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## Final Reflections: Connectivity, Innovation, Transformation, and Global Challenges

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This book highlights the emergence of Huawei in 22 countries around the world on 5 continents (Part I). It sheds light on Huawei's entry strategies, and the roles of business and innovation networks, of the developmental level of network infrastructure and consumer markets in the host countries, and the impact of home- and host-country government relationship for Huawei's success. As described in volume I of *Huawei Goes*

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*Global: Made in China for the World* (Zhang et al. 2020), Huawei's close ties to the Chinese government quite often turn into disadvantages in developed countries. Part II of this book discusses the question of how Huawei can overcome these home-country disadvantages. The described coping mechanisms might be taken as best practice examples for other companies with similar challenges.

## 1 Huawei's Trajectory in the World

Huawei's success story is quite amazing. The company started in 1987 in Shenzhen, as a rural sales agent for Hong Kong-based phone and cable network businesses. Heavy investments in research and development (R&D) over time led to superior solutions for high-tech telecommunication infrastructure products (e.g., 5G and cloud solutions) as well as customer-oriented innovations (smartphones). Despite Huawei's competitive disadvantages in its globalization process, such as being a late-comer in the market, lack of technological leadership, and liability of foreignness with a negative country of origin image, within 30 years, Huawei managed to become a leading global provider of information and communications technology (ICT) infrastructure and smart devices. Huawei serves three different sectors in the telecommunication industry: infrastructure and solutions for telecom operators, such as Telfort B.V., Vodafone, British Telecom; equipment and infrastructure for businesses, such as cloud solutions; and consumer electronics, such as smartphones. Today, Huawei is one of the most important contributors to the 5G standards and patent development in the world (Buchholz 2020; IPlytics 2019).

With the beginning of the trade war between China and the U.S. in 2018, Huawei moved in the focus of a geopolitical power game. The U.S. accuses Huawei of espionage and intellectual property theft. Consequently, Huawei's global 5G expansion has been perceived as an economic, geopolitical, national security, and ideological threat to many

democratic countries and as a threat to the digital liberalism in general (Lattemann et al. 2020). Accordingly, legal claims to alleged security threats jeopardized the economic prospect of Huawei.

Countries and regions that have banned Huawei's products and infrastructure represent more than one-third of the world's GDP. As of December 2019, the U.S. (Zhang et al. 2020), Australia and New Zealand (Lin—Chap. 11), Taiwan, Japan and Vietnam (Al Haddad and Namingit—Chap. 9) have decided to ban Huawei's 5G technology. U.K.'s government opted for a more balanced approach, allowing Huawei to access to non-sensitive parts of its wireless network. The U.S., the U.K., Australia, and New Zealand are four members of the so-called Five Eyes network of English-speaking nations that share intelligence to make a call on Huawei. Canada, the fifth member of this network, is still undecided about Huawei's role in 5G infrastructure projects (Chapardar, Wei and Chamseddine—Chap. 6).

Despite this trade war, there are also countries that actively embrace Huawei's 4G and 5G network technologies and where Huawei develops the biggest markets share in the smartphones sector. We find this situation in most African countries, in Latin America (*e.g.* Mexico, Argentina and Brazil) (Carrillo and Micheli—Chap. 7), and in Southeast Asia (*e.g.* the Philippines, Thailand, Malaysia, and Brunei) (Al Haddid and Namingit—Chap. 9). European countries have still not decided yet and are currently working on the establishment of new standards for network governance in order to mitigate security risks. Some countries such as Denmark, Sweden, Czech Republic, Poland (Chaps. 4 and 5), and Belgium are on the fence to introduce bans. Lithuania is waiting for decisions to be made by NATO and EU, which probably will never come. Latvia, Slovakia, and Hungary (Szunomár, Karas and Oehler-Sincai—Chap. 5) decided to continue to work with Huawei. Countries such as Germany (Glowik—Chap. 2), France, Italy, and Russia (Tsukanova—Chap. 3) have signed or are in the process of signing contracts with Huawei but are also increasing security measures to safeguard against backdoors into communication channels.

## 2 Reasons for Huawei's Success and Failure in Countries Around the World

The country cases featured in this book show that Huawei is an excellent example to apply latest International Business theories on firm-specific and home- and host-country-specific advantages and disadvantages (Rugman and Li 2007). Huawei's firm-specific advantages can be perfectly described by Collinson and Rugman's (2008) classification, grouped in assets (*e.g.* patents), capabilities (*e.g.* R&D expertise), connection (*e.g.* strategic alliances), and reputation (*e.g.* trust).

On the one hand, Huawei is ahead over its competitors in developing the three market segments the company is currently engaging. The firm-specific advantages of Huawei are its R&D capabilities, its customer-centered approach, and its ability to develop partnership ecosystems, in particular long-term partnerships through joint innovation centers. In the provision of infrastructure for telecommunication companies, the firm is the leading force in 5G technology. In providing products and services for businesses, Huawei is following a very effective customer-centered strategy and initiated ecosystems that allow collaboration with customers for the development of innovative solutions. In the smartphone sector, Huawei offers devices at unbeatable price-value ratios.

Further, Huawei gains from home-country advantages, such as financial support from the Chinese government, and the strong links between China and other countries, in particular in connection with the Belt and Road Initiative (BRI) (Zhang et al. 2018).

On the other hand, Huawei suffers severely from home-country disadvantages, such as mistrust of the Chinese government, animosity against China and Chinese products, and the undissolved question of ownership structure of Chinese privately owned company (*i.e.* influence of Chinese government and the role of work councils) that maneuvers Huawei into the center of trade and political disputes. Now, the pivotal challenge for Huawei is to find a way to manage or balance these firm-specific advantages with home- and host-country disadvantages. The country cases (Part I) and Part II in this book depict some feasible strategies, which might also be applied by other MNEs with similar challenges.

In many *European countries* (Chaps. 2, 3, 4, and 5), Huawei has successfully developed fine-grained relationship grids and networks involving private firms, governmental authorities, policy makers, research institutions and universities. This strategy shows how Huawei successfully employ its assets (*i.e.* knowledge and patents) and capabilities in long-term strategic alliances, and to build up trust in foreign markets. Nevertheless, there is no single strategy which fits all European markets.

*Russia*, for example, has a quite backward telecommunication infrastructure and Huawei can easily upgrade its existing and affordable ICT solutions (4–5G infrastructure) for infrastructure projects. The China–U.S. trade plays no role. Huawei thrives in this environment by applying a customer/need-driven approach instead of a technology-driven (high-tech) approach (Tsukanova—Chap. 3). The *German* and the *Polish* markets are in need for the latest high-tech 5G technology but at the same time are concerned about security (Chaps. 2, 4, and 5). The development of long-term partnerships and joint innovation centers (in Germany) and the close collaboration with research institutions such as the Poznan Supercomputing and Network Center (in Poland) helped Huawei to keep its feet in these markets. The difference between Germany and Poland lies in the political power game. The pressure to implement a state-of-the-art 5G infrastructure seems to be more important in Germany than in Poland. The Polish strategy is strictly lined-up with that of the U.S., although Poland is located strategically on the BRI route, which makes Chinese political leaders and investors perceive Poland as an important geopolitical player (Szunomár, Karas and Oehler-Sincai—Chap. 5).

In *Hungary*, Huawei runs the biggest production base outside China that serves as a productions and logistics center for 55 countries, which is an important economic factor for Hungary. Huawei introduced the 3G and 4G infrastructure for Vodafone and a LTE network for the state-owned telecom company. As a result of this long-term and tied relationship and the influence of the Chinese government, the Hungarian government and Huawei signed a strategic partnership agreement in Beijing. Huawei successfully followed a similar business-government strategy in Romania (Chap. 5).

The business-government interactions for Huawei in *Canada* is very complex. Canada's close proximity and line-up with the U.S. pushed Canada for drastic measures against Huawei by imprisoning Huawei's CFO, Meng Wanzhou. But instead of fighting against Canada, Huawei intensified its collaboration with Canadian institutions in December 2019 by moving its U.S. research centers to Canada. This clever move from Huawei kept an open door to at least one member of the Five Eye network (Chapardar, Wei and Chamseddine—Chap. 6).

Huawei's strategy in *Mexico* is to build up trust with clients through building a close proximity to them through innovation (R&D center), close commitments to customers, and a decent price-performance ratio for smartphones. The Mexican R&D center was built to establish a bridge between China and Mexico in order for Huawei to understand the particularities of the Mexican market and their customers, and to excel in customization and product delivery. Carrillo and Micheli (Chap. 7) emphasize that Huawei's three pillars in Mexico are "*embed, connect to Mexico, and for Mexico,*" which create a tight ecosystem. Geopolitics are no issue in Mexico and in most other Latin American countries.

In most *African* countries, Huawei's success builds on home-country support (financially and politically) as well on the Huawei's customer-centric approach. Huawei has a long tradition in Africa and opened its first office in 1998. Huawei built at least 50% of Africa's 3G and 4G networks. The majority of these investments came with tied-aid conditions that requires African governments to work with Chinese companies and that created long-term financial dependencies.

The *Ghanaian* fiber-optic backbone project is a good example for the dependencies between African countries and China. The project costs are envisioned to be around US\$180 million. To finance this project, Chinas Exim Bank granted this investment sum through two concessionary loans that creates a deep dependency between China and Ghana (Djan and Owusu-Ansah—Chap. 8). However, Huawei is not only gaining from home-governmental support in Ghana but also from its customer-centered strategy. Ghana Telecom companies are still using 3G (as of Spring 2020) and trying to upgrade to 4G. Hence, to many Ghanaians 5G is of no use. Therefore, Huawei offers its 3G and 4G phones, which are becoming outdated in developed markets, at prices that are 5% to

15% lower than similar phones from competitors. Understanding of the local population's need for mobile phones (price sensitivity in combination demand for gadgets) and rapid responsiveness to satisfy the needs are the main elements of the company's success in Africa. Further, the 3G and 4G product lines are not be affected by the U.S. sanctions.

In *Southeast Asia* (Chap. 9), Huawei is pursuing a similar network strategy as in Europe. This includes long-term relationships with local telecom operators (Malaysia), partnerships with governments (Laos), joint innovation centers (Philippines and Indonesia), and Open Labs for proof-of-concept testing and ICT training centers (Thailand and Singapore). Geopolitical and territorial disputes with China is only affecting Huawei's business in Vietnam, where its products are banned.

Huawei is not a major player in *India*, neither in the infrastructure nor in the smartphone market (Mukherjee—Chap. 10). Huawei's future success in 5G infrastructure projects in India is heavily depending on the Sino-India political relationship. The Sino-India relationship also affects the current and most likely future consumer market, as antipathy related to previous or ongoing political, military, economic, and diplomatic events (animosity) plays a major role in consumer's willingness to pay. Huawei has to find a way to circumnavigate these political and consumer-related cliffs.

### 3 Huawei's Coping Strategies

Part II of this book discusses the question of how Huawei can overcome the legitimation challenges stemming from the institutional distances between China and the respective host country. Li and Sun (Chap. 12) present solutions that are referring to stakeholder management. They discuss characteristics of stakeholders, the effects of engaging with governments and media, corporate philanthropy, and good corporate governance. Zhou and Sun (Chap. 13) emphasize organizational learning and the importance of ambidexterity capabilities to become agile and pursue alternative strategies at the same time. Yang and Kang (Chap. 14) raise the important aspect of framing and storytelling in media. This bridges to the last chapter (Chap. 15) of this book about the framing of the

global image of the CEO of Huawei, Ren Zhengfei, as an independent, successful model entrepreneur who embodied positive Chinese values such as filial piety, diligence, and resilience.

The entry strategies employed by Huawei and the suggested solutions for existing challenges described in this book may be used as managerial guidelines for MNEs that face similar situations. They can also be used as teaching case in International Business and International Management courses. Finally, yet importantly, the described country cases may contribute to theory building.

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