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Strategic Analysis and Sustainable Development Strategy of Huawei

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Executive Summary

This report conducts a strategic analysis and sustainable development study on Huawei Technologies Co. Ltd (Huawei) . By PESTEL analysis and Porter's Five Forces model to analyze Huawei's external environment. And identifies challenges, such as political restrictions, economic instability and fierce market competition. It also highlights opportunities presented by technological innovation and green development. Through the Resource-Based View (RBV) , the report further elaborates on Huawei's strengths in terms of research and development teams and investment, while also pointing out the disadvantage of reliance on external suppliers. SWOT analysis is used to clarify strategic positioning. The report suggests that Huawei should adopt differentiation and cost leadership strategies, and explore potential growth strategies using the Ansoff's Matrix. The report proposes that Huawei should promote a green supply chain, enhance research and development, expand international cooperation and comply with local regulations to achieve sustainable development. This report provides strategic reference for Huawei and related enterprises, aiding the development of the global communication technology industry.

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1.0 Introduction

Huawei is a leading enterprise in the ICT field.Chen, Zhu and Tong (2023) have both shown its business includes communication technology, smartphones and cloud computing,which have covered 3 billion users in over 170 countries (Huawei, 2024). Huawei also leads in communication equipment and 5G technology and researching 6G technology (Figure 1).

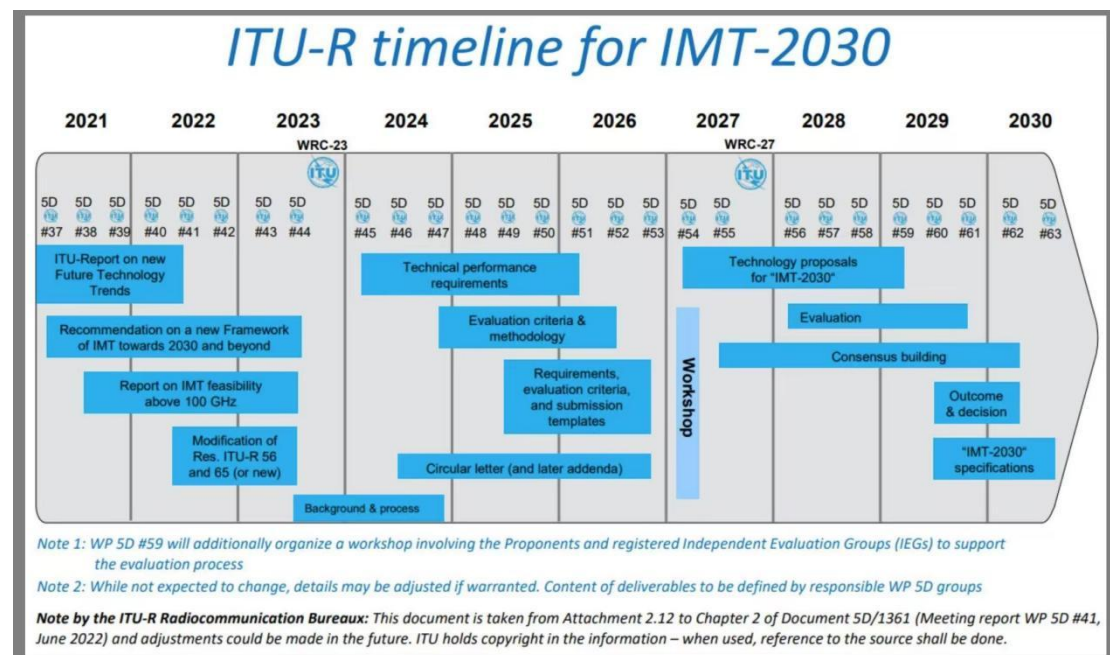


Figure 1:ITU-R timetable for IMT-2030 (6G).

Sources:<https://www.huawei.com/en/huaweitech/future-technologies/itu-r-wp>

[5d-completed-recommendation-framework-imt-2030.](#)

As a key player in telecommunications industry, Huawei is committed to driving

sustainable development through technological innovation and its decisions has a global impact on the telecommunications sector . De Andrade et al (2025) found that it faces economic strategic challenges, such as the global chip shortage and supply chain disruptions affecting production and development.

The purpose of this report is to conduct a critical analysis of Huawei and assists Huawei in formulating sustainable development strategies, providing a reference for global communication technology enterprises and promoting industry development and sustainable global digital ecosystem.

2.0 External Analysis

2.1 PESTEL Analysis

2.1.1 Political

Rahman and Mishra (2023) found that it has government policies, taxation and political stability. In the complex international political environment, Huawei faces numerous challenges. Anderson (2024) states that restrictions and export controls resulting from the China-US trade war have made it difficult for

Huawei to obtain critical chips. However, the Chinese government has provided strong policy support for Huawei, including tax incentives and government subsidies, which have provided a strong support for Huawei to maintain its global competitiveness (Calcara ,2023) .

2.1.2 Economic

It has economic growth rate, inflation rate, exchange rate and interest rate, which significantly affect Huawei's cost structure and revenue levels. (Buye, 2021). Zhu (2020) states that the COVID-19 pandemic has exacerbated , leading to a decrease in consumer and enterprise spending on communication devices and smartphones. This has directly impacted Huawei's operating revenue. In the fiercely competitive smartphone market, competitors such as Apple, Samsung and Xiaomi also affect Huawei's sales performance (Susskind and Vines, 2020).

2.1.3 Social

It involves stakeholders' values, lifestyles and educational levels, which

influence consumer demand and behavior. Political factors have negatively impacted Huawei's brand image, leading some international consumers to question the reliability of its products, which could affect sales performance. Furthermore, the increased public awareness of personal privacy protection can prompt Huawei to develop privacy protection mechanisms, attracting more consumers (Wylde *et al*, 2022).

2.1.4 Technological

Technological innovation, R&D activities and information technology play a key role in corporate competitiveness (Cox, 2021). Reported by Zhang and Yan (2024) , Huawei not only drives the development from 5G to 6G but also develops AI and chip design to reduce the risks in the chip supply chain. Despite progress in 6G technology, facing the rapidly evolving industry, Huawei must continue to innovate, accelerate research and development, ensuring a competitive edge in the future market.

2.1.5 Environmental

Environmental protection and sustainable development have become a global focus. A recent study (Chen,2023) , Huawei is committed to achieving carbon neutrality by 2030 , introduced the S.H.A.R.E concept (Huawei, 2022).But to address industry trends and environmental regulations, Huawei still needs to explore more efficient green technologies to meet the market demand for green products. This not only enhances the company's brand image but also demonstrates its commitment to environmental protection.

2.1.6 Legal

It is crucial to strictly comply with relevant laws and regulations for Huawei to achieve sustainable development. As a global player in the field of communication technology, Huawei must adhere to the legal requirements of various countries when expanding into international markets to avoid potential legal risks. It also needs to strengthen the protection and management of intellectual property rights to ensure the stable operation of the business

(Schilling - Vacaflor & Gustafsson, 2024).

PESTEL analysis indicates that although international political and economic instability poses a threat to Huawei's market position, technological advancements and increasing attention to environmental protection also bring new opportunities for its development.

2.2 Porter's Five Forces

2.2.1 Bargaining Power of Suppliers

Sun (2021) indicates that Huawei relies on the global supply chain to obtain critical components and the China-US trade war has enhanced the bargaining power of suppliers. However, the Chinese government's policies supporting the development of domestic semiconductors have provided Huawei with opportunities to alleviate supply pressures (Pangarkar and Prabhudesai, 2024).

Reported by Tse et al (2024), Huawei has collaborated with multiple domestic semiconductor companies to develop chip technology, reducing dependence on foreign suppliers and weakening the bargaining power of suppliers.

2.2.2 Bargaining Power of Buyers

In the electronics market, consumers have a wide range of choices and strong bargaining power. Butarbutar, Purnamasari and Safitri (2023) found that different consumer groups have varying bargaining power over products. High-end consumer groups focus on product quality and have low bargaining power. Mid-to-low-end consumer groups are more price-sensitive and have strong bargaining power. Huawei can enhance its brand competitiveness and reduce the impact of buyers' bargaining power through satellite communication technology (Zhang *et al*,2024).

2.2.3 Threat of Substitute Products or Services

Apple, Samsung and Xiaomi products are the main substitutes for Huawei's offerings. Consumers' demand for high-end smartphones is increasingly diversified, and the threat of substitutes is relatively high. Xiaomi attracts customers with high cost-performance, Apple has a clear advantage in operating systems. Zhang and Gao (2024) believe that Huawei can strengthen its product differentiation advantages through the HarmonyOS and Mate series

products to reduce this threat.

2.2.4 Threat of New Entrants

Huawei has built a strong brand and sales network globally. Kornelakis and Petrakaki (2024) found that technological barriers and supply chain issues make it difficult for new entrants to compete with Huawei in the short term.

However, industry development has prompted some tech giants to enter the communication field, such as Microsoft potentially entering the communication field, posing a threat to Huawei (Chen, Huang & Tseng, 2024). Therefore, Huawei needs to pay attention to industry trends and strengthen technological innovation to consolidate its market position.

2.2.5 Rivalry among Existing Competitors

The higher the intensity of competition from existing competitors that a company faces, the greater the impact it will suffer. Huawei is facing fierce competition with Nokia in the telecommunications equipment market and has to compete with Samsung, Xiaomi and Apple in the smartphone market (Tang,

2024). The intense competition within the industry poses a serious threat to Huawei's market position. Nevertheless, this can also provide motivation for Huawei's product innovation.

Porter's Five Forces analysis indicates that Huawei is in a highly competitive market environment. It also can clearly identified the challenges and opportunities facing Huawei.

2.3 Key Economic Trends Influencing Business Strategy

The analysis indicates that Huawei's key economic trends involve global economic uncertainty, technology investment, product innovation and the sustainability of the supply chain. Huawei should strengthen research and development and innovation to maintain technological leadership and reduce dependence on the supply chain. Moreover, it should seize opportunities in emerging markets, promote the development of artificial intelligence and cloud computing, and facilitate digital transformation. Huawei's flexible response to

these trends will help the company achieve sustainable development.

3.0 Internal Analysis

3.1 Resource-Based View (RBV).

Rubis (2022) states that RBV refers to the competitive advantage gained by firms through unique resources and capabilities. Demitrenko et al (2023) found that Huawei utilizes its brand value, R&D team, investments and sales service network to rapidly respond to market demands and enhance operational efficiency. For instance, Huawei has 114,000 R&D personnel and over 140,000 patents (Figure 2), which strengthens its industry influence and competitive edge in the global communications technology market. However, Ryan and Burman (2024) mentioned that Huawei relies on external resources in the field of high-end chips, which violates RBV. It may threaten its competitive advantage.

1.11 trillion

The cumulative R&D investment in the past decade has exceeded RMB 1,110 billion

23.4%

In 2023, R&D expenses will be RMB 164.7 billion, accounting for 23.4% of annual revenue

55%

As of December 31, 2023, there will be approximately 114,000 R&D employees, accounting for 55% of the total number of employees

140,000

By the end of 2023, Huawei will hold more than 140,000 valid authorized patents worldwide

Figure 2: Huawei's unique advantages

Sources: <https://www.huawei.com/cn/corporate-information>.

3.2 TOWS Analysis

3.2.1 Strengths - Opportunities

Huawei's internal strengths depend its brand influence and 5G technology. As the demand for 5G technology increases in some countries, Huawei's technological advantages can be fully used. Wu, Fan and Su (2021) found that Huawei utilizing its strong brand influence to establish communication networks in Africa and Southeast Asia. It not only meeting local needs but also laying the foundation for Huawei's development.

3.2.2 Strengths - Threats

Owing to the trade issues between China and the US, some countries influenced by the US have adopted a cautious stance towards Huawei. Huawei's internal strengths can alleviate this threat to some extent. For instance, countries maintain an open and cooperative attitude to promote cooperation in the Middle East with Huawei's communication projects (Christie, Jakobsen & Jakobsen, 2024). This ensures the expansion of Huawei's business.

3.2.3 Weaknesses - Opportunities

Reported by Ryu (2025), Huawei's weakness is its excessive reliance on external suppliers for high-end chip manufacturing and a relatively singular supply chain. For instance, supply chain issues may result in Huawei's production being unable to meet the rapidly growing market demand in some countries, affecting Huawei's market share. However, these weaknesses can also be transformed into opportunities. By developing independently and diversifying the supply chain, Huawei can promote its growth.

3.2.4 Weaknesses -Threats

Huawei's internal supply chain weaknesses and external threats from the trade war have had a serious impact on Huawei. Trade restrictions have led to difficulties for Huawei in obtaining chips, increased dependency on external supply chains and increased the risk of disruptions. Shi and Zhang (2021) found that the US restrictions on Huawei's chip exports have impacted smartphone sales and the development of communication equipment, damaging Huawei's market strategy and increasing operational risks.

The TOWS analysis comprehensively demonstrates Huawei's internal capabilities and external environment, providing a reference for its future strategic formulation . Huawei needs to maintain its technological leadership and global layout while actively responding to external uncertainties and competitive pressures.

4.0 Strategy Formulation & Competitive Positioning

4.1 Porter's Generic Strategies

Reported by Ali and Anwar (2021), the model includes three strategies. Cost leadership attracts price-sensitive customers by reducing production and operational costs. Differentiation establishes brand loyalty and competitive advantage through unique products or services. Focus strategy targets specific markets or groups, offering customized products and services to meet specific needs.

Huawei has adopted a differentiated strategy. It possesses strong R&D capabilities and high-quality products and services. For instance, it has established advantages in 5G technology, AI and cloud computing. Moreover, Huawei also focuses on a cost leadership strategy. Huawei has an efficient supply chain management system, Rodrigues et al (2022) found that it employs advanced management concepts such as Just-In-Time production. Nevertheless, the investment in innovative technologies can bring financial pressure to Huawei.

4.2 Ansoff's Matrix

It mainly helps enterprises identify and evaluate potential growth strategies and divides them into four categories: market penetration, market development, product development and diversification (Zugay & Zakaria, 2023).

4.2.1 Market Penetration

Huawei has implemented trade-in programs to enhance customer loyalty when promoting its existing products, but fierce competition makes product promotion difficult (Huawei, 2025). Accordingly, Huawei needs to optimize its marketing strategies to increase market share.

4.2.2 Market Development

Huawei actively promotes 5G technology, especially in the emerging markets of Africa. However, there are power issues locally, which increase the difficulty of promotion. Thus, Huawei needs to conduct market research in advance to understand the local situation.

4.2.3 Product Development

Huawei has made huge investments in product research and development.

Especially in 5G and the Kirin chips, this also comes with high costs and risks.

Consequently, Huawei to optimize the structure and methods of investment.

4.2.4 Diversification

Reported by Negassi and Wu (2023), Huawei has entered the field of smart cars, but it has overlooked the professionalism of this area, creating investment risks. Therefore, Huawei can combine 5G and AI with the automotive industry to build new types of smart cars.

4.3 Evaluation of M&A Activities

Huawei relies on independent research and development and internal innovation for growth, rarely engaging in large-scale mergers and acquisitions.

In the future, Huawei may consider acquiring small technology companies to enhance its technological capabilities and market share. Especially AI and cloud computing. It can help Huawei absorb innovative culture and talent and

enhance competitiveness in emerging markets.

5.0 Sustainability and Strategic Recommendations

Firstly, Huawei needs to continuously advance the construction and improvement of a green supply chain, strengthen the supervision of raw material suppliers to ensure legality, compliance and environmental protection, and enhance supply chain transparency.

Secondly, Huawei can establish a special research and development fund to encourage the tackling of key technologies . At the same time, strengthen cooperation with universities and research institutions to overcome technological bottlenecks, reducing dependence on external suppliers.

Lastly, Huawei must comply with local laws and regulations, respect local culture, develop products that meet demands in import and export trade, increasing market acceptance and promoting local economic development.

6.0 Conclusion

Huawei operates in a complex global environment, facing internal and external challenges and opportunities. For instance, pressures from politics, economy and society, issues with suppliers providing high-end technology, as well as opportunities from technological innovation, green development and government support, which impact Huawei's sustainable development.

Overall, Huawei should maintain technological leadership and global deployment, enhance internal capabilities and actively implement a sustainable development strategy. It can maintain a competitive edge in the global communications industry, promote technological advancement and sustainable industry development and contribute to global digital future.

References :

Ali, B.J., and Anwar, G.,(2021). Porter's Generic Competitive Strategies and its influence on the Competitive Advantage. *International Journal of Advanced Engineering, Management and Science*, 7(6), pp.42-51.

Anderson,S.J.,(2024).Comparing Section 889's Huawei Ban and the Cybersecurity Maturity Model Certificate: The Challenge of Pursuing Cybersecurity Through Friend-Shoring. The George Washington University.

Buye, R., (2021). Critical examination of the PESTEL Analysis Model. Project: Action Research for Development.

Butarbutar,I.P., Purnamasari,N., and Safitri,K.,(2023). AN ANALYSIS ON FIVE FORCES DAN BCG MATRIX FOR APPLE INC. COMPANY. *Maker: Jurnal Manajemen*, 9(2), pp.229-240.

Calcara,A., (2023). From quiet to noisy politics: Varieties of European reactions to 5G and Huawei. *Governance*, 36(2), pp.439-457.

Chen,Y., Zhu,P.Y., and Tong,W.,(2023). ITU-R WP5D Completed the Recommendation Framework for IMT-2030 (Global 6G Vision). [online] June.

Available at:

<https://www.huawei.com/en/huaweitech/future-technologies/itu-r-wp5d-comple>

[ted-recommendation-framework-imt-2030](#). [Accessed 27 February 2025]

Chen,X.,(2023). Cooperation and mutually beneficial development.pp.161-163

Chen,T.K., Huang,P.C.,and Tseng,Y., (2024). CEO Extraversion, Management Team Characteristics, and Firm Operating Performance. *NTU Management Review*, 34(2), pp.91-138.

Christie, Ø.S., Jakobsen, J., and Jakobsen, T.G., (2024). The US way or Huawei? An analysis of the positioning of secondary States in the US-China rivalry. *Journal of Chinese Political Science*, 29(1), pp.77-108.

Cox, J.,(2021). The higher education environment driving academic library strategy: A political, economic, social and technological (PEST) analysis. *The Journal of Academic Librarianship*, 47(1), p.102219.

De Andrade, T.N., *et al*,(2025).The Trade War Between China And The USA And The Geopolitical Impacts Of The 5G.IOSR Journal Of Humanities And Social Science .30(1), pp.21-29

Dmitrienko, A., *et al* (2023). Development strategies of high-tech companies in China: Huawei and Tencent. *Nexo Revista Científica*, 36(02), pp.176-187.

Huawei(2022).Sustainability.Available at:

<https://www.huawei.com/en/sustainability>. [Accessed 22 February 2025]

Huawei (2023). MWC2023: Huawei Enterprise BG holds the first Global Partner Night, kicking off a new journey of partnership cooperation.[Online]28 February.Available at:

<https://e.huawei.com/cn/news/2023/branding/mwc2023-global-partner-night>.[A

ccessed 7 March 2025]

<https://e.huawei.com/cn/news/2023/branding/mwc2023-global-partner-night>

Huawei(2024). Our Company. Available

at:<https://www.huawei.com/en/corporate-information>. [Accessed 22 February

2025]

Huawei (2025). Huawei Service Store Trade-in Service Guide. Available

at:<https://consumer.huawei.com/cn/support/content/zh-cn15888493/>.[Accesse

d 22 February 2025]

Kornelakis, A., and Petrakaki, D., (2024). Technological innovation, industry platforms or financialization? A comparative institutional perspective on Nokia, Apple, and Samsung. Business History, pp.1-26.

Lubis, N.W., (2022). Resource based view (RBV) in improving company strategic capacity. Research Horizon, 2(6), pp.587-596.

Negassi, S.,and Wu, B.,(2023). Symbiotic evolution mechanism of the digital

innovation ecosystem for the smart car industry. *Sustainability*, 15(20), p.14939.

Nofrizal, N., and Aznuriyandi, A.,(2024). SURVIVE AFTER THE COVID-19 PANDEMIC ON UMRAH AND HAJJ TRAVEL INDUSTRY, WHAT IS THE BEST MARKETING STRATEGY?. *Jurnal Ilmiah Ekonomi Dan Bisnis*, 21(1), pp.100-109.

Pangarkar, N., and Prabhudesai, R., (2024). Using Porter's Five Forces analysis to drive strategy. *Global Business and Organizational Excellence*, 43(5), pp.24-34.

Rahman, S., and Mishra, A., (2023). *PESTEL Theory*. SAGE Publications.

Rodrigues,K.,*et al* (2022). Hubble: Performance Debugging with {In-Production},{Just-In-Time} Method Tracing on Android. In *16th USENIX Symposium on Operating Systems Design and Implementation (OSDI 22)* ,pp. 787-803.

Ryan, M., and Burman, S., (2024). The United States–China ‘tech war’: Decoupling and the case of Huawei. *Global Policy*, 15(2), pp.355-367.

Ryu, Y., (2025). Chips on the Deck: US-China Rivalry and Reorganizing the Supply Chains of Semiconductors. In *The South China Sea: The Geo-political*

Epicenter of the Indo-Pacific? Singapore: Springer Nature Singapore.

Schilling-Vacaflor, A., and Gustafsson, M.T., (2024). Towards more sustainable global supply chains? Company compliance with new human rights and environmental due diligence laws. *Environmental Politics*, 33(3), pp.422-443.

Shi,L., and Zhang,Q.,P., (2021). Evaluation of the development of China's service trade with the United States under the Sino-US trade friction. *Commercial Economics* .

Susskind, D., and Vines, D., (2020). The economics of the COVID-19 pandemic: an assessment. *Oxford Review of Economic Policy*, 36(Supplement_1), pp.S1-S13.

Sun,X.F.,(2021). Digital technology competition and East Asian security order. *International Organization* , 75 (2), pp.65-90.

Tang,F.,(2024). Research on the impact of foreign capital repatriation on the economy. *Sustainable Development* , 14(12) , pp.2980-2988.

Tse,Y.K., *et al*,(2024). Recovering from geopolitical risk: An event study of Huawei's semiconductor supply chain. *International Journal of Production Economics*, 275, p.109347.

Wylde,V., *et al* (2022). Cybersecurity, data privacy and blockchain: A

review. SN computer science, 3(2), p.127.

Wu, S., Fan, D., and Su, Y., (2021). The co-evolution of global legitimation and technology upgrading: The case of Huawei. *American Business Review*, 24(2), p.8.

Xi, W.D., (2021), March. Analysis of Huawei's International Marketing Strategy Based on the SWOT Analysis. In 2021 2nd International Conference on E-Commerce and Internet Technology (ECIT) ,pp. 151-154.

Yac,C.W.,(2019).State Support Helped Fuel Huawei's Global Rise.[Online]25 December.Available at:

https://www.wsj.com/articles/state-support-helped-fuel-huaweis-global-rise-11577280736?mod=Searchresults_pos1&page=1. [Accessed 6 March 2025]

Zhang, Y.,and Yan,Q.,(2024). Catch-up and Dynamic Mechanism of Enterprise Complex Core Technologies: A Longitudinal Case Study on Huawei Wireless Network Technology. *Science & Technology Progress and Policy*, 41(5), pp.150-160.

Zhu,K.F.,(2020). The COVID-19 shock on global production chains and risk of accelerated China's industrial chains outflow. *Bulletin of Chinese Academy of Sciences (Chinese Version)*, 35(3), pp.283-288.

Zhang, K., et al, (2024), October. The Key Technology of PIM in Mobile Satellite Communication. In 2024 14th International Symposium on Antennas, Propagation and EM Theory (ISAPE) .pp. 1-4.

Zhang, S.D.,and Gao, C.X., (2024). New Milestone Achievements in China's Industrial Transformation and Upgrading. *China Economist*, 19(2), pp.2-30.

Zhang, J., Miao, X., and Shang, T., (2025). Impact Mechanism of Digital Transformation on Supply Chain Resilience. *Finance Research Letters*, 76 , p.106993.

Zugay, B., and Zakaria, R., (2023). Ansoff matrix. SAGE Publications, Inc..