chen Rui. Entity enterprise financing difficulties faced by research [J]. Journal of financial theory and the teaching, 2022, (01) : 23-24 + 27. DOI: 10.13298 / j.carol carroll nki ftat. 2022.01.004.
2. Dong Xiaoyang. Theoretical Research on Financing of Small and Medium-sized Enterprises under the Background of the Internet [J]. Economic and Trade Practice,2018,(10):172-173.

3. Lu Minfeng, Xu Yangyang. About building to adapt to the economic characteristics of capital financing model research [J]. Journal of financial theory and the teaching, 2016, (02) : 1-6. DOI: 10.13298 / j.carol carroll nki ftat. 2016.02.001.
4. Song Liwen, Wang Jianhua. Theoretical Research on Asset Securitization Financing of Small and Medium-sized Enterprises: Review and Prospect [J]. Journal of Weifang University,2015,15(04):53-57.
5. Nuka, Tambari Faith, and Bolaji Oluwatimi Osedahunsi. Bridging the gap: Diversity-driven innovations in business, finance, and credit systems. Int J Eng Technol Res Manag 8.11 (2024).
6. Harvey, Campbell R., and Daniel Rabetti. International business and decentralized finance. Journal of international business studies 55.7 (2024): 840-863.
7. Gao, Hanyao, et al. Machine learning in business and finance: a literature review and research opportunities.Financial Innovation 10.1 (2024): 86.