

A Dynamic Perspective on Huawei

Johann Peter Murmann,¹  Bin Guo,² and Can Huang²

¹University of St. Gallen, Switzerland, and ²Zhejiang University, China

ONE OF CHINA'S MOST PROMINENT MNCs

Huawei is one of China's most prominent multinational corporations (MNCs). As Huawei has been caught in the middle of a geopolitical struggle between China and the USA, Huawei received disproportionate attention in the Western press since 2018 when the US government stepped up its efforts to persuade other Western countries to ban Huawei's 5G technology from their telecommunication infrastructures. We have been researching the development of Huawei into an MNC for several years, analyzing how Huawei managed to grow from 50 employees in 1987 to over 194,000 employees today (Huawei, 2019). Our findings recently came out in a book entitled *The Management Transformation of Huawei: From Humble Beginnings to Global Leadership* (Wu, Murmann, Huang, & Guo, 2020). Like Yan, Hu, and Dong (2021), we have been impressed by Huawei's ability to transform itself. In our commentary, we will first consider Yan et al.'s (2021) article 'Managing Complementary Assets to Build Cross-Functional Ambidexterity: The Transformation of Huawei Mobile' and then Hong and Snell's (2021) article 'Headquarters Control and Its Legitimation in a Chinese Multinational Corporation: The Case of Huawei'. Because the articles have such a different focus, it makes sense to treat them individually and conclude with reflections that apply to both.

YAN, HU, AND DONG (2021)

General Comments

Yan et al. (2021) carry out a fascinating study of how Huawei's mobile handset business pulled off a feat that most of its Western rivals could not. Motorola, Ericsson, and Nokia were early leaders in functional mobile phones, but when smartphones appeared they all failed to transform themselves into successful

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Corresponding author: Can Huang (canhuang@zju.edu.cn)

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smartphone producers. By contrast, Huawei, which entered the functional phone business only in 2003, providing cheap 2G and 3G equipment to telephone operators, managed to become the largest smartphone producer in Q2 of 2020^[1] before US government intervention stripped it of crucial technology components, prompting Huawei to sell smartphone brands (Honor) so it would regain access to US technologies.

Yan et al. (2021) have traced in exciting detail the development of the Huawei mobile phone (consumer) business from an undervalued part of Huawei to a standalone business unit that has powered Huawei's growth in recent years. Huawei had virtually no experience in selling directly to consumers because its origins lay in selling telecommunications equipment to other businesses. Not surprisingly Huawei initially (during the period from 2003 to 2010) leveraged its connections to telecom carriers and manufactured functional phones that the carriers sold themselves in stores where you would sign up for a mobile phone service contract. Huawei impressively overcame its lack of direct consumer marketing skills. In 2012, the consumer business only represented 30% of the sales of the telecommunications carrier business. By 2019, the consumer business was 57% larger than the carrier network business, illustrating how central smartphone sales have become to maintaining Huawei's overall growth.

We share the premise of the article that understanding how Huawei's mobile phone business succeeded while leading players of the first three generations of mobile phones all failed is worthy of a detailed investigation to enrich our understanding about under what circumstances incumbent firms can defend and when they are likely to lose competitive advantage to new players. It is noteworthy that Samsung also successfully made this transition from selling functional phones to smartphones. Are there some advantages of being located in Asia that represent strength in micro-electronics? In our view, figuring out exactly why Huawei succeeded would have been aided by using the existing literature of the many failed and few successful rivals (see, for example, Doz & Wilson, 2017 on Nokia, and Song & Lee, 2014 and Song, Lee, & Khanna, 2016 on Samsung).

Theoretical Problems

Unlike in many other fields, most top journals in the management field insist that authors make a 'new' theoretical contribution in every paper as opposed to confirming where existing theories make correct predictions and where they do not. In many fields, authors are only asked to develop a new theory when the existing theories alone or in combination do not do a good job in explaining a phenomenon. It is evident when reading their article that Yan et al. (2021) worked very hard to find and offer conceptual novelty, which they claim lies in the concept of 'cross-functional ambidexterity'. Unfortunately, nowhere in the article do the authors define how exactly this type of ambidexterity is different from traditional types, such as structural ambidexterity (separating exploration and exploitation

efforts into separate units of the organization) or contextual ambidexterity (where the same unit depending on context and task sometimes enacts exploration and sometimes exploitation). Some of the leading writers on ambidexterity mention that cross-functional teams are necessary to manage both exploration and exploitation (O'Reilly & Tushman, 2004), but they never mention cross-functional ambidexterity as a new type. We could not work out how Yan et al. (2021) see cross-functional ambidexterity as different from structural ambidexterity. We suspect that the authors wanted to highlight that the success of the mobile telephone division required, as O'Reilly and Tushman (2004) suggested, cross-functional collaboration. But this does not mean that we need a new type of ambidexterity beyond the structural and contextual types. Perhaps the authors have found a new type, but we could not recognize it from their descriptions throughout the article.

Yan et al. (2021) also aim to contribute to the technology transition literature by focusing on a particular type of technology transition that triggers radical changes in both the product and market domains. Generally speaking, the literature on technology transitions pays much attention to the nature of technologies as this greatly affects the process and consequences of technology transitions. The case that Yan et al. (2021) describe presently seems more like a case of moving from low-end market to middle- and high-end segments. The influence of the nature of the technology (e.g., technological complexity, speed of technological change, and knowledge accumulateness) has not been fully explored.

When presenting the research gaps in the existing literature, this article states that 'since technology transitions are closely associated with new product development, most existing studies discuss ambidexterity only in the product domain'. It is worth noting that such a claim is inaccurate. For example, Christensen (1997) already revealed that we need to understand disruptive innovations not only from the technology side but also from a combination of technology and business sides (including the redesign of business models and even the whole value network). A few years ago Gans (2016) wrote a book that brought great clarity to different theories trying to explain the disruption phenomenon and he discussed in detail the smartphone case. We believe Yan et al. (2021) would have benefited from drawing on Gans' (2016) clarity in discussing the challenge that smartphones posed for incumbents including Blackberry. Incidentally, similar to Yan et al. (2021), Gans (2016) questions the wisdom of structural ambidexterity advocated by Christensen. He also provides a wonderful case study of a shipping company that dealt with the technological disruption of container shipping by not creating a separate division.

Another key concept that Yan et al. (2021) use is the idea of complementary assets. We agree with the authors that the larger corporate context and the history of Huawei as a whole are key to understanding why the mobile phone division successfully made the transition from functional to smartphones that so many other firms did not make. In the concluding chapter of our Huawei book, we articulate that Huawei as a whole developed a capability to constantly transform itself. We argue

Table 1. Change meta-routines at Huawei and their supporting values

<i>Values & Ideas</i>	<i>Change Meta-Routines</i>
Ensure long-term survival of firm.	Constantly implant sense of crisis into the whole company.
Constant change is good and necessary for survival.	Assign managerial talents to the major change initiatives and only promote them to the top management if they have proven themselves as change managers.
Top management needs to be deeply involved in change and lead by example.	Every major change effort will have an Executive Steering Committee (ESC) to oversee a change project management office that in turn will orchestrate project teams. Founder and head of hired consulting firm will not be chair but are members of the ESC to help make strategic decisions for major change initiatives. Founder will not participate in every meeting of ESC and only participate at stage-gate points and when internal resistance needs to be overcome. One executive director, or senior vice president from the top management team will be appointed as the sponsor of a specific change implementing project.
Not all functional areas in the firm can be changed at once without creating chaos that would jeopardize survival of the firm.	Review all aspects of business and decide which ones constitute the most pressing bottleneck for improving performance. First roll out changes in one unit and check that they work before rolling the changed routines out to the rest of the organization.
Always be open for and devote substantial time to learning from diverse sources of expertise around the world.	Find a consulting firm in the particular area the firm wants to change that can transfer the world's best practice. When appropriate, first copy exactly entire system of routines and later make incremental adjustments.
Always be patient with reaping benefits from major change initiatives and keep a long-term perspective.	Structure open-ended contracts with consultants so they do not leave before the new routines are running smoothly. Instruct finance department to pay whatever it costs to have world class consultants on multi-year engagements.

that this capability was grounded in change meta-routines that Huawei possessed. But we also point out that these change meta-routines are surrounded by values and ideas that often started with the founder Ren Zengfei but then became embraced by all people who were allowed to become members of the top management team. [Table 1](#) describes the nature of these meta-routines and the supporting values and ideas underlying Huawei's change management capability.

Let us return to Yan et al.'s (2021) study. In our view, the investments that the mobile phone division were allowed to make cannot be understood without knowing that in addition to the 10% of sales that Huawei committed itself to

spending on R&D, Huawei also spent about 1% of sales since 1997 on transformation initiatives. In our view, even more so than what Yan et al. (2021) already stress, the fact that Ren supported the strategy of building high-end smartphones and investing for the long-term in Huawei's consumer marketing capabilities are key to understanding why the mobile phone division could make such large investments. As we show in our book, Ren and Huawei's top management at least since 1997 believed that constant change, as well as the exploration of new ways of doing things, is core for survival.

The literature on corporate strategy would portray the advantages that the mobile phone business derived from being part of Huawei as synergies or as parenting advantages. But Yan et al. (2021) invoke the concept of 'complementary assets' to describe these advantages. Teece (1986) introduced the concept of complementary assets to explain why some firms are able to profit from their innovations and others do not. He pointed out that a firm that invests in R&D can often only profit from its innovations when it possesses complementary assets in marketing and distribution, competitive manufacturing, after-sales support, complementary technologies, and the like. In our view, the concept of complementary assets nicely explains why the mobile phone division felt that it was necessary to develop its own marketing, distribution, and sales capabilities to profit from all the R&D expenditure that went into developing smartphones. But Yan et al. (2021) adopt a new use of concept to cover what is typically meant by corporate synergies and corporate parenting advantages.

Rather than helping, we believe this novel use of the concepts hurts understanding. Especially in the context of the mobile phone industry, competitive manufacturing and complementary technologies are too influential to be neglected. Complementary assets refer to not only those resources and capacities possessed by the focal firm itself but also those external assets a firm can utilize or control. Because the mobile phone industry has become highly modularized, those externally accessible complementary assets are essential and thus should be incorporated into case analysis at greater length. In our view, there is no need to stretch the definition of complementary assets because organizational culture and routines of the parent organization can easily be covered by existing corporate strategy concepts such as synergies and corporate parenting advantages. We believe Yan et al. (2021) could have simply replaced the words 'complementary assets' with the words 'corporate level assets'. But we understand, alas, why authors are often pushed to use concepts in a new way so they can claim to reviewers and editors that they have made a 'novel' contribution.

Problems of Interpretation

As stated earlier, Yan et al. (2021) have gone to great lengths to study the history of Huawei Mobile and have amassed superb empirical data for their case study. They have also been careful in their methodology. Nonetheless, on a number of occasions we have a different interpretation of the facts.

First, we disagree with the authors about their argument that in stage 3 (2011–2014) and stage 4 (2014–2018) Huawei Mobile engaged in product exploitation instead of product exploration. As seen from their Appendix II, in 2011 Huawei Mobile was established as one of the three business groups of the company (the Consumer Business Group) and Mr. Chengdong Yu was appointed as the CEO of Huawei. In 2012, Huawei launched a series of mobile phone products such as P1, D1, and D2, which, however, all failed in the market. Only in 2013 came the product P6 that was considered the first success. These developments clearly point out that in stage 3 Huawei Mobile was still in the learning curve and had devoted significant resources to experimenting, trying out, and testing new opportunities, which should be interpreted as product exploration. Second, seen from Appendix V, Huawei Mobile set up a number of R&D centers around the world to develop smartphone-related technologies, which include a user interface design center in San Francisco, an aesthetics center in Paris, an algorithm center in Moscow, and so on. The R&D centers around the world conduct R&D activities to explore new ideas, designs, and technologies to enhance the quality of Huawei smartphone products. These centers are clearly engaged in product exploration activities. Third, the fierce competition in smartphone business in China and also in the world pushes each player to invest heavily in R&D to develop cutting-edge technologies to power the development of its own products and compete with each other. In this sense, companies in the smartphone business cannot survive and thrive only by engaging in product exploitation. Huawei was a late comer in the smartphone industry, and consumer business was new to the company. In our view, Huawei Mobile had no way to develop but actively explore new ideas, technologies, and opportunities.

We also have a second disagreement. When describing Huawei Mobile's internal disputes regarding whether to continue to focus on the business of feature phones with carriers as customers or develop the smartphone business with consumers as customers, the authors argue that it was the customer-centric culture that helped solve the dispute. We disagree with this explanation. Supporters of either business can both argue they are customer-centric, because by developing the feature phone business the company listened to carrier customers and by promoting smartphone business the company catered to consumers. Therefore, the issue is not whether the company has a customer-centric culture, rather which market segment the company considered was of strategic importance and represented the future market. We think the core of the dispute is a strategy issue and luckily Huawei made the right decision in an important meeting in 2012, in which the company set a strategy to focus on high-end phone products instead of low-end phone products, to focus on building its own brand instead of engaging the Original Equipment Manufacture model to supply carriers with products without Huawei's own brand (Guo, 2015). This strategy proved to be right in the following years and was crucial for Huawei Mobile's ensuing success.

Finally, we disagree with the interpretation of why Huawei set up a wholly owned subsidiary, HiSilicon, in October 2004, to develop its expertise in

smartphone chips. We do not think it was a story of exploration. Actually, it was a story of strategic defense against a black swan event that would disrupt the business continuity of Huawei. This is confirmed in a letter to HiSilicon employees released by Mrs. Tingbo He, the president of HiSilicon on May 17, 2019, after Huawei has been put on the entity list by the US government.^[2] For many years the chips designed and developed by HiSilicon had been viewed as a back-up if Huawei lost access to chip technology from vendors.

Notwithstanding this disagreement, we highly value the contributions Yan et al. (2021) have made in studying how Huawei developed a successful smartphone business where Motorola, Ericsson, Nokia, and later Microsoft^[3] failed. Yan et al. (2021) deserve praise for opening up the inquiry. We are sure other scholars will be inspired to continue this line of research that is so central to scholarship on firm strategy.

HONG AND SNELL (2021)

General Comments

Unlike Hong and Snell (2021), we do not regard Huawei as a representative example of Chinese MNCs. We believe Huawei is a very special case. Since its founding in 1987, Huawei continuously made organizational changes, creating a highly dynamic firm that is unusual both in terms of strategy and structure. Nonetheless, there are many interesting things to learn from Huawei about the challenges of growing rapidly from 50 employees in 1987 to over 194,000 employees today (Huawei, 2019). If one wants to generalize from the Huawei case, we believe the fruitful reference class are firms that possess dynamic capabilities (Teece, 2007, 2019). Huawei's ability to create standard operating procedures (Cyert & March, 1963), or routines, to use the language of Nelson and Winter (1982), and then to repeatedly break their existing systems of standard operating procedures when they proved no longer effective struck us as the most intriguing aspect of the firm and therefore became the central topic of our book.

What impressed us about Hong and Snell (2021)'s article is how creatively they overcome the problems that have plagued most of the research and writing on Huawei: obtaining access to reliable and representative information.^[4] Reminiscent of Western scholars who could not do research in China in the 1970s and instead interviewed emigrants in Hong Kong (Walder, 1986, 1989), Hong and Snell (2021) decamped at a hotel next to the Huawei HQ in Shenzhen where they could interview managers from HQ and from foreign subsidiaries who were visiting HQ. While they do not end up with a random sample of managers from subsidiaries all across the world, they assemble a compelling convenience sample that gives us some confidence that their data are not entirely biased in favor of HQ or one particular country or region.

In Chapter 7 of our book, our research team also wrote about the internationalization of Huawei, but we have not studied explicitly the legitimation process of

headquarter control in our research. For this reason, our comments are based on what we know about Huawei's internationalization process and our understanding of the usefulness of the concept of 'legitimacy' for explaining the success and failure of firms. While the two scholarly traditions share many basic assumptions, evolutionary economists unlike organizational ecologists (Hannan & Freeman, 1989) see the challenge for new firms more about convincing customers that the firm's products are good enough or better than those of rivals rather than convincing their stakeholders they are 'legitimate' (Winter, 1990).

In the context of firms going abroad and creating a successful foreign operation, we believe, consistent with the view of evolutionary economists, that the key managerial challenge is to convince customers in foreign countries that the firm's products and services are better and/or cheaper than what competitors offer in the foreign market rather than to obtain legitimacy for the firm's practices. Huawei initially had trouble selling in the leading western industrial countries such as Britain because local telecom companies did not trust the quality of Huawei's products and not because Huawei was seen as an 'illegitimate' seller (Li, Chang, & Guo, 2020). It was a big milestone when Huawei successfully passed through the strict supplier accreditation process by British Telecom in 2004 and therefore got a foothold in the European market. As Huawei gained a reputation for having not only low-cost but also high-quality telecommunications equipment, other leading industrialized countries began to buy from Huawei. Over the past twenty years, Huawei has become the largest telecommunications equipment company in the world and a technological leader in 5G technology (Murmann, Huang, & Zhang, 2020).

If we were to use the concept of legitimacy to analyze the history of Huawei, we would bring into focus the efforts of the US government over the past ten years, and particularly the past two years, to persuade first US lawmakers and then other western countries that deploying Huawei 5G equipment in their next generation telecommunication poses significant national security challenges. Without question, US government officials tried to delegitimize Huawei as a supplier in the eyes of the western public, even though Huawei arguably has the most cost effective 5G gear of any major provider and is the only company in the world with comprehensive capability to help western countries deploy 5G networks rapidly. As a result, banning 5G technology entirely from their infrastructure means that the rollout of 5G technology will be delayed. Recently, Britain has decided that Huawei 5G technology can no longer be part of Britain's infrastructure by 2027. With these preliminary comments out of the way, let us turn to the details of the article.

The article intends to make a contribution to the literature on headquarter control of subsidiaries, where numerous authors have highlighted that conflicts often exist between headquarters and their international business units about who calls the shots regarding what practices are implemented in particular countries (Ambos, Asakawa, & Ambos, 2011). As firms go international, they need to

balance benefits of giving subsidiary autonomy to fit local contexts and the efficiency and control benefits of forcing subsidiaries to implement standard operating procedures developed at HQ.

Hong and Snell (2021) see Huawei as an example of a company that successfully avoided strong conflicts between HQ and subsidiaries by using a set of control mechanisms that include *key performance indicators, standard operating procedures, divided subsidiary mandates, HQ-centric rotational expatriation, military-style induction, public oath-taking and self-criticism ceremonies, training in and role-modelling of core values*. A large part of the success, according to Hong and Snell (2021), were five strategies to legitimize these controls that include *edicts, inducements, espousals of organizational benefits, acknowledgement of sacrifice, moral exhortation, affirmation, appeal to tradition, and theory*.

Control Mechanisms and Legitimation

With respect to managers and employees in a foreign country accepting the practices and directives of HQ, the concept of legitimacy of control may be a bit more relevant than legitimacy of the entire firm. But we are bit more circumspect that legitimacy is a key construct for understanding the case of Huawei. When employees are signing on to work in the subsidiary of a foreign company, they understand that not everything will be the same compared to working for a national company. As companies go abroad, HQ also understands that some practices that are legal in the home country may not be legal in a foreign country and they have to adjust their practices in the foreign subsidiary to comply with foreign laws. We believe that the concept of legitimacy comes more into play when a subsidiary has been allowed to run its business autonomously, develop its own practices, and then HQ suddenly starts to pull in the reigns and attempts to force subsidiaries to adopt different standard operating procedures mandated from HQ. Hong and Snell could have focused more on such instances as they undoubtedly require legitimization strategies.

We believe central to obstacles Huawei faced with foreign employees is the way it incentivized employees. The key challenge in internationalization of Huawei was how to have non-Chinese employees participate in the profit-sharing mechanisms that we believe are core to understanding why employees of Huawei are willing to contribute long hours and change their behavior.^[5] Initially, Chinese law prevented Huawei from letting foreign employees participate in the profit-sharing plan and Huawei worked hard to launch a Time Unit Plan in 2013 to allow foreign employees to share the company's profits. We believe that as soon as foreign employees could participate in the profit-sharing plan, the biggest threat to the dissatisfaction of non-Chinese employees was removed. One of the reasons that a large number of Chinese and non-Chinese employees would sign on to massive changes to the firm's standard operating system was that they realized that the changes would increase the likelihood that Huawei would continue to be financially successful.

There is also a need to differentiate two types of control mechanisms, i.e., controls that are mandated and thus cannot be bypassed (e.g., those controls embedded in the IT-based management systems including online processes and financial systems) and controls that subsidiaries can have certain room to decide to what extent they need to abide by them. For business operations, the former actually is not an issue of legitimization. It would be interesting to learn more how subsidiaries would respond to the second type of legitimization by taking perhaps different strategies. For example, due to the cultural dissimilarity between China and foreign countries, some control mechanisms which have been proved effective in the Chinese context cannot be directly transferred to and accepted by employees in foreign subsidiaries, such as military-style induction, self-criticism ceremonies, and the localized elaboration of core values. In this case, the subsidiaries in a culturally distant country could be given some room to make adaptive modifications to the original version of controls.

A More Dynamic View of Headquarter Control

One of the reasons we wrote our book was to counter the prevailing static picture of Huawei's standard operating procedures. In line with much literature, Hong and Snell similarly present a static picture of how HQ interacted with subsidiaries. We found that the internationalization of Huawei was an incremental process. Thus in different stages of internationalization, different control strategies were used and explored. Just like many internationalizing companies, Huawei initially staffed subsidiaries with many Chinese managers but then found out that it was more effective to hire a large number of locals who understood the market much better than Chinese expatriates.

Moreover, foreign subsidiaries need to compete with each other for internal legitimacy from HQ. Especially for a newly established subsidiary operating abroad, obtaining good internationalization performance in terms of satisfying the HQ's global strategy for capability building and business goals would be helpful for the subsidiary to gain internal legitimacy and bargain for more favorite control mechanisms (Sengul & Obloj, 2017). On the other hand, if some control mechanisms could produce good outcomes, the HQ would have more confidence to disseminate this practice in following steps of internationalization.

It is worth noting that along with the overseas expansion of Huawei, there would be a dynamic evolution on the relationship between control and legitimacy. At the very beginning, control mechanism selection is more based on efficiency consideration rather than legitimacy consideration. That is, control practice would be taken and retained for its effectiveness in improving internationalization performance. However, when more and more overseas subsidiaries take a set of controls, there will be a real sense of legitimacy, i.e., imitating other counterparts or accepting those practices which have already been adopted by other fellow

subsidiaries. In short, a more dynamic view of the HQ-subsidiary relationship may help us to gain more insight into the whole picture.

Among the seven control mechanisms, the ‘strict and comprehensive standard operating procedures’ was established after Huawei hired consulting firms to learn the advanced management system in 1999. However, the other control mechanisms have existed in the company for a very long time. By paying more attention to the creation and breaking of routines, it would help us to gain more insight into the dynamics of control and legitimation strategies. In recent years – after Hong and Snell’s (2021) research was conducted – Huawei has attempted to simplify its management procedures in order not to make the management too bureaucratic and rigid.

The Impact of Institutional Factors

As Chinese MNCs establish their presence worldwide, they will inevitably operate in diverse institutional contexts across countries. In this case, handling local institutional, market, and cultural challenges becomes more complex at the company level than at the subsidiary level. As such, the impact of institutional factors (especially the institutional variations across countries), which are largely neglected in this study, can play an essential role in shaping the legitimation strategies taken by the HQ.

We may need to divide host countries into two groups (i.e., western/developed economies and non-western/developed economies). This is because the legitimization issue is not only a matter of the balance of centralization control and localized autonomy, but also a matter of emotional/cognitive acceptance of legitimization from the home country (China).

The transferability of the control mechanism across countries is also an issue. The HQ must consider this in choosing its legitimation strategies. Among the seven control mechanisms, the military-style induction may be the weakest and it only applies to the Chinese. It applies only to the new recruits, who may be in their 20s. A month training or brainwashing would not have a strong impact on their behaviors ten or twenty years later. The strong core values and the management system enshrining the core values is a much more powerful force to shape the mindset of managers and employees.

A Representative Chinese MNC or a Unique Case

As already indicated, we worry about how generalizable the findings on the HQ-subsidiary relationship at Huawei are to other Chinese firms. Hong and Snell (2021) acknowledge that there are other types of Chinese MNCs to which the findings of Huawei do not apply. They cite TCL as one counterexample. We believe that in many ways Huawei is unique because of the continuing role the founder plays, its organic growth, and its dynamic capabilities, which we analyze in

detail in our book on Huawei. For these reasons, we did not offer Huawei as an example that would apply to all Chinese firms.

As we point out in Chapter 5 (Huang & Chen, 2020) and the Conclusion (Murmann, 2020) chapters of our book, Huawei, unlike many Chinese MNCs, has never made a major foreign acquisition but grew organically. Hong and Snell (2021) acknowledge this (in the paragraph starting with the words ‘An additional arrangement (for which we could not find a legitimizing statement...’) but they do not sufficiently emphasize this. Because Huawei established such a unique control system, it cannot grow through merger and acquisition, and therefore it has to build its subsidiaries on its own. Throughout its history, Huawei has not conducted any large-scale merger and acquisition. We are skeptical of Hong and Snell’s (2021) argument that other Chinese MNCs can possibly imitate Huawei’s legitimation strategy when expanding through acquisitions because the core values, the management system, and the strategy of Huawei is built as a whole. Imitating and importing part of Huawei’s system would not work well for other companies.

Finally, there are some minor misunderstandings of the facts. For example, the quote starting with the words ‘As the old Chinese saying goes...’ is used to support the argument for military-style induction. However, the quote actually means that the cadre has to be tested in the battlefield and has to have sufficient capability and experience to be promoted. It is a human resource management policy that Huawei implemented to promote its core value of inspiring dedication. In addition, in the paragraph starting with the words ‘A third aspect of Huawei’s division of subsidiary mandates is’ [...], Hong and Snell (2021) contended that Huawei’s R&D center in Europe focuses on distinctive domains because of division of subsidiary mandate. We, however, argue that the different foci of these R&D centers may not be a result of division of subsidiary mandates, but rather are related to the strategy of accessing the best talent for different technologies, which are often concentrated in particular places. For example, Huawei’s R&D centers in France mainly focus on design and art and mathematics, which France is known for in the world, whereas R&D centers in India focus on software for which India has a robust industry (Li et al., 2020).

CONCLUSION

Both articles were very creative in how they obtained data and we believe they can serve as an inspiration for future work on Chinese MNCs, which often have been reluctant to share data with researchers.

It is instructive to read statistics on business failures. After five years, 44% of all startups are dead.^[6] Huawei has managed what few companies in the world achieve. Not only has the firm survived for thirty years, but it has grown from a fledgling Chinese startup importing telephone switches from Hong Kong to a successful global multinational enterprise. Understanding what allowed Huawei to succeed where other firms from China and elsewhere failed is an important task.

Notwithstanding the problems Huawei is currently facing as it is caught in the middle of a geopolitical rivalry between the USA and China, the firm will continue to be an influential Chinese company that will attract further scholarly attention. Future studies on Huawei would benefit if they adopted from their inception a comparative case study design in which Huawei is compared with other firms. Our book on Huawei (Wu et al., 2020) was also not explicitly comparative, but we tried to build in comparisons and asked commentators on the various chapters to address explicitly whether Huawei is similar or different with regard to many of its practices. Without such comparisons it is almost impossible to determine whether what is observed in a particular case is truly special or happens in most cases. Comparative historical scholars have known for a long time that case comparisons are necessary if one wants to make confident interpretations of the causal structure of a phenomenon (see, for example, Murmann, 2003; Ragin, 1987; Stinchcombe, 1978).

NOTES

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[1] <https://www.idc.com/promo/smartphone-market-share/vendor>

[2] See https://www.sohu.com/a/314522888_120116768

[3] Microsoft bought Nokia's handset business and patents in 2013 for \$7.6 billion US\$.

[4] Yan, Hu, and Dong (2021) also got better access than most previous studies because Dong had many Huawei middle managers in her executive education classes, and they would give her and co-authors interviews and access to other Huawei managers.

[5] We want to point out that what often is called employee ownership of Huawei amounts in our view to a sophisticated profit-sharing plan.

[6] <https://smallbiztrends.com/2019/03/startup-statistics-small-business.html>

REFERENCES

- Ambos, B., Asakawa, K., & Ambos, T. C. 2011. A dynamic perspective on subsidiary autonomy. *Global Strategy Journal*, 1(3–4): 301–316.
- Christensen, C. 1997. *The innovator's dilemma: When new technologies cause great firms to fail*. Boston: Harvard Business Review Press.
- Cyert, R. M., & March, J. G. 1963. *A behavioral theory of the firm*. Englewood Cliffs, NJ: Prentice-Hall.
- Doz, Y., & Wilson, K. 2017. *Ringtone: Exploring the rise and fall of Nokia in mobile phones*. Oxford: Oxford University Press.
- Gans, J. 2016. *The disruption dilemma*. Cambridge, MA: MIT Press.
- Guo, X. 2015. Huawei consumer business group's transformation in the last three years paid off. Next year will emphasize overseas market. (Huawei Zhong Duan San Nian Zhuan Xing Zhong Jian Xiao, Ming Nian Zhong Ya Hai Wai Shi Chang). [Cited 7 February 2021]. Available from URL: <https://tech.qq.com/a/20150128/010817.htm>
- Hannan, M. T., & Freeman, J. H. 1989. *Organizational ecology*. Cambridge, MA: Harvard University Press.
- Hong, J. F. L., & Snell, R. S. 2021. Headquarters control and its legitimation in a Chinese multinational corporation: The case of Huawei. *Management and Organization Review*, DOI: 10.1017/mor.2021.23

- Huang, C., & Chen, X. 2020. Financial management transformation in Huawei. In X. Wu, J. P. Murmann, C. Huang, & B. Guo (Eds.), *The management transformation of Huawei: From humble beginnings to global leadership*: 171–208. Cambridge: Cambridge University Press.
- Huawei. 2019. 2018 Annual Report. [Cited 2 April 2021]. Available from URL: <http://www.huawei.com/en/about-huawei/annual-report>
- Li, W., Chang, X., & Guo, B. 2020. Huawei's internationalization journey. In X. Wu, J. P. Murmann, C. Huang, & B. Guo (Eds.), *The management transformation of Huawei: From humble beginnings to global leadership*: 244–291. Cambridge: Cambridge University Press.
- Li, L., Guo, B., Murmann, J. P., & Wu, D. 2020. Huawei's R&D management transformation. In X. Wu, J. P. Murmann, C. Huang, & B. Guo (Eds.), *The management transformation of Huawei: From humble beginnings to global leadership*: 292–346. Cambridge: Cambridge University Press.
- Murmann, J. P. 2003. *Knowledge and competitive advantage: The coevolution of firms, technology, and national institutions*. New York: Cambridge University Press.
- Murmann, J. P. 2020. The management transformation of Huawei: Concluding thoughts from a comparative perspective. In X. Wu, J. P. Murmann, C. Huang, & B. Guo (Eds.), *The management transformation of Huawei: From humble beginnings to global leadership*: 381–410. Cambridge: Cambridge University Press.
- Murmann, J. P., Huang, C., & Zhang, H. 2020. Huawei's intellectual property management transformation. In X. Wu, J. P. Murmann, C. Huang, & B. Guo (Eds.), *The management transformation of Huawei: From humble beginnings to global leadership*: 347–380. Cambridge: Cambridge University Press.
- Nelson, R. R., & Winter, S. G. 1982. *An evolutionary theory of economic change*. Cambridge: The Belknap Press of Harvard University Press.
- O'Reilly, C. A., & Tushman, M. L. 2004. The ambidextrous organization. *Harvard Business Review*, 82(4): 74–83.
- Ragin, C. C. 1987. *The comparative method: Moving beyond qualitative and quantitative strategies*. Berkeley: University of California Press.
- Sengul, M., & Obloj, T. 2017. Better safe than sorry: Subsidiary performance feedback and internal governance in multiunit firms. *Journal of Management*, 43(8): 2526–2554.
- Song, J., & Lee, K. 2014. *The Samsung way: Transformational management strategies from the world leader in innovation and design*. New York: McGraw-Hill Education.
- Song, J., Lee, K., & Khanna, T. 2016. Dynamic capabilities at Samsung: Optimizing internal co-optimization. *California Management Review*, 58(4): 118–140.
- Stinchcombe, A. L. 1978. *Theoretical methods in social history*. New York: Academic Press.
- Teece, D. J. 1986. Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy. *Research Policy*, 15(6): 285–305.
- Teece, D. J. 2007. Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13): 1319–1350.
- Teece, D. J. 2019. China and the reshaping of the auto industry: A dynamic capabilities perspective. *Management and Organization Review*, 15(1): 177–199.
- Walder, A. G. 1986. *Communist neo-traditionalism: Work and authority in Chinese industry*. Oakland, CA: University of California Press.
- Walder, A. G. 1989. Social change in post-revolution China. *Annual Review of Sociology*, 15: 405–424.
- Winter, S. G. 1990. Survival, selection, and inheritance in evolutionary theories of organization. In J. V. Singh (Ed.), *Organizational evolution new directions*: 269–297. Newbury Park, CA: Sage Publications.
- Wu, X., Murmann, J. P., Huang, C., & Guo, B. 2020. *The management transformation of Huawei: From humble beginnings to global leadership*. Cambridge: Cambridge University Press.
- Yan, M., Hu, Y., & Dong, X. 2021. Managing complementary assets to build cross-functional ambidexterity: The transformation of Huawei Mobile. *Management and Organization Review*, DOI:10.1017/mor.2021.22