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Analysing Huawei's International Trade Strategy and Response to Challenges

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Abstract. This article extensively examines the variables that have contributed to Huawei's remarkable achievements in international commerce, including the increasingly intricate global trade landscape and the significant influence of American trade restrictions and sanctions. This research thoroughly examines Huawei's tactics and responses by employing a case study and analysis methodology. Moreover, it demonstrates that the corporation has accomplished its success through a wide array of measures. It involves more than simply expanding the global market and supply chain; it also entails making strategic expenditures in product research and development and significantly enhancing international strategic collaborations. The results of this study offer significant insights and can inspire other businesses dealing with similar trade hurdles and sanctions. It offers them useful assistance and reference in their efforts to overcome these problems and attain success in the global market, allowing them to learn from Huawei's successful experiences and implement them in their own enterprises.

Keywords: Huawei, International Trade, Success Factors, Response Strategies.

1. Introduction

In recent years, the international trade environment has become increasingly complex, and American trade barriers and sanctions have had a significant impact on global trade [1]. Trade barriers, for example, cause the worldwide supply chain to be interrupted, particularly for enterprises that rely on Chinese manufacturing and the U.S. market. Businesses must reassess and modify their supply chain to manage the uncertainties posed by tariffs and other trade barriers. Since 2018, the trade tension between China and the United States has been escalating. Trade frictions have always been present in Sino-U.S. economic and trade relations [2]. However, since President Trump took tariff action in 2018 to achieve "making America great again", trade conflicts have gradually evolved into trade wars [3]. The United States imposed tariffs on Chinese goods and imposed trade sanctions [4]. In this particular context, numerous large enterprises have experienced adverse consequences. Huawei, a leading global electronic technology company, is in a tense situation, facing restrictions on technology acquisition and market entry, which have a huge negative impact on its product sales, business operations, and global status.

From 2018 to the present, the United States has persistently erected trade barriers against Huawei, suppressing it in various ways, including listing it on the Entity List and limiting its access to advanced semiconductor technology. However, Huawei continues to thrive and has achieved significant success globally. For example, Huawei's investment in 5G technology has made it a global leader and won more than 90 commercial 5G contracts worldwide in 2020 [5]. In addition, in response to the U.S. ban on Google's mobile services, Huawei developed an alternative operating system, Harmony OS, and in 2021, more than 100 million devices ran this operating system [6].

Although academic circles have studied Huawei's international trade, and there are relevant articles, most of them focus on specific aspects, such as technological innovation. However, there is a lack of relevant literature research on Huawei's overall success in international trade; specifically, the root cause of Huawei's vigorous development under such unfavorable restrictions, namely, how Huawei responds to complex global trade and maintains its leading position, has not been fully explored. As a result, this study focuses on major challenges such as trade barriers and sanctions. However, what are the key factors that make Huawei successful in international trade?

Thus, this study aims to explore the factors contributing to Huawei's success. Understanding the factors of success is not only important for Huawei but also for other companies in the same industry operating in a similar challenging environment, which is helpful to develop more comprehensive international trade theory and practice and reveal the strategies and actions that other enterprises should adopt and learn from when facing trade barriers and sanctions.

Besides, Huawei's response to the trade war is a typical case against the background of economic globalization, which reflects the challenges and responses of enterprises under the trend of de-globalization. Huawei's resilience and flexibility in times of limited resources are worth learning from other enterprises. In the face of extreme external pressure, studying Huawei's response measures can provide a practical reference for enterprise risk management and crisis response. Moreover, Huawei's case reminds governments that many factors need to be considered when formulating trade policies to better balance the relationship between national interests and enterprise development and better evaluate the actual impact of government policies and international sanctions on enterprises.

In order to address the research inquiries regarding appeal and address the existing research deficiencies, this work will employ a systematic approach to carry out a case study and analysis. This paper will focus on Huawei as a case study and provide a detailed analysis of Huawei's international trade-related events from 2018 to 2023. It will specifically examine the factors contributing to Huawei's recent successful international achievements, including technological innovation, market positioning, supply chain management, and brand building. Furthermore, this study aims to integrate Huawei's previous successful strategies with the present market conditions in order to offer specific recommendations for Huawei to effectively address future problems and ensure the continued and stable growth of its international commerce.

2. Case Description

Founded in 1987, Huawei is headquartered in Shenzhen, China, providing innovative communication and information technology products, solutions, and related technical services to customers all over the world. Huawei has established business in more than 170 countries and regions around the world, and it is a global leader in the field of 5G technology and smartphones [7]. It is a world-renowned provider of information and communication technology solutions. The main reason for the U.S. government to sanction Huawei is the potential threat to national security. The U.S. asserts that the Chinese government might exploit Huawei's technology for espionage. On national security grounds, the U.S. government banned Huawei from selling telecommunications equipment in the United States in 2018. Moreover, communication operators in the United States are required to stop using Huawei's equipment, disrupting Huawei's business operations in the United States and resulting in a significant decline in its market share and U.S. market revenue [8]. More seriously, the ban prohibits Huawei from participating in the U.S. telecommunications market, estimated to be worth billions of dollars. To cope with the restrictions of the American market, Huawei began to focus on other international markets and enhanced its technical capabilities, increasing its investment in R&D [9]. In 2018, it invested $15.3 billion, up from $13.8 billion in 2017. Although Huawei is frustrated in the American market, it still has development resilience. In 2018, Huawei's global revenue increased by 19.5% to U.S. $105.2 billion [10].

In May 2019, the U.S. government listed Huawei on the entity list, which restricted Huawei from purchasing parts and technologies from American companies without government approval, seriously disrupting Huawei's global supply chain and especially affecting its ability to purchase key parts such as semiconductors and software [11]. Following its inclusion in the entity list, Huawei experienced a 40% decline in smartphone shipments in international markets, including the United States. Therefore, Huawei has continuously strengthened its efforts in R&D, actively sought other alternative suppliers in the international market, and started to develop its operating system, Harmony OS, to reduce its dependence on Google's mobile service and further consolidate its position as the second-largest smartphone manufacturer in the world after Samsung. Huawei's annual report shows that its revenue increased by 19.1% to U.S. $123 billion [10].

In May 2020, the U.S. government further restricted Huawei from using American technology and software to design and produce semiconductors, which severely affected Huawei's chip supply and led to a serious shortage of its smartphone and network equipment production [1]. Consequently, the U.S. government greatly reduced Huawei's ability to produce its advanced Kirin chips, thereby affecting the production and delivery cycle of its high-end smartphones. Therefore, Huawei has greatly increased its investment in semiconductors, focused on strengthening its existing product line and diversifying its business portfolio, and expanded its partnership with non-American suppliers. Huawei Consumer Business Group's revenue in 2020 was U.S. $66.9 billion, slightly lower than the previous year, reflecting the negative impact of supply chain interruption. However, Huawei has maintained a strong influence in the China market, which helps to cushion the decline in overall revenue [10].

Despite the sanctions, by the end of 2021, Huawei had signed more than 91 commercial 5G contracts worldwide, maintaining its leading position in the 5G market [12]. Huawei focused on strengthening its 5G capabilities, seeking contracts in other international markets, and investing a lot of money in 5G research. In 2021, its total investment in R&D reached 22.1 billion U.S. dollars, accounting for 16% of its annual revenue [10].

3. Analysis of Problems

3.1. Diversification of Iinternational Markets and Supply Chains

Despite the pressure from the United States, Huawei has managed to maintain its success and secure a prominent position in the industry, all while maintaining its cutting-edge technology. This is mainly because it has been implementing the policy of diversifying the international market and supply chain. Specifically, Huawei actively procures key components from non-American suppliers in Europe and Asia to diversify its supply chain, and it has significantly increased its efforts in the Chinese market and emerging markets such as Africa, Latin America, and the Middle East [13]. Moreover, Huawei actively expanded its procurement footprint and purchased parts from alternative suppliers, which successfully maintained the company's operations and revenue growth. Before the US sanctions took effect, Huawei increased its procurement from Taiwan Semiconductor Manufacturing Company (TSMC) in Taiwan Province, enabling Huawei to continue to produce communication equipment and maintain its market share. Although the Huawei Mate 30 series lacks Google services, it still has significant sales and loyal fans in China and other markets. Its strong performance in China and other regions helps to cushion the impact of losses in the U.S. market. In 2020, Huawei's revenue in China increased by 15.4%, accounting for 65% of its total revenue [10].

Supply chain diversification is of enormous significance for the international market, as it is conducive to enhancing the toughness, flexibility, and competitiveness of enterprises [13]. Relying solely on a single source of supply exposes enterprises to significant risks in the event of supply chain disruption. Diversification disperses supply risks and guarantees alternative supply channels in the event of supply chain damage [14].

For Huawei, its strategy of expanding the international market outside the United States and diversifying its supply chain is vital to alleviate the impact of losing the American market and the limited access to American suppliers. Huawei's diversified supply chain guarantees its ability to sustain production and delivery plans, even in the event of a disruption to a key supply source, thereby bolstering the stability and continuity of its business. Despite the decline in global shipments due to sanctions, Huawei's strong performance in other regions has significantly maintained its market share in the global smartphone market.

3.2. Strategic Investment in Product Research and Development

Huawei's ongoing investment in R&D is critical for developing unique technology and minimizing its reliance on American parts and software, which is also a major factor in the company's success in international trade. In 2018, Huawei spent $15.3 billion on R&D, accounting for 14.1% of its total revenue. By 2021, this investment will have grown to $22.1 billion, accounting for 22.4% of total income. Continuous international investment in R&D has resulted in a powerful Kirin chipset and Harmony OS system.

Huawei fiercely developed the Kirin chipset, minimizing its reliance on American-made processors. In response to the loss of Google mobile services, Huawei has hastened the development of Harmony OS, an alternative operating system. More than 100 million devices will have the Harmony OS system installed by 2021. Huawei created the Kirin chipset, which reduced its reliance on American-made processors. Despite the sanctions, Huawei continues to innovate its chip design, and its capacity to engage in independent innovation guarantees that Huawei's products remain competitive [15]. Consumers in China and other worldwide markets continue to prefer Huawei P40 and Mate 40 series smartphones with Kirin CPUs.

Developing proprietary technology, reducing dependence on foreign components and software, and self-reliance are all conducive to reducing the impact of sanctions and trade restrictions, whereas strategic attention to innovation is conducive to maintaining global competitiveness [15].

3.3. Strengthen the International Strategic Partnership Alliance

An important aspect contributing to Huawei's success in overcoming U.S. trade barriers and economic repression is the proactive establishment of cooperation and strategic alliances with other countries. Despite the United States' efforts to persuade its allies to exclude Huawei from the 5G network, Huawei managed to secure over 91 commercial 5G contracts globally by the end of 2020. The company focused on significant deals in Europe, Asia, and the Middle East, while also actively establishing and strengthening strategic partnerships and international cooperation with non-American companies. Despite the United States' prohibition, Huawei's network business thrives globally, particularly in countries less impacted by U.S. regulations. In addition, European carriers maintain partnerships with Huawei due to its dominant technological position and attractive pricing. As an illustration, Huawei has collaborated closely with prominent operators like Safaricom in Africa to implement 5G networks and improve connectivity, ensuring Huawei's ongoing presence and expansion in critical global markets. Huawei has established strong and extensive partnerships with European providers, including Vodafone and Deutsche Telekom. Through these collaborations, Huawei has effectively maintained its dominant position in global technology.

Academic research has demonstrated that enterprises can lessen their reliance on a single market and mitigate the economic risks associated with geopolitics, economic fluctuations, and trade barriers by establishing cooperation with multiple countries [16].

4. Suggestions

4.1. Diversify Supply Chain and Supplier Base

Diversification of the supply chain enhances the ability of communication enterprises to resist geopolitical risks [17]. Huawei has begun to diversify its supply chain and keep it diversified, which can reduce the risk of relying on American suppliers and reduce the vulnerability of supply chain interruption. In 2020, Huawei found alternative suppliers for key components of its products. In the future, Huawei can vigorously increase local procurement of key components in key markets such as Europe and Asia, cooperate with non-American companies to develop advanced technologies, develop a wider global supplier network, and improve supply chain diversity and operational efficiency.

Increased supply chain diversification improves communication firms' ability to withstand geopolitical risks [17]. Huawei has initiated the process of expanding and maintaining a diversified supply chain. This strategic move aims to mitigate the risks associated with dependence on American suppliers and enhance the resilience of the supply chain against potential disruptions.

In 2020, Huawei plans to seek alternate sources for crucial components used in its products. In the future, Huawei may significantly enhance its local sourcing of crucial components in major regions like Europe and Asia, collaborate with non-American firms to advance technological innovations, establish a broader global network of suppliers, and enhance supply chain variety and operational efficiency

4.2. Strengthen R&D and Innovation

Enterprises with high R&D strength can better resist external shocks [18]. With continuous R&D investment and innovation, enterprises can develop leading technologies and products and occupy an advantageous position in the market [19]. In 2021, Huawei's investment in R&D reached U.S. $ 22.1 billion, accounting for 22.4% of its total revenue [10]. Investment in R&D has always been the cornerstone of Huawei's flexibility and resilience in the face of trade barriers. Constantly enhancing its technical capabilities will help Huawei reduce its dependence on American technology and develop proprietary solutions.

In the future, Huawei needs to continue to increase R&D expenditure, focusing on key areas such as AI, blockchain, semiconductors, and 5G/6G technology, actively utilizing emerging technologies, and carrying out in-depth cooperation with leading universities and research institutions in the world to promote innovation in mobile phones and communication products, as well as access to cutting-edge research.

4.3. Focus on Emerging Markets

Huawei has shown significant growth in markets such as Africa and Latin America, where it faces fewer restrictions [10]. Expanding into emerging markets is conducive to mitigating and offsetting losses in restricted markets, such as the United States, as well as developing strong brand and technical capabilities [20]. Compared with developed markets, emerging markets have higher growth potential and less regulatory risk [21].

In the future, Huawei can strengthen its marketing and sales in emerging markets, establish strategic partnerships with well-known local companies and governments, provide customized solutions to meet local needs, and enhance its position and influence in the global market. Developing a strong software ecosystem will reduce dependence on American software and services while increasing autonomy and competitiveness. In 2021, Huawei's Harmony OS system will have more than 100 million devices running it, and its independent ecosystem has cushioned external shocks and created new growth. Huawei needs to establish more extensive equipment and application integration, continue to optimize and expand the Harmony OS system, provide incentives, support, and tools for application development, and build a strong developer community in China and around the world

5. Conclusion

Taking Huawei as an example, this article delves into the factors that led to its victory in international trade. Huawei has achieved success in international trade through a series of measures, including diversifying the international market and supply chain, making strategic investments in product research and development, and strengthening international strategic partnership alliances, as revealed by the case description and analysis.

Faced with the complex international trade environment and restrictions and sanctions imposed by the United States, Huawei has actively responded and adopted a series of response strategies. Firstly, Huawei has diversified its international market and supply chain, reducing reliance on the U.S. market and U.S. suppliers, and expanding its business in emerging markets. Secondly, Huawei continues to increase research and development investment, develop its technology and products, and enhance competitiveness. Thirdly, Huawei has strengthened its international strategic partnership alliance and collaborated with other countries and enterprises to jointly promote the development of 5G technology.

Huawei's successful experience has important implications for other enterprises. Faced with trade barriers and sanctions, enterprises should strengthen their investment in technological innovation and research and development, improve their competitiveness, and actively explore new markets and partners. At the same time, the government should also play a role in supporting and protecting enterprises, formulating reasonable trade policies, and creating a favorable external environment for enterprises.

Future challenges and uncertainties are likely to confront Huawei. It is critical to maintain and increase investment in technological innovation and research and development, improve the quality of products and services, and continuously broaden international markets and partnerships. Simultaneously, Huawei must be aware of the hazards and obstacles arising from the ever-changing global political and economic landscape and take appropriate steps to address them. Furthermore, as a prominent multinational technological corporation, Huawei bears the duty and commitment to maintain its position as a frontrunner in the advancement of the industry and to further enhance its contributions to the advancement of human civilization. Huawei can only achieve long-term success and sustained development in the brutally competitive worldwide market by consistently surpassing its own limits and making continuous progress.

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