

Analyzing Huawei's Development Based on SWOT

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Abstract. In recent years, with the development of communications technology, to bring great convenience to people's lives, the convenience of the back, is a lot of Huawei like technology companies all Ren day and night research and breakthroughs. The purpose of this paper is to take Huawei as an example, analyze the SWOT of Huawei, using the analysis, can better correlate the external factors and internal factors of the enterprise, explore the enterprise structure, and make the enterprise situation clear. Through the study of Huawei, this paper finds that, as a new high-end technology-based enterprise, Huawei faces problems such as international competition, potential policy risks, and limited financing channels. After that, this paper also explores Huawei's core technology, industrial layout, after-sales service and other aspects. This paper suggests that Huawei should adhere to independent innovation, improve brand awareness and influence, raise awareness of its intellectual property knowledge protection, and establish a strict internal risk control mechanism. It is hoped that it can provide help for scholars who study this topic.

1 Introduction

Digital technology is changing rapidly, with the mature development of the communications industry, communications and information technology companies like the rapid development and expansion of the spring, the arrival of the era of intelligence, information and communications technology breakthroughs, to promote the further evolution of business, industry, change[1]. Huawei, as the leader of this kind of company, is more representative, forward-looking, and explorable. Based on SWOT analysis, Huawei's development is conducive to exploring the main development direction of human science and technology; it is conducive to the use of science and technology to change the production and life; it is conducive to helping human science and technology civilization to promote and develop, so as to better meet the convenience brought to us by the Internet technology revolution, and lay the foundation for the realization of panoramic intelligent life.

Using SWOT-model, this paper takes Huawei as an example to analyze the difficulties this kind of companies faced in the current environment and what they can do to respond to the threatens. To be specific, this paper mainly focuses on four aspects of Huawei's, namely its strengths, weaknesses, opportunities and challenges. The case study method is targeted, unique, reliable, thus could provide this kind of enterprises with a basic development methodology.

2 Brief introduction to Huawei

Huawei was officially founded in 1987. Relying on the window period of reform and opening up, founder Ren Zhengfei registered Shenzhen Huawei with 24,000 capital,

and its main business was the production and sale of communication equipment. After 36 years of development, the seed of hope at that time has grown into a dense forest. It has become a global ICT infrastructure and smart terminal giant.

"Our value system is to serve mankind" (Our value is to serve mankind) - Ren Zhengfei, as of 2016, the cumulative reduction of carbon emissions of 340 million tons, science and technology digital energy technology main production of green electricity 695.1 billion degrees. Saving electricity consumption of 19.5 billion degrees. (Data source: Huawei's official website) has provided digital services to more than 3 billion people around the world, bringing digital technology into people's lives and building a connected and intelligent world. Huawei is concerned about protecting the Earth, the home we depend on for survival, and is committed to guarding nature with technology, promoting the cultivation of digital talent, and exploring the future in open cooperation with the world. In recent years, Huawei's recognition has been greatly enhanced globally, and its digital products and services have boosted all aspects of human production and life, establishing an excellent brand image domestically and internationally, and receiving great recognition and praise from customers.

3 SWOT analysis

Effectively analyzing the swot of excellent companies in the industry, we can clearly understand the structured strategy of the company and grasp the market pulse of the industry. Reasonable utilization of advantages, effective avoidance of short boards, rapid identification of opportunities, face challenges with ease. Huawei has completed a perfect evolution and metamorphosis from an

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agent to a Fortune 500 company. Based on the long-term development of its main business in the communications business industry, Huawei now appears to be more three-dimensional and fuller, both in terms of external and internal factors. At the same time Huawei's swot is also being infinitely enlarged.

3.1 Strength

3.1.1 Advantages of technological research and development:

Huawei's ability to go from an agent to a giant-type company in just a few decades lies largely in the choice of strategic philosophy and tireless efforts. Strategically Huawei has always insisted on technology R&D as its leading role. Through Figure 1, Huawei's latest published data, as of the end of 2022, in the world Huawei holds a total of more than 120,000 valid patents, R & D

expenditure in 2022 of about 161.5 billion yuan, accounting for 25.1% of the company's annual down payment, the cumulative R&D investment in the past ten years of more than CNY977.3 billion, R&D employees more than 114,000, accounting for the total number of staff of 55.4%. (Data source: Huawei's official website) The value of the patents held by Huawei in the industry is fully recognized and applied by the industry. Such a huge determination and R&D strength of R&D, but also explains the reason why Huawei can become a giant in the industry. 5G technology development strategic layout, but also its advantages, in the construction and application of the global 5G network, the technical facilities are gradually laying in place, commercialization digitalization gradually penetrate into the production and life, Huawei is looking towards his and the goal of looking at the pace of the steadily to the strong.

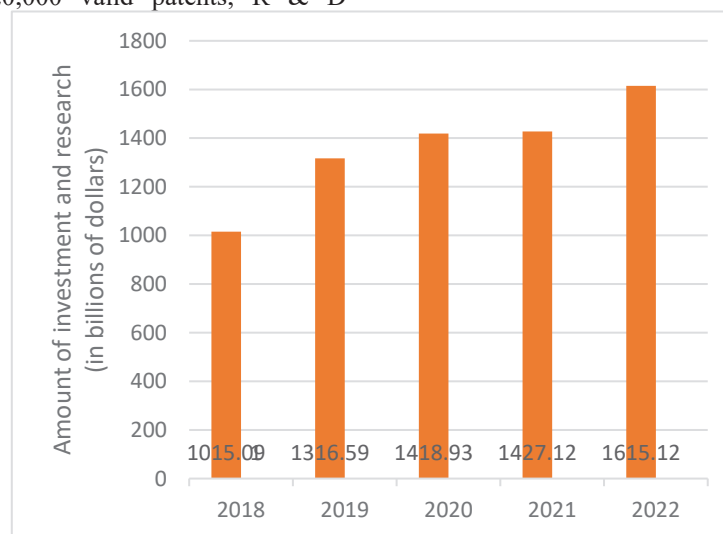


Fig. 1. Trend of Huawei's investment and research amount in the past 5 years. (Data Source: Huawei's official website)

3.1.2 Rich product line

In the product line, in order to meet the diversified needs of customers. Huawei is gradually building a full product ecosystem, from the perspective of the main business in the consumer field, the consumer business mainly consists of "1+8+N" product intelligent panoramic industry, of which "1" refers to the smartphone, "8" is the smart life of eight auxiliary entrances, including PC, tablet, wearable, etc.. The "1" refers to smartphones, and the "8" is the 8 auxiliary entrances of intelligent life, including PC, tablet, wearable and so on[2]. In the field of global electronic consumption, it has a good market share and strong penetration ability, whether from the use of the product or the sense of experience, in the industry within the community have been recognized. In relying on strong technical research and development capabilities, in the product update and iteration and technical experience to better meet customer needs. Huawei's rich and intelligent product line adds a great advantage in the field of consumer electronics.

3.1.3 Vertical after-sales service

In order to gain advantages in the harsh market environment, survive and develop, enterprises have to

understand the needs and preferences of customers, constantly explore customer resources, and effective management, to meet the needs of customers and exceed their expectations, in order to win the satisfaction and trust of customers, only in this way[3]. Both domestic and foreign users attach great importance to after-sales service. Huawei's wide range of products poses a challenge to its after-sales service. Relying on the GCRMS (Global Customer Problem Management System), Huawei has set up three centralized response centers to provide full coverage to solve after-sales service problems for customers around the world. As shown in Figure 2, 29 technical service R&D centers are set up domestically to serve as the basic platform for the after-sales system, and a technical support center is set up down at the headquarters for solving and providing feedback on technical issues, and then regional/representative service centers are used to connect customers so that after-sales processing can be formed into a closed-loop pattern, with mutual support and feedback, to facilitate the solving of customer problems. At the same time, the customer response to the regional representative center of the problem, the headquarters technical support and R&D center can be vertical technical guidance. In Huawei's official website, page consumer support, always mounted

questionnaire link, the question is concise and targeted, so that we can better judge the product from which aspects should be optimized and strengthened.

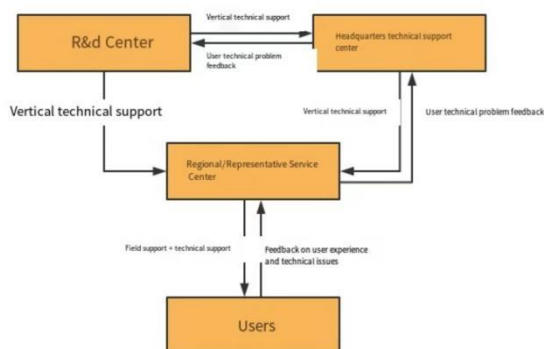


Fig. 2. Huawei after-sales at a glance.

3.2 Weaknesses

The basic condition for the operation of the enterprise is that the capital has good liquidity, for Huawei, as opposed to Cisco, Alcas after the listing and financing of the enterprise and so on. The enterprise gearing ratio is controlled at 60%-80%. Huawei's gearing ratio in the last 5 years has basically remained at about 65%, which is a reasonable gearing ratio. In 2015, the gearing ratio grew to 68%, which enhanced the risk of creditors to a certain extent, to the extent that it led to Huawei's weak financial resources, and there is a greater risk of solvency in terms of solvency[4]. Based on the strategic assessment of Huawei's upper echelon, no financing may be more suitable for Huawei's development objectives and actual situation at this stage, but it should not be ruled out as a possible strategy for subsequent listing and financing. Employee shareholding plan refers to the voluntary purchase of part of the company's shareholdings, including residual income rights, by employees within the company, which is a long-term talent incentive mechanism characterized by non-public issuance, simple procedures, benefit-sharing and risk-sharing[5]. The employee shareholding system is one of Huawei's major financing channels. Huawei's employees become shareholders of the company by purchasing internal shares. On the one hand, options and internal shares can be used as long-term incentives to make every employee become a community of interest with Huawei's development; on the other hand, it can solve the problem of insufficient funds in the short term.

However, this capital chain is relatively fragile, because a single form of financing is not systematized and faces certain financing risks. The cash flow problem will be the biggest constraint on Huawei's further development and growth, and is also a key constraint on the success of Huawei's next internationalization strategy[6]. It does not satisfy Huawei's long-term and internationalization, which is also one of the disadvantages Huawei faces.

3.3 Opportunity

3.3.1 Long-term planning for the transformation of the economic model

In the economic field, the development of digital economy is maturing day by day, but forward-looking enterprises will never stand still. The transformation of the economic model is the key for enterprises to take the lead in the industry, and the transformation of the economic model is the strategic layout of large enterprises in the wind of the global conversation. Huawei's layout in the economic field relies on its own technological advantages is also undergoing transformation, Huawei's "Intelligent Economy White Paper" states that the development of the intelligent economy is a breakthrough in the application of technological advantages in the development of the digital foundation, in order to achieve a solution to the economic problems in many fields, and to provide a good "kinetic energy" for the development of the global economy. For example, in terms of labor value enhancement, the digital economy creates more employment opportunities, but does not have a large increase in the level of the advantages of the smart economy lies in the use of intelligent training and intelligent technology applications for the enterprise to reduce costs and increase efficiency in a way that provides more space for enterprise funds to improve labor costs and work compensation. Economic transformation can optimize the financial situation of enterprises; provide impetus for business expansion; reduce costs and increase efficiency for enterprises: it can provide more employment opportunities for society.

3.3.2 Planning layout for emerging market expansion

In the main business area, the layout of new types of markets is a key factor in whether Huawei can become No. 1 in the industry. The exploration and development of emerging markets not only captures customer resources, but also generates profits, which are invested in R&D and market expansion, forming a virtuous cycle. As early as Huawei's development and investment in industry-wide intelligence and panoramic vision, it has gradually put its strategic goals into internationalization. Domestically, Huawei has already captured market share by utilizing the "low price strategy" and "leveraging national policies". In the process of Huawei's internationalization, the development of new markets is a new opportunity for Huawei, the North American market, the European market is the focus of Huawei's new market development. Huawei spokesman Fu Jun said: "Europe and the United States is Huawei's strategic market, not a question of whether to fight, but must go in to fight." The European market, the African market, the Latin American market, and so on, all require the expansion and construction of technical network facilities and communication infrastructure. For Huawei, the internationalization of market development is a must-do question rather than a choice. Secondly, Huawei is the representative of China's communication equipment manufacturing enterprises, and its internationalization strategy and implementation experience are of great significance for Chinese enterprises to go out and realize globalization layout and development[7]. Huawei should make full use of globalization and internationalization, give full play to its advantages in the international market, and expand and

plan its layout by taking advantage of its strengths and avoiding its weaknesses.

3.4 Challenge.

3.4.1 Competition in international markets:

The international market is a "big cake" for any enterprise. Moreover, Huawei's consumer business is slowly becoming known to the international market, coupled with Huawei's excellent after-sales service and excellent product strength, all of which provide competitiveness for a foothold in the international market. However, the competition in the international market is extremely fierce, because Huawei's investment in advertising is relatively small compared to other companies such as Apple. Therefore, the brand awareness is small. In terms of financial resources, Huawei has always insisted on not going public to raise funds for the expansion of the international market, the lack of sufficient ammunition. And then the global market, including the North American and European markets, the competitive pressure is self-evident, for Huawei is a small challenge. Hence, to compete in the international market, Huawei needs to address two aspects of the problem: First is localization. Some competitors may enjoy the advantages of the home market, which is a challenge for Huawei. The second is to build a brand advantage. Due to Huawei's founder Ren Zhengfei's low profile, Huawei has been investing little in advertising, resulting in the international market is not as well known as other brands loud and clear.

3.4.2 Strategic research development:

Huawei has superior technology in 5G application technology. The development and challenge of strategic research is Huawei's position for another decade or even longer. Among them are supporting future diversity connectivity on a scale of hundreds of billions, breaking through generalized arithmetic, and building super arithmetic. On April 20, 2023, Gan Bin, vice president of Huawei's wireless network product line, spoke on "Bringing 5.5G into reality", and with Huawei's tireless efforts, the 10 Gigabit industry has stepped into the regular, gradually mature, and consumer mobile services are moving towards immersive interaction. Mr. Xu Wenwei, Director of Huawei's Strategic Research Institute, said, "Huawei's strategic vision is to meet challenges in the world's problems and explore directions driven by the near and far, making links stronger, computing faster, and energy greener. Because of the sensitivity of the communications industry, computer network security issues, policies and market review restrictions in some countries are clear, and have created difficulties and challenges for its international business. In terms of strategic issues, external factors such as changes in policy and economic environment, changes in the market, and internal factors such as technological updates, main business development, and the financing environment can bring challenges to the development of strategic research.

3.4.3 Impact of political factors:

Under globalization, the international level of time affects the region, including politicians, political parties and social groups, such as different policy preference groups, these policy preference groups hooked through the political economy on the power will affect the preferences of enterprises, thus changing the industrial landscape[8]. With the influence of political factors, continued fierce global competition, and ongoing local unrest, the ICT industry is facing an unprecedented challenge - the politicization of technology. For Huawei, this is a highly disadvantageous external factor that runs through almost the entire smart consumer segment of Huawei, whose share of representative handset sales in the consumer business fell out of the top five in 2021 because of a lack of chips. For example: the United States believes that its own information, technology, market, industrial chain and so on have encountered a "security threat", which is first on specific Chinese technology enterprises to carry out economic and trade obstruction and interference, and then the administrative power of the suppression, and finally rose to the legislative means of indiscriminate targeting of Chinese science and technology enterprises[9]. In this context, Huawei is facing external force majeure factors, which is extremely unfavorable to the strategic development. 2019 May, the U.S. Department of Commerce began to sanction Huawei, Huawei has been in the chip, software, technology and other aspects of the "neck", which is the most powerful proof of the politicization of ICT technology. So far, 152 Huawei subsidiaries have been included in the list of entities by the United States.

4 Discussion of recommendations:

The sensitivity of the communications industry and the influence of political factors, Huawei's overseas investments have repeatedly suffered strong rejection, from the Indian government's ostracism to the U.S. sanctions, in the process of Huawei's internationalization, it is bound to suffer from increasing political risks. Economic shocks in the global market have also created differentiated challenges for Huawei's business. Developed regions and countries are too protective of their communications business to take advantage of them. Developing countries and regions such as Africa are economically difficult, with small profit margins and large investments facing greater operational risks. When Huawei runs to squeeze the market, the profit margins will be greatly reduced.

As a high-tech company, core technology is productivity. Huawei needs to work on brand awareness to build a quality image for the brand and the company for better business expansion. It adheres to the framework system of after-sales service and continuously improves the solution process. While researching and developing patents and technologies, Huawei should take the intellectual property protection lawsuit with Cisco as a reference and pay attention to protecting its own patents and standards as well as intellectual property rights to prevent and avoid this risk. The internationalized market is treacherous, Huawei should set up a correct risk awareness, due to the regional culture, laws and other

internationalized differences, which will bring considerable risks to the enterprise. Huawei should establish a good internal system of risk control from internal resume, from risk identification to risk prevention, and then reasonably solve the risk factors, relying on the technology platform to form a complete new risk system, timely identification of risks, throughout the domestic and overseas business.

5 Conclusion

To summarize, Huawei has advantages such as abundant communication technology and talent base, wide range of products and services, high quality, and excellent leaders, but it also has problems such as high competitive pressure and high pricing due to high R&D costs[10]. Analyzing and thinking about SWOT can understand all aspects of the situation through systematic thinking, and managers can understand the degree of matching and adaptation of the enterprise's internal resources and external environment, which is conducive to reducing the risk of decision-making, taking advantage of the advantages, and analyzing and solving difficulties and challenges. Lay a solid foundation for the development of the enterprise. In the above analysis, Huawei should improve its corporate image and brand, expand into emerging international markets, establish a protection mechanism for intellectual property rights and patents, vigorously develop its core technology-based communications business, build on its strengths and avoid its weaknesses, and dare to face the international battlefield head-on. Through SWOT, Huawei should understand itself and analyze itself to get acquainted with itself, explore the pulse of the international market, improve its competitiveness, and provide better services for the convenience of human production and life.

References

1. Y, Qiangqiang., Y, Xiuqin. FEM, 261(12):23-25 (2017).
2. Z, Xuelei. Research on marketing strategy of Huawei laptop in Beijing-Tianjin-Hebei. Hebei University, (2022).
3. Z, Pin. Research on customer satisfaction of Huawei cell phone. Lanzhou Jiaotong University, (2015).
4. P, Xi. Why don't you go public?. Henan University of Technology (2017).
5. W, Wanying. JUOFAE, (2022).
6. T, Binxian. An analysis of the internationalization strategy of Huawei Technologies Limited. Southwest University of Finance and Economics, (2007).
7. C, Ying., W, Ling. GSATEO, 34(05):24-32 (2019).
8. Z, Yanlun. Research on Cross-Strait Semiconductor Industry Development Issues under the Strategic Competition between China and the U.S. Peking University, (2021).
9. C, Jiahao. Research on EU's Position and Countermeasures on 5G Competition between China and the United States. Huaqiao University, (2022).
10. L, Simin. JSATI, 39(17):38-41 (2022).