## APPENDIX I

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table A1. An overview of the interviewees | | | | |
| **Types of interviews** | **Name** | **Position** | **Duration (Hour)** | **Coding symbol** |
| Semi-structured interviews with senior managers  (4.5 hr) | Xu WW | Senior engineer, core persons in charge of the strategy and marketing affairs | 1.5 | FSM1 |
| Wang JX | Senior R&D staff, familiar with the development journey of core technology  Former vice president in charge of infrastructure | 2 | FSM2 |
| Wu YH | Former vice president with rich working experience in Huawei | 1 | FSM3 |
| Informal interviews with senior managers  (9hr) | Tian XP | Director of the R&D center in Beijing | 1 | IFSM1 |
| Wang JX | Former vice president in charge of infrastructure | Total 3.5, 2 times | IFSM2 |
| Gong HZ | Vice president, CEO of public affairs | 1 | IFSM3 |
| Wu YH | Former vice president with rich working experience in Huawei | Total 1, 2 times | IFSM4 |
| Li AX | Former marketing staff at Huawei | 0.5 | IFSM5 |
| Liu T | Senior managers in charge of Huawei’s knowledge management | 0.5 | IFSM6 |
| Han S | Senior managers, familiar with human resources | 0.5 | IFSM7 |
| Ma Y | Director of the process department | 0.5 | IFSM8 |
| Yang TP | Senior managers in Data Center | 0.5 | IFSM9 |
| Informal interviews with employees  (7.2 hr) | Hu HZ | Staff at 2012 Lab | Interviews during conference, causal meeting, or on dinner tables are amount to 7.2 hours | IFE1 |
| Yu JL | Middle managers, familiar with supply chain management | IFE2 |
| Wang G | Staff in public affairs | IFE3 |
| H HZ | R&D staff | IFE4 |
| Zhang B | Staff of the R&D center in Beijing | IFE5 |
| Zhang YF | Staff of the R&D center in Beijing | IFE6 |
| Wang LL | Staff of the R&D center in Beijing | IFE7 |
| Yuan L | Staff of the R&D center in Beijing | IFE8 |
| Shen QJ | Staff of the R&D center in Shenzheng | IFE9 |
| Su W | Middle managers, familiar with supply network | IFE10 |
| Deng Y | Staff of the R&D center in Wu Han | IFE11 |
| Chen L | Staff of the R&D center in Chen Du | IFE12 |

## APPENDIX II

|  |  |
| --- | --- |
| Table 1. Chronicle events of Huawei Mobile during 2003-2018 | |
| **Year** | **Chronicle events** |
| 2003 | * Huawei established HM as a business unit to provide customized no-brand 2G/3G phones for operators at a low price |
| 2004 | * Huawei establish Hisilicon as a subsidiary company to develop 3G chips |
| 2006 | * Hisilicon started R&D on cellphone chips * Ren Zhengfei |
| 2007 | * HM started R&D on baseband processors, key components of mobile communication   \**Apple released its first iPhone, reshaping the competitive landscape of the mobile phone industry* |
| 2008 | * HM became the 2nd largest supplier of customized 2G(CDMA) cellphones |
| 2009 | * Hisilicon released the first cellphone application processor K3V1 |
| 2010 | * Huawei repositioned HM from an ancillary to a strategic business |
| 2011 | * HM was established as one of the 3 business groups of Huawei * Yu Chengdong was appointed as the CEO of HM * Cellphone users, rather than the operators, were identified as the customers for HM * 2G/3G cellphones were cut off |
| 2012 | * HM released a series of products, such as P1, D1, D2, Mate1, but all failed the market * Experts in the marketing, supply chain, and channel field were hired from outside * 14 out of 15 operators in the Europe ceased cooperation with HM   \* *Xiaomi Corp. achieved great success in its online shipments* |
| 2013 | * HM reaped its first success in the smartphone market with P6 * Shipment of cellphones via operators reduced from 80% to 50% * Honor was separated from HM to ensure independent R&D and marketing plans |
| 2014 | * HM started its dual-brand strategy * HM focused on 4G high-end smartphones and cut off 80% of the 2G/3G phones. * The brand HW ranked No.94 on the Interbrand Top100 World Brand List   *\*4G was widely applied in the world*  *\*Demands of new generation smartphones surged* |
| 2015 | * HM started to open up the overseas market * HM started to improve its brand recognition worldwide   *\*Growth in the global smartphone industry has slowed down* |
| 2016 | * Smartphone shipments increased 29% year-on-year * Smartphone sales increased 43.6% year-on-year * HM made technology breakthroughs on smartphone chips, UI systems, and cameras |
| 2017 | * Huawei and Honor together took 10% of the world’s smartphone market * Global brand awareness of Huawei has reached 86% * HM released the first mobile phone with an artificial intelligence chip |
| 2018 | * HM entered the smart home and intelligent vehicle fields with its mobile business * HM established a cloud service ecosystem with world terminal developers |

*Note*: underlined italic sentence indicates key events in the external environment

## APPENDIX III

Representative quotations at stage 1

|  |  |  |
| --- | --- | --- |
| **2nd order** | **1st order** | **Representative quotations** |
| Technology exploration | Explore core technologies | * Huawei started to develop K3V1 Hisilicon chips, aiming to build a long-lasting competitive advantage by mastering the core technology. (FSM2) * Wang Jing was a workaholic, it was under his leadership, Huawei introduced the world’s first baseband processor that supports TD-LTE in 2010. (IFE3) |
| Channel exploitation | Expand number of carriers | * Relationships with carriers are our strength, it is easy for us to open our channels by cooperating with carriers. (FSM1) * Because the factory price was severely squeezed, Huawei Mobile had been selling at a low price to guarantee sales growth. (FSM1) * Who are the users? What problems have they encountered? What are their needs? Huawei Mobile had no idea. (IFSM5) * We can only see the small print ‘made by Huawei’ when the battery is pulled out. (IFSM5) |
| Function-level synergy | Learning benefits | * At that time, we had stable operator customers so the shipments of our products were guaranteed. We didn’t need to worry too much about market issues. The market department mainly helped us to feedback the voices of the operators and see what performance needs to be improved. (FSM1) |
| Low cost benefits | * We used to do 2B business so that we had very mature operator channels. As long as we kept a good relationship with the operators, we didn’t need to don't worry about sales of the products. Beside, it can also promote our operator business by the way. (FSM3) |
| Organization-level synergy | Assign consistent R&D investments on technologies | * You can imagine how Huawei determined to develop its own chips. Ren Zhengfei once said to He Tingbo (CEO of HiSilicon), “I assure you 400 million USD per year and 20,000 employees for the development of chips, make sure that we can gradually reduce our reliance on the American firms”. (IFE1) * Not every company can afford the huge investment on developing cellphone chips, there are countless failures that will not appear in the reports of Huawei’s success. (IFE1) |
| Familiar with R&D tools | * Supply chain network is important for the development of smartphones. Huawei was quite clear on how to purchase the components, whether prices are reasonable, and how to negotiate with suppliers (IFE2). |
| Mature networks | * The IPD system has set a solid base for the R&D team, many of the methodology are ready for use. (FSM3) |
| NPD goals/ outcomes | Technology independence | * Huawei used our own HiSilicon chip. In this case, we could fully grasp the pace of product introduction to the market, without being restrained by others. (IFSM5) |

## APPENDIX IV

Representative quotations at stage 2

|  |  |  |
| --- | --- | --- |
| **2nd order** | **1st order** | **Representative quotations** |
| Product exploration | Customer-Centricity | * At the beginning, we conducted a lot of research and interviews on our target customers on the Tmall platform; interview topics included the CPU, the number of cores, and the screen material (IFSM6) * We deconstructed products from our competitors, the best seller android phones, to see the internal designs details, and benchmark with their performance indicators, we imitated their aesthetic design advantages. (IFE6) |
| Attach importance to product design | * He (CEO of Huawei Mobile) mobilizes company resources to the largest extent in order to support a flagship product. Sometimes, he is even willing to spend up to five times the amount of Huawei’s highest recorded investment on a flagship product. It feels like I’m sitting on a crater. More than RMB 200,000 burned to ashes in the blink of an eye. (FSM1) |
| Market exploitation | Extend the Huawei brand to mobile business | * The answer given by Interbrand CEO Jez Frampton was "Huawei", thus forming a strong common value with the parent company-Huawei which has a tough character, and Huawei needs to penetrate this character into terminal products. (IFE3) |
| Function-level synergy | Learning benefits | * Marketing employees are more empowered to serve their customers. When marketing staff collect opinions from customers, they can share this information to the product team through daily meetings. (IFSM5) |
| Brand-extension benefits | * No one in the world remembers the second, they all remember the first. To survive, the mobile phone business must be high-end. We hope to take advantage of the communications field to create a high-end image of mobile phones in the hearts of our end consumers”. (IFE7) |
| Organization-level synergy | Alter mentel models | * Yu Chengdong believes that Huawei Mobile's shortcomings are not in technology and management, but in concepts. For this reason, in the past few years, his internal speeches always focus on consumer experience”. (IFE9) * At first, we are angry about the designers’ ideas because they are impossible to put into practice. However, we gradually agree on what Kim (the Korean designer) says about product design is the driving force that reshapes the brand (IFE5). |
| NPD goals/ outcomes | Product differentiation | * If the product is not good, no matter how well it is done, it is useless. If the product is well done, everything has a chance to improve. Otherwise, it is a disaster to the Huawei brand”. (FSM2) |

## APPENDIX V

Representative quotations at stage 3

|  |  |  |
| --- | --- | --- |
| **2nd order** | **1st order** | **Representative quotations** |
| Product Exploitation | Technology refinement with internal resources | * We have never stopped our pace on refining the technology, because we know this is our strength and sets the basis for our products… what we think is how to be better, stronger signals, larger screens, or fast algorithms. (IFE1) * There is much space for optimization. The IPhone product does not produce the camera, but it is famous for its camera function. Why? They have core algorithms and keep refining them all the time. These refinements become core competence. (IFE6) |
| Technology integration with external resources | * Leading technologies in R&D centers worldwide provide support to our smartphones. We have set up a UI design center in San Francisco, an aesthetics center in Paris, an algorithm center in Moscow, a communications center in Japan, a software center in India and a 5G center in Europe. (FSM2) * We need to be open and collaborative so that the value of our core technology can be realized and amplified. So, we open up the peripheral products to our partners, which helps refine our core technology. (FSM2) |
| Product Design Aesthetics | * In order to decide the color of our smartphones, we referred to the color trends in the mobile phone industry and studied popular colors in other products such as automobiles and other electronics products (IFSM3) * Technology is no longer what we need most. Huawei is challenged by the way in which these technologies will be presented to customers (FSM3) |
| Channel exploration | Cut off the operator channels | * Though we told them (European carriers) that it is a strategic adjustment (to cut off the customized cellphones), they insisted on terminating the cooperation. (FSM1) |
| Build offline public channels and online e-commerce channels | * Huawei Mobile has been pushing the “Thousand Counties Plan” to expand its offline channels in the domestic market. By now, the Huawei brand name has permeated nearly 300 counties and cities and the 1,000 goals are expected to be achieved by 2017. (IFE3) * We have to find new ways, since the carriers are not helping, therefore we quickly opened our offline stores by cooperating with big and small distributors. (IFE10) |
| * Ren Zhengfei believes that low-cost e-commerce should be developed. He once said, "We should prioritize the development of low-cost channels and change the pattern." (IFE2) |
| Function-level synergy | Matching benefits | * In the process of exploration, we also learned a lot from the market. When P1 was hot in the market, the supply was not ideal. By the time supplies were available in volume, the market was gone. By P6, the online and offline resources matched well, and the supply went up, so there was no waste of bullets. Soon we found that the online product iteration speed is faster, which is more suitable for launching some low-end products. |
| Organization-level synergy | Fill the knowledge gaps | * The people trained inside Huawei are not materials for smartphones at all. We must hire external experts to save the channels (IFE2) |
| NPD goals/ outcomes | Sales growth | * Compared with the earliest days of Nokia's age, the "play" of the Internet market has changed dramatically. Although operator channels occupied more than 50%, e-commerce channels were expanding rapidly. Traditional social channels, especially "national agents", have been severely impacted and have suffered huge losses. We have to find new ways to "live up" social channels. (IFE2) |

## APPENDIX VI

Representative quotations at stage 4

|  |  |  |
| --- | --- | --- |
| **2nd order** | **1st order** | **Representative quotations** |
| Product Exploitation | Product refinement for brands | * The “Huawei” brand attracts businessmen who value quality and taste, the “Honor” brand attracts young people who value fashion and entertainment (IFS9). * In order to cater to the young people who relies heavily on the internet, we add game, music, and sports elements in the “Honor” products as entertainment features (IFS9). * Business man want larger screens and so on, so we did the first cellphone with the largest screen in the world (IFS9). |
| Brand exploration | Build Honor as a separate brand | * Yu Chengdong emphasized that the Honor brand should be independent from Huawei. In order to avoid impact on the Huawei brand, it exclusively sold online to save 30% of traditional channel retail space, and at the initial price of no profit or even loss, to the benefit of consumers. (IFE5) |
| Adopt dual-brand strategy | * Based on Huawei's pursuit of consumer business, the company finally decided to take the dual-brand road. One brand is mainly online, the other brand is mainly offline. It was like two horse running race. (IFSM8) |
| Function-level synergy | Reinforcing benefits | * Honor is clearly distinguished from Huawei in user positioning. Huawei brand covers all categories of mobile phones, especially high-end series focuses on business people. While Honor brand belongs to "young people who rely heavily on the Internet." (IFSE9) |
| * 2014 was the first year of Huawei's dual-brand operation. Huawei's brand awareness has increased from 52% to 65%, which means that it has been recognized by nearly two-thirds of consumers worldwide. (IFE3) |
| Organization-level synergy | Broaden horizons | * They have broadened the horizon of Huawei Mobile’s design with international top design tastes (IFSM7) * Although Apple is famous for its concise appearance, it lacks vigor and vitality. Moreover, more and more players are imitating the design and marketing approach of Apple. Apple is not cool anymore. I think Huawei should learn the trend from the luxury industry, collaborate with independent designer, and work with partners outside the industry (IFSM7). |
| NPD goals/ outcomes | Profit growth | * Ren Zhengfei once said, "Sales are needed to realize profit, not a goal of struggle". (IFE10) |

## APPENDIX VII

|  |  |  |  |
| --- | --- | --- | --- |
| Table. List of Huawei executives' internal speeches quoted in this article | | | |
| Cite | Title | Context | Notes |
| He, 2018 | There is no end to the long run | He, Gang, the president of Mobile Phone Product Line, wrote a review on the development of smartphone business. | Published in Huawei People in 2018, but the date and issue are missing |
| Ren, 1995 | Failure does not belong to Huawei people | Mr Ren's speech at Huawei's annual wrap-up meeting | Available from a Weibo link |
| Ren, 1996 | Adhere to customer orientation, synchronize with the world trend | Mr Ren's speech at the signing ceremony of C&C08 switch equipment with Beijing Telecom Administration | Published in Huawei People, December, 13th, 1996, issue 38. |
| Ren, 1998 | How long can Huawei sustain? | Presentation to China Telecom's research delegation and speech at a seminar with cadres above the division level at Unicom headquarters | Published in Huawei People, July, 27th, 1998, issue 71. |
| Ren, 2000 | Innovation is the inexhaustible power of Huawei's development. | Mr Ren internal speech on innovation | Published in Huawei People, July, 20th, 2000, issue 107. |
| Ren, 2008 | Let the youthful life radiate | Former CEO Ren Zhengfei’s speech at an internal conference with network product line employees | Published in Management Optimization, 2008, issue 317. |
| Ren, 2009 | Who will call for artillery fire how to provide timely artillery support | Former CEO Ren Zhengfei’s speech on the transformation of organizational structure | Published in Management Optimization, 2009, issue 324  Reprinted by Zhihu.com |
| Ren, 2010a | Customer-centric, increased platform investment, open cooperation, and win-win situation | Former CEO Ren Zhengfei’s speech at an internal Conference for managers from the enterprise business group. | Published in Management Optimization, 2010, issue 370.  Reprinted by Zhihu.com |
| Ren, 2010b | Huawei wants to improve the relationship with the media | Minutes of Ren Zhengfei’s meeting with Sun Yafang, Xu Zhijun, Guo Ping and related personnel from the Public Relations, Branding, Media Relations, Terminal Company and Party Committee | Reprinted by huanqiu.com |
| Ren, 2011 | Success is not a reliable guide to the future | An internal speech by Ren Zhengfei at the Internal Market Conference of Huawei | Published in Management Optimization, 2008, issue 380. |
| Ren, 2012 | Minutes of the meeting between Mr. Ren and 2012 Lab | Former CEO Ren Zhengfei hold a seminar with scientists in Huawei 2012 Lab, and 16 questions and answers were recorded. Speech at the Consumer BG business briefing and keynote seminar. | Published in President’s Office Email, 2012, issue 35. |
| Ren, 2014 | Never be opportunistic in times of great opportunity | Mr. Ren's speech at the lunch meeting with the Consumer BG management team | Published in President’s Office Email, March 11th, 2014, issue 25 |
| Ren, 2015a | Keep your feet on the ground and be a long-distance runner who challenges yourself | Mr. Ren's speech at the Consumer BG 2015 Mid-Year Communication Conference | Published in President’s Office Email, October 27th, 2015, issue 107 |
| Ren, 2015b | Mr. Ren’s speech at the EMT office meeting on September 24, 2015 | Former CEO Ren Zhengfei commented on decisions of the consumer business group. | Published in President’s Office Email, September 24th, 2015, issue 122 |
| Ren, 2016 | Minutes of the discussion between Ren Zhengfei and the employees of the Japan Representative Office and the Japan Research Institute. | | President’s Office Email, April 5th, 2016, issue 80 |
| Ren, 2017 | Mr. Ren’s speech at the Annual Meeting of the Consumer BG | Former CEO Ren Zhengfei summarized the key activities of the consumer business group. | President’s Office Email, January 17th, 2017, issue 24 |
| Ren & Xu, 2017 | Ren and Xu Zhijun’s speech at the Consumer BG 2017 Mid-Year Marketing Conference | Former CEO Ren Zhengfei and rotating CEO Xu, Zhijun talked about the strategic decisions of the consumer business group in a internal conference | Published in President’s Office Email, 2017, issue 79. |
| Ren, 2018 | Mr. Ren's speech at the Consumer BG business briefing and keynote seminar | Former CEO Ren Zhengfei talked about the key success factors and strategic plans of the consumer business group in an internal speech with key members from the consumer business group | Published in President’s Office Email, 2018, issue 1. |
| Ren, 2020 | Mr. Ren's speech at the farewell party of Honor | Former CEO Ren Zhengfei talked about the reasons why Huawei divested Honor | Published in President’s Office Email, 2020, issue 141. |
| Xu, 2017 | Do a good job with the consumer experience with heart and soul, and build a high-end brand for the world | Minutes of Xu Zhijun's speech with teams at all levels of the consumer business in the first half of 2017. Mr Xu is one of the rotating CEOs of Huawei. | Published in President’s Office Email, 2017, issue 98. |
| Yu, 2012 | We must be people with dreams and pursuits. | CEO of the consumer business group, Yu, Chengdong meets new employees at Huawei Consumer BG | Published in Huawei People (date 20120808, issue 250). |
| Yu, 2017 | Speech at the 2017 Huawei Consumer Service Quality Conference | CEO of the consumer business group, Yu, Chengdong | Huawei People, missing date and issue |

*Note*: Huawei People and Management Optimization are two internal publications of Huawei

**REFERENCES**

1. He, Gang. 2018. There is no end to the long run. ***Huawei People***. [Cited 12 December, 2020.] Available from URL: <http://app.huawei.com/paper/newspaper/newsPaperPage.do?method=showNewHwrPaperInfo&sortId=1&newsInfo=38635&search_result=5>
2. Ren, Zhengfei. 1995. Failure does not belong to Huawei people (Mr Ren's speech at Huawei's annual wrap-up meeting). [Cited 12 December, 2020.] Available from URL: <https://weibo.com/ttarticle/p/show?id=2309404349655201808060&comment=1>
3. Ren, Zhengfei. 1996. Adhere to customer orientation, synchronize with the world trend (Mr Ren's speech at the signing ceremony of C&C08 switch equipment with Beijing Telecom Administration). ***Huawei People***, December, 13th, 1996, issue 38. [Cited 12 December, 2020.] Available from URL: <http://app.huawei.com/paper/newspaper/newsPaperPage.do?method=showSelNewsInfo&cateId=9403&pageId=12184&infoId=27148&sortId=1&commentLanguage=1&search_result=1>
4. Ren, Zhengfei, 1998. How long can Huawei sustain? (Presentation to China Telecom's research delegation and speech at a seminar with cadres above the division level at Unicom headquarters). ***Huawei People***, July, 27th, 1998, issue 71. [Cited 12 December, 2020.] Available from URL: <http://app.huawei.com/paper/newspaper/newsPaperPage.do?method=showSelNewsInfo&cateId=3682&pageId=4245&infoId=7524&sortId=1&commentLanguage=1&search_result=1>
5. Ren, Zhengfei, 2000. Innovation is the inexhaustible power of Huawei's development. ***Huawei People***, July, 20th, 2000, issue 107. [Cited 12 December, 2020.] Available from URL: <http://app.huawei.com/paper/newspaper/newsPaperPage.do?method=showSelNewsInfo&cateId=3563&pageId=4108&infoId=7248&sortId=1&commentLanguage=1&search_result=1>
6. Ren, Zhengfei. 2008. Let the youthful life radiate (Internal speech by Ren Zhengfei at a network product line conference). Management Optimization, issue 317. [Cited 12 December, 2020.] Available from URL: <https://zhuanlan.zhihu.com/p/264488553>.
7. Ren, Zhengfei. 2009. Who will call for artillery fire how to provide timely artillery support. ***Management Optimization***, October, 14th, 2009, issue 324. [Cited 12 December, 2020.] Available from URL: <https://zhuanlan.zhihu.com/p/264488553>
8. Ren, Zhengfei, 2010a. Customer-centric, increased platform investment, open cooperation, and win-win situation. ***Management Optimization***, 2010, issue 370. [Cited 12 December, 2020.] Available from URL: <https://zhuanlan.zhihu.com/p/183121524>
9. Ren, Zhengfei, 2010b. Huawei wants to improve relations with the media (Minutes of Ren Zhengfei's meeting with Sun Yafang, Xu Zhijun, Guo Ping and related personnel from the Public Relations, Branding, Media Relations, Terminal Company and Party Committee).[Cited 12 December, 2020.] Available from URL: <https://tech.huanqiu.com/article/9CaKrnJq4j4>.
10. Ren, Zhengfei, 2011. Success is not a reliable guide to the future (An internal speech by Ren Zhengfei at the Internal Market Conference of Huawei). ***Management Optimization***, issue 380. [Cited 12 December, 2020.] Available from URL: <http://www.zhaoyunyang.com/post-530.html>.
11. Ren, Zhengfei, 2012. Minutes of the meeting between Mr. Ren and 2012 Lab. ***President’s Office Email***, August 31th, 2012, issue 35. [Cited 12 December, 2020.] Available from URL: <http://xinsheng.huawei.com/cn/index.php?app=forum&mod=Detail&act=index&id=4507637&search_result=3>
12. Ren, Zhengfei, 2014. Never be opportunistic in times of great opportunity (Mr. Ren's speech at the lunch meeting with the Consumer BG management team). ***President’s Office Email***, March 11th, 2014, issue 25. [Cited 12 December, 2020.] Available from URL: <http://xinsheng.huawei.com/cn/index.php?app=forum&mod=Detail&act=index&id=1883995&search_result=1>
13. Ren, 2015a. Keep your feet on the ground and be a long-distance runner who challenges yourself. Former CEO Ren Zhengfei commented on decisions of the consumer business group. ***President’s Office Email***, Auguest, 27th, 2015, issue 107. [Cited 12 December, 2020.] Available from URL: <http://xinsheng.huawei.com/cn/index.php?app=forum&mod=Detail&act=index&id=2702885&search_result=1>
14. Ren, 2015b. Mr. Ren's speech at the EMT office meeting on September 24, 2015. ***President’s Office Email***, September 24th, 2015, issue 122. [Cited 12 December, 2020.] Available from URL: <http://xinsheng.huawei.com/cn/index.php?app=forum&mod=Detail&act=index&id=2720565&search_result=6>
15. Ren, Zhengfei, 2016. Minutes of the discussion between Ren Zhengfei and the employees of the Japan Representative Office and the Japan Research Institute. ***President’s Office Email***, April 5th, 2016, issue 80. [Cited 12 December, 2020.] Available from URL: <http://xinsheng.huawei.com/cn/index.php?app=forum&mod=Detail&act=index&id=3162091&search_result=1>
16. Ren, Zhengfei. 2017. Mr. Ren's speech at the Annual Meeting of the Consumer BG. ***President’s Office Email***, January 17th, 2017, issue 24. [Cited 12 December, 2020.] Available from URL: <http://xinsheng.huawei.com/cn/index.php?app=forum&mod=Detail&act=index&id=3383535&search_result=2>
17. Ren, Zhengfei & Xu, Zhijun, 2017. Ren and Xu Zhijun at the Consumer BG 2017 Mid-Year Marketing Conference. ***President’s Office Email,*** 2017, issue 79. [Cited 12 December, 2020.] Available from URL: <http://xinsheng.huawei.com/cn/index.php?app=forum&mod=Detail&act=index&id=3599401>
18. Ren, Zhengfei. 2018. Mr. Ren's speech at the Consumer BG business briefing and keynote seminar. ***President’s Office Email***, January 1st, 2018, issue 1. [Cited 12 December, 2020.] Available from URL: <http://xinsheng.huawei.com/cn/index.php?app=forum&mod=Detail&act=index&id=3733515&search_result=7>
19. Ren, Zhengfei. 2020. Mr. Ren's speech at the farewell party of Honor. ***President’s Office Email***, 2020, issue 141. [Cited 12 December, 2020.] Available from URL: <http://xinsheng.huawei.com/cn/index.php?app=forum&mod=Detail&act=index&id=5147473&search_result=2>
20. Xu, Zhijun, 2017. Do a good job with the consumer experience with heart and soul, and build a high-end brand for the world. Summary of key points from Xu Zhijun's talks with teams at all levels of the consumer business in the first half of 2017. ***President’s Office Email***, 2017, issue 98. [Cited 12 December, 2020.] Available from URL: <https://www.sohu.com/a/195841668_99998674>
21. Yu, Chengdong. 2012. We must be people with dreams and pursuits (Yu, Chengdong meets new employees at Huawei Consumer BG). ***Huawei People***, August, 8th, 2012, issue 250. [Cited 12 December, 2020.] Available from URL: <https://forum.huawei.com/carrier/en/portal.php?mod=view&aid=65>.

[22]. Yu, Chengdong. 2017. Consumer-centric, defending the brand with quality and experience (Speech at the 2017 Huawei Consumer Service Quality Conference). ***Huawei People***. [Cited 12 December, 2020.] Available from URL: <http://app.huawei.com/paper/newspaper/newsPaperPage.do?method=showSelNewsInfo&cateId=12128&pageId=15366&infoId=38440&sortId=1&commentLanguage=1&search_result=96>

## APPENDIX VIII

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 1. An overview of the citations in the manuscript and the exact quotes from internal speeches | | | | | | |
| Citations in the manuscript | | | Exact quotes | | | Source/ Context |
| P.19. As is illustrated in Figure 3, the market resources accumulated by Huawei's carrier business, including the carrier product brands and carrier channel networks were leveraged to provide rapid R&D feedback and low-cost brand extensions. | | | Huawei’s accumulated experience in the communications industry, including its relationships with carriers and the accumulation of communications technology and network technology, is a good foundation for the development of Huawei Mobile... Today, when developing Huawei's own brand of cell phones, carrier partnerships are still an important foundation for us, and the understanding and accumulation of communication networks are still our strengths…our chips reflect an understanding of communication networks, and our terminals are more power efficient, have higher Internet speeds, and perform better…In addition, there is another advantage of Huawei. The openness and self-critical spirit that President Ren has adhered to since the founding of Huawei has given us the ability to continuously improve, which is a key element that supports us in continuous learning and continuous improvement in the future. | | | Yu, 2012.  Meeting with new employees at the Consumer BG |
| P.20. Meanwhile, Huawei’s industrial experience in the information and telecommunication industry made it easy to become aware of the value and significance of 3G/4G technology, which underlies the smartphone products. | | |
| P.22. Financial resources and cross-unit R&D experience are two important types of complementary assets that supported Huawei Mobile to overcome the most difficult industry barriers – chip technologies, thus creating a core competitiveness. | | |
| P.24. Moving forward, how did the company ensure sustainable growth? The new market for high-end smart phones seem attractive and promising. | | |
| P.24. Huawei’s experience in the carrier business might account for this strategic intuition. | | |
| P.40. When radical changes occur in both product and market domains, financial resources, cross-unit experience, organizational culture and organizational structure serve as complementary assets that support cross-functional ambidexterity at the organizational-level. | | |
| P. 41. The rich R&D experience and mature methodology accumulated by other business units of the case company help to reduce the uncertainty and risk in technology and product exploration in Huawei Mobile. | | |
| Table 1. An overview of the citations in the manuscript and the exact quotes from internal speeches (continued) | | | | | | |
| Citations in the manuscript | | Exact quotes | | Source/ Context | | |
| P. 20. At that time, Huawei Mobile was a marginalized business unit within the company. | | Huawei started the consumer business because we could not sell our 3G network equipment without terminal devices to facilitate the testing... we first exported the 3G network to the UAE, but we couldn't sell it, then we plan to buy the terminal devices from suppliers in Japan, but none of them were willing to help. Therefore, we were forced to start doing it ourselves. | | Ren. 2018; Speech at the Consumer BG business briefing and keynote seminar | | |
| When started, the consumer business was in a difficult phase, our main goal was to get out of it. | | Ren, 2017 | | |
| In the Sanya meeting at the end of 2011, we decided to produce Huawei's own brand cell phones, focus on doing fine products. At the beginning, the outside world, including many customers do not understand and do not believe that Huawei's own brand strategy can be successful. | | He, 2018; A written review in Huawei People | | |
| P. 20. Huawei Mobile adhered to this strategic combination to get rid of its reliance on foreign-made chips. | | Let's not be narrow-minded, we do high-end chips just like we do operating systems. The main thing is to let others allow us to use (their technology), not to cut off our supply. When our supply is cut off, the backup system should be able to be used. | | Ren, 2012; Minutes of the meeting between Mr. Ren and 2012 Lab | | |
| Even if (chips are) made temporarily useless, we have to continue to do it. We may insist on doing it for decades without using it, but still have to do it. Once we made a strategic mistake, the price we would pay is not tens of billions of dollars, but hundreds of billions of dollars. | |
| P. 21. The configuration brings about channel-extension and learning benefits… | | It was beneficial in the past when mobile phones were sold with the Huawei brand, because the scale was still small back then. When you (the consumer BG) grow bigger, Huawei may represent a conservative asset. | | Ren, 2017; Speech at the Annual Meeting of the Consumer BG. | | |
| P. 22. Financial resources and cross-unit R&D experience … supported Huawei Mobile to overcome the most difficult industry barriers – chip technologies… | | We need to invest more in this area (Huawei Mobile), starting with chips. | | Ren, 2008 | | |
| We have a big platform to support (the development of the consumer business unit). With the basic theoretical platform of network technology, the company has slowly injected into the development of consumer business and promoted the rapid progress of consumer business. | | Ren, 2018; Speech at the Consumer BG keynote seminar | | |
| We should not only focus on producing suitable products and services for our customers, but also to face the future of technology tendency to increase investment in the core of the platform. We must not hesitate to take greater risks in the chip and platform software | | Ren, 2011; Internal speech | | |
| Table 1. An overview of the citations in the manuscript and the exact quotes from internal speeches (continued) | | | | | | |
| Citations in the manuscript | Exact quotes | | | | Source/ Context | |
| p. 22 In fact, founder and former CEO Ren Zhengfei had been emphasizing that technology is the basis of survival in various occasions.  P. 39. Huawei's emphasis on core technologies in the product domain permeates all business units. | As a high-tech company directly competing with famous foreign manufacturers, there is no room for survival without world-leading technology. | | | | Ren, Z. 1995; Internal speech | |
| The company is still engaged in the development of many other advanced technologies, which make up the advanced telecommunications network. And it is the continuous use of these advanced technologies that enables the company to continue to grow. | | | | Ren, Z., 1996. Published in Huawei People. | |
| Building technology, quality, cost and service advantages in design is the basis of our competitiveness | | | | Ren, Z., 1998.  Published in Huawei People. | |
| Opportunity, talent, technology and products are the main forces for company growth...Opportunity tracts talent, talent tracts technology, technology tracts products, and products tract more and more opportunities…Opportunity is captured by people, people use a tool to capture the opportunity, which is technology. Technology creates products to open up the market, which recreates the opportunity. | | | |
| China has introduced a lot of factories, why these efforts did not form its own industry? Core technologies are not in its own hands ...... Only when we have the core technology intellectual property rights, can we join the world competition. That is the reason why our 08 machine can compete in the world market. | | | |
| Huawei has locked its mission in the research and development of core communication network technologies from the very beginning of its business. We focused almost all of the profits from agency sales on researching small switches, using the principle of pressure to form local breakthroughs, gradually achieving technological leadership and expanding profit margins. The leading technology brings the opportunity window profit, and we then put the accumulated profit into the research and development of upgraded products, and so on and so forth, constantly improving and innovating. Today, although Huawei's strength has greatly increased, we still adhere to the principle of pressure, concentrating our efforts only on the research and development of core networks, thus forming our own core technology. This has enabled Huawei to advance step by step and gradually accumulate to the world's advanced products. | | | | Ren, 2000;  Published in Huawei People. | |
| Without high quality products, there can be no brand. Product is the cornerstone of everything, if the product does not do well, the consumer BG all the work has no basis. | | | | Ren, Z. & Xu, Z., 2017 | |
| Table 1. An overview of the citations in the manuscript and the exact quotes from internal speeches (continued) | | | | | | |
| Citations in the manuscript | Exact quotes | | | | Source/ Context | |
| P. 25. Customer-oriented culture and organization structure serve as complementary assets of this stage  P. 25. Huawei Mobile reinterpreted the culture and adjusted the organizational structure in order to support exploration in product design and reconcile functional conflicts between the product and market domains. | We decided during a senior meeting in 2011 at Sanya. We decided that the core of our mobile competency starts and ends with the end consumers, which means that we clearly put individual users of cellphones at the center of everything we do…In addition to the annual quality conference, Consumer BG also launched the "Year of Quality" this year, clearly defining Consumer BG's quality strategy: consumer-centric, inspiring consumers to choose Huawei and Honor brand products and services for high quality. | | | | Yu, 2017; Speech at the 2017 Huawei Consumer Service Quality Conference | |
| R&D is shifting from a ‘technology-centric’ logic to a ‘customer-centric’ one... Now that we are leading the telecommunications industry, it is difficult to decide where to go next... But we can certainly find a direction and a way to light up the world, and that way is ‘customer-centric’… | | | | Ren, 2010a; Speech at a conference with senior managers | |
| How to adjust the organization during our transfer from technology-centric to customer-centric is always a difficult topic. Along the process of authorization, implementation, and supervision, we have to empower our front-line employees, so as to get rid of the centralized inefficiency and institutional bloat, leading to a customer-driven and process-oriented organization construction. | | | | Ren, 2009; Internal speech on organizational structure reform | |
| What has our company valued over the past twenty years? We emphasis on research and development and the market, but we ignored the importance of balanced organizational management, that is why we had so much work to do in the past. | | | | Ren, 2010b; Internal meeting minutes | |
| P. 25. Senior managers’ reinterpretation of the customer-oriented culture supported product design exploration by altering the design philosophy from a cost-centric approach to a customer-centric approach. | When the information industry moves towards, technology tends to converge, and it is inevitable to come across the challenge of product homogenization. Attracting customers requires not only functional improvement and quality service, but also through process and aesthetic improvement. We formed the Aesthetics Institute to solve this problem. | | | | Ren, Z. 2018; Speech at the Consumer BG business briefing and keynote seminar | |
| Smartphones are becoming more and more homogeneous, we have to pay attention to the role of aesthetics in the design. We polytechnicians tend to pay attention to the functions, but ignore aesthetic designs. We paid a great price for a little improvement in product functions, but the user hardly realized the improvement. In future development of the smartphones, as well as the development of the Internet of Things, we will pay attention to product designs. | | | | Ren, Z & Xu, Z. 2017; Speech at the Consumer BG 2017 Mid-Year Marketing Conference | |

|  |  |  |
| --- | --- | --- |
| Table 1. An overview of the citations in the manuscript and the exact quotes from internal speeches (continued) | | |
| Citations in the manuscript | Exact quotes | Source/ Context |
| P. 25. Managers are required to be promoters of the smartphone for at least one day a year, and engineers are required to be receptionists… | To keep our team focused on consumer experience, we have launched a campaign. Every manager and technical expert of a certain level must go to the sales and service line every year as a promoter or service engineer to serve consumers directly. Each manager is required to personally serve a customer with a complaint every month; at the same time, we also require the manager to open a real-name microblogging account to directly communicate with consumers and listen to them anytime and anywhere. 2014, we introduced NPS (Net Promoter Score) indicators to draw attention to user experience. We also set up a special VOC (Voice of Customer) user voice system to incorporate users' opinions and suggestions into the IT platform to guide the improvement of various tasks…In order to get closer to consumers, we have set up user-oriented organizations, including user research teams and regional product centers, to make the design of the phone closer to the habits and experiences of local consumers. We have set up a special selfie experience team to refine the selfie function. We have also set up dozens of special working groups to continuously improve the functions and meet the rising expectations of consumers. | He, 2018;  Written review of the development of Huawei Mobile |
| Every time I went to a representative office, I asked the local cell phone business manager if he had ever bought or repaired a Huawei cell phone in person. The answer was mostly "no". This means that our managers do not know and do not care about what kind of experience our built-up services bring to consumers. How can we build a high-end brand if we don't even know what the consumer experience is? | Xu, 2017; Speech with team members in Huawei Mobile |
| P. 25. Managers are required to be promoters of the smartphone for at least one day a year, and engineers are required to be receptionists… | We ask everyone to do customer service. I, Chengdong Yu, have been doing customer service every year, every month, every day. I receive all kinds of cell phone problems from customers every day. Most of the problems are solved by myself, and a few of them are solved with the help of relevant personnel I consulted. All of you are managers, and only when you go to the front line of customer service can you know where the problems are and solve them in the fastest and most efficient way | Yu, 2017; Speech at the 2017 Huawei Consumer Service Quality Conference |

|  |  |  |
| --- | --- | --- |
| Table 1. An overview of the citations in the manuscript and the exact quotes from internal speeches (continued) | | |
| Citations in the manuscript | Exact quotes | Source/ Context |
| P. 32. Huawei mobile carried out two actions to shape its high-end brand image. One is to make a clearer distinction between its high-end and low-end products. | Huawei and Honor are two competitive brands to deal with different customer groups, with Honor mainly facing young people. We can't lose the low-end market while competing for the high-end market. If other companies attack in the low-end market, we lack the defensive power because we do not have corresponding products and marketing strategies. While high-end smartphones satisfy customer demands and fit the trends, low-end smartphones satisfy two basic needs of smartphones: good communication function or fast network access and good Chinese software function. | Ren & Xu, 2017; Speech at the Consumer BG 2017 Mid-Year Marketing Conference |
| P. 27. …product optimization enables Huawei Mobile to form partnerships with well-known big brands…P.33. Brand alliance benefits were generated because outstanding product performance and quality… | We formed strategic partnership with international brands, both sides benefit... We have leveraged the power of international brands such as Porsche and Leica to go international. Of course, not exactly leverage their brands ... Huawei's advantage is the algorithm, we developed better dual-lens projection to achieve high-definition and introduced Leica to more consumers.  Consumer business has grown today because of the continuous improvement in product quality |
| P. 28. However, these channels only generated meager profit and was not considered sustainable in the long-run | Our Consumer BG has to focus on profit and strictly control inventory risk. There is no future if we can't survive! We need to change our value evaluation system from one that is technology-oriented to one that is business success-oriented. Consumer BG has entered the main channel of the company, but the main channel is to create value, and value is not just about technology leadership. | Ren, 2014; Speech at the lunch meeting with the Consumer BG management team |
| In recent years, we have formulated some measures, such as management services and end products, only talking about profit, not sales |
| In the first few months of this year, the world's two largest cell phone manufacturers took 99% of the entire profit, all the remaining manufacturers share one percent of the profits, this is not sustainable. The cell phone terminal industry is facing a reshuffle period, there will be a number of manufacturers die. | Yu, 2012; Meeting with new employees at the Consumer BG |

|  |  |  |
| --- | --- | --- |
| Table 1. An overview of the citations in the manuscript and the exact quotes from internal speeches (continued) | | |
| Citations in the manuscript | Exact quotes | Source/ Context |
| P. 30. The join of these channel experts had quickly filled Huawei's gap in market channel operations | In addition to Huawei internal selection and training of talents, we also recruit experts from the outside. While old employees in Huawei has experience, ability, and strong peripheral coordination, experts from the outside have better understanding on channels, marketing, retail, and processes. | Ren & Xu, 2017 |
| P. 31. Several years ago, my focus is on pushing consumer BG to unswervingly turn to the open market, to firmly establish retail and channels, and to build a service system…Now we need to build a strong brand to drive our revenue growth and price increase. | | Xu, 2017; Speech with team members in Huawei Mobile |
| P. 34. In countries that are unfamiliar with Huawei's carrier business and mobile phone offerings, the customer-oriented culture guides the company… | By quickly adapting to the changing needs of customers, we can occupy the market. | Ren, 2016 |
| The sales and marketing (of the consumer business group) allows "one country, one policy". We have never drawn a strict line between online and offline, allowing online and offline sales models to cross over, as long as mobile phones can be sold. Online sales in China can be vigorously pursued because of convenient logistics and distribution, while overseas online sales are tailored to local conditions and chosen according to consumer habits and logistics capabilities. | Ren, 2017 |
| P. 38. It is also worth noting that the case company prioritize exploration in the product domain ahead of that in the market domain | In Huawei, if you have $10, will you invest it in product development or marketing? Huawei will definitely choose to invest in product development. This is Huawei's brand connotation and genes. | He, Gang, 2018 |
| We recognize that product competitiveness is the first element for the success of mobile phone business. Product is the leader of everything, if product is 1, brand, marketing, channel, retail and so on. are the 0's behind. Only with excellent product, the 0's behind will have value. |
| These years, the company, including the consumer business, adheres to the quality-centric route. We are on the right way and slowly catch up (with our competitors). | Ren, 2015b; Speech at the EMT office meeting |
| P. 39. Huawei's emphasis on core technologies in the product domain permeates all business units. | Without high quality products, there can be no brand. Product is the cornerstone of everything, if the product does not do well, the consumer BG all the work has no basis. | Ren, Z & Xu, Z., 2017 |