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Strategic Management Process Based on Dynamic Capabilities - A Case Study of Feishu during the COVID-19 Epidemic

WU Weijie

Doctor of Management

Supervisors:
PhD Nelson Santos António, Professor
ISCTE University Institute of Lisbon
PhD Xiao Wen, Professor
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BUSINESS
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Jury:
PhD Elizabeth de Azevedo Reis, Full Professor,
ISCTE - Instituto Universitário de Lisboa
PhD Fang Jiaming, Full Professor,
University of Electronic Science and Technology of China
PhD Nelson Wei Ki Chang, Adjunct Professor,
Escola Superior de Tecnologia e Gestão de Oliveira do Hospital – Instituto Politécnico de Coimbra
PhD Renato Jorge Lopes da Costa, Assistant Professor with Habilitation,
ISCTE - Instituto Universitário de Lisboa
PhD Nelson José de Santos António, Emeritus Professor,
ISCTE - Instituto Universitário de Lisboa

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Declaration

I declare that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university and that to the best of my knowledge it does not contain any material previously published or written by another person except where due reference is made in the text.

Signed:  Date: 2022.2.28

Name: WU Weijie

作者申明

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作者签名：  日期：2022.2.28

姓名(拼音)：WU Weijie

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Abstract

COVID-19 epidemic broke out in China in January 2020. Enterprises need communication and collaboration platforms to support daily operation, which brought Feishu an opportunity window to grow. Different with DingTalk and Enterprise WeChat who are dominant players in this market, Feishu was not ready in both products and brand awareness. But Feishu overcame lots of difficulties and became one of the top three players in enterprise-level communication and collaboration market in China by end of 2020. It would be valuable to understand how Feishu made it and its strategic management process.

The thesis refers to research findings in strategic management process, resource-based view and dynamic capability. And the research method is single case study of Feishu. Data collection in this thesis includes primary data and secondary data. Primary data is collected through survey interview, prolonged case study interview and participant-observation while secondary data is from reputable third-party firms such as Gartner, PWC and QuestMobile. Data processing method is a combination of qualitative and quantitative analysis.

By figuring out Feishu's dynamic capabilities which come from excellent talents, transparent and self-driven culture and efficient tools, we summarized the strategic management process of Feishu as research findings. It is a process which starts from strategic inputs, move to gray testing which is optional, and end with strategic actions. During strategic actions, the formation, implementation and evaluation of strategy happen at the same time, so it is valuable from theoretical perspective as well as practical perspective.

Keywords: Feishu; Strategic Management Process; Resource-based View; Dynamic Capabilities; COVID-19

JEL: M10; M14

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Resumo

A epidemia COVID-19 irrompeu na China em janeiro de 2020. De um dia para o outro as empresas necessitaram de plataformas de comunicação e colaboração para apoiar as suas operações diárias, o que trouxe à Feishu uma janela de oportunidade para crescer. Os grandes jogadores deste mercado eram as empresas Ding Talk e WeChat e a Feishu não estava preparada para esta oportunidade. Contudo a Feishu foi capaz de ultrapassar muitas dificuldades e afirmou-se, nos finais de 2020, como um dos três melhores jogadores no mercado das plataformas de comunicação e colaboração. É importante estudar o processo de gestão estratégica que permitiu à Feishu alcançar essa posição no mercado.

Esta tese analisa os resultados de pesquisa sobre o processo de gestão estratégica baseado na escola dos recursos e nas capacidades dinâmicas. O modelo de investigação é o estudo de caso. A recolha de informação utiliza fontes secundárias e primárias. Os dados primários foram recolhidos através de entrevistas e observação enquanto os dados secundários são de empresas bem conhecidas, tais como Gartner, PWC e QuestMobile. O método de tratamento utiliza uma combinação quantitativa/qualitativa.

Descobrindo as capacidades dinâmicas que vêm de excelentes talentos, de uma cultura transparente e autodirigida e de instrumentos eficientes, sumarizamos o processo de gestão estratégica da Feishu. Trata-se um processo que se inicia com inputs estratégicos, segue-se um teste opcional e termina com ações estratégicas. Durante as ações estratégicas a formulação, a implementação e a avaliação acontecem simultaneamente e por esse motivo é um processo interessante quer do ponto de vista teórico quer do ponto de vista prático.

Palavras-chave: Feishu; Processo de Gestão Estratégica; Teoria Baseada nos Recursos; Capacidades Dinâmicas; COVID-19

JEL: M10; M14

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摘要

2020 年 1 月，新型冠状病毒 COVID-19 疫情在中国爆发。此时，企业都需要通信与协作平台来支持日常业务运营，这为飞书带来了一个发展的机会窗口。与市场上占据主导地位的钉钉和企业微信不同，飞书在产品和品牌知名度方面都没有做好准备，但飞书克服了诸多困难，在 2020 年底成为中国企业级通信与协作市场的前三大玩家之一。因此，了解飞书是如何做到这一点的以及它背后的战略管理过程，将是非常有价值的。

本文参考了战略管理过程、资源基础观和动态能力方面的研究成果，研究方法为基于飞书的单案例研究。本文的数据收集包括原始数据和二手数据。原始数据通过调查访谈、深度访谈和参与性观察的方法收集，而二手数据来自于声誉良好的第三方公司，如 Gartner、PWC 和 QuestMobile。本文的数据处理方法结合了定性和定量分析。

通过解析飞书的动态能力，即来自于优秀的人才、透明的、自驱的文化和高效的办公工具，我们将总结出的飞书战略管理过程作为研究成果。这是一个从战略输入为开始，到灰度测试（可选的）并以战略行动为结束的过程。在战略行动的阶段，战略的制定、实施和评价是同时发生的，因此无论从理论还是实践角度来看，本文的研究成果都是有价值的。

关键词：飞书；战略管理过程；资源基础观；动态能力；COVID-19

JEL: M10; M14

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Acknowledgements

It is really my honor to experience and witness the development of Feishu during COVID-19 Epidemic. Till now, it has already been about two years for some stories. I can still remember almost all the details. How we made some key decisions? What is our key focus during the epidemic? Why we strategically give up some segmentations? How we leverage all the talents to achieve high growth during the epidemic? All such questions have been asked again and again. This made me very excited to finish this thesis.

First of all, I would like to express my appreciation to my supervisor, Professor Nelson António from ISCTE. He is always approachable and willing to give suggestion to me. Nelson is a professor with broad knowledge, deep understanding of China, big picture of strategic management and easy-going mindset. He gave me all the support when I changed a little bit about the research direction.

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Besides the two supervisors, I also need to thank all the professors who have helped me during my study in UESTC-ISCTE IDMgt Program, such as Professor Ma Yongkai and Professor Chai Junwu from UESTC, Professor Virginia Trigo from ISCTE. Their support and help really accelerated my progress. Thanks to all of them.

Last but not least, my family members including my wife, little kid, and parents were all supportive when I was studying in the program as well as writing the thesis. They took more responsibility to take care of each other and built up a harmonious environment for me.

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致谢

虽然处于新型冠状病毒 COVID-19 疫情期间，但我很荣幸能亲身经历并见证了飞书的发展。至今为止，有些故事已经发生将近两年了，但我仍然记得几乎所有的细节。我们是如何做出一些关键决策的？疫情期间我们的聚焦是什么？为什么我们只能战略性地放弃一些细分市场？我们如何有效利用所有人才实现疫情期间的高增长？所有这些问题都被反复想起。因此，能完成这篇论文让我很兴奋。

首先，我要向我的葡方导师，来自葡萄牙里斯本工商管理大学的 Nelson António 教授表示感谢。他始终平易近人并为我的研究提供各种建议。Nelson 是一位知识渊博、对中国有着深刻理解、深谙战略管理、平和友善的教授。当我计划对研究方向做一些调整时，他给了我所有的支持。

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除了上述两位导师之外，我还要感谢所有在中国电子科技大学和葡萄牙里斯本工商管理大学合作管理学博士项目学习过程中帮助过我的教授们，如中国电子科技大学的马永开教授和柴俊武教授，葡萄牙里斯本工商管理大学的 Virginia Trigo 教授。他们的支持和帮助加速了我的研究过程，在此一并感谢。

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Contents

List of Tables

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List of Figures

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List of Acronyms

SaaS	Software as a Service
IM	Instant Messaging
CCM	Content Creation Management
VC	Video Conference
CAGR	Compound Annual Growth Rate
UESTC	University of Electronic Science and Technology of China
HR	Human Resources
ERP	Enterprise Resource Plan
HCM	Human Capital Management
KPI	Key Performance Indicator
IT	Information Technology
OKR	Objective, Key Result
CEO	Chief Executive Officer
CTO	Chief Technology Officer
GM	General Manager
MAU	Monthly Active Users
DAU	Daily Active Users
RBV	Resource-Based View
GTM	Go-To-Market
IMT	Internet, Media, Technology
KA	Key Accounts
LA	Large Accounts
SMB	Small and Medium Business
SNR	Signal-to-Noise Ratio

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Chapter 1: Introduction

Dynamic capabilities are important to enterprises in the rapidly changing environment. The advantage of dynamic capabilities can be resting on distinctive strategic management process. This chapter gives a general introduction of research background, research problem and questions, research purpose, expected contribution and research framework.

1.1 Research background

1.1.1 External rapidly changing environment in China

1.1.1.1 COVID-19 in 2020

Starting from Feb. 2020 when COVID-19 virus broke out in China, people were asked to stay at home. It was no doubt one of the biggest challenges and nightmares in human being history. Besides the direct impact on human beings' health, it also brought a big strike to the economy. Industries such as retail, manufacturing, tourism, food services, accommodation were all under great pressure to survive. But for this thesis, the topic would be more focused on COVID-19 epidemic's impact on enterprises and Feishu's business.

Since COVID-19 started to transmit widely, workplaces and working culture around the world had changed a lot. China government immediately acted and tried to stop the transmission of COVID-19 and locked down high-risk areas. Meanwhile, all the enterprises were facing great challenge at that moment. To most of them, remote working became the only way to restart production and business development. But the issue was that most of them were not ready. Some digitized enterprises and organizations had already built good information technology (IT) infrastructure to support remote working and collaboration scenarios. But unfortunately, the majority did not have enterprise-level platforms to support their business in a remote mode. So, they had to find some solution urgently. The solution must be reliable, easy-to-use and quick-to-adopt. Even for those more digitized enterprises, they were still very anxious about their business. Though they were a little bit "lucky" and might have some basic remote working applications such as enterprise-level instant messaging (IM), video conference (VC) and collaborative office tools, they were worried about the downturn of efficiency because of remote working. None of them had experienced this situation, not saying some good practices.

The next day was unknown and unpredictable to all of them. They did not know what their employees' feedback and reaction would be if they made any decision to change the way they worked in the past.

Suddenly, concepts like "remote working", "flexible teams" and "home offices" entered the general business environment in a big way. Software as a Service (SaaS) providers, especially enterprise-level collaboration and communication vendors were facing tremendous inquiries every day. The other enterprises had to rely on them to restart production and business development. And this was also a very good time window for them to grow their business. Enterprises needed online working tools to support their business. It was definitely a good time opportunity and accelerator for enterprise-level communication and collaboration software. But vendors were also facing great challenge to meet those requirements because their resources are limited as well.

A typical example was that most of the meetings were offline, and people would sit in the same room and discuss their topics before COVID-19. Even some meeting might happen online due to cost reasons, the concurrent parties who joined the meetings online were relatively few. One concurrent party refers to one device that accesses the meeting. The device can be a mobile phone or a machine in the meeting room. If ten people share one device to access the meeting in a room, that will only calculate one concurrent party. But the use case was totally changed during COVID-19. Everyone became one concurrent party as they were all at home due to quarantine. In this scenario, VC providers were all facing great challenges on accessibility, stability, reliability, and user experience of their SaaS systems. Enterprises had to use VC for meetings, universities had to use VC for lectures, and media enterprises had to use VC for online talk shows. To ensure their business operation, they had no other choices but to embrace the new technology and new online working style.

COVID-19 brought more uncertainty and challenges to the world in 2020, and it impacted both individuals and enterprises. In most industries, COVID-19 meant nightmare and disaster. But every coin has two sides. In some industries such as enterprise SaaS applications, new opportunities also emerged. Players in this industry realized the situation and they are excited about the opportunities though most of them were not ready. They also realized the cruel reality that they had to pay much more cost to catch up if they lost the competition in 2020. So, it became a must-win campaign to every player in such industries because of the rapidly changing environment and fierce competition.

1.1.1.2 Challenges and opportunities in geopolitical global environment

In 2019, ByteDance announced to develop enterprise SaaS application business, under which Lark was the brand for non-China mainland market and Feishu was the brand for China mainland market.

By analyzing the total enterprise applications software revenue (See table 1.1) and external political environment, ByteDance decided to set the global headquarter of oenterprise SaaS application in Singapore but started the commercial operation from U.S. This was because the enterprise application software market was more mature in U.S. From table 1.1, the total enterprise application software in U.S achieved 94,792 million USD in 2018 which accounted for 44.74 percent of the whole world. So, U.S. was definitely a big market for enterprise application software with big existing spending and high compound annual growth rate (CAGR) in the next five years.

Table 1.1 Total enterprise applications software revenue by region in constant U.S. dollars, 2018-2023 (Millions of U.S. dollars)

Region	2018	2019	2020	2021	2022	2023	CAGR 2018 – 2023
United States	94,792	104,004	113,390	122,852	132,513	142,254	8.5%
United Kingdom	13,318	14,699	16,187	17,756	19,392	21,091	9.6%
Germany	11,384	12,392	13,449	14,500	15,572	16,704	8.0%
Japan	9,523	10,478	11,467	12,517	13,608	14,781	9.2%
Australia	8,244	9,252	10,378	11,576	12,853	14,122	11.4%
France	6,959	7,516	8,106	8,697	9,307	9,949	7.4%
Greater China	6,814	7,779	8,830	9,965	11,194	12,558	13.0%
Brazil	4,170	4,681	5,236	5,844	6,477	7,200	11.5%
Netherlands	3,993	4,364	4,760	5,161	5,579	6,017	8.5%
India	2,629	3,098	3,616	4,195	4,838	5,563	16.2%
Grand Total	211,878	233,791	256,898	280,845	305,968	332,377	9.4%

Source: Gartner (March 2019)

So, most resources were invested in Lark instead of Feishu because total addressable market were much bigger. Another reason was that ByteDance already had business operation all over the world due to the success of TikTok. And those resources could also be leveraged if there was a business need.

But there always had some unexpected accidents during the growth of an enterprise. Since 2020, the competition between China and U.S became the new norm. According to President Trump's "America first" strategy, geopolitical conflicts were everywhere. This also had big impact on Feishu's business in 2020. Though Feishu's business was limited to China mainland only, multi-national enterprises would be afraid of the potential sanction by the U.S government. The geopolitical environment definitely influenced the strategy of enterprise SaaS application

business in ByteDance.

ByteDance is a technology company operating a range of applications that serve, entertain and inspire people across languages, cultures and geographies. The most famous product in global market is TikTok which is available in over 150 markets and 75 languages. In 2017, ByteDance announced the acquisition of Musical.ly and integrated Musical.ly into TikTok in the next year. In Oct. 2019, U.S. Senator Marco Rubio asked the Committee on Foreign Investment in the United States to review ByteDance's acquisition of Musical.ly. In Dec. 2019, U.S. Department of Defense asked all its employees not to install TikTok on their phones or uninstalled it if they already had it on their devices. After that, ByteDance decided to stop all commercial operation of Lark in the U.S.

Besides U.S, ByteDance also built up the local team and operated its enterprise SaaS application in Singapore and India in middle of 2019. As mentioned above, Singapore was the headquarter of non-China market, and India was one of the biggest potential markets in the long run due to large population and good IT environment. So, India was treated as a high potential market in the long term though the spending of enterprise application software was small in 2018. But the political relationship between China and India also had a lot of challenges. Starting from 2019, continuous slight border disputes between China and India were always in newspapers. In early of 2020, it had been escalated into a border conflict. This was also a big signal of geopolitical conflict. So, Lark decided to lay low in India market for a long time. But unfortunately, India government decided to ban 59 Chinese apps with the reason of national security concerns in June, 2020. Though Lark was not on the list, senior leadership team in ByteDance realized that Lark had to give up India market at that moment.

Considering the challenging geopolitical global environment and booming requirements in China, ByteDance started to shift its strategic market of enterprise SaaS application from non-China mainland to China mainland and invested more resources including head counts and go-to-market budget to Feishu, expecting the break-through in China market.

1.1.2 Strong expectation from ByteDance to grow Feishu business

In early July of 2019 during Douyin short video image festival, ByteDance had announced the achievement of 1.5 billion monthly active users (MAU) and 700 million daily active users (DAU) in the global market, within which Douyin contributed more than 320 million DAU. In the following 6 months, Douyin achieved more than 400 million DAU in China market. By end of 2019, Douyin, Tik Tok and Toutiao (means Today’s Headline in Chinese) were top three contributors of ByteDance DAU and MAU.

But ByteDance wanted to develop more leading applications to ensure the sustainable growth of its valuation as it remained unchanged with 75 billion USD for more than more 1 year since Oct. of 2018. After serious review, Mr. ZHANG Yiming, the Chairman and CEO of ByteDance illustrated the top three strategic businesses for 2020, which were Feishu in enterprise services, education portfolios and game industry.

Among all the three leading businesses (i.e., Douyin, TikTok and Toutiao) and the three strategic businesses (i.e., Feishu, education business and game business), Feishu is the only enterprise-level business, and all the others were consumer based. In this case, ByteDance could not directly adopt the existing user acquisition method of other products to Feishu. In 2018, ByteDance experienced a big challenge because Neihan (means connotative story in Chinese), one of ByteDance's most popular consumer-based application had been required to stop operation in China. Suddenly, ByteDance lost more than 200 million registered users. Though this incident, ByteDance realized that enterprise-level businesses were steadier and more sustainable than "easy come, easy go" consumer-based businesses though they were much more difficult for customer acquisition. So, Feishu had its strategic importance in ByteDance product portfolios from long-term perspective.

ByteDance decided to increase the investment on Feishu, including more senior head counts in strategy, product, engineering, commercial functions as well as more budget for Feishu go-to-market. Mr. ZHANG Yiming also adjusted his limited available time and joined the bi-weekly business review meetings and bi-monthly strategy and performance review meetings with Feishu leaders. With the strong resource commitment from ByteDance, Feishu needed to find out the path to grow its enterprise business.

1.2 Research problem and questions

During 2020 Feishu Future Infinite Conference on Nov. 18, 2020, Feishu released new product version π and new promotion campaign named Qifei plan. From this conference, Feishu mentioned several times that top leading enterprises in China were all gradually migrating their internal communication and collaboration solutions to Feishu, such as Xiaomi, Wumart Group, China Resource Group, Huazhu Group, SANY Group, Taikang Insurance Group, NIO, Nankai University, University of Electronic Science and Technology of China (UESTC) and 36Kr.

From the data which Feishu disclosed, it had achieved a good result in large enterprises and Internet industry in 2020 though it faced fierce competition from DingTalk and Enterprise WeChat who were dominating the enterprise-level communication and collaboration platforms

in China. As DingTalk, Enterprise WeChat and Feishu only supported SaaS model in 2019, all the DAU data from mobile devices could be captured by QuestMobile. Both DingTalk and Enterprise WeChat kept high growth in 2019. The fact was that only DingTalk and Enterprise WeChat had brand awareness of enterprise-level communication and collaboration platforms to external customers in 2019. Feishu just started to serve external customers through ByteDance ecosystems, such as suppliers, investors and partners. Feishu's weekly average DAU was less than 100 thousand by end of 2019, among which ByteDance itself contributed more than 60 thousand.

More than 50 million people were using DingTalk and WeChat Enterprise every day by end of 2019 (Source: QuestMobile). Most of the rest still used WeChat or QQ for social as well as enterprise-level communication and collaboration. Before 2020, there were very limited news about Feishu and no public releases at all. But in end of 2020, most third-party online contents had put the one-year-old Feishu together with DingTalk and Enterprise WeChat for comparison which meant Feishu had become top three service providers for enterprise-level communication and collaboration platforms.

Based on above information, the main research problem in this thesis is Internet enterprises' quick growth and breakthrough in a rapidly changing environment and fierce competition. Since 2019, many top Internet and technology companies in China started to develop their own communication and collaboration platforms, such as Feishu by ByteDance, WeLink by Huawei, ME by JD.com, Hi (Name changed to Infoflow in 2020) by Baidu and Elephant by Meituan. All of the above products faced the same challenge to compete with DingTalk by Alibaba and WeChat Enterprise by Tencent. But only Feishu had broken through and became a big challenger to them. Based on it, this thesis sets Feishu as an example and research:

Research question 1: What did Feishu do during the COVID-19 epidemic to achieve such a result in a rapidly changing environment and with fierce competition?

In this thesis, we will go through some key strategies and decisions of Feishu during the COVID-19 epidemic and analyze how it impact the result. In the decision-making process of Feishu, decision makers were under great pressure because there was not enough time to think the decisions over, not enough data or information to help the judgement, not enough resources to execute due to a sudden change of external environment. Most of the strategies and decisions had to be tested and iterated in a short time.

Research question 2: What is the strategic management process of Feishu during the COVID-19 epidemic?

As external environment was changing so fast during COVID-19 epidemic, Feishu's

leadership team had to frequently adjust strategies and make decisions based on the new environment. It would be a big challenge if they used the normal way to manage Feishu's strategic management process. Through deep dive, it would be easier to find out the strategic management process of Feishu.

Research question 3: How could strategic management process of Feishu help to achieve the business results during the COVID-19 epidemic?

By interviewing typical customers and analyzing the key strategies of Feishu during the COVID-19 epidemic, we can understand how Feishu's strategic management process help to finalize those key strategies and achieve the business results eventually. It is always a good management topic for a large enterprise to keep agile.

1.3 Research purpose

The thesis studies the strategic management process based on dynamic capabilities by analyzing the case of Feishu during the COVID-19 epidemic. It compares strategic management process in classic theory with the new practice in Feishu as an Internet enterprise. People all over the world are surprised that Internet enterprises in China such as Alibaba Group, Tencent, Baidu, ByteDance, Didi, Meituan, JD. com grow so fast and some of them have also built up their brand awareness in global market and become Fortune Global 500 enterprises. From academic perspective, it should not be treated as a coincidence before understanding their core secrets of growth. Among all those famous Internet enterprises in China, ByteDance is the fastest growing enterprise in terms of revenue and MAU.

So, research purpose for this thesis includes:

Firstly, by analyzing key strategies of Feishu during the COVID-19 epidemic and its strategic management process, we can better understand how Feishu's strategic management process help it and contribute to the final business result as one of the top three players in enterprise-level communication and collaboration field in 2020.

Secondly, the thesis might build new strategic management process model which Feishu used to compete and grow in the rapidly changing environment with fierce competition. The new model might be an important factor to help Feishu manage its strategy and make decisions more scientifically and structured.

Finally, the thesis explains and proves the importance of dynamic capabilities during Feishu's strategic management process in the rapidly changing environment. Summarizing a new strategic management process model is of course helpful to enterprises, but developing

dynamic capabilities is also an important factor to succeed today.

1.4 Expected contribution

The thesis is about the research of Feishu's strategic management process based on dynamic capabilities. It helps Feishu to review those strategies and decisions during the COVID-19 epidemic in 2020. By this review and analysis, Feishu can summarize and optimize strategic management process to be more efficient, use it to compete in the future.

The thesis also has value to other Internet enterprises in the rapidly changing environment with fierce competition. The thesis help explain how Feishu's strategic management process could contribute to the final business result, which would also be a good example to other enterprises in Internet industry. The thesis would expect to build new strategic management process models for Internet enterprises to compete in the rapidly changing environment with fierce competition. The new model can bring benefit to those large Internet enterprises.

By the same time, the thesis might also bring value to enterprises in traditional industries which are relatively weak in Internet mindset. If they can better understand how Internet enterprises operate and make strategic decisions in the rapidly changing environment with fierce competition, it might help them to be more competitive and efficient.

1.5 Research framework

The thesis research large Internet enterprises' strategic management process based on dynamic capabilities during the COVID-19 epidemic with the case of Feishu, and the research content is as follows:

Chapter one: Introduction. This chapter gives a general introduction of the topic, including research background, research problem and questions, research purpose, expected contribution and research framework.

Chapter two: Literature review. This chapter mainly looks back the research of strategic management process, resource-based view (RBV) theory and dynamic capability theory, which will be used to research and analyze the case of Feishu. The existing research will also be helpful to build new strategic management process based on dynamic capabilities through case study of Feishu in this thesis.

Chapter three: Research method and design. This chapter introduces the research method and design of this thesis. It will cover data collection methods for the research including primary

data collections and secondary data collections. Primary data is mainly collected through online questionnaire, prolonged interviews and participant-observation with Feishu customers and prospects; Secondary data is mainly collected from well-known and reputable third-party firms such as Gartner, PWC and QuestMobile. In the end of the chapter, the methods of data processing will also be introduced.

Chapter Four: Field Work: Case Study of Feishu. This chapter starts from the foundation and founder of Feishu, then it will discuss the challenges of Feishu, including the brand awareness, product readiness and its competitors in China market. The strategic turning points will also be discussed to understand the strategic decisions and its impact on weekly average DAU during the COVID-19 epidemic. In end of this chapter, the strategic outcomes of Feishu are also covered.

Chapter Five: Conclusion and Discussion. This chapter will first discuss the main conclusion of the strategic management process based on dynamic capabilities from the case study of Feishu. And then research limitations, discussion and further research will also be covered.

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Chapter 2: Literature Review

This chapter mainly reviews the existing research on strategic management process, resource-based view, and dynamic capability theory, which is used to research and analyze the case of Feishu. The existing research will also be helpful to build a new strategic management process based on dynamic capabilities through case study of Feishu in this thesis.

2.1 Strategic management process

Enterprise strategy is the pattern of decisions in an enterprise that determines and reveals its objectives, purpose, or goals, produces the principal policies and plans for achieving those goals. Enterprise strategy defines the range of business the enterprise is to pursue, the kind of economics and human organization it is or intends to be, the nature of economic and noneconomic contribution it intends to make to its shareholders, employees, customers and communities (Andrews, 1971).

Strategy is the creation of a unique and valuable position, involving a different set of activities (Porter, 1996). With this unique positioning, enterprises can avoid being copied from others. Strategy requires someone to make trade-offs in competing to choose what not to do. From Porter's idea, enterprises cannot step into competition with all industry and market due to limitation of resources. And he also believes that operational effectiveness is not strategy. So, enterprises make choices among competing alternatives when building up a strategy.

Strategic management is first defined as follows: strategic management refers to the combination of daily business decisions and long-term planning decisions to form a series of operation and management activities (Ansoff et al., 1976). It is also defined as a dynamic process which determines the enterprises' mission and objectives according to its external environment and internal business factors, to ensure successful implementation of strategic objectives (Steiner & Miner, 1982).

There are different kinds of strategy choices including combinations of one or two, which could lead to different results. But the method of strategic management process can summarize the similar approaches when formulating and implementing the strategy. So, scholars all over the world have come up with much research to continuously find the best way of managing strategic management process.

2.1.1 Main ideas of Hitt et al. (2016)

A strategy is an integrated and coordinated set of commitments and actions designed to exploit core competencies and gain a competitive advantage. Strategic management process (See Figure 2.1) is the full set of commitments, decisions and actions required for an enterprise to achieve strategic competitiveness and earn above-average returns. Strategic management process is a rational method for enterprises to achieve strategic competitiveness and obtain above-average returns (Hitt et al., 2016).

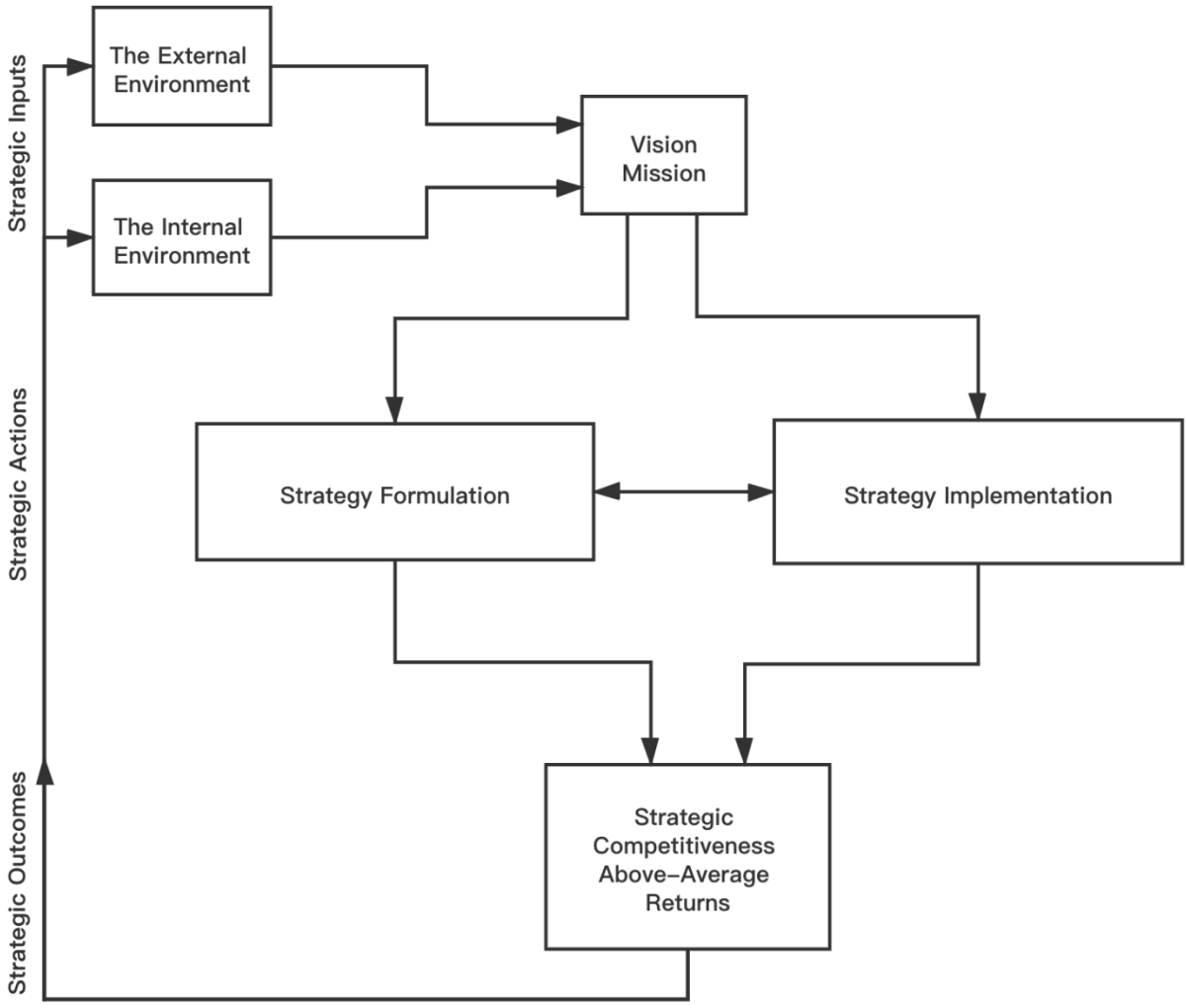

Figure 2.1 Strategic management process by Hitt et al. (2016)

Source: Strategic Management: Hitt et al. (2016)

2.1.1.1 Strategic inputs

The first stage of strategic management process is the strategic inputs. Enterprises should analyze their external and internal environment before they take any strategic actions. The purpose is to identify the market opportunities and threats in the external environment, decide

how to better use the resources, capabilities and core competencies in the enterprise's internal environment to find opportunities and overcome threats. Those resources, capabilities and core competencies are the source of strategic inputs. Then, enterprises can design vision, mission and objectives and formulate corresponding strategies.

Vision is a picture of what the enterprise wants to be and what it wants to ultimately achieve. But a mission specifies the business or businesses in which the enterprise intend to compete and the customers it intends to serve. Vision is the foundation of an enterprise's mission and both of them are important parts of strategic inputs.

2.1.1.2 Strategic actions

In the stage of strategic actions, enterprises need to take actions to achieve strategic competitiveness and obtain above-average returns after getting the necessary strategic inputs. They need to select business-level strategy or enterprise-level strategy during strategy formulation. Business-level strategy describes those actions taken by an enterprise to exploit its competitive advantage over its competitors. Enterprises competing in a single product market have only one business-level strategy. A diversified enterprise which competes in multiple product markets needs to form a business-level strategy for each business. For diversified enterprises, enterprise-level strategy involves clarifying the exact business that the enterprise intends to compete for and how to allocate resources, capabilities and core competencies among different businesses.

The horizontal arrow connecting the two strategic actions, strategy formulation and strategy implementation in Figure 2.1 indicates that the enterprise's strategy formulation and strategy implementation should be simultaneously integrated and aligned. And it is a dynamic process because the market and competition pattern are always changing. So, enterprises need to be coordinated with the evolving strategic inputs.

The sequence of strategic actions could be summarized as follows: if the formulation and implementation of strategy are highly aligned and integrated, the strategic actions will lead to expected strategic outcomes.

2.1.1.3 Strategic outcomes

As mentioned above, strategic management process is a rational method for enterprises to achieve strategic competitiveness and obtain above-average returns. Above-average returns refer to returns which are obtained exceeding investors' expectations under the condition of similar investment risks. The returns are usually measured by accounting figures. Enterprises without competitive advantage or not in attractive industries can only get average returns at

most. In the long run, failure to obtain at least average returns will most likely lead to failure of the enterprise.

When an enterprise has successfully formulated and implemented a value-creation strategy, the strategic competitiveness will be realized. In this case, making strategic choice is a kind of selection among all competing alternatives. The chosen strategy shows what the enterprise intends to do and what it does not.

When an enterprise's strategy cannot be duplicated by its competitors, or the duplication cost is too high to imitate, the enterprise has a competitive advantage. Only when the enterprise's competitors stop duplicating or cannot duplicate its strategy, it can be confirmed that its strategy has produced one or more useful competitive advantages. But all enterprises need to understand that no competitive advantage is permanent at some degree. The speed at which competitors acquire the skills needed to duplicate value creation determines the duration of competitive advantage.

The strategic management process introduced by Hitt et al. (2016) requires disciplined approaches to develop an enterprise's competitive advantage. It is the methods and processes that provide an enterprise with a way to achieve its strategic competitiveness and obtain its above-average returns.

2.1.2 Main ideas of Barney and Hesterly (2015)

Strategy is a kind of theory to help an enterprise get better performance from market and industry. Strategic management process refers to the process of a series of orderly analysis and selection which help increase the possibility of enterprises to choose a good strategy (Barney & Hesterly, 2015). Enterprises use strategic management process to formulates and implement their strategies. Figure 2.2 describes their strategic management process.

2.1.2.1 Mission

Defining mission is the starting point of the strategic management process. Mission is the long-term purpose of an enterprise. It defines what kind of enterprise the enterprise hopes to be in the long run and what to avoid at the same time. Mission is usually written in the form of mission statement. From Barney and Hesterly's view, an enterprise's mission may improve or damage its performance. Of course, it is also possible to have no impact at all. So, mission is not a rigid part of enterprise strategy to ensure competitive advantage in business competition. As shown in Figure 2.2, defining enterprise mission is the first step in of enterprise strategic management process.

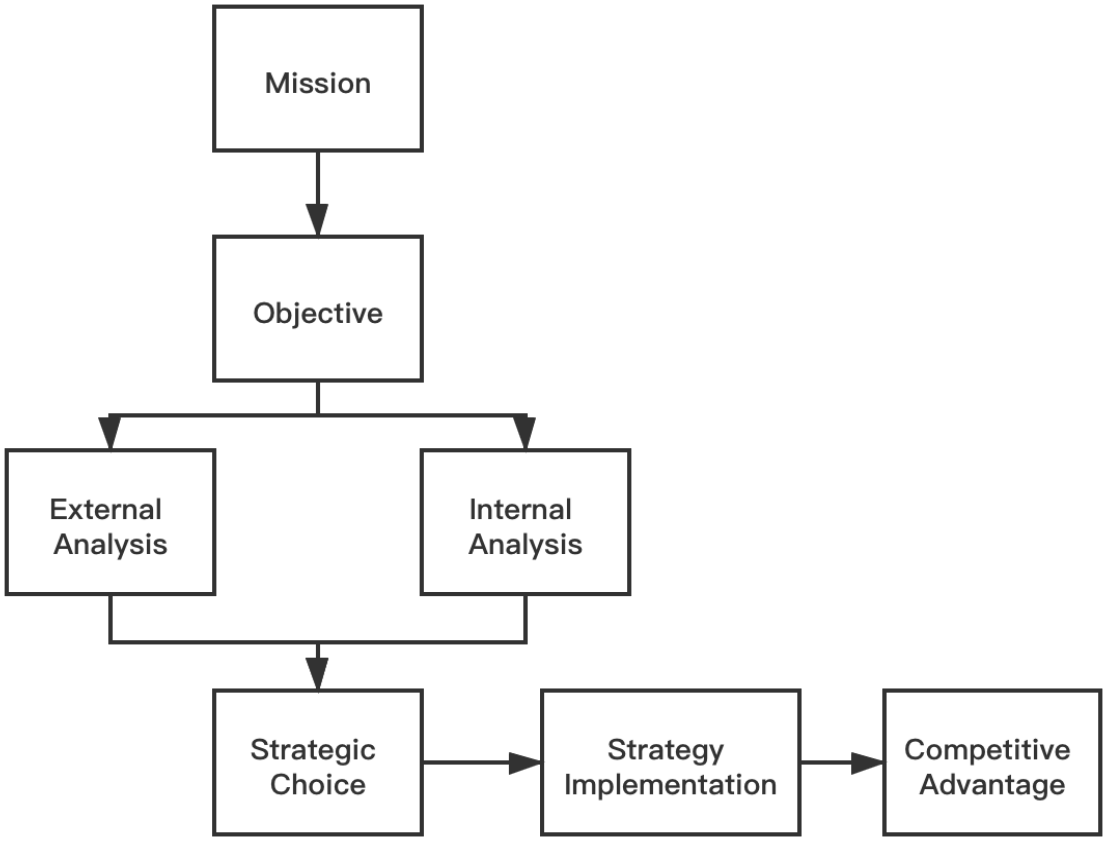

Figure 2.2 Strategic management process by Barney and Hesterly (2015)

Source: Barney and Hesterly (2015)

2.1.2.2 Objectives

Mission of an enterprise states a set of intentions and values. The objective is the standard used by enterprise to measure the achievement degree of mission. High-quality objectives are closely related to the mission, which can continuously and relatively easily measure and track the achievement degree of mission. Low-quality objectives are objectives which meet one of the following characteristics:

1) The objectives do not exist at all;

2) The objectives do not connect to elements of an enterprise's mission;

3) The objectives are not quantitative;

4) The objectives are difficult to measure;

5) The objectives are difficult to track over time.

Obviously, low-quality objectives cannot be used by leaders to measure the achievement of mission. Therefore, if an enterprise has no objectives or only low-quality objectives that have little to do with its mission, it is difficult to say whether the enterprise has achieved its aspiration described in the mission.

2.1.2.3 External analysis and internal analysis

The next two stages of the strategic management process are external analysis and internal analysis. Enterprises should identify opportunities and threats in the competitive environment. External analysis can help to reveal how the competition in the external environment will be developing and how the opportunities and threats faced by enterprises will be changing. The focus of external analysis is to analyze the opportunities and threats in the external environment of the enterprise, while internal analysis can help the enterprise find out the advantages and disadvantages within the enterprise. Internal analysis helps enterprises to understand which kind of internal resources and capabilities can bring competitive advantages and which are disadvantages, and then help to find out the deficiencies that the enterprise needs to enhance or improve in the future.

2.1.2.4 Strategic choice

With the completion of mission, objectives, external analysis and internal analysis, an enterprise is ready for strategic choice. It means that time is ready to make strategic decisions. In this stage, enterprises are ready to choose the theories of how to win in the competition.

Strategy could be categorized into two level which is company level and business level. Business-level strategy refers to various activities taken by enterprises to win competitive advantage in a specific single-product market or a single industry. Corporate-level strategy refers to various activities taken by enterprises to win competitive advantage in multiple-product markets or industries.

Strategic choice is very complicated, but the basic principle of strategic choice is not that complicated. In the strategic management process, the purpose of strategic choice should be supporting the enterprise's mission, aligning with its objectives, taking use of its advantages to seize opportunities, avoiding its disadvantages and eliminating its threats.

2.1.2.5 Strategy implementation

During strategy implementation stage, organizational structure, control processes and compensation policies need to be taken into consideration as well. As the last stage of strategic management process to achieve competitive advantage, strategy implementation is also very important. To implement strategy smoothly, an enterprise needs to adopt rules and policies which are aligned with its strategy, especially for formal organizational structure, formal and informal management control system, and the employee compensation policy. If the organizational structure, management control system and employee compensation policy

adopted by the enterprise are consistent with the strategy and conducive to the achievement of strategic objectives, the enterprise will have more possibilities to effectively achieve competitive advantage through strategy implementation.

The simplest way to formulate an enterprise's strategy is to assume that the enterprise operation is based on a set of mature theory which is proven by the market, while the strategy manager has adjusted the theory accordingly based on the external and internal analysis to achieve excellent performance. However, some enterprises do not have mature theory to guide their operation. Even if an enterprise planned well during strategy formulation, the strategy will be usually changed to a totally different one during strategy implementation stage, which is also far away from the initial strategic intention. Emergent strategy is a theory about how enterprises win in the changing environment, or a strategic theory that makes rapid response and timely adjustment to environmental changes.

If leaders of an enterprise are skilled and proficient enough in strategic analysis, they will be able to foresee the progress of economic activities, so as to know in advance which environmental changes will force them to give up their initial strategy and finally choose the emergence strategy. Before strategic choice, if leaders of an enterprise can understand the process of economic activities within the industry and predict whether the enterprise strategy is valuable, then it will be regarded as a failure in the process of strategy formulation when enterprise is forced to abandon the established strategy and use the emergent strategy. However, even in this case, it still constitutes an important competitive advantage if enterprises can quickly adjust according to the foreseen changes, abandon the established strategy and use the emergent strategy. In fact, some enterprises adopt a clear later-mover strategy, relying on their ability to respond quickly and valuable strategies which other enterprises have proved to be through practice. If enterprises have specific resources and advanced production capacities to move later, such a later-mover strategy is actually an ideal choice for these enterprises because all the risks are taken by their competitors. Later-movers just need to quickly duplicate what has already been proved.

In many cases, enterprises can neither understand the progress of economic activities nor predict whether existing strategy has value, especially when the external environment including macro-economic environment and competition environment is changing rapidly. Since it is impossible to foresee environmental changes that affect the strategic value, it is particularly important to make a rapid response according to the rapidly changing environment, adjust in time, and replace the existing strategy with the emergent strategy.

2.1.3 Main ideas of Lan (2018)

The strategic management is a kind of process management, through which enterprise can improve the effectiveness and efficiency of enterprise strategy (Lan, 2018). Through Lan's view, strategic management process can be divided into three stages, which is strategy formulation, strategy implementation, strategy evaluation and control. And before the three stages, strategy manager needs to put the external environment, internal environment, enterprise value and enterprise social responsibility as four initial inputs or factors before strategy formulation (See Figure 2.3).

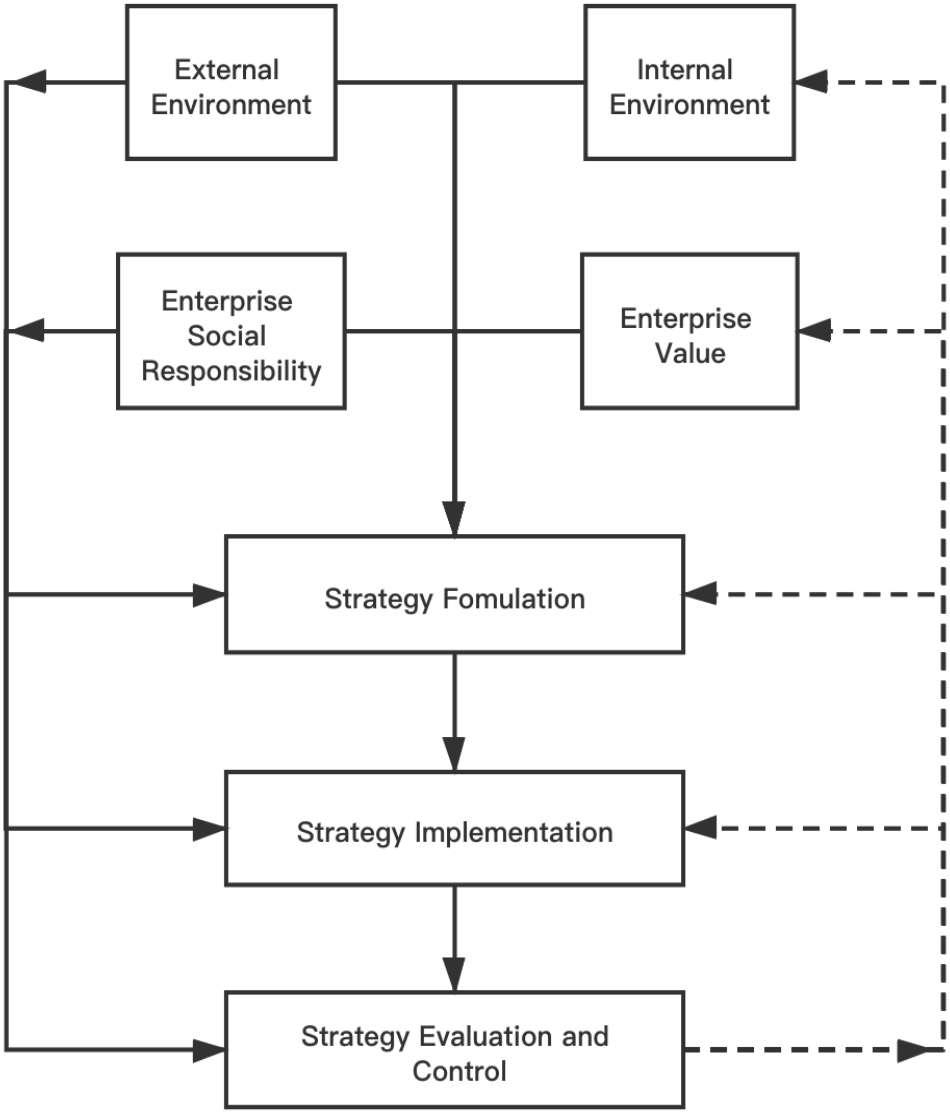

Figure 2.3 Strategic management process by Lan (2018)

Source: Lan (2018)

External environment and enterprise social responsibility are also data input for the stage of strategy implementation as well as stage of strategy evaluation and control because they will be changing during the strategic management process. After strategy has been evaluated and

controlled, the strategic outcome will also have impact on the internal environment and enterprise value which are displayed as dotted lines in Figure 2.3. As shown, the dotted lines also connect to strategy formulation as well as strategy evaluation and control because strategy managers will make assessment of the strategic outcome and decide whether or not to adjust the existing strategy and iterate to new strategy formulation and implementation.

2.1.3.1 Strategy formulation

In the stage of strategy formulation, the enterprise strategy managers need to make rational and scientific analysis of enterprises' external and internal environment according to the strategic intention and objectives, social responsibility and values, diagnose the external opportunities, threats, strengths and weaknesses. Based on the analysis result, enterprises' strategic commitment and mission will be redefined accordingly. And enterprises' phased objectives and strategies to realize the strategic intention and objectives need to be determined according to the time span of the enterprise strategies

To formulate the enterprise strategy, enterprise strategic commitments, mission and vision, strategic objectives should be explicitly clarified. So, enterprises need to determine objectives according to their mission and vision, and then they will analyze their internal and external environment. The external environment analysis mainly includes competitor analysis, industry environment analysis and macro environment analysis. Through analysis of external environment, enterprises can realize the opportunities and threats. Internal environment analysis refers to the analysis of the internal resource conditions of the enterprise. Through analysis of internal environment, enterprises can understand their advantages and disadvantages comparing with their competitors.

Strategy formulation is normally divided into strategic analysis and strategic choice. Strategic analysis is to analyze the current situation of an enterprise, including internal and external environment as well as opportunities, threats, advantages and disadvantages. Strategic choice comes from analyzing and decomposing all aspects of the enterprise, and selecting the most suitable strategy for enterprise.

2.1.3.2 Strategy implementation

Strategy implementation refers to the transformation of strategic mindset into strategic execution after an enterprise finalize its strategy. In the strategy implementation stage, the main task of strategy managers is to completely and accurately make the planned strategy into a realistic strategy. Therefore, strategy managers will decompose the strategic objectives, build planning systems for the strategy implementation, formulate corresponding functional

strategies, and provide necessary management support, including organizational, institutional, personnel and cultural support. Enterprise will generate a business plan of a certain period after strategy formulation. And then the enterprise will need to make a series of action items to ensure the implementation of the strategy, so as to make the grand blueprint of the enterprise become a reality.

To successfully implement enterprise strategy, strategy managers need to clarify the overall strategic objectives of the enterprise, and then decompose the overall strategic objectives one by one, make a detailed plan, and formulate the safeguard measurements of the strategic objectives to ensure the smooth execution of the plan.

2.1.3.3 Strategy evaluation and control

In the process of strategy implementation, strategy managers need to pay attention to the implementation of the strategy, timely evaluate and control the implementation and the achievement of the final objectives in different time points, adjust strategy implementation plans, supervise and encourage the behavior of other enterprise leaders. If the established strategic objectives cannot be achieved and the micro adjustment in these processes cannot make the desired effect, strategy managers need to stop the strategy implementation and restart a new round of strategy formulation process.

In a relatively static environment, enterprise strategy is relatively easier as it is more like a kind of point decision making. In the stage of strategy formulation, strategy managers will accurately predict the changes of external and internal environment, formulate a quantitative target system, and review all strategic choices and measures to achieve the objectives. The formulation, implementation, evaluation and control of strategy are strictly divided into three stages successively and end-to-end.

Generally speaking, when the board of directors of the enterprise formally adopts or the strategy manager formally decides to implement the new strategy, the strategic management enters the strategic implementation stage from the strategic formulation stage. Although the strategic evaluation and control work has started at the beginning of the strategic implementation stage, the most important strategic evaluation and control work should be after the completion of the strategic implementation stage, that is, result evaluation and control. So, the strategic evaluation and control stage is next to the strategic implementation stage in strategic management process.

But if enterprises are under relatively dynamic environment with rapid changes, enterprise strategy would be treated more as the combination of static decision and dynamic decision. In

the stage of strategy formulation, strategy manager cannot accurately predict the changes of the external and internal environment. In this case, strategy managers have to mainly focuses on the relatively macro decisions such as strategic intention, purposes and positioning, strategic focus and the approaches of strategy implementation.

But those specific decisions in the process of strategy implementation need to be made by the strategy implementation manager to ensure that enterprises can have rapid response speed and innovation ability to deal with environmental changes and competitors' activities. In this case, the final implemented strategy is not necessarily the originally planned strategy, or the planned strategy may be partially abandoned due to unpredictable changes. Therefore, the final implemented strategy includes not only some of the original preset strategies, but also the strategies reformulated based on the needs of reaction and innovation in the process of strategy implementation.

The above three scholars' main ideas about strategic process management could be summarized in Table 2.1. Though the three strategic management processes are raised in different years and the name of each process has a little bit difference, it is still easy to understand that all of them recognize the strategy formulation and strategy implementation as very important parts of strategic management process. And they all realize that strategies need to be iterated due to the change of external environment, competitive landscape or unexpected accidents, so the final executed strategy are likely not the initial strategy in such a changing or dynamic environment.

Table 2.1 Scholars' main ideas about strategic management process

Scholars	Year	Main ideas of strategic management process
Hitt et al.	2007	1) Strategic inputs (External environment, internal Environment, vision and mission) 2) Strategic actions (Strategy formulation and strategy implementation) 3) Strategic outcomes (Strategic competitiveness and above-average returns)
Barney and Hesterly	2012	1) Mission 2) Objective 3) External analysis and internal analysis 4) Strategic choice 5) Strategy implementation
Lan	2018	1) Strategy formulation 2) Strategy implementation 3) Strategy evaluation and control

But there are different opinions about the sequence of external environment, internal environment and vision. According to main ideas of Hitt et al. (2016), vision should be finalized after deep analysis of external environment and internal environment. But according to main ideas of Barney and Hesterly (2015), vision should be set ahead of external analysis and internal

analysis. It can be understood that the strategic management process raised by Hitt et al. (2016) is more practical and realistic to achieve because enterprises will have more information to consider when setting up their vision. But the strategic management process raised by Barney and Hesterly (2015) is more imaginative and undisturbed by existing situation. It is more out-of-box and might meet those unrealized market needs.

2.2 The RBV theory

RBV is a mainstream theory for strategic management in recent decades. It provides a new theoretical perspective for enterprises to establish, maintain and develop competitive advantage, and provides a theoretical basis for the subsequent development of enterprise competence theory. It is difficult to track the exact time of its origin because the concepts of "resources" or "capability" mentioned by management scholars in early literature cannot verify each other, not to mention building a normative theoretical system.

2.2.1 Existing research of RBV theory

In this research, the history and development of RBV theory since the 1980s will be reviewed. And the history of RBV theory is categorized into four stages which include the 1980s, the 1990s, the 2000s and the 2010s.

2.2.1.1 The stage of the 1980s

An important research direction of strategic management is to study enterprise's sustained competitiveness. Strategic management theory comes from industrial organizational theory, and its focus is mainly concentrated to industrial structure. In the 1980s, a few researchers began to pay attention to the study of resource differences to explain organizational development. And this period is defined as the stage of the 1980s.

In this stage, the importance of organizational resources has led to a new perspective to strategic management research, linked organizational resources with organizational performance, contrasted with both similarities and differences of existing research from resource or product perspective, analyzed the differences between internal resource acquisition and external resources acquisition.

Resources are various tangible and intangible assets that bring advantages or disadvantages to a specific organization (Wernerfelt, 1984). This definition explains the impact of resources on organization from two aspects, which include resource advantages and resource

disadvantages. It also emphasizes the exclusive and specific relationship between resources and the organization. Enterprises can obtain resources in the strategic factor market (Barney, 1986). Only when the purchase cost of resources is significantly less than its potential value, enterprises can obtain extraordinary profits from market. Enterprises cannot obtain trust, reputation and other non-trading resources from the strategic factor market, but only through the accumulation within the organization (Dierickx & Cool, 1989).

Though the number of literatures published in the stage of the 1980s is small, the core concepts of Wernerfelt, Barney, Dierickx and Cool as well as other scholars during this stage have laid the foundation for the future development of RBV theory.

2.2.1.2 The stage of the 1990s

Barney explored the relationship between resources attributes and the sustained competitive advantage of the organization in 1991. He defined resources as a collection of various elements controlled by the organization that are conducive to its conception and implementation of strategies to improve efficiency and effectiveness, and he also proposed that enterprises' resource heterogeneity and immobility will impact the four resource attributes which are value, rareness, imperfect imitability and substitutability (Barney, 1991). Imperfect imitability includes history dependent, causal ambiguity and social complexity. The four resource attributes will help to build up the sustained competitive advantage of the enterprise.

Peteraf (1993) linked the resource attributes with the competitive process, and proposed the conditions of sustained competitive advantage from four aspects, which were resource heterogeneity, imperfect mobility, ex post limits to competition and ex ante limits to competition. Heterogeneity will help to generate rents such as monopoly or Ricardian. Imperfect mobility can help rents to be sustained within the enterprise. Ex post limits to competition are helpful to sustain rents. And ex ante limits to competition will help rents not offset by cost. In this sense, all the four aspects will be helpful to enterprises sustained competitive advantage.

Moreover, above literatures also expand and extend the concept of resources, and preliminarily raised the concepts of knowledge, capability and dynamic capability. Kogut and Zander (1992) discussed the importance of knowledge as a resource, which also laid the foundation for future development of knowledge-based view. Amit and Schoemaker (1993) put forward a different definition of resources and capabilities which could be summarized in Figure 2.4.

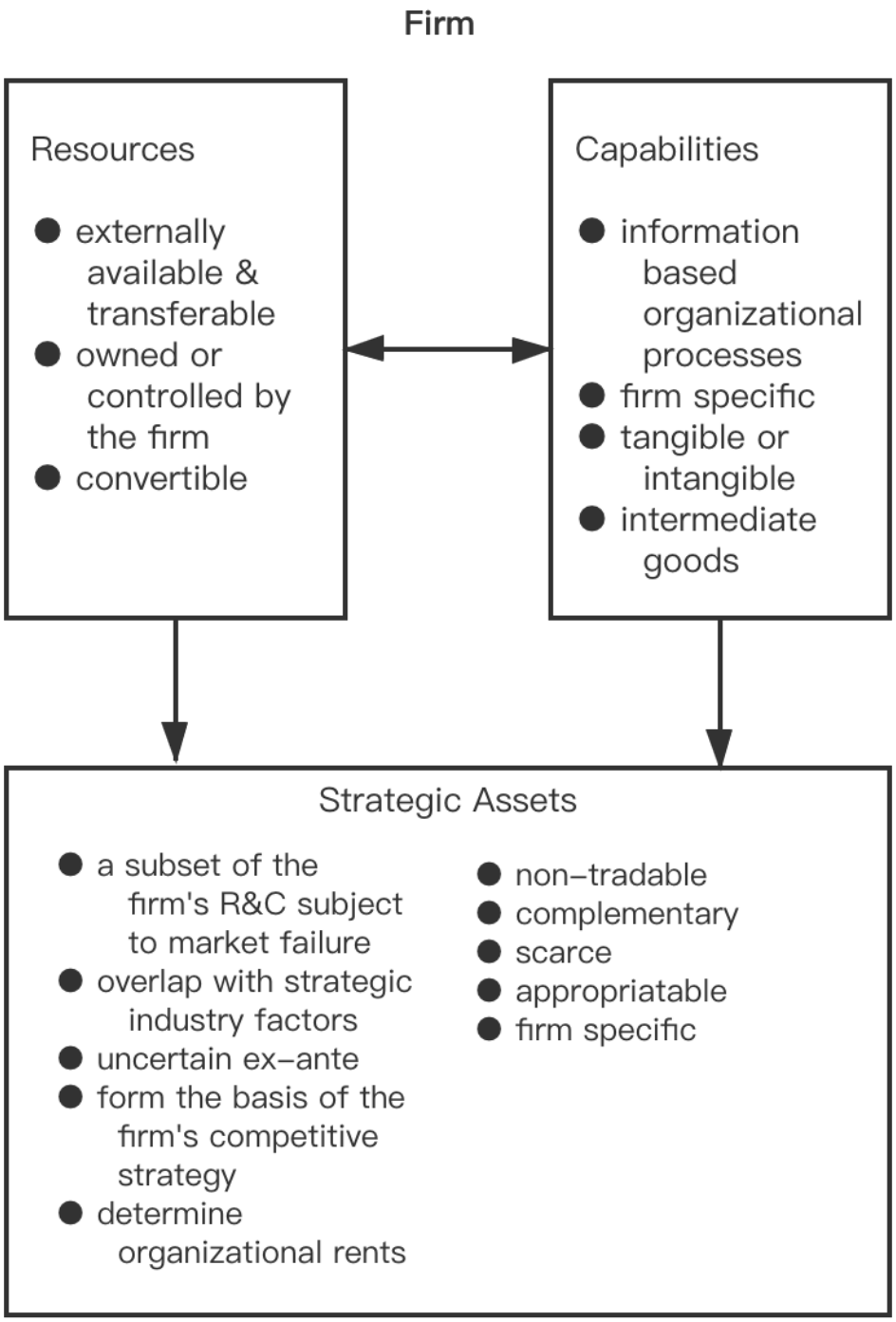

Figure 2.4 Relationship of resources, capabilities and strategic assets

Source: Amit and Schoemaker (1993)

Capabilities are moved out of generalized resources concept, and resources are a collection of various assets and production factors that organizations can semi-permanently own, control and obtain. Resources can be externally available and transferable. They can also be owned or controlled by the enterprise, and resources are convertible. Capabilities are the processes that enterprises integrate these assets and production factors to achieve specific objectives, which are both different and closely connected, so capabilities are information based organizational

processes. In this case, capabilities should be enterprise specific, and they could be tangible or intangible. They could also be intermediate goods. Teece et al. (1997), Eisenhardt and Martin (2000) respectively put forward the concept of dynamic capability, which was defined as the capability of an enterprise to integrate, build and adjust internal and external resources or capabilities to adapt to changes of its environment.

These literatures mainly focus on the resource differences among different enterprises within the same industry, and also research the source of sustained competitive advantage from organizational level. The number of RBV research literatures increased rapidly in this stage. By the same time, the research direction about strategic management has been gradually moved from industrial organization view to RBV.

In this stage, scholars started to pay attention on resource differences at enterprise level. From the stage of the 1980s to the stage of the 1990s, RBV emerged as a new theoretical perspective, which made up for industrial organization view's insufficient explanation of competitive advantage difference between different enterprises in the same industry, and provided a new perspective of enterprise-level strategic analysis at that time. The resource difference began to become the key to understand organizational competitive advantage. In the stage of the 1980s, though a few scholars such as Wernerfelt (1984), Barney (1986), Dierickx and Cool (1989) started to pay attention to the importance of resources to organizational development, explaining the source of competitive advantage from the industrial level was still the mainstream of strategic management research in this stage (Grant, 1991). The industrial organization view studied the impact of industrial structure on enterprise performance, and paid attention to the differences of enterprise competitive advantage caused by different industries (Barney, 1986).

As the stage of the 1990s was still the early stage of RBV theory, literatures in this stage still focused on the comparison of research perspectives such as RBV and industrial organization view.

In the stage of the 1980s, scholars were likely to analyze the external environment of an enterprise and formulate the competitive strategy. In the stage of the 1990s, scholars paid more attention to the inside of an enterprise than outside of an enterprise. It is especially essential for an enterprise to acquire and manage resources if external environment difference cannot explain the source of sustained competitive advantage (Barney, 1991). The key to better organizational performance lies in the effective integration of internal individual and group knowledge (Grant, 1991). Grant proposed a resource-based approach to strategy analysis in his research (See Figure 2.5).

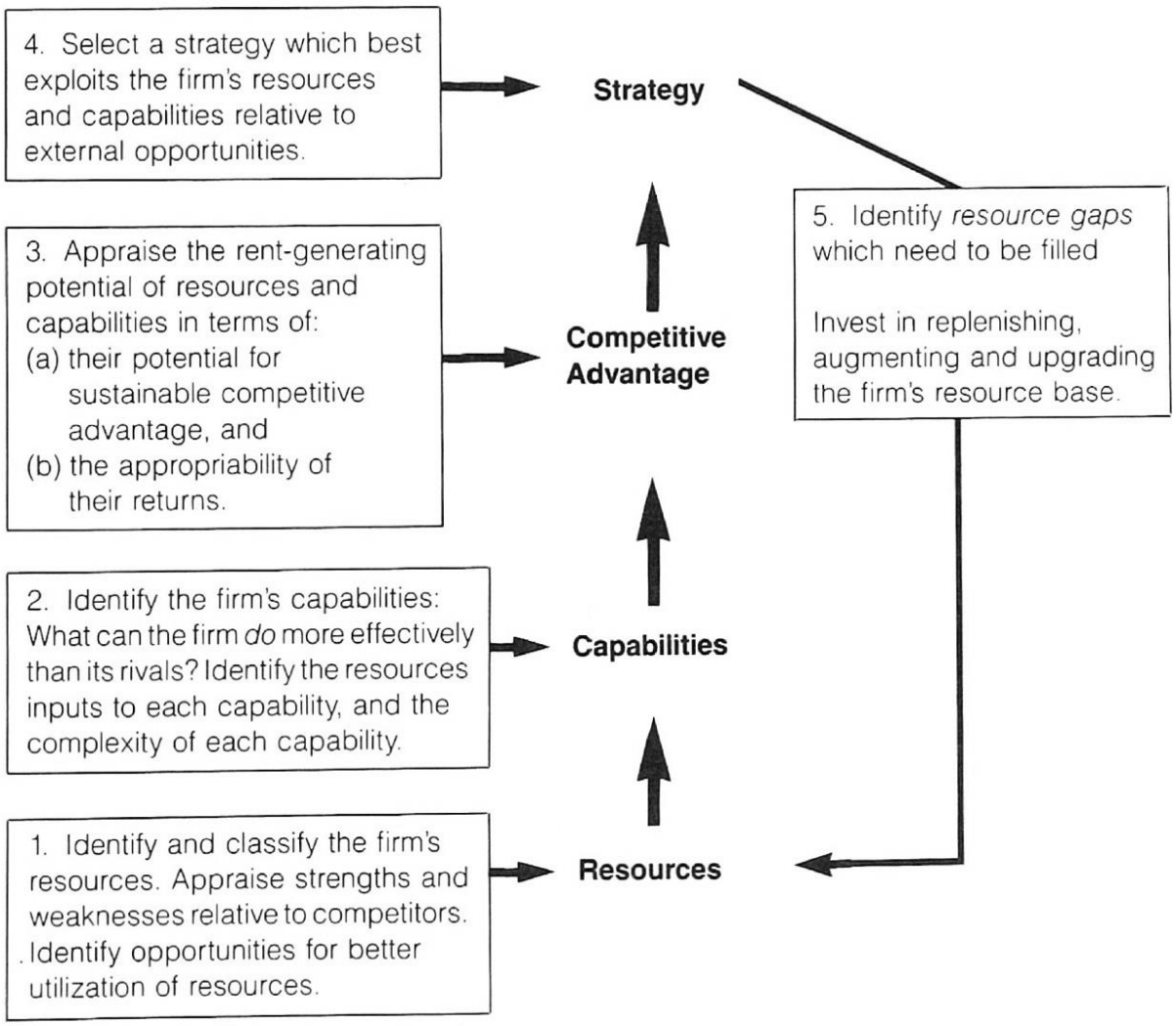

Figure 2.5 A resource-based approach to strategy analysis: a practical framework

Source: Grant (1991)

According to Figure 2.5, the first step is to identify and classify the firm's resources through appraising strengths and weaknesses relative to competitors as well as identifying opportunities for better utilization of resources. The second step is to identify the firm's capabilities through understanding what can the firm do more effectively than its rivals. The resources inputs to each capability and the complexity of each capability need to be identified in this step. The third step is to appraise the rent-generating potential of resources and capabilities in terms of their potential for sustainable competitive advantage and the appropriability of their returns. The fourth step is to select a strategy which best exploits the firm's resources and capabilities relative to external opportunities. The last step is to identify resource gaps which need to be filled as well as invest in replenishing, augmenting and upgrading the firm's resource base.

2.2.1.3 The stage of the 2000s

In this stage, critical literature about RBV theory appeared. In 2001, a debate about the effectiveness of RBV theory attracted much attention in the field of management. Priem and Butler (2001) criticized RBV theory from ambiguity of definition and dissemination, theoretical detection, basic fallacies and theoretical applicability, and outlined the view that RBV theory is invalid. Then, Barney (2001) refuted the criticism of Priem and Butler (2001) from tautology, equivalent results, product market and applicability, and pointed out that RBV theory is an important theory in strategic management research. This debate not only affirmed the positive part of RBV theory, but also pointed out the limitations of analyzing resources from static perspective. After the debate, the distinction between resources and capabilities had attracted more scholars' attention, and the research about capabilities had also developed rapidly, especially for dynamic capabilities that had become the most spectacular theoretical school among various capability theories.

Dynamic capability theory improves the development of RBV theory from a dynamic perspective. Dynamic capability has the attributes of continuously changing and adapting to the environment (Helfat & Peteraf, 2003). It is an important capability which is different from other capabilities because it can build, integrate, or reconfigure other resources or other capabilities. Similarly, dynamic capability included the capability to sense threats or opportunities, the capability to seize opportunities and the capability to integrate multiple resources. It is closely connected with internal skills, processes, frameworks, decision-making procedures, rules and regulations in an enterprise (Teece, 2007).

With scholars' continuous research, RBV theory had gradually developed from static to dynamic. In this stage, some scholars realized the research limitations of relationship between enterprise resources and enterprise sustained competitive advantage. The relationship between capability and sustained competitive advantage from a dynamic perspective was explored.

In this stage, the process of integrating resources through capabilities had also been paid attention. In the stage of the 1990s, the impact of resources on sustained competitive advantage was regarded as static, permanent and stable. Therefore, the key for an enterprise to obtain sustained competitive advantage is to obtain some specific resources. However, in the stage of the 2000s, dynamic capability research drove the transformation of RBV theory from static to dynamic. The dynamic RBV proposed that sustained competitive advantage can be realized only at dynamic level, and paid attention to the process of integrating resources and obtaining sustained competitive advantage in the dynamic environment. Integrating resources through

capabilities became an important topic to scholars in this stage. Helfat and Peteraf (2003) proposed the life cycle concept of capabilities, which means that the capability of an organization to integrate resources will vary according to its different development stages, and the dynamic change of competitive advantage can be effectively explained by the dynamic change of capabilities.

2.2.1.4 The stage of the 2010s

Since 2010, the growth rate of research about RBV theory has slowed down. RBV theory became an important theory in the research of strategic management (Barney et al., 2011). Normally theories might face two situations which can be either revival or recession. But revival would definitely be the future of RBV theory. In the stage of the 2010s, new research directions such as resource management and resource arrangement appeared, which injected vitality into the development of RBV theory. Then, the model of resource management was firstly proposed (Sirmon et al., 2007). Resource management model separates the procedures of resource management into structuring, bundling, and leveraging (See Figure 2.6). Resource management includes structuring the resource portfolio, bundling resources to build capabilities, and leveraging capabilities to exploit market opportunities. All those elements will be impacted by environmental uncertainty. Resource management is a process which could be used for value creation for customs as well as wealth creation for owners. On this basis, the resource orchestration theory was also raised (Sirmon et al., 2011). According to resource orchestration theory, the effective combination of resources, capabilities and managers' behavior is an important approach to enhance enterprise’s innovation.

In this stage, individual resource was paid more attention rather than enterprise resource. The focus of RBV theory has been gradually moved from difference of enterprise-level resource and capability to the difference of micro individual-level psychology, behavior and relationship network within an enterprise (Foss, 2011). The research problem was also changed from "Whether resources or capabilities will affect an enterprise to obtain competitive advantage and how to affect the enterprise to obtain competitive advantage?" to "How should the enterprise effectively manage resources and orchestrate resources to obtain competitive advantage?". Micro basic research focusing on individuals such as human capital investment (Chadwick et al., 2015), individual psychological differences (Helfat & Peteraf, 2015), individual behavior mechanism (Stoyanov & Stoyanova, 2018) had become an important research direction of RBV theory in the future.

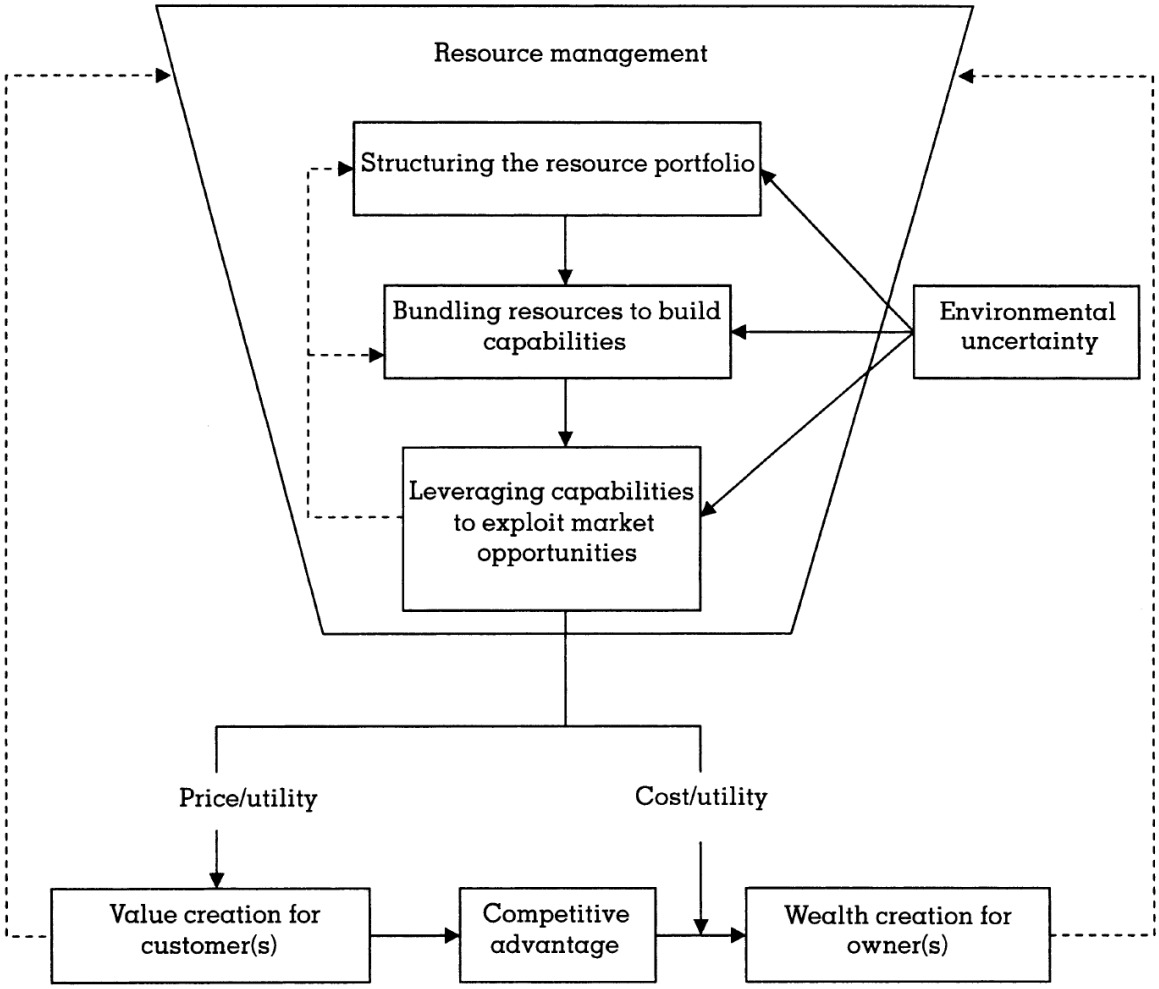

Figure 2.6 A dynamic resource management model of value creation

Source: Sirmon et al. (2007)

Lack of empirical support is always an important problem obstructing the development of RBV theory (Barney et al., 2011). Most of the research in the stage of the 1980s and stage of the 1990s were carried out by literature and conceptual methods (Jiao et al., 2021; Priem & Butler, 2001). In the stage of the 2010s, resource orchestration theory had established a cross-level and systematic framework for analyzing the procedures of resource management, which provided an effective reference for subsequent scholars to make empirical research (Zhang & Hua, 2020).

2.2.2 Fundamental assumptions of RBV theory

According to the concept of RBV, the internal resources of enterprises are very important to obtain excessive profits and maintain competitive advantage (Wernerfelt, 1984). Therefore, making strategic decision based on resources is more meaningful for enterprises than that based on products.

Before that, Porter's competitive advantage theory has made two fundamental assumptions. First, there is no difference between enterprises in the same industry. They have the same resources, so they can implement the same strategy (Porter, 1980); secondly, even if enterprises can obtain different resources, this heterogeneity cannot exist for a long time, because the resources for enterprises to implement strategies are always highly mobile (Barney, 1986).

RBV theory has put forward two completely opposite hypotheses that resources and capabilities are unevenly distributed among enterprises, and these differences can sustain.

Firstly, the resources owned by enterprises are heterogeneous. If an enterprise has same resources with other enterprises and it formulates and implements better strategies, then the enterprise must have better development opportunities. From the definition of resources, this means that the enterprise has different resources from other enterprises, otherwise other enterprises can adopt exactly the same strategy (Barney, 1991).

Secondly, heterogeneous enterprise resources are not completely mobile. If an enterprise's resource flow is complete, then the enterprise's entry or exit barriers will no longer exist. An enterprise's successful strategy will be duplicated by its competitors immediately, thus losing its leading position in the competition. RBV theory assumes that the supply of resources is inelastic. Considering that enterprise resources are actually a combination of multiple resources, it is almost impossible to have enterprises with exactly the same combination of resources. The liquidity of resources is often subject to many restrictions, such as contract constraints, lack of information, pricing difficulties. Therefore, RBV theory is closer to reality than Porter's assumption.

2.2.3 Theoretical framework of RBV theory

Competitive advantage of an enterprise refers to the value creation strategy implemented by the enterprise, and no existing or potential competitors adopt the same strategy. When competitors cannot obtain strategic benefits by duplicating strategy, enterprises have sustained competitive advantage. Barney pointed out in particular that "sustained" does not have a fixed calendar time, but depends on the possibility of competitors' duplication. Therefore, as long as the competitive advantage cannot be duplicated, it can be considered as a sustained competitive advantage (Barney, 1991).

According to Wernerfelt's theory in 1984, strategic resources need to meet four attributes that are value, rareness, imperfect imitability, and non-substitutable (VRIN). Value and rareness can constitute an enterprise's competitive advantage, while four attributes as a whole can constitute a sustained competitive advantage. Resources are valuable when they can be used by

enterprises to formulate and implement strategies and improve effectiveness and efficiency. If an enterprise has resources that many other enterprises also have, then these resources are not rare. As long as the number of enterprises with certain resources is less than that under the condition of free competition, these resources may produce competitive advantage (Barney, 1991). Valuable and rare resources can bring competitive advantage to enterprises. However, sustained competitive advantage also requires that competitors cannot obtain the same resources, so the inimitability of resources is the requirement of sustained competitive advantage. Barney believes that there are three main sources of inimitability which are the unique historical conditions, the causal ambiguity between the enterprise's resources and its sustained competitive advantage, and the complexity of society.

2.2.4 Extension of RBV theory

With RBV theory becoming the mainstream in the 1980s, there appears the extension of this theory. Core competence theory (Prahalad & Hamel, 1990) and dynamic capability (Teece et al., 1997) could be treated as the extension of RBV theory.

2.2.4.1 The core competence theory

Prahalad and Hamel (1990) defined core competence of an enterprise as the cumulative learning inside of it, especially the knowledge on how to coordinate various production skills and integrate various technologies. According to their research, the enterprise grows from its roots like a tree. Core products are nourished by competencies and engender business units, whose fruits are end products (See Figure 2.7).

An enterprise is fundamentally a combination of different competences. Accumulating, maintaining and using those competences to explore market is the decisive factor for enterprise sustained competitive advantage. The boundary of an enterprise is determined by its competence reserve, especially the depth and breadth of diversification. The fundamental assumptions of enterprise core competence come from RBV theory. Similarly, the core competence is unevenly distributed in enterprises, and it is difficult to be transferred through market transactions.

However, the core competence theory proposed by Prahalad and Hamel has some obvious defects. Firstly, the concept of core competence is not clearly defined, and there is only a functional description. Identifying core competence from enterprise competences has become an arduous and uncertain task. Secondly, the approach of acquiring core competence is controversial because of the ambiguity of concept. From their view, it is difficult to obtain core

competencies through market transactions, but still the turnover of key human resources still needs to be concerned. Thirdly, the concept of core competence is static. It assumes that the core competence is fixed and ignores the dynamic evolution of core competence. The core competence description is based on the summary of historical activities, but it might not provide help for future competition. Finally, the core competence theory ignores too much about the response to customers, industrial environment and competitors, and obtains competitive advantage entirely through its own competences, which is not that competitive in the fierce market competition.

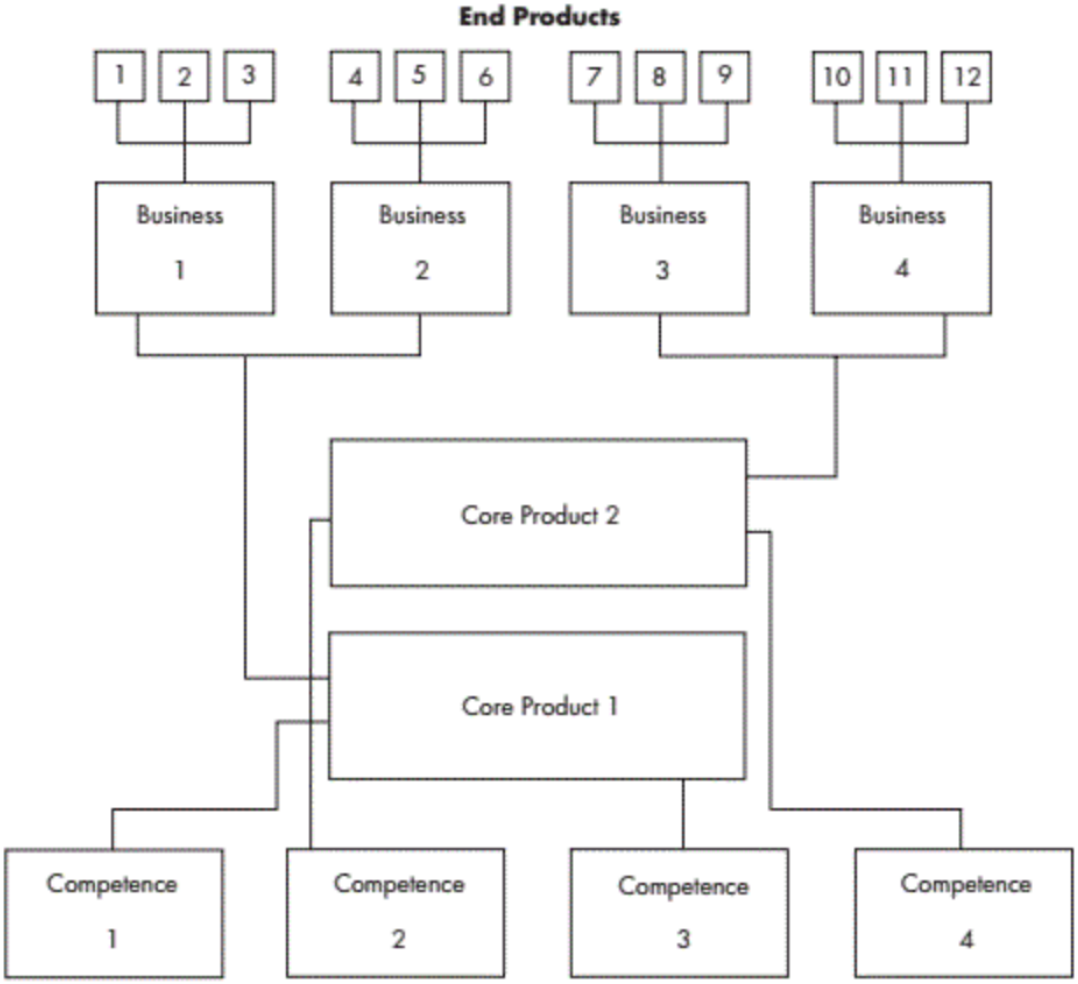

Figure 2.7 Competence: the roots of competitiveness

Source: Prahalad and Hamel (1990)

2.2.4.2 The dynamic capability theory

RBV theory in early days has helped a lot to the development of dynamic capability theory. Since then, RBV theory and dynamic capability theory continue to learn useful findings from each other, which lead to a complicated relationship between RBV and dynamic capability. Wemefelt (1984) and Barney (1986) believe that enterprises are the aggregation of resources,

and capability is one of the important enterprise resources. Therefore, they unify the fundamental theory of enterprise capability into the fundamental theory of enterprise resources; However, Prahalad and Hamel (1990) and Teece et al. (1997) believe that an enterprise is a collection of capabilities, and resources are one of the important capabilities of an enterprise. In this case, RBV is a special case of dynamic capability.

Teece put forward a relatively complete theoretical framework of dynamic capability theory in 1997. Dynamic capability is defined as the capability to integrate, build and reconfigure the internal and external of enterprise competence to adapt to rapidly changing environment (Teece, 1997). Dynamic refers to the ability of enterprises to constantly update their competences so that they can keep up with the changing needs of the environment. Capability refers to the important role of strategic management in the process of adapting, integrating and resetting internal and external organizational skills, resources and functional capabilities to meet the requirements of the rapidly changing environment. In short, dynamic capabilities determine the speed at which ordinary capabilities change (Collis, 1994).

Different enterprises have different dynamic capabilities because the combination of resources constituting dynamic capabilities is different or the weight of various resources in the resource combination is different. Similarly, if the dynamic capability of an enterprise changes, it can be inferred that the resource combination basis of the enterprise has changed. This conceptual framework has simple structure and clear logic, which can eliminate unnecessary disputes in the development process of RBV theory. The proposal of dynamic capability theory has greatly broadened the vision of management scholars.

2.2.5 Contribution and limitation of RBV theory

The summary of existing research results about RBV theory is given in Table 2.2.

From the table, it is easily to understand that a lot of scholars have contributed to the development of RBV theory. There are two kinds of approach. One approach is typically represented by Barney (1991). He proposed to analyze and apply the attributes of enterprise's heterogeneous resources from the perspective of enterprise interior and explain the structure and improvement of enterprise sustained competitive advantage as well as the source of enterprise performance differences. The other approach is typically represented by (Peteraf, 1993) from the perspective of market competition. He proposed to choose different competitive strategies based on the analysis of enterprise resource differences and explain the differences in the generation and maintenance of enterprise performance through different choices of competitive strategies, which means deep discussion of the enterprise competitive strategy and

strategic outcomes.

Table 2.2 The summary of existing research results about resource-based view

Scholars	Main View or Contribution
Wernerfelt (1984)	Resources are various tangible and intangible assets that bring advantages or disadvantages to a specific organization. The exclusive and specific relationship between resources and the organization are emphasized.
Barney (1986)	Enterprises can obtain resources in the strategic factor market. Only when the purchase cost of resources is significantly less than its potential value, enterprises can obtain extraordinary profits from market.
Dierickx and Cool (1989)	Enterprises cannot obtain trust, reputation and other non-trading resources from the strategic factor market, but only through the accumulation within the organization.
Prahalad and Hamel (1990)	The core competence is the source of competitive advantage. Enterprise should integrate the resources and skills into the core competence with group learning properties.
Barney (1991)	Resources are a collection of various elements controlled by the organization that are conducive to its conception and implementation of strategies to improve efficiency and effectiveness. He proposed that four resource attributes, including value, rareness, imperfect imitability and substitutability, are closely related to the sustained competitive advantage of the organization
Grant (1991)	The key to better organizational performance lies in the effective integration of internal individual and group knowledge. He also proposed a resource-based approach to strategy analysis in his research. The process of internal innovation is conducive to the generation of unique competitive advantage.
Kogut and Zander (1992)	Knowledge is a resource, which also laid the foundation for future development of knowledge-based view.
Amit and Schoemaker (1993)	Since the incompleteness of resources market and the randomness of management decision-making on resources development and configuration, there exist some differences in the control of resources and abilities, and these differences can be the source of sustained economic rent.
Peteraf (1993)	Link the resource attributes with the competitive process, and proposed the conditions of sustained competitive advantage from four aspects, which are resource heterogeneity, imperfect mobility, ex post limits to competition and ex ante limits to competition
Conner and Prahalad (1996)	In the theory framework of RBV put forward, the enterprise theory is based on the knowledge. In the process that the enterprise to gain the competitive advantage, the consideration based on knowledge is more important than that based on opportunistic.
Teece et al. (1997)	The competitive advantage of enterprise comes from the dynamic capability that is to cope with external environment change and constitute by the excellent management and organizational process of enterprise, specific composition of asset and the path dependence of the firm evolution.
Priem and Butler (2001)	Criticized RBV theory from ambiguity of definition and dissemination, theoretical detection, basic fallacies and theoretical applicability, and outlined the view that RBV theory is invalid.
Helfat and Peteraf (2003)	Dynamic capability has the attributes of continuously changing and adapting to the environment. It is an important capability which is different from other capabilities because it can build, integrate or reconfigure other resources or other capabilities.

Sirmon et al. (2007)	Proposed the concept of resource management and separated the procedures of resource management into structuring, bundling and leveraging.
Sirmon et al. (2011)	Put forward the Resource Orchestration theory, and pointed out that the effective combination of resources, capabilities and managers' behavior is an important approach to enhance enterprise's innovation.
Chadwick et al. (2015)	In order to be effective, managers at all levels of the firm must engage in resource management activities, and these efforts are synchronized and orchestrated by top management. They underscore the importance of middle managers in operationalizing top management's strategic emphasis, lending empirical support to a fundamental tenet of resource orchestration arguments.
Helfat and Petersaf (2015)	Introduce the concept of "managerial cognitive capability," which highlights the fact that capabilities involve the capacity to perform not only physical but also mental activities, and identify specific types of cognitive capabilities that are likely to underpin dynamic managerial capabilities for sensing, seizing, and reconfiguring, and explain their potential impact on strategic change of organizations.
Stoyanov et al. (2018)	An extension of the resource orchestration framework that sequencing of resource orchestration processes is important for the implementation of the entrepreneurs' strategy for using their embeddedness within the diaspora network for enhancing their competitiveness and can lead to groupings of activities that differ from the groupings found in the original version of the framework.

No matter what, RBV is an important part of modern strategic management theory. It leads enterprises to structure competitive advantage through internal resources rather than external environmental conditions, which is a main contribution of RBV theory. In this case, leaders will focus more on the strength of enterprises and identify resources which can obtain sustained competitive advantage.

The RBV theory has some obvious defects:

Firstly, it overemphasizes the interior of enterprises but pays insufficient attention to the exterior of enterprises. It will lead to the result that enterprise strategy cannot adapt to the changes of the market environment.

Secondly, the definition of enterprises' imperfect imitation resources is too vague and difficult to apply.

Thirdly, the RBV theory studies the dynamic enterprise process from a static perspective, which ignore the dynamic attributes of resource cultivation in an uncertain environment. In real situation, it is almost impossible to compete in a pure static environment.

As most scholars and enterprise leaders are already aware of those defects, enterprises are likely to take the use of its advantage and avoid its disadvantage when implementing strategies with RBV theory.

2.3 The dynamic capability theory

The dynamic capability theory has gradually emerged in enterprise strategic management as an extension of the RBV theory.

2.3.1 Definition and history of dynamic capability theory

The RBV theory explains how enterprises obtain competitive advantage through resources. It illustrates that valuable, rare, difficult to imitate and substitutable heterogeneous resources can achieve enterprise competitive advantage. However, with the development of innovative management theory, the RBV theory cannot meet all needs of enterprises. As the market environment is always volatile, heterogeneous resources may no longer have unique attributes.

To solve this problem, the concept of core competence came into being, which holds that organizational competence includes general competence and core competence. General competence emphasizes the impact on ordinary production and operation (Wang & Ahmed, 2007). Core competence emphasizes the ability of enterprises to innovate products according to environmental changes, manage organizational processes or services, and develop market positioning. But the RBV theory does not elaborate on how to dynamically manage these heterogeneous resources, and the core competence theory does not explain how to obtain heterogeneous resources and effectively manage heterogeneous resources.

To deal with the defects of RBV theory and core competency theory as well as the rapid changes in the internal and external environment, the concept of dynamic capability is raised (Teece & Pisano, 1994). The sustained competitive advantage of enterprises comes from their own dynamic capabilities, which provides a new perspective for enterprises to achieve growth in a rapidly changing environment. Dynamic capability is a kind of capability which is in higher level than core competency, which can provide accurate positioning for enterprises in unpredictable environment and ensure that enterprises can obtain sustained competitive advantage in certain path dependence and social structure.

Teece et al. (1997) clearly defined dynamic capability as the ability to integrate, build and reconfigure the internal and external competences of enterprises to quickly adapt to environmental changes. As shown in Figure 2.8, dynamic capability included the capability to sense threats or opportunities, the capability to seize opportunities and the capability to integrate multiple resources (Teece, 2007). Dynamic capability is closely connected with internal skills, processes, frameworks, decision-making procedures, rules and regulations in an enterprise.

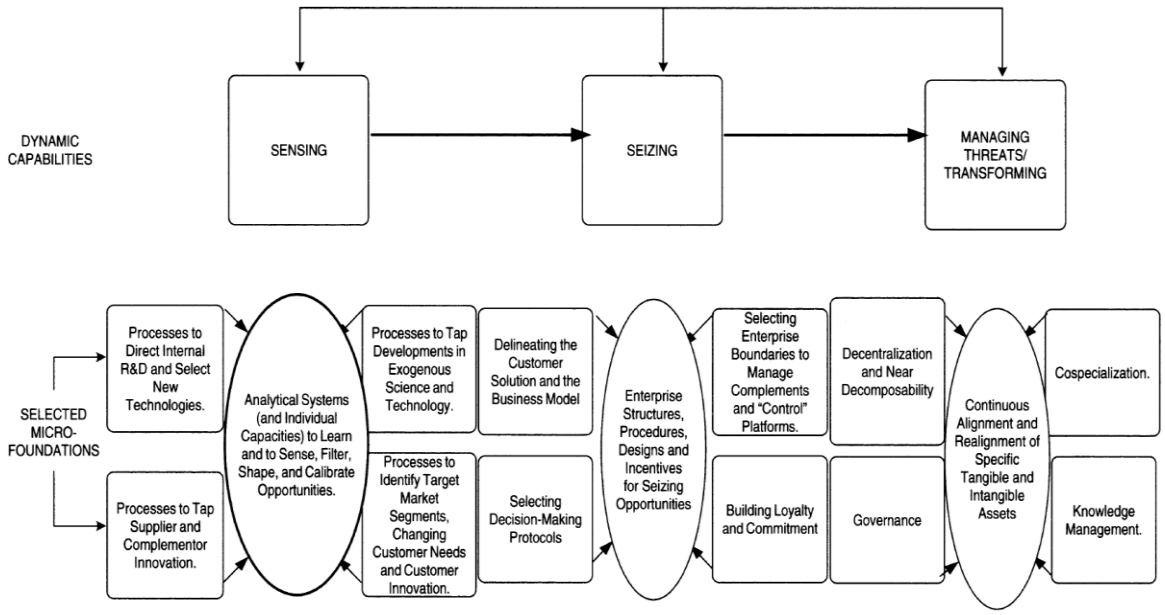

Figure 2.8 Foundations of dynamic capabilities and business performance

Source: Teece (2007)

The general framework in Figure 2.8 treats dynamic capability as the foundation of competitive advantage in the process of rapidly changing environment. The extent to which an enterprise develops and uses dynamic capabilities will determine the nature and quantity of intangible assets it will create and / or assemble, as well as the level of economic profits it can earn. In addition, the framework emphasizes that the past will affect current and future performance. However, leaders can simultaneously design processes and structures that support innovation, while getting the enterprise out of dysfunctional processes and structures designed for the early stage.

Dynamic capability is composed of some specific strategic processes, such as product development process, strategic decision-making process and alliance (Eisenhardt & Martin, 2000). Through interaction of alliance members, knowledge transfer, knowledge absorption, organizational cooperation and other processes, enterprises obtain the necessary knowledge, technology, information and capital elements to adapt to the complicated and changing environment, so as to build a sustained competitive advantage.

According to the research by Harvey and Griffith (2001), dynamic capability is to create a resource combination which is difficult to imitate on a global scale, including effectively coordinating the relationship within the enterprise and bringing competitive advantage to the enterprise.

Zollo and Winter (2002) proposed that dynamic capability is a stable collective model

which is formed through individual learning, and it can improve its own operation efficiency. Learning mechanisms including experience accumulation, knowledge articulation, knowledge codification will help to generate dynamic capabilities. Then dynamic capabilities including research and development of processes, restructuring, re-engineering and post-acquisition integration could lead to the evolution of operating routines. Capability can be distinguished with operational capability and dynamic capability (Winter, 2003). Operational capability is the ability to help enterprises survive, while dynamic capability is the ability to modify operational capability to adapt to the changes of dynamic environment, which is a higher-level competence.

Newbert (2005) applied the dynamic capability framework to the new firm formation process and found that dynamic capability is the organizational and strategic routine for enterprises to obtain new resource combination.

Dynamic capabilities can also help entrepreneurs, entrepreneurial teams or enterprise management team to change their views on existing routines or resource allocation approaches, help enterprises to solve disputes and differences, drive the alignment of managers on revolution willingness, ensure the consistency of strategic direction, and effectively deploy resources in new ways to capture opportunities (Zahra et al., 2006).

In 2007, Teece explained micro-foundations of dynamic capability from unique capability, process, organizational structure, decision-making rules and principles. Those micro-foundations will help to improve enterprise-level sensing, seizing, and reconfiguring capacities (Teece, 2007).

Helfat and Peteraf (2009) defined dynamic capability as the resource base for enterprises to purposefully create, extend and modify. But Barreto (2010) treated dynamic capability as the potential of enterprises to solve problems systematically. It is formed by perceiving opportunities and threats, making timely and market-oriented decisions and changing their resource base.

Dynamic capabilities which are generated by changing, expanding or adjusting the enterprise's existing resources, processes and values would be helpful to the enterprise's digital transformation (Warner & Wager, 2019). As a high-level organizational competence, dynamic capability is very essential in management and innovation process under the environment of digital economy and new technology. In the digital era, enterprises are faced with a huge amount of unprocessed information or row data. Data themselves are with very limited value but will generate cost to enterprises because of storage if they are just unprocessed as row data. But they will be with great value if we could process them, find useful information, and make decision driven by them. Dynamic capabilities have become the important tool to help enterprises

manage, process and sort out useful information for business decisions. They are no longer specialized for staffs in IT department. All the leaders in enterprises need to have the capability to leverage data for better performance. Rialti et al. (2019) outlined that in the era of digital economy, dynamic capabilities could change through big data management to create business value for the organization.

Till today, scholars have not formed a completely unified view on the definition of the dynamic capability. Different scholars give the definition to dynamic capabilities from different perspectives or in different areas. But more and more enterprise leaders also realized the importance of dynamic capability to enterprises because the external environment is changing rapidly with new technology iteration, so enterprises could not treat things as static.

Some definitions of dynamic capabilities by different scholars are summarized in Table 2.3. Although scholars have not formed a completely unified view on the definition of dynamic capability, Teece's definition of dynamic capability is widely used. According to his definition, dynamic capability is the ability to integrate, build and reconfigure the internal and external competences of enterprises to quickly adapt to environmental changes (Teece et al., 1997). Besides his definition, many scholars emphasize the capability of continuous learning and integration, and believe that the capability to obtain sustained competitive advantage under the uncertain environment is the dynamic capability.

Table 2.3 Summary of some definitions of dynamic capability

Scholar	Definition of Dynamic Capability
Tecce et al. (1994)	Enterprise sustained competitive advantage comes from their own dynamic capability.
Teece et al. (1997)	Dynamic capability is the capability of enterprises to build, integrate or reorganize internal and external competencies in response to the rapid change of external environment.
Helfat (1997)	Dynamic capability is a subset of capabilities, which is conducive to enterprises to create new products and new processes to cope with the changing market environment.
Eisenhard & Martin (2000)	Dynamic capability is the process that enterprises use resources to deal with or create market revolution. It is an organizational or strategic practice for enterprise to obtain new resource configuration when the market appears, collides, splits, evolves or dies.
Harvey & Griffith (2001)	Dynamic capability is to create a resource combination that is difficult to imitate on a global scale, including effectively coordinating the relationship within the organization and bringing competitive advantage to the organization.
Winter (2003)	Dynamic capability is the capability to modify the operation capability to adapt to the changes of dynamic environment. It is a higher-level capability.
Newbert (2005)	Dynamic capability is the organizational and strategic practice for enterprises to obtain new resource combination.
Zebra et al. (2006)	Dynamic capability is the capability that enterprises' decision-makers can imagine and consider as an appropriate way to reconfigure the company's resources and procedures.

Wang & Ahmed (2007)	Dynamic capability is the behavior orientation for enterprises to continuously integrate, reconfigure, update and recreate resources and capabilities.
Teece (2007)	Dynamic capability can be divided into the capability to perceive opportunities and threats, the capability to obtain opportunities and strategic reconstruction.
Barreto (2010)	Dynamic capability is the potential of enterprises to solve problems systematically. It is formed by perceiving opportunities and threats, making timely and market-oriented decisions and changing their resource base.
Rialti et al., (2019)	In the digital economy era, dynamic capabilities can be transformed through big data management to create business value for the organization

2.3.2 Influencing factors of dynamic capability theory

The definition and history of dynamic capability theory have been reviewed but it is still necessary to understand what the influencing factors of enterprises' dynamic capabilities are. There are several influencing factors which can impact an enterprise's dynamic capabilities. As shown in Figure 2.9, Jiao et al. (2021) has categorized those main factors by organizational level and individual level.

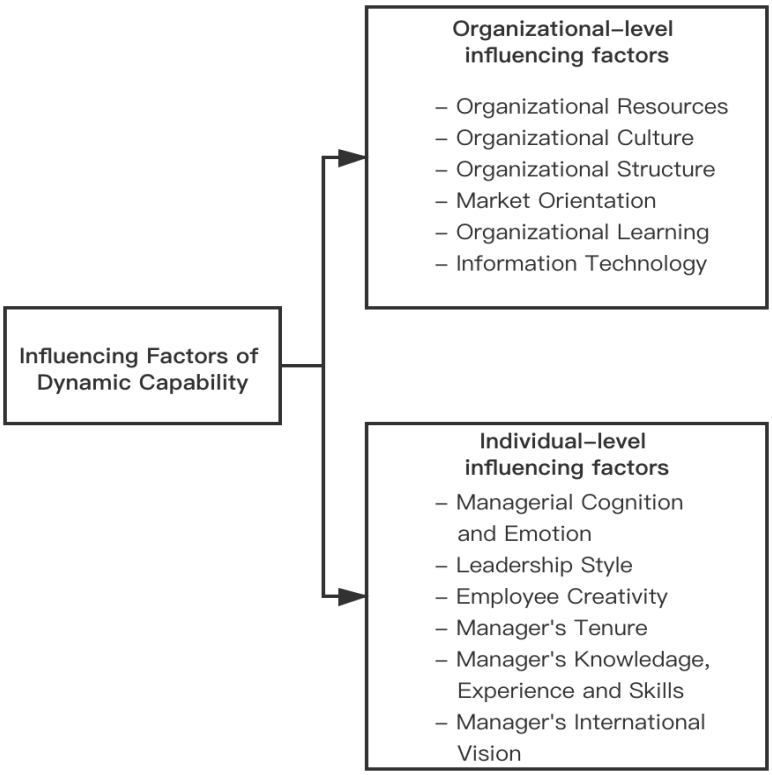

Figure 2.9 Influencing factors of dynamic capability theory

Source: Jiao (2021)

2.3.2.1 Organizational-level influencing factors

Organizational-level factors mainly include organizational resources, organizational culture, organizational structure, market orientation, organizational learning and IT.

Organizational resources. Organizations with abundant organizational resources often have better capability to plan, implement and maintain strategic revolution (Harvey & Griffith, 2001; Helfat & Peteraf, 2003). The combination of knowledge assets and supplementary assets that are difficult to trade will shape the competitive advantage of enterprises (Teece et al., 1997), and the lack of resources will directly inhibit the value of organizational resources and capabilities (Tashman & Marano, 2009).

Organizational culture. Successful enterprises usually focus on the combination of diversified cultures. Enterprises with cultural advantages can change their capabilities over time (Majumdar, 2000). Different types of organizational culture can help enterprises to build more dynamic process. Managers can make full use of leadership skills to build trust within the organization, so as to develop dynamic capabilities and help enterprises develop the ability to sustain competitive advantage (Pablo et al., 2007).

Organizational structure. The existing research on the influence of organizational structure on dynamic capability is mainly carried out from the action mechanism based on organizational structure and the characteristics of organizational structure. Managers can improve the productivity of resources by designing and constructing organizational structure (Makadok, 2001). Diversified organizational structure promotes the process of organizations perceiving and seizing opportunities as well as reconfiguring enterprise operation capabilities. Diversified multinational enterprises with complex organizational structure will have more knowledge advantages in cultivating dynamic capabilities (Makadok, 2001).

Market orientation. The market orientation composed of customer orientation, competitor orientation and cross functional coordination significantly affects the enterprise performance after controlling the external environmental factors such as market turbulence, technology turbulence and competition intensity (Menguc & Auh, 2006). The implementation of market-oriented strategic positioning has an impact on the internal resource reorganization of the organization. Enterprises with strong market orientation usually use this market information for internal resource reorganization and organizational structure reconstruction at the first time to build dynamic capabilities. With the joint effect of market orientation and innovation, the impact of market orientation on enterprise performance is significantly increased.

Organizational learning. Learning mechanism guides the evolution of dynamic capability (Eisenhardt & Martin, 2000; Zahra et al., 2006). The main learning mechanisms affecting dynamic capability include the speed of repeated routines, mistake absorption and experience iteration to help enterprises form absorptive capability from the perspective of experience accumulation (Eisenhardt & Martin, 2000) as well as the system of collectively encoding,

storing and retrieving knowledge to promote the combination integration and updating of organizational knowledge assets (Argote & Ren, 2012).

IT. Organizations can develop dynamic capabilities by deploying IT and combining it with the improvement of organizational structure and business processes to achieve the differentiation in the market and create value for the organization. Due to the dynamic nature of IT and the changeable competitive environment, enterprises' IT capability should keep the continuous development to catch up with the dynamic market.

2.3.2.2 Individual-level influencing factors

Individual-level factors mainly include managerial cognition and emotion, leadership style, employee creativity, managers' tenure, managers' knowledge, experience and skills, managers' international vision.

Managerial cognition and emotion. Differences in managers' cognition will lead to different strategic decisions and enterprise performance (Helfat & Martin, 2015). Figure 2.10 summarizes the relationships between managerial cognitive capabilities, dynamic managerial capabilities, strategic change, and firm performance analyzed below.

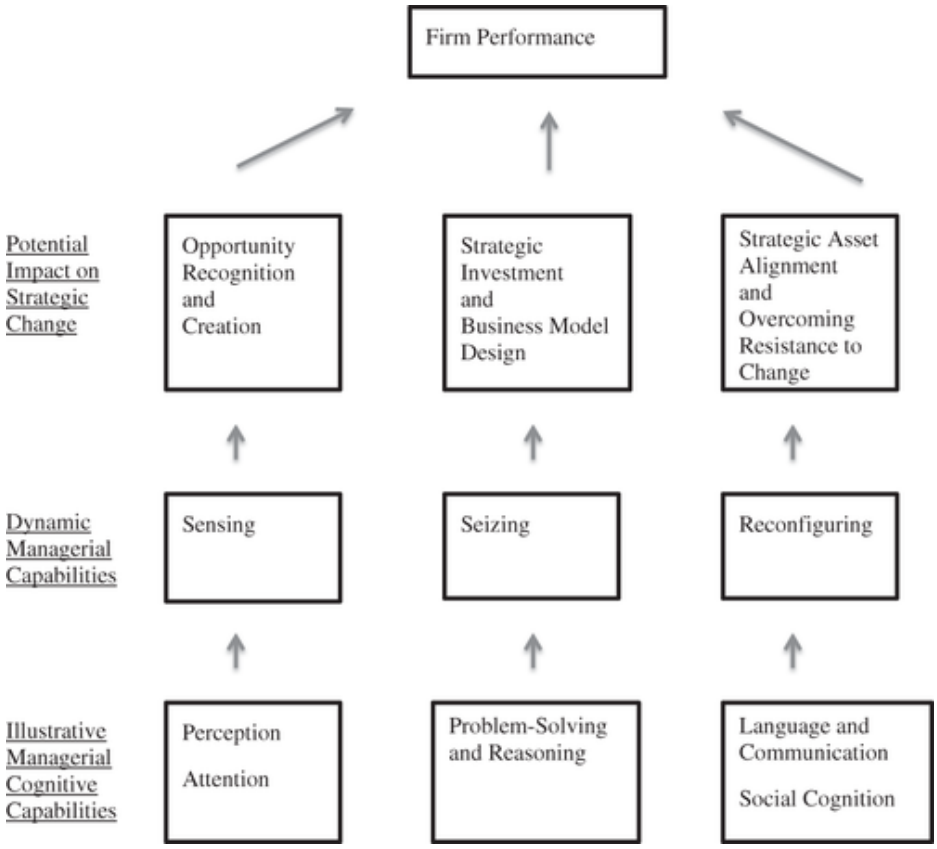

Figure 2.10 Managerial cognitive capabilities, dynamic managerial capabilities, and strategic change

Source: Helfat and Martin (2015)

The impact on dynamic capability could be summarized as the structural dimension of management cognition, the process of management cognitive activities which includes history as objective facts, history as interpretative rhetoric or history as imaginative future thinking, the difference of management cognition and the difference of managers' emotional regulation. Managers should not only deal with their own emotions to handle challenging situations, but also pay attention to the emotions of other stakeholders in order to continuously obtain the support from them, so as to build up the condition to effectively solve problems and overcome difficulties (Huy & Zott, 2019).

Leadership style. In an environment of ambiguity, dynamics and complexity, enterprises need unique leadership to maintain organizational flexibility and profitability, and finally lead the organization to strong dynamic capability. No matter the scale of enterprise is large or small, entrepreneurs are needed to obtain excellent financial performance (Teece, 2012). Managers can have the control and use their power over the resources in their departments, so they can operate between enterprise-level strategy and its implementation by formulating the strategies or tactics in their business departments (Adner & Helfat, 2003), and then seize the new product market opportunities and adjust the organizational direction through collective perception, capturing and reallocating resources (Martin, 2011).

Employee creativity. Effective use of employee creativity can improve organizational dynamic capability. The creativity belonging to the top management team such as entrepreneurs and the individual managers are categorized as the characteristics of personal attributes (Teece, 2012), which makes the creative achievements sustained and difficult to transfer. It is the most important resource of the enterprise because it helps the enterprise to create value by using innovative thinking (Gaimon & Ozkan, 2011). Therefore, managers can improve the enterprises' revolution capability by improving employees' personal creativity.

Besides, some characteristics of managers also affect the enterprises' dynamic capabilities, such as managers' tenure (Suddaby et al., 2020), managers' knowledge, experience and skills (King & Tucci, 2002) as well as managers' international vision (Weerawardena et al., 2015). These factors will affect the ability of enterprises to perceive opportunities and threats, make timely and market-oriented decisions, and change the existing resource base of enterprises to develop new products.

2.3.3 The application of dynamic capability theory

It has been about 25 years since dynamic capability have been firstly defined (Teece et al., 1997). By reviewing existing literatures, the dynamic capability theory has already been applied

to many different research fields. We summarize some of its application as follows:

2.3.3.1 The research field of strategic management

As the RBV theory and enterprise core competency theory are not enough to meet the development of enterprise strategic management research, dynamic capability theory is raised. It is very easy to understand the application of dynamic capability theory in the field of strategic management research because it is originally born there.

As a big milestone for dynamic capability, Teece et al. (1997) defined it as the ability to integrate, build and reconfigure the internal and external competences of enterprises to quickly adapt to environmental changes. Then, Eisenhardt and Martin (2000) put forward the view that dynamic capability is a collection of organizational routines. According to their view, the operation and application of routines by enterprises guide the formation of dynamic capability. Wang and Ahmed (2007) pointed out the proposition of the relationship among market dynamism, dynamic capabilities, enterprise strategy, capability development and enterprises' performance, which provides theoretical support for the next research on the relationship between dynamic capability and strategic objectives (See Figure 2.11).

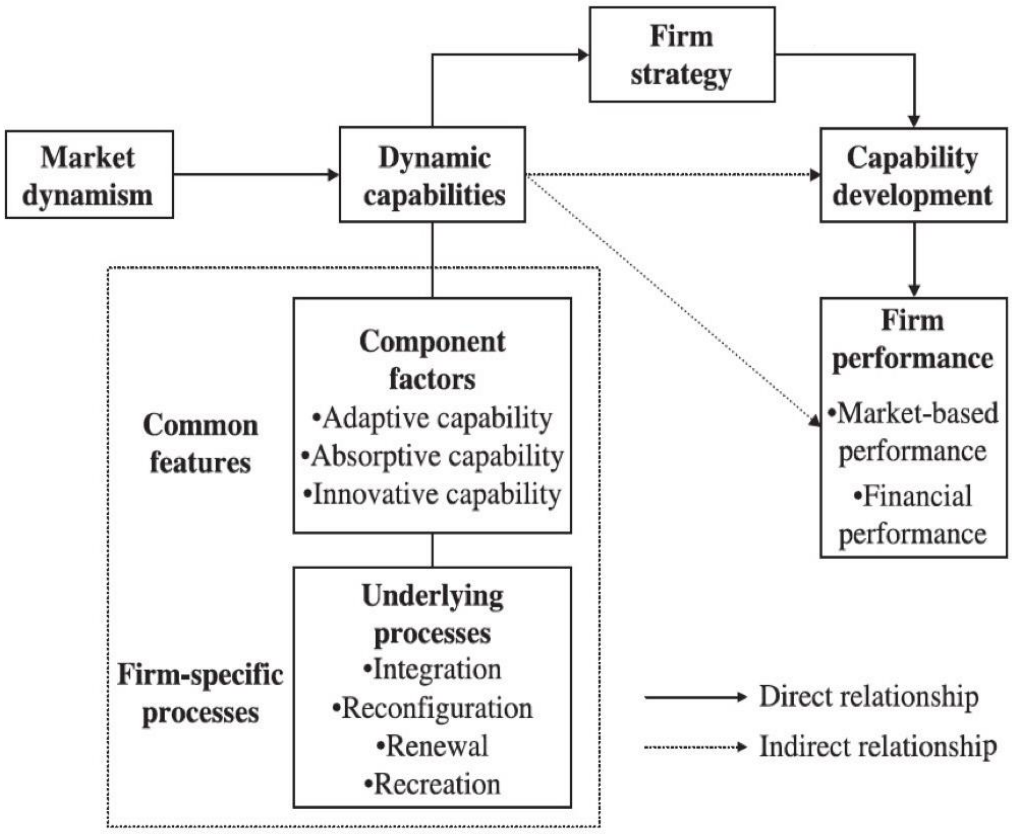

Figure 2.11 Research models of dynamic capabilities

Source: Wang and Ahmed (2007)

As shown in Figure 2.11, dynamic capabilities including common feature and enterprise-

specific processes. Common features are component factors including adaptive capability, absorptive capability as well as innovative capability. Firm-specific processes are underlying processes such as integration, reconfiguration, renewal and recreation. Dynamic capabilities have a direct relationship with enterprise strategy and an indirect relationship with capability development and enterprise performance. Enterprise performance here means market-based performance and financial performance. And then many other scholars could keep investigating the research about dynamic capabilities.

2.3.3.2 The research field of innovation management

Enterprises' innovation activities greatly contribute to dealing with complex dynamic environmental changes. McKelvie and Davidsson (2009) explored the relationship between dynamic capability and different types of online innovation through in-depth analysis of four enterprise cases in the publishing industry. According to their findings, enterprises' innovation results will be different if their dynamic capability intensity is different. Enterprises with weaker dynamic capabilities are more likely to achieve breakthrough innovation. Ringov (2017) analyzed the key elements intrinsically related to dynamic capability based on innovation management theory, providing direction for performance improvement. Ilmudeen et al. (2021) analyzed IT-enabled dynamic capabilities from four aspects: sensing, coordinating, learning, integrating and reconfiguring, put enterprise innovative capabilities including product innovation, process innovation and management innovation as intermediary variables between different dimensions of dynamic capabilities and organizations, and discussed the essential relationship between dynamic capabilities, enterprise innovation and organizational performance. They controlled variables such as enterprise size, enterprise age, the IT budget and analyze the financial returns, operational excellence and marketing performance. From the conclusion, the IT-enabled dynamic capabilities have an obvious impact on enterprises' performance. So, the application of dynamic capability theory is also gradually used in the field of innovation management.

2.3.3.3 The research field of organizational learning

With the continuous development of enterprises, new problems faced will gradually emerge, which requires managers to specify countermeasures. For example, managers use piloting and other methods to learn external experience to improve the capability of enterprises to deal with the rapidly changing external environment. Therefore, the application of dynamic capability theory in the field of organizational learning is gradually accepted by scholars. Based on behavioral science theory and organizational learning theory, Zahra et al. (2006) applied

organizational learning to the formation mechanism of dynamic capability of start-up enterprises, and believed that the relationship between different members, departments and even enterprises will be affected by entrepreneurial orientation, and then the risk-taking competence of start-up enterprises will also be improved. Tallott and Hilliard (2016) used the research paradigm of a single vertical case to focus on the internal structure of dynamic capability, and explored the conditions to promote the change of environment and dynamic capability. The results shows that organizational learning has an effect on different aspects of dynamic capability. Organizational learning is the key element to improve dynamic capability according to the overview of dynamic capability (Stoyanov & Stoyanova, 2018).

2.3.3.4 The research field of knowledge management

Dynamic capability theory is also widely used in the field of knowledge management. The application of dynamic capability in the field of knowledge management can be used through the management of knowledge creation and knowledge sharing in the scene of industrial knowledge network (Bergman et al., 2004). With increasing business opportunities and intensifying global competition, dynamic capability has become an important tool to actively participate in knowledge management, especially for the management of tacit knowledge. Dynamic capability creates and shares future oriented tacit knowledge in knowledge network. Hilliard and Goldstein (2019) combined the knowledge management theory and the routine-based theory to explore the process to use the search routines to identify and measure dynamic capability, which is an expansion of dynamic capability theory.

2.3.4 Contribution and limitation of dynamic capability theory

As mentioned above, one obvious defect of RBV theory is that it does not elaborate on how an enterprise could dynamically manage heterogeneous resources in dynamic environment. Dynamic capability theory helps to solve this defect, so it could be treated an expansion of RBV theory.

Besides, dynamic capability theory creates a new resource structure through the creation, expansion, integration, reconstruction and renewal of strategic resources to achieve sustained competitive advantages. With the changes of the enterprise's objective, mission, strength and external environment, the original resources of the enterprise may not continue to effectively support its development, and some resources may even become obstacles for the enterprise to move forward. In this case, enterprises must change their resource bases in advance or reactively to adapt to the rapidly changing environment, objectives and missions to maintain

their competitiveness.

Secondly, dynamic capability theory can help enterprises to achieve sustained competitive advantage by promoting the evolution of organizational routines. Organizational convention can maintain the stability of internal structure and coordination relationship, reduce organizational conflict, organizational costs and improve organizational efficiency. However, organizational routines are mechanical organizational activities with no intention from the specific enterprise. They are relatively fixed and difficult-to-change habits, procedures and genes. Changes in the internal and external environment will make the organizational lose its original advantage. The routine model might adapt to the past environment but may be different from the current environment. And enterprise routine may become inertia in one day. Under this situation, effective adjustment and reform must be carried out, and the evolutionary matching with the internal and external environment must be achieved through the dynamic adjustment of the routine executor.

Finally, dynamic capability theory can help to achieve sustained advantage through the change of functional capability. Enterprises must have functional capability to continuously complete tasks to survive and iterate. However, when environmental change intensifies, functional capability may become the burden of enterprise action. At this time, the dynamic capability could upgrade the existing functional capability or develop new functional capability to adapt to the new environment, so as to realize evolutionary matching and achieve sustained competitive advantage.

But an important defects of dynamic capability theory is that scholars do not come up with a widely agreed and unified definition as well as its dimension, not saying the relationship among all dimensions.

The precondition of dynamic capability theory is to assume that the market environment is rapidly changing and unpredictable, but in fact, the market environment is predictable and relatively stable in a certain period of time. And dynamic capabilities assume that there is no core competence that enterprises can maintain for a long time. This assumption denies the accumulation, path dependence and non-imitation of enterprises' core competence.

Besides, the realization of strategic objectives based on dynamic capability theory often requires the cooperation with other enterprises. However, this kind of cooperation is normally based on time and tasks. Inter-enterprise cooperation could be treated as a temporary and discontinuous cooperative relationship. As long as the task is completed, the existing cooperative relationship will be dissolved as well. In this case, enterprises need to rediscover new innovation opportunities, look for new partners and begin the implementation of new

strategies. But partnership is external cooperation with uncertainty. For example, the degree of partners' cooperation and the capability of contract fulfillment are factors that are difficult to predict or control from an external perspective in business operation.

Last but not least, the economy of China grows very fast, which leads to the relatively more rapidly changing environment than western countries, especially in Internet industry. By reviewing existing literatures, we find that the research on dynamic capability pays insufficient attention to the case study of Chinese enterprises, especially in Internet industry whose environment is relatively more dynamic than other traditional industries.

Chapter 3: Research Method and Design

This chapter introduces the research method and design of this thesis. The research method is case study. And then we will introduce the research design. Primary data is mainly collected through online questionnaire, prolonged interviews and participant-observation with Feishu existing customers and prospects; Secondary data is mainly collected from well-known and reputable third-party firms such as Gartner, PWC and QuestMobile. In the end of the chapter, the methods of data processing will also be introduced.

3.1 Research method: case study

Case study research is an important method of qualitative research methods in the social sciences. This research method comes from routines and facts. So, it can not only reflect the objective facts more comprehensively, but also analyze the causes of the phenomenon. Different from the empirical research method, case study is mainly used to build theory. It cannot come to the conclusion whether to accept or reject the hypothesis through large sample statistics, detection and analysis as empirical research does.

Case study is a research strategy which focused on understanding the dynamics present within single settings (Eisenhardt, 1989). The case study advocated by Eisenhardt consists of eight steps, as shown in Table 3.1.

To start a case study, researchers need to define the research problem first, organize with clear problems and focus, and identify the preset constructs, which will help researchers accurately measure the constructs in the research process. However, in order to avoid considering the specific relationship between variables and theory, researchers should not pre-suppose theories nor hypotheses.

In the process of case selection, a specific population should be selected to facilitate the control of environmental variables and eliminate the interference of other factors. The principle of theoretical sampling should be used to select samples. Cases that may replicate or expand new theories should be selected according to theoretical needs rather than statistical needs.

Qualitative and quantitative data should be integrated in crafting instruments and protocols. Quantitative data is conducive to reveal the logical relationship behind the phenomenon, and qualitative data is conducive to reveal the principle behind the relationship. In addition, team members should diversify in order to complement each other's insights and obtain the

observation of convergence and convergence.

Table 3.1 Process of building theory from case study research

Step	Activity	Reason
Getting Started	Definition of research question	Focuses efforts
	Possibly a priori constructs	Provides better grounding of construct measures
	Neither theory nor hypotheses	Retains theoretical flexibility
Selecting Cases	Specified population	Constrains extraneous variation and sharpens external validity
	Theoretical, not random, sampling	Focuses efforts on theoretically useful cases that replicate or extend theory by filling conceptual categories
Crafting Instruments and Protocols	Multiple data collection methods	Strengthens grounding of theory by triangulation of evidence
	Qualitative and quantitative data combined	Synergistic view of evidence
	Multiple investigators	Fosters divergent perspectives and strengthens grounding
Entering the Field	Overlap data collection and analysis,	Speeds analyses and reveals helpful including field notes adjustments to data collection
	Flexible and opportunistic data collection	Allows investigators to take advantage of methods emergent themes and unique case features
Analyzing Data	Within-case analysis	Gains familiarity with data and preliminary theory generation
	Cross-case pattern search using divergent techniques	Forces investigators to look beyond initial impressions and see evidence thru multiple lenses
Shaping Hypotheses	Iterative tabulation of evidence for each	Sharpens construct definition, validity, and construct measurability
	Replication, not sampling, logic across cases	Confirms, extends, and sharpens theory
	Search evidence for "why" behind relationships	Builds internal validity
Enfolding Literature	Comparison with conflicting literature	Builds internal validity, raises theoretical level, and sharpens construct definitions
	Comparison with similar literature	Sharpens generalizability, improves construct definition, and raises theoretical level
Reaching Closure	Theoretical saturation when possible	Ends process when marginal improvement becomes small

Source: Eisenhardt (1989)

In the process of entering the field, researchers should adopt flexible methods to collect and correct the data at the same time.

Data analysis includes within-case analysis and cross-case analysis. Within-case analysis is a detailed description of each case, and the data is normally illustrated in the form of table display or chart. Cross-case analysis is to analyze and compare multiple case data from various different ways to overcome the deviation of information processing process.

Shaping hypothesis is a process of repeated comparison and test. First, constructs should be refined, and whether the relationship between constructs is consistent with the collected evidence will be tested. In addition, replication logic is used to improve the credibility of

validity, and the relationship between variables is repeatedly verified through cases.

Enfolding literature refers to comparison of the formed concepts, assumptions and theories with the existing literature. The comparison with the contradictory literatures will generate more innovation opportunities while the comparison with similar literatures will help to link usually unrelated phenomena through internal similarity.

Finally, the case study will be ended when newly acquired knowledge increment becomes extremely small.

Case study is also an in-depth exploration from multiple perspectives of the complexity and uniqueness of a particular project, policy, institution, program or system in a real-life context (Simons, 2009). It is mainly a research method used to analyze phenomena that are difficult to separate from situations (Yin, 2018), whose process can be summarized with six stages (See Figure 3.1).

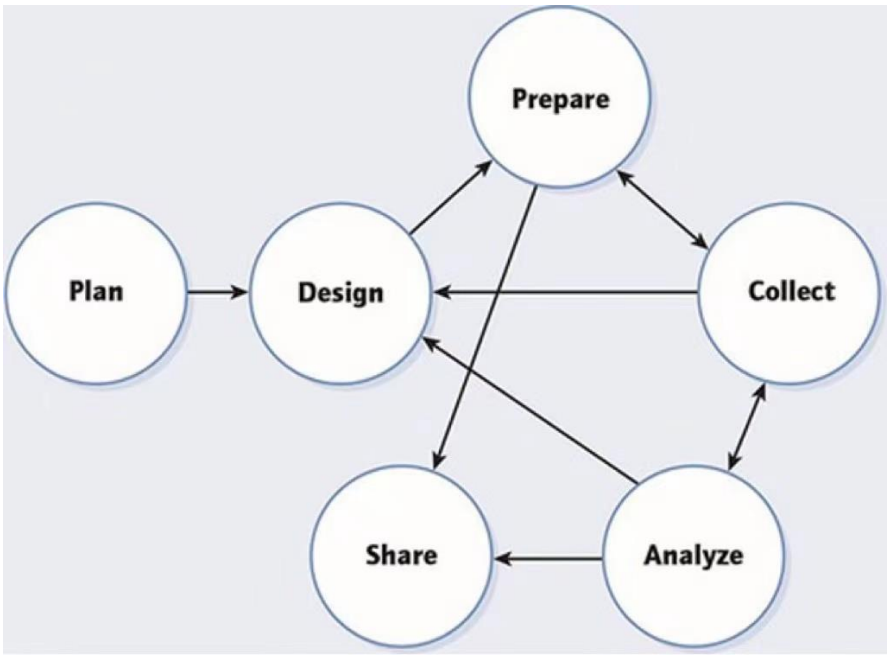

Figure 3.1 Doing case study research: a linear but iterative process

Source: Yin (2018)

In the plan stage, it is necessary to make the judgement whether case study method is suitable for the research, mainly according to three preconditions: whether the research needs to answer the questions of "how" or "why"; whether the researchers have very low control over the research objects and activities; whether the focus of research is what is happening now.

In the design stage, the construction of theoretical assumptions should be paid attention to, and the analysis unit should be clearly defined to design the details of case. Meanwhile, researchers should also identify whether it is a single-case study or multiple-case study based on real situation.

The prepare stage includes the preparation of researchers' skills as well as the preparation of case data. Good preparation should begin with the necessary skills of the researchers and expected values on the part of the case study design.

In the collect stage, different data sources should be used to integrate the evidence to form an "evidence triangle" to verify the rationality of the research results. The data sources of case study can be identified from six main channels, which are documents, archival records, interviews, direct observations, participant-observation and physical artifacts. Data from different data sources have different advantage and disadvantage. During a case study, researchers will select one or more sources to collect the necessary data.

In the process of analyze, researchers could use five analytic techniques including pattern matching, explanation building, time-series analysis, logic models and cross case synthesis to analyze the selected case based on all the primary and secondary data which are collected in previous stage.

In the share stage, researchers need to write a case study report, read and modify the manuscript repeatedly. Sharing the conclusions from a case study, whether in writing or orally, means bringing its results and findings to closure. And for the report, it should be reviewed and recomposed until it is good enough.

There are four categories of case study formats, which are single-case study, multiple-case study, option for either a single or multiple-case study and option for multiple-case study only (Yin, 2018). Normally researchers will select one format from the above categories and study the cases based on that format.

It this research, single-case research method is adopted, and the flow of case study is conducted in Figure 3.2.

There are three stages for case study in this thesis, which could be summarized to design and prepare, implement, report and share. In design and prepare stage, we will design the case study format and select one or more research cases based on the case study format. Primary and secondary data will be collected and analyzed in the implement stage. And in the stage of report and share, we will generate the case study report as well as the contribution and inspiration. The case study will be finished after the last stage of report and share.

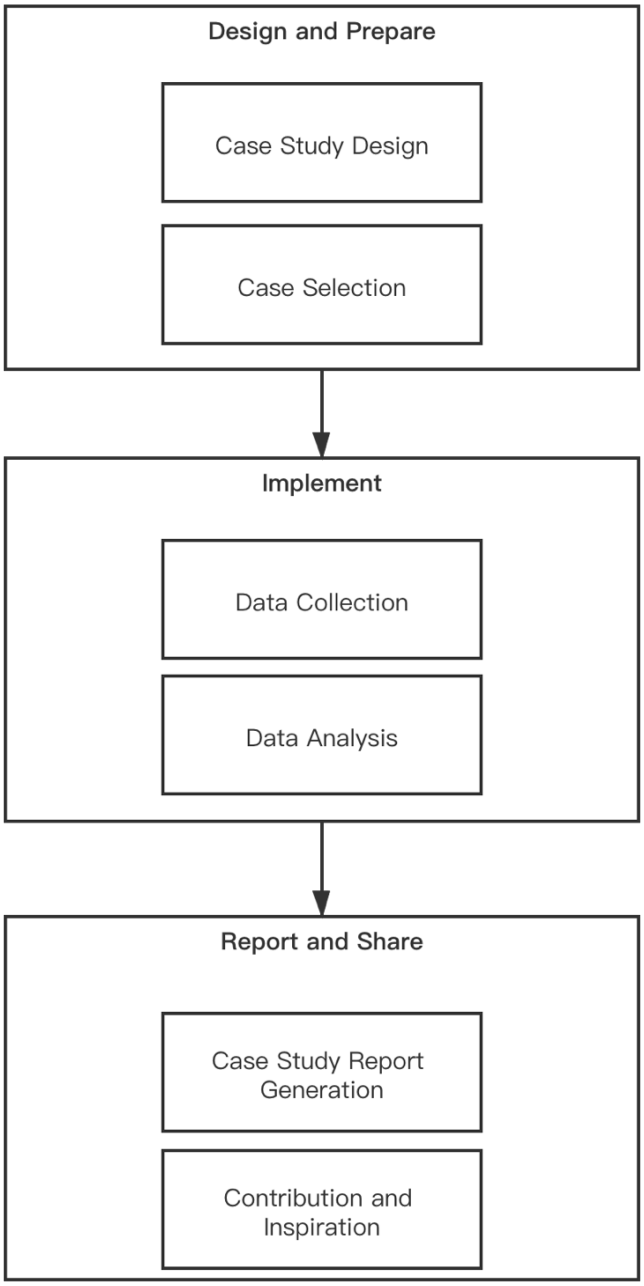

Figure 3.2 Case study flow of this thesis

3.2 Case selection

PWC releases global top 100 enterprises by market capitalization every year. 11 Chinese enterprises were on the list in end of Mar, 2016 while 14 Chinese enterprises were on the list in end of Mar 2021. The report in 2021 also mentioned its findings about Chinese Internet enterprises, including ByteDance which is the parent enterprise of Douyin and TikTok. ByteDance maintains its position as the most valuable unicorn with a valuation of $140 billion, which means an 87 percent increase from March 2020. ByteDance was positioned alongside

Siemens AG and Bank of China (which ranked 90th and 91st) in the global top 100 list if it was a public enterprise (PWC: Global Top 100 Companies by market capitalization, 2021). And ByteDance is the only unicorn which met the $129 billion required to make the list.

Table 3.2 shows the global top 10 companies by market capitalization in 2016 and 2021 which is published by PWC.

Table 3.2 The global top 10 companies by market capitalization in 2016 and 2021

Rank	March 31, 2016			
	Company Name	**Nationality**	**Industry**	**Market Cap($bn)**
1	Apple Inc	United States	Technology	604
2	Alphabet Inc	United States	Technology	518
3	Microsoft Corp	United States	Technology	437
4	Berkshire Hathaway Inc	United States	Financials	350
5	Exxon Mobil	United States	Oil & Gas	347
6	Facebook Inc	United States	Technology	325
7	Johnson & Johnson	United States	Health Care	298
8	General Electric Co	United States	Industrials	295
9	Amazon.com Inc	United States	Consumer Services	280
10	Wells Fargo & Co	United States	Financials	245
Rank	**March 31, 2021**			
	Company Name	**Nationality**	**Industry**	**Market Cap($bn)**
1	Apple Inc	United States	Technology	2,051
2	Saudi Aramco	Saudi Arabia	Energy	1,920
3	Microsoft Corp	United States	Technology	1,778
4	Amazon.com Inc	United States	Consumer Discretionary	1,558
5	Alphabet Inc	United States	Technology	1,393
6	Facebook Inc	United States	Technology	839
7	Tencent	China	Technology	753
8	Tesla Inc	United States	Consumer Discretionary	641
9	Alibaba Grp	China	Consumer Discretionary	615
10	Berkshire Hathaway Inc	United States	Financials	588

Source: PWC: Global Top 100 Companies by market capitalization (31 March 2016 update) & PWC: Global Top 100 Companies by market capitalization (May 2021)

Tencent and Alibaba Group as two Chinese Internet enterprises are in the top 10 list in 2021 while all top 10 enterprises are from the United States in 2016. Tencent was established in 1998 in Shenzhen, China. Its ranking in PWC's report has been moved from 26 in 2016 to 7 in 2021. Alibaba Group was established in 1999 in Hangzhou, China. Its ranking has been moved from 23 in 2016 to 9 in 2021. ByteDance was established in 2012 in Beijing, China. It takes only 9 years to achieve the similar valuation with the top 100 global enterprises by market capitalization. In this case, the "secret" of growth for Internet enterprises in China, especially for ByteDance becomes a kind of mysterious research direction.

Feishu is one of the newest business units and products which has been successfully incubated by ByteDance since 2019, and right after some famous products such as Toutiao in 2012, Douyin in 2016 and Tik Tok in 2018. Most of Feishu's customer growth happened since 2020 when the COVID-19 epidemic arrived and geopolitical environment was very challenging.

In this case, deep research on Feishu's growth can help to understand the growth of ByteDance.

So, considering ByteDance's growth rate is much higher than Tencent and Alibaba Group in recent five years and Feishu's development could typically explain the growth of ByteDance, we choose Feishu as single-case study in this research. Another reason is that the COVID-19 epidemic greatly accelerates the development speed of enterprise-level communication and collaboration platforms, which contributes the high growth of all players in this market. Normally it will take several years to achieve the similar result without the impact of COVID-19 epidemic.

Feishu could stand for several meanings. First, it is an enterprise which is wholly owned by ByteDance. Secondly, it is also a brand which is the umbrella of all the enterprise SaaS products in ByteDance, including enterprise-level collaboration and communication platforms, human capital management solutions, enterprise expense management solutions and enterprise contract management solutions. Thirdly, most of Feishu's customers initially understand Feishu as a product as communication and collaboration platform, similar with DingTalk or Enterprise WeChat in China, Microsoft Teams or Slack in global market. We will use the expression of Feishu Collaboration and Communication Suites (CCS) to represent the specific product if there is any ambiguity in this thesis.

According to the management concept of Mr. ZHANG Yiming who is founder of ByteDance, the most important factors of an enterprise are talents, culture and working tools. Since ByteDance was established in March 2012, he required the team to use the most advanced working tools to accelerate the productivity, including Google Suites, Gmail and Skype. In the following years, Skype proved to be not that user friendly to Chinese users, so ByteDance tested Enterprise WeChat and Slack later but finally choose DingTalk as the unified enterprise-level communication and collaboration platform in early 2016. After almost one year's honey moon with DingTalk, ByteDance also realized that DingTalk's functionality was more suitable to Chinese local small and medium business (SMB) instead of ByteDance. In end of 2016, the vice president of ByteDance, Mr. XIE Xin proposed to develop an email enhancement tool to improve the productivity of ByteDance, and this email enhancement tool is the predecessor of Feishu CCS.

The first version of Feishu CCS went live in November 2017 when ByteDance started to roll it out inside of the enterprise. In April of 2018, the first external affiliate NutStore, which is a ByteDance invested enterprise started to use Feishu CCS as enterprise-level collaboration and communication platform as trial operation customer. On Dec. 27th, 2018, Feishu has 4,940 DAU which is also the peak number in 2018. In the last week of 2019, Feishu has achieved

92.7 thousand weekly average DAU.

3.3 Research design

A research design is a logical plan for getting from here to there, where here may be defined as the set of questions to be addressed, and there is some set of conclusions about these questions. There are a number of major steps between here and there, including the collection and analysis of relevant data (Yin, 2018). So normally research designs will include case study questions, propositions, cases, the logic linking the data to the propositions and criteria for interpreting the findings. In this case, data collection and data process will be discussed in this part.

3.3.1 Data collection

As mentioned, the data sources of case study can be identified from six main channels, which are documents, archival records, interview, direct observations, participant-observation, and physical artifacts (Yin, 2018). In this thesis, we will collect primary data through survey interview, prolonged case study interview and participant-observation as well as secondary data from well-known and reputable third-party firms such as Gartner, PWC and QuestMobile.

3.3.1.1 Primary data collection

Primary data collection is relatively more important and reliable to this research. In this thesis, survey interview, prolonged case study interview and participant-observation will be used to collect the quantitative and qualitative primary data.

Interview is one of the most important sources of case study evidence. There are three types of case study interviews: prolonged interviews, shorter interviews and survey interviews (Yin, 2018). We will use prolonged interview and survey interview in this thesis to collect the primary data of Feishu.

1) Survey interview

Survey interview is a kind of typical case study interview using a structured questionnaire (Yin, 2018). It refers to the method of collecting information from a certain number of individual samples or population with the tool of structured questionnaire. In 1932, Likert Scale has been put forward which promoted the application of structured data and scale in investigation and research. Later on, the main tool of questionnaire has become telephone and email. Online questionnaire of survey interview is developing rapidly in recent years. The cost of online questionnaire is greatly reduced and the feedback is much faster. It becomes the

mainstream survey interview method nowadays.

Online questionnaire of survey interview is used in this thesis. After Feishu has been officially released for several months, a deep understanding of its brand impression and feedback from early birds should be acquired to set up the go-to-market (GTM) strategy. In this situation, brand survey needs to be launched and Feishu assigned a famous third-party professional consulting firm, Kantar to implement the project.

The purpose of this brand survey is to understand the following issues: first is whether key decision makers in Feishu's targeted industry understand the category of communication and collaboration or the category of office suites and productivity tools; then we need to understand customers' brand impression and functional feedback about current platform in those two categories; the third purpose is the understand how can Feishu reach out to those enterprise decision makers who can make the final decision to use Feishu or not. The questionnaire is online and Annex A shows the questions of this questionnaire survey.

In this survey, questionnaire invitations are sent out through Linkedin and Maimai because the attendees' background can be preliminarily identified. All the valid respondents need to be the senior executives of enterprises or organizations, including the title of CEO, founder, general manager, vice president and department head.

Due to uncertain response rate and out-of-date registration data, we need to send out much more requests so that we could collect enough valid responses.

2) Prolonged interview

Prolonged case study interview is also called as in-depth case study interview in some literatures. These interviews may take place over two or more hours. Interviewers can ask interviewees about their interpretations and opinions about people and events or their insights, explanations, and meanings related to certain topics or activities (Yin, 2018).

In this thesis, the prolonged interview has been arranged to understand the touch points, pain points, use cases, key decision makers, decision-making processes and customer portrait so that the Feishu leadership team could iterate Feishu's GTM strategy.

The prolonged interviews were semi-structured according to interviewees' answer during the interview. The question list is shown in Annex B. The interview happened online in April of 2020 with the tool of Feishu VC due to COVID-19 epidemic. Each direct discussion will last for about one hour but all the interviewees need to provide basic information to improve the efficiency of the talk. If interviewees allow interviewer to record the interview process, the talk will also be recorded by Feishu VC.

In last week of March, 2020, Feishu sales team sent out the interview invitation requests to

more than 300 accounts who were in-contact customers or prospects (not in a sensitive period such as bidding or negotiation). Eventually 46 accounts accepted the prolonged interview and provide the detailed basic information. Then, the interview is executed and recorded by Feishu strategy team with four employees. It started and also ended in April, 2020. After the talk, Feishu strategy team will summarize all the data into structured information and sent interviewees additional questions if needed.

Table 3.3 shows the detailed list of interviewees including the account name, account industry, account type, interviewees' position and account employee number and interview date.

Table 3.3 Feishu customer prolonged interview

Account Name	Account Industry	Account Type	Interviewee's Position	Account Employee Size	Date
Jikexueyuan.com	Internet	Customer	CEO	S2	2020-04-01
Missfresh	Internet	Customer	Technical VP	S4	2020-04-01
Gaobo Hospital	Healthcare	Customer	CTO	S4	2020-04-01
September Education Group	Education	Prospect	CTO	S4	2020-04-01
Tuniu.com	Internet	Prospect	Technical Head of Office Tools	S5	2020-04-02
Jiangxi Qiande	Professional Service	Customer	HR Director	S3	2020-04-02
Mituan Technology	Internet	Customer	Founder	S1	2020-04-03
Suzhou Purvar	Professional Service	Customer	Sales Head	S3	2020-04-03
Langogo	Internet	Customer	CEO	S2	2020-04-03
36Kr Global	Media	Customer	CEO	S2	2020-04-03
Taikang Group	Insurance	Prospect	Vice GM of IT	S5	2020-04-06
XiaoduoAI	Internet	Customer	Partner	S3	2020-04-07
ChuApp	Internet	Customer	CTO	S3	2020-04-07
Dmall	Internet	Customer	CTO	S4	2020-04-07
PitayaGames	Internet	Customer	CEO	S3	2020-04-07
Pinfire	Professional Service	Customer	CEO	S2	2020-04-08
Qixin Interaction	Professional Service	Customer	HR Director and Sales Director	S3	2020-04-08
Shixiseng	Internet	Customer	Partner	S3	2020-04-08
Xinyoushangfang	Real Estate	Customer	CEO	S2	2020-04-08
Huanlehuyu	Internet	Customer	CEO	S3	2020-04-08
Chongqing Department Store	Retail	Customer	HR Director and IT Director	S4	2020-04-09
iDreamSky	Internet	Customer	CTO	S4	2020-04-09
Baibu	Internet	Customer	HR Director	S3	2020-04-09
Meitu	Internet	Prospect	Head of Oversea Department	S4	2020-04-09
Xaweiju	Professional Service	Customer	Manager of General Office	S3	2020-04-10
Huagang Gas	Energy	Prospect	CIO	S5	2020-04-10
Pateo	Internet	Customer	COO	S4	2020-04-10

Wanplus	Internet	Customer	CEO	S2	2020-04-10
sspai	Media	Customer	CEO	S2	2020-04-13
UESTC	Education	Customer	Vice Dean of IT	S5	2020-04-13
Shenghe Game	Professional Service	Customer	HR Director	S2	2020-04-14
Bean Tech	Internet	Customer	Commercial Director	S3	2020-04-14
BOKE	Internet	Customer	IT Director	S3	2020-04-14
Dewu App	Internet	Customer	Head of IT	S4	2020-04-14
Nanhai Hospital	Healthcare	Prospect	Head of IT	S5	2020-04-15
Shayukuaiyou	Internet	Customer	CEO	S2	2020-04-15
Radiance Holding	Real Estate	Customer	CIO	S4	2020-04-15
Moreless.io	Internet	Customer	CEO	S2	2020-04-15
Linshi Wood	Internet	Prospect	Head of IT	S4	2020-04-16
4399 Game	Internet	Customer	Head of IT	S4	2020-04-16
Duolemeidi	Real Estate	Customer	COO	S3	2020-04-17
BJTF.cn	Institute	Customer	Manager	S2	2020-04-21
Beijing Real AI	Internet	Customer	CTO	S2	2020-04-21
LiveMe	Internet	Customer	HRD、CTO	S3	2020-04-22
WuMart Group	Retail	Customer	Head of IT	S5	2020-04-26
SGCC Information Beijing Branch	Engery	Customer	Vice GM	S3	2020-04-28

For account employee size, we use S1 to S5 represent specific range of employee number as follows: S1 means from 1 to 9 employees; S2 means from 10 to 99 employees; S3 means from 100 to 999 employees; S4 means from 1,000 to 9,999 employees; S5 means 10,000 employees or above.

3) Participant-observation

Participant-observation is a special mode of observation in which the author is not merely a passive observer. In this thesis, the author serves as a key decision maker in Feishu, especially for commercial decisions.

Participant-observation can provide unique opportunities to collect case study data which are normally difficult to collect in case study research such as some key decision-making meetings, high-level business logics or real basic business logics of some strategic decisions. Another advantage is that the author is an insider instead of an external analyst, so the whole picture could be described more accurately because of complete background information. Last but not least, participant-observation also gives the author the chance to immediately manipulate some minor activities within an organization, such as host a meeting to better understand the situation and data.

But participant-observation also has disadvantages which are prejudice caused by the author's role or recent focus on different activities. For this thesis, participant-observation is used as a supporting research method to collect the primary data so that we could best leverage its advantage as well as minimize its disadvantage.

3.3.1.2 Secondary data collection

Different from primary data collection directly collected by the author, secondary data is also widely used in research. Secondary data in this thesis mainly include literature materials, Feishu user growth data, industry analysis data, enterprises' competition data, macro economy data. The data providers in this thesis are mainly scholars, consulting firms, business intelligence service platforms and statistics departments of China.

Secondary data normally come from a large amount of sample and information, and needs long time data analysis. It can save the author a lot of time not to do the same research or meaningless consolidation. In this thesis, all the secondary data come from reputable third-party firms such as Gartner, PWC and QuestMobile.

For user growth data, Feishu also capture and analyze them regularly. As the internal data in Feishu data warehouse and external data are almost the same, we will use the data source from QuestMobile because this is a source which could be double checked by all the external scholars and be continuously used for further research.

In the process of field work, we will assign third-party firms to understand competitors' activities as an input to iterate Feishu's strategy in the rapidly changing environment.

3.3.2 Data analysis

The data collected in this study can be divided into quantitative data and qualitative data. We need to combine quantitative analysis together with qualitative analysis in this thesis. Quantitative data is easy to be processed and analyzed by mathematical methods. Qualitative data refers to non-quantifiable data, such as text, written words or symbols indicating the nature of things and specifying the categories of things. After collecting quantitative and qualitative data during data collection stage, we would analyze those data and compare with the research problem. The main strategy for data analysis is to compare the strategic management process of Feishu with other existing ones.

According to Yin (2018)'s research, five analytic techniques could be used in analysis, which are pattern matching, explanation building, time-series analysis, logic models and cross-case syntheses to generate a high-quality case study. The methods to analyze quantitative data and qualitative data are different which are outlined in below paragraphs.

3.3.2.1 Analysis of the qualitative data

Qualitative data include nominal data and ordinal data. For example, the basic information part of the online questionnaire for Feishu brand survey has some fields which are not numbers, but

the attributes of things, such as gender, city of work, industry and position. We can use numbers to represent the classification of attributes. For example, the numbers "0" and "1" represent men and women respectively. These numbers only serve as a name, just a code which cannot be operated. But the attributes of some qualitative data have sequential relationship. For example, the age range in that questionnaire is divided into several period as "18-22", "23-29", "30-39", "40-49", "50-59" and “none of above”. This kind of data is orderly data.

The collected qualitative data need to be processed so that we can get useful statistical information. The descriptive statistical methods which are commonly used to deal with qualitative data include tabular method, graphic method and numerical method. Tabular method and graphic method can vividly and intuitively describe the approximate distribution shape of qualitative data; numerical method uses representative numerical values to describe the characteristics of statistical analysis of qualitative data.

In this thesis, the content analysis will mainly use tabular method and graphic method to analyze the qualitative data. The purpose of qualitative data analysis is to understand the strategic management process of Feishu during COVID-19 epidemic, including GTM strategy and talent strategy.

3.3.2.2 Analysis of the quantitative data

Quantitative data analysis is mainly used to process the data collected through questionnaire from survey interview as well as Feishu user growth data from QuestMobile.

Significance test is used in this thesis to test whether the data have significant differences within the confidence interval. Sampling experiment might have sampling deviation. We cannot draw a conclusion based on the difference of two results such as average or rate, but we should make statistical analysis to identify whether the difference is caused by sampling error or by factors such as sample size difference and average value difference. This thesis uses 95 percent confidence in the significance test to ensure the result represent the reality instead of a special case or coincidence.

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Chapter 4: Field Work: Case Study of Feishu

This chapter starts from the foundation and founder of Feishu, then it will discuss the challenges of Feishu, including the brand awareness, product readiness and its competitors in China market. The strategic turning points will also be discussed to understand the strategic decisions and its impact on weekly average DAU during the COVID-19 epidemic. In end of this chapter, the strategic outcomes of Feishu are also covered.

4.1 The foundation and founder of Feishu

Feishu is an enterprise which is wholly owned by ByteDance. Before talking about the foundation of Feishu, we need to take a look at the history of ByteDance and its founder, Mr. ZHANG Yiming so as to understand Feishu much more easily.

4.1.1 ByteDance and its founder

In 2005, Mr. ZHANG Yiming graduated from Nankai University in Tianjin, China. After graduation, he immediately started his entrepreneur career. Unfortunately, he failed in 2006 and decided to join another startup Kuxun which is a travel search website. But he left Kuxun and joined Microsoft in 2008. After that he returned back to startups as CTO of Fanfou.com whose business is similar with Twitter or Sina Weibo. Unfortunately, Fanfou.com was also closed in August 2019 (or 2009?). Then Mr. ZHANG Yiming founded 99Fang which was a website with housing search engine, and got involved in mobile application development.

In the end of 2011, Mr. ZHANG Yiming resigned the CEO position of 99Fang and founded ByteDance in March 2012. ByteDance released many mobile applications in early years, among which Toutiao and Neihan were two most famous applications with highest DAU amounts. Then it released a lot of other famous mobile applications in the following years. The main product portfolio of ByteDance by Nov. 2020 is displayed in Annex C.

In early July 2019 during Douyin Short Video Image Festival, ByteDance announced the achievement of 1.5 billion MAU and 700 million DAU in the global market. Douyin contributed more than 320 million DAU out of 700 million total DAU of ByteDance. In the following six months, Douyin achieved more than 400 million DAU. By end of 2019, Douyin, Tik Tok and

Toutiao were top three contributors of both DAU and MAU in ByteDance. The strategic focus of ByteDance in 2020 is to develop three new businesses which are education business, game business and enterprise SaaS business which is Feishu and Lark.

With the mission to inspire creativity and enrich life, ByteDance is a technology company operating a range of applications that serve, entertain and inspire people across languages, cultures and geographies. Its products are available in over 150 markets and 75 languages. Among all its products, two product lines target to serve the entire global market. The others are focused on some specific markets. One product line is consumer based, under which Douyin serves China mainland market and Tik Tok serves non-China mainland market. The other product line is similar but its enterprise based, under which Feishu serves China mainland market and Lark serves non-China mainland market.

ByteDance names its core value as ByteStyle and calls its employee as ByteDancer. ByteStyle has six rules which are always day one, champion diversity and inclusion, aim for the highest, be grounded and courageous, be open and humble, be candid and clear.

Always day one requires ByteDancers to keep in mind that they should have the spirits of working in a startup, though ByteDance is already a large enterprise. ByteDancers should still have the entrepreneurship like the first day when they were in a relatively difficult situation. In this case, all the ByteDancers need to take initiatives and push the boundaries of themselves because there is no task too big or too small. Always day one also requires ByteDancers to be resilient, have the courage to face and change the reality. Changes can also be treated as opportunities as long as ByteDancers thrive in them.

Champion diversity and inclusion requires ByteDancers to understand that the diversity of the world is reflected in the team. ByteDancers should welcome people as all of them have unique value and will bring out their potentials. It also encourages everyone to participate discussion, seek out views which can challenge the current one, create mutual respect as well as appreciation of differences. In this case, ByteDance will become a welcoming workplace in the market.

Aim for the highest encourages ByteDancers to raise their own bar and seek for bigger gains because there are always better solutions by widening existing perspectives. ByteDancers should keep learning and growing.

Be grounded and courageous encourages ByteDancers to make their own discoveries and dive deep into facts. ByteDancers need to stay level-headed, focus on impact of their decisions, have strong ownership during work. They are encouraged to take risks and break the mold because it will bring more possibilities and they can iterate rapidly during execution.

Be open and humble encourages ByteDancers to trust themselves and each other. They should offer and ask for help as collaboration will create incremental value. They should also solve problems with the big picture in mind. Humbleness and open mindset will help to lower their ego during work.

Be candid and clear encourages ByteDancers to share their real opinions accurately and directly. It is okay to make mistakes but ByteDancers need them to have the ownership, stick to the facts, identify real issues and avoid leader-pleasing activities.

Besides ByteStyle, the working method of ByteDance is also worth analyzing and studying. It can be summarized into three key words which are transparency, voices and self-driven.

The management concept of ByteDance is "Context, not control". As the founder of ByteDance has strong technical background, he always thinks in logic way and treats management as computing. Normally there are two approaches of computing method to deal with various tasks or data. One approach is to build a supercomputer, and the other is to leverage numerous distributed computers. Supercomputer itself can deal with very intensive tasks but it is very difficult to build and it cannot never stop as no alternatives. Distributed computers allow many machines to process tasks together, decompose tasks and decompose the resources required by tasks. The failure of one single computer will not impact the overall computing tasks. The two approaches of computing also have similar management method in enterprises. For the first approach, CEO is regarded as a supercomputer. The CEO needs to design all the strategies with detailed plans, decompose them layer by layer, and then implement them with team. In the process of implementation, if there occurs any exception or unexpected accident, team members will escalate to the CEO for help. Then the CEO will summarize information and re-assign working tasks. In this process, approvals, processes and management mechanisms need to be robust. Actually, this approach is adopted by many enterprises. But for the second approach, there will be more people involved in decision-making process, so that more ideas emerge from bottom to top instead of a pure top-down strategy decomposition. In this process, more people need to make judgments based on contexts rather than instructions. To make this approach work, the enterprise should have top talents and transparent culture of the enterprise.

More voices from employees will lead more creative ideas to emerge. If everyone in this enterprise can communicate with each other and express their opinions without burden, leaders can eventually select the best idea among alternatives. In such way, employees could focus more on businesses instead of relationship inside of ByteDance. Hierarchy and title are also weakened in ByteDance. Employee job title is not displayed in ByteDance enterprise portal or employee profiles of Feishu CCS. From the policy of ByteDance, titles are used to handle

external activities, not for internal communication because it will impact the fair communication of employees in different enterprise levels. And up management will also be reduced accordingly.

Self-driven is also very important in ByteDance. Talents should push their own boundaries during work. What ByteDance need is the employees' brains instead of their hands. And ByteDancers do not need to consider too much about "What I should do" and "What I should not do".

According to RBV theory, resources are defined as enterprise-specific assets that are difficult if not impossible to imitate. ByteDance treats talents, culture and digital working tools as the most important resources for itself to generate competitive advantage. The reasons are quite simple. First, top talents are always with great value, no matter where they are. They are rare and non-substitutable in the enterprise, especially in Internet and high-tech industry. Secondly, according to a Chinese saying that one mountain cannot survive two tigers. The culture of ByteDance encourages all the talents work together towards a mutual objective as one team in an efficient way. This can be treated as mission impossible in most of other enterprises. Thirdly, the key factor of efficient collaboration in ByteDance is the transparent and complete information, which need digital working tools as foundation. Feishu is one of the digital working tools in ByteDance which is also a very important factor for the success of ByteDance. So, those core and rare resources compose of the dynamic capabilities and help ByteDance generate competitive advantage.

4.1.2 Foundation of Feishu

As mentioned above, ByteDance prefers to leverage advanced digital working tools to accelerate its business development and productivity enhancement. Mr. XIE Xin who was the vice president of ByteDance proposed to start an enterprise email enhancement project in October, 2016. This proposal of enterprise email enhancement project was approved soon and it was the predecessor of Feishu. After the New Year's Day of 2017, a project team of ten technical staffs started the internal project whose code was Lark. Most confidential projects in ByteDance have project codes such as tiger, elephant, lark and lion before they are officially released such as tiger and elephant.

Mr. XIE Xin graduated from Peking University with master's degree and major in computer science. After graduation, he worked in Microsoft and Baidu as technical positions. In 2007, he joined Kuxun and got to know Mr. ZHANG Yiming, who invited him to joined ByteDance as the head of human resource department in 2014. It looked unimaginable for Mr. XIE Xin to

join ByteDance as HR head because all his experiences were in technical management before. This change also surprised people in Internet and high-tech industry.

But this is not a surprising news in ByteDance because ByteDancers understand their own talent view. According to management method of ByteDance, there are two approaches to manage an enterprise. One is perfect design of process and rules to optimize the operation and reduce risks while the other is high density of talents with good judgement ability to high performance. The strategic choice of ByteDance talent view is the high density of talents. Some enterprises are likely to hire mature professionals from well-organized enterprises with relevant industry experience. But ByteDance prefers hands-on geek with startups experience and excellent general capability from different industries. The definition and strategy of talent are different in ByteDance with other enterprises in the market. By understanding the talent view of ByteDance, it is easier to understand the logic why it is not a surprising news.

One year later, his leadership role was changed to manage administration department, IT department, enterprise application department, real estate department, efficiency engineering department and procurement department.

Gradually, Lark iterated from an enterprise email enhancement tool to an enterprise-level communication and collaboration platform. The first version of Lark went live through inhouse development for about ten months. And ByteDance announced to roll it out to the whole organization in Nov. 2017. Six months later, Lark was open to external customers, and NutStore which was ByteDance invested enterprise started to use Lark. In end of 2018, Lark has achieved 4,940 DAU of external customers which was the highest number since it had been released.

In Feb, 2019, Lark is officially commercialized. Based on the analysis of potential markets and geopolitical environment, ByteDance decided to set the global headquarter of Lark in Singapore and started the commercial operation from U.S. in April, 2019. The general strategy of Lark at that moment was to acquire enough customers in developed countries, and then took use of those customer references to compete in China market. By the same time, based on the feedback of external customers, the project code Lark was finalized as the brand name for enterprise SaaS application in non-China mainland market.

Lark business grew very fast in U.S. and Singapore in early days. But with the escalation of geopolitical conflicts between China and the U.S., Lark team realized that the strategy must be changed and the priority of China market should also be raised. To reduce geopolitical risks, ByteDance did not plan to use the same brand name Lark in China because it might link too much with the non-China mainland market. More politicians would take use of this opportunity to harm the brand name Lark. After several rounds of discussion, Feishu was decided to be the

brand name for enterprise SaaS application business in China mainland market in August 2019. This was the most important milestone of Feishu as it was officially founded.

Though Feishu and Lark looks similar from their design and infrastructure, they are two different mobile applications. Feishu is only available in the mobile application stores of China mainland while Lark is only available in the mobile application stores of non-China mainland. The customer and user data of Feishu are all stored in China but those of Lark are stored in the U.S. This practice is similar with Douyin for China mainland market and Tik Tok for non-China mainland market in response to local policies of different countries and regions. This is also the brand separation strategy to reduce extreme risks.

In Dec. 2019, the commercial operation of Lark in the U.S. was stopped because of the escalation of geopolitical environment. By the same time, the geopolitical relationship between China and India also got worse. Continuous slight border disputes were always in the headlines of newspapers. To avoid extreme risks, Lark also decided to lay low in India market for a long time. Most of the resources had been gradually moved to Feishu to support the business development in China mainland.

According to strategic importance of enterprise SaaS application business in ByteDance portfolios, ByteDance decided to increase the investment on Feishu, including more head counts and marketing budget. The founder of ByteDance also joined the bi-weekly and bi-monthly business review meetings with Feishu leadership team.

In January, 2020, Feishu had more than 2,000 employees and most of them were from product team and engineering team. They were located in seven different cities in China, including Beijing, Shanghai, Hangzhou, Wuhan, Chengdu, Guangzhou and Shenzhen. Different from DingTalk whose main technical staffs were in Hangzhou and Enterprise WeChat whose main technical staffs were in Guangzhou, the technical team of Feishu were also distributed in the seven offices. Actually, it was also a strategic choice because not all top talents were willing to relocate from one city to another. Feishu decided to adopt talent first strategy to hire the best talents in the market. Another reason was that Feishu itself was designed to handle the remote communication and collaboration activities. It could also be treated as a good scenario to help all Feishu staffs to understand the real demand of target customers. During the internal communication, they could also test the product design and performance to understand whether Feishu could solve the remote work challenges.

The organizational structure of Feishu is also shown in Figure 4.1.

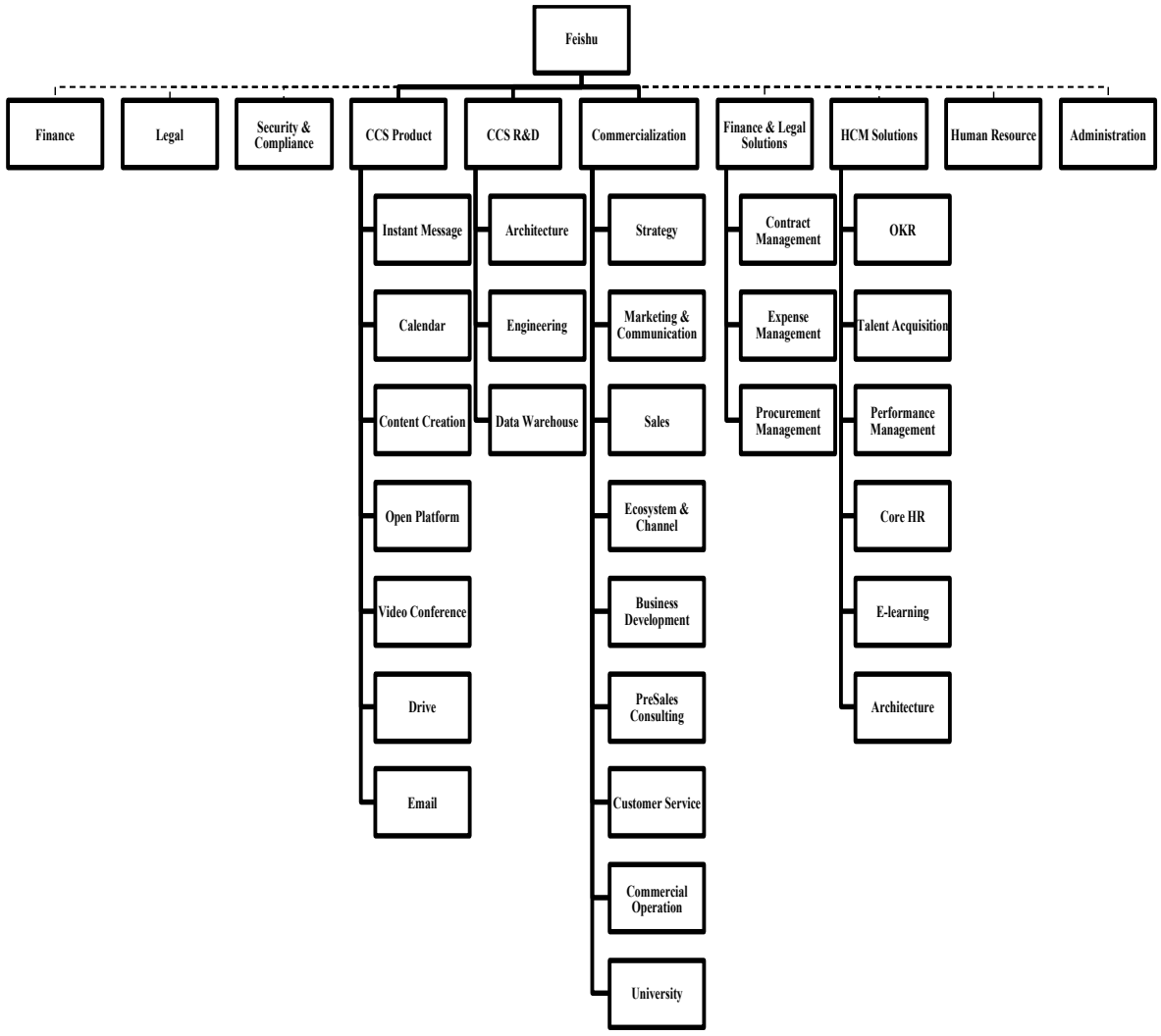

Figure 4.1 Organizational structure of Feishu in Jan. 2020

As mentioned before, Feishu is the brand name for all the enterprise SaaS applications in China mainland. So, communication and collaboration suite (CCS), human capital management (HCM), finance and legal solutions are all understand the brand umbrella of Feishu and share the same commercial team. But staffs from Feishu HCM, Finance and Legal solutions team that are illustrated with dotted line in the organizational structure are not in the legal entity of Feishu. Functional teams such as human resource, finance, legal, administration, security and compliance that are also illustrated with dotted line provide their services to Feishu but their employment relationship is still in ByteDance legal entity.

In this case, only staffs from Feishu CCS product team, Feishu CCS R&D team and Feishu commercial team that are with solid line under in the organizational structure are in the legal entity of Feishu. Feishu CCS product team is mainly responsible for product design, product operation and user growth from product perspective. Feishu R&D team is mainly responsible for product development, architecture design and data warehouse analysis. Feishu commercial team has the most functions in Feishu, including strategy, branding, marketing public

relationship, sales, ecosystem and channel, business development, presales consulting, customer success, customer support, professional services, commercial operation and university.

As mentioned above, Feishu shares the similar talent strategy, organizational culture and digital working tools with ByteDance. So Feishu also treat them as the important resources to generate competitive advantage. Software technology could be relatively easy to duplicate but the talents, culture and digital working tools are much more difficult to duplicate because of organizational routines, management style of founders and resource limitation.

2019 is the founding year of Feishu. In this year, Feishu CCS kept quick iteration based on the feedbacks from customers, prospects and partners. Feishu also acquired some famous customers such as Wumart Group, China Resource Group, Gaobo Healthcare Group, University of Electronic Science and Technology of China (UESTC), and a lot of Internet enterprises. Those customers helped to improve the brand awareness of Feishu and also became good reference cases of Feishu for future customer development.

4.2 Challenges of Feishu

Though ByteDance decided to shift the short-term focus of enterprise SaaS application business from Lark to Feishu since August of 2019, there were still numerous challenges such as dominant competitors, low brand awareness, unmature product functionality, weak partner ecosystems and lack of industrial talents.

4.2.1 Dominant competitors in China market

DingTalk and Enterprise WeChat are two largest and dominant players in enterprise-level communication and collaboration platforms in China mainland for many years. Though Slack, Microsoft Teams and G-Suite are top three software providers of enterprise-level communication and collaboration solutions in global market, all of them have not established the local operation team or data center in China.

In this part, we will mainly analyze the two major competitors of Feishu in China mainland, which are DingTalk and Enterprise WeChat. Microsoft Teams will also be mentioned because other products of Microsoft such as Office 365 are operating in China mainland which means Microsoft Teams can be a potential player.

4.2.1.1 DingTalk

DingTalk is a free enterprise-level communication and collaboration platform launched by Alibaba Group. In January 2014, the founder of DingTalk, Mr. Chen, Hang led a small team and started to develop DingTalk. In December of that year, DingTalk's 1.0 was officially released, whose main feature was instant messaging (IM) with phone book and address book. In this case, people could make free phone calls through Internet, which attracted a lot of users to register and activate DingTalk.

In May 2015, DingTalk released 2.0 and began to pay more attention to enterprise services and developed specific functionalities such as reports, attendance check and approval to meet SMB enterprises' needs. Most SMB enterprises do not need those robust and expensive software systems. Instead, they need those easy-to-use and cost-efficient software so that they could invest most of their budgets in business. In that year, DingTalk had over 300,000 enterprise customers.

In September 2016, DingTalk 3.0 was released. DingTalk team realized the difficulty to meet the customized needs of each enterprise, so they developed the open platform and started to build independent software vendor (ISV) ecosystem to solve the customized needs from customers and prospects in different industries. In that year, DingTalk had acquired about 1.5 million enterprise customers. At the same time, DingTalk began to strengthen their industry specific solutions together with ISV partners to provide better services to their customers.

In January 2017, with the release of version 4.0, DingTalk was integrated with intelligent hardware to solve enterprise-level offline scenarios. Its main features include smart front desk, smart projection screen and smart cloud printing. Since then, DingTalk has spent most of its focus on user growth. Instead, the iteration of product functionality has been slowed down. By end of February 2019, DingTalk was definitely the dominant player in enterprise-level communication and collaboration platforms and had 22 million DAU while Enterprise WeChat had only 8.4 million DAU. For the next few months, DingTalk kept fast growth in DAU and achieved more than 39 million DAU in end of 2019 (Source: QuestMobile).

In February 2020, DingTalk 5.0 was released and re-defined itself as an organization and management platform, which would constantly increase enterprise management tools to meet the differentiated needs.

DingTalk dominated the enterprise-level communication and collaboration market from all perspectives including brand awareness, product maturity, customer installed bases and ISV partner ecosystems. Moreover, DingTalk kept the independent operation within Alibaba Group

since it was established. In June 2019, DingTalk was merged into Alibaba Cloud business group. Alibaba Cloud is the largest cloud infrastructure service provider in China. At that time, most customers of DingTalk were SMB enterprises. After the combination of DingTalk with Alibaba Cloud, the advantages had become more and more obvious from perspectives of solutions, partner ecosystems and customer bases. For example, to win a strategic customer, Alibaba Group could choose to bundle DingTalk with Alibaba Cloud as a total solution package and provide a relatively competitive packaged price.

Besides the leading advantage, the management and working mechanism of DingTalk are also distinctive. Co-creation with customers is always the main working mechanism of DingTalk, which is also an important factor for its success. The philosophy of DingTalk can be summarized as follows: DingTalk takes the product as the core, and the product takes the real demand of customers as the core, then the product and operation team communicate directly with customers to reduce the communication gap of their real demand.

Figure 4.2 shows organizational working process of DingTalk. The process of co-creation is different from general process. As product, engineering and operation team could directly face the market pressure and real demand of customers, DingTalk employees can deeply understand customer demand, make key judgment on the design and trade-off of product features. The boundary of responsibilities is clear, which also eliminates the potential conflicts among product team, engineering team and operation team in many enterprise-level businesses. This mechanism could shorten the information transmission chain, so product and engineering team do not need to rely on information from field sales team. They can optimize products features and performances faster, make information more authentic and solve problems more efficiently.

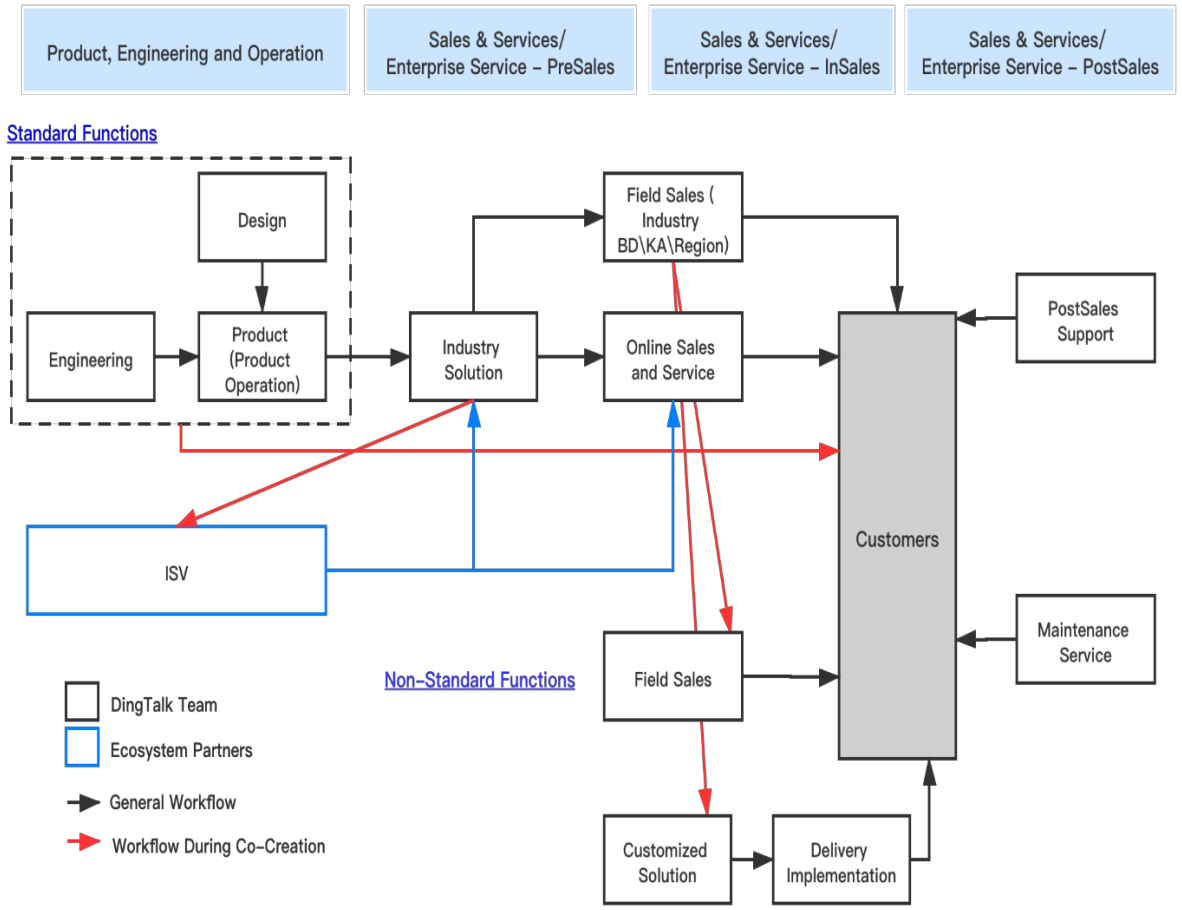

Figure 4.2 DingTalk organizational working process

The strategic choice of DingTalk is to firstly meet the demands of senior executives because they are the decision makers, and gradually optimize the employee experience later. This strategy is very useful in China because most of the decisions are made directly by senior executives from a more management control perspective.

With this mechanism, the main responsibility of sales and service team would be focused on business development and ecosystem management. They need to set up standards, leverage ecosystem and training enablement for ecosystem service partners because those activities are all important approaches for customer growth.

Another working mechanism of DingTalk is the evangelist certification system. All employees in DingTalk and stake holders of DingTalk business in external service partners must pass the evangelist certification before they can participate DingTalk business. This certification system includes not only a mandatory capability training, but also the function of unifying values and business language.

The GTM strategy of DingTalk solved the customized demands of different enterprises through its open platform. Since version 2.0, DingTalk began to build an open platform system, gradually cultivated third-party ISV partners and localized service partners in various regions.

ISV partners were recruited to complement the customized demands such as industry specific scenarios or enterprise specific management scenarios. That is the reason why DingTalk attaches so much importance to the management of ISV partners. Service partners are divided into onboarding service partners and customization development service partners.

In conclusion, DingTalk is a dominant player in enterprise-level communication and collaboration market in China mainland since it went live. It is the largest competitor for all the other players in this market.

4.2.1.2 Enterprise WeChat

Enterprise WeChat is an enterprise-level communication and collaboration platform launched by Tencent in 2016. Its original features are enterprise-level IM and office automation (OA) to improve the efficiency of internal communication and simple management in daily office scenarios.

From OICQ to QQ and WeChat in China, the dominant position of Tencent in IM and social communication has never been shaken. By end of June, 2019, WeChat had more than 1.1 billion MAU and QQ had more than 800 million MAU (Source: QuestMobile).

In 2014, Tencent released WeChat enterprise account, which was actually the prototype of Enterprise WeChat. But Tencent did not invest too much resources on the promotion of WeChat enterprise account. With the appearance and development of DingTalk, Tencent realized the potential threats to WeChat. In April 2016, Tencent released the first official version of Enterprise WeChat, which could be launched simultaneously on four mainstream platforms including iOS, Android, Windows and Mac. But the functionality of Enterprise WeChat was relatively simple. It could only support basic communication functions such as enterprise address book, telephone, enterprise announcement and attendance check. In June 2017, Enterprise WeChat and WeChat enterprise account merged together to be Enterprise WeChat 2.0. The new version also had equipped with WeChat payment functionality so that customers could use it for payment and collection. In 2018, Enterprise WeChat released a big update and it could directly chat with WeChat. It could also connect to hardware devices.

The main strategy of Enterprise WeChat before 2018 is to provide enterprise-level communication and collaboration capability to slow down the growth of DingTalk, so almost no large-scale brand promotion activities were initiated by Tencent. However, due to the brand awareness of WeChat, Enterprise WeChat had also developed a number of customers in early stages.

With more and more large enterprises chose Enterprise WeChat as their enterprise-level

communication and collaboration platforms, Tencent announced that 80 percent of Fortune China 500 enterprises activated Enterprise WeChat and the DAU reached 8.4 million in February 2019. For the next few months, Enterprise WeChat kept iterating its product and leveraging its advantage to directly chat with WeChat.

Enterprise WeChat achieved more than 12 million DAU in end of 2019 (Source: QuestMobile). At the same time, Enterprise WeChat 3.0 was released. Tencent changed the slogan of Enterprise WeChat from "Help every enterprise have its own WeChat" to "internally: achieve efficient management and make all information flow more efficiently, safely and controllable; externally: connect 1.1 billion consumers and make the service start from trust and end with professional". Tencent also announced that Enterprise WeChat served more than 2.5 million enterprises and have achieved 60 million MAU in 2019. This release solved the biggest paint points of its existing customers for directly chat with external consumers who used WeChat. With this version, enterprises could not only improve their internal efficiency, but also manage external consumers through direct chat with WeChat. So, Enterprise WeChat 3.0 aimed to help enterprises with digital transformation. It provided three kinds of value. First, it was a specialized communication tool within the organization. Secondly, it provided customer services through ISV partners based on its open platform in terms of office automation. Thirdly, it could directly chat with WeChat IM and moments to provide the capability of customer relationship management in consumer industry.

Similar with DingTalk, Enterprise WeChat itself only provides basic online customer support service and all other customer services are provided by its service partners. service partners and ISV partners of Enterprise WeChat will provide onboarding services, customized development services and industry specialized applications. The revenue of service partners mainly come from two parts which are onboarding services and customized development services based on Enterprise WeChat open platform. Onboarding services mainly include the customer acquisition, activation and enablement services. Customized development services mainly include integration services, development services based on open platform, intelligent hardware services, technical support services and private cloud deployment services. The revenue of ISV partners mainly come from the SaaS software development by them. Enterprise WeChat will provide training to its service partners and capital support to its ISV partners as incubation. For some high-quality strategic ISVs, Tencent is willing to invest them as venture capital.

By end of 2019, the top three industries of Enterprise WeChat customer bases are government and enterprise institutions, retail and Fast-Moving Consumer Goods (FMCG), as

well as education industries.

Though Enterprise WeChat and WeChat are not deeply integrated, they can directly chat with each other, which is changed the competitive landscape of enterprise-level communication and collaboration market in China. With the integration with WeChat, Enterprise WeChat has acquired the valuable, rare, imperfectly imitable and non-substitutable resources which all the other players are impossible to acquire. This is aligned with RBV theory because the competitive advantage is relatively sustainable as long as WeChat remains the communication tool for all Chinese people.

In this case, the future growth of Enterprise WeChat is also worth looking forward to.

4.2.1.1 Microsoft Teams

Microsoft Teams is a unified communications platform that combines persistent workplace chat, video meetings, file storage and application integration. Microsoft Teams can integrate with both Microsoft products such as Office 365, SharePoint and OneDrive and non-Microsoft products. With the integration with Microsoft products, Microsoft Teams can drive more product retention with their existing customers.

The customer majority of Microsoft Teams are not in China mainland but we still treat it as a potential competitor because the huge customer install bases of Microsoft products and Microsoft Office has an in-operation China specific version. Since launched in 2017, Microsoft Teams continuously leverages on Office 365 existing installed bases for high-speed growth.

Microsoft Office 365 does not have local data center or operation in China. Instead, 21Vianet which is a China local enterprise cooperates with Microsoft to manage the data center and daily operation of Office 365 China specific version. Microsoft Teams is not available in China yet. But Microsoft Teams can be deployed on the data centers of 21Vianet together with Microsoft Office 365. If Microsoft Teams decide to compete in China market, it can be ready quickly as the infrastructure is ready by 21Vianet. In this case, Microsoft Teams is treated as a potential but powerful competitor to all the players in enterprise-level communication and collaboration market in China.

To grow in China market, Feishu has to compete with two dominant players which are DingTalk and Enterprise WeChat who have already covered a lot of enterprise customers.

4.2.2 Low brand awareness

Feishu had not launched any promotion activity in China mainland in 2019 due to the strategic focus in non-China mainland market. The strategic relationship with Alibaba Group who was a key account of ByteDance advertising business was also a big concern for ByteDance to directly compete with Alibaba DingTalk in 2019.

Though Feishu acquired some seed customers, most of them were in Internet and high-tech industry. As Internet industry and high-tech industry always have some overlap in definitions of different sources. We regard Internet and high-tech as one industry. Besides, Feishu has also developed customers in education, retail and professional services industries. The definition of each industry is as follows:

- Internet and high-tech industry includes e-commerce, Internet, new media, games, new retail, cloud computing, big data, artificial intelligence, communication and network equipment, computer software and computer hardware.
- Education industry includes university, college, other educational institutions, training institutions or enterprises, science and research institutions.
- Retail industry includes shopping center, department stores, stores, shops, supermarkets, convenience stores.
- Professional services industry includes finance, audit, taxation, legal services, intermediaries, consulting services, advertising and public relations services, conference and exhibition services, human resources services, professional and technical services and commercial agency services.

It is extremely important to understand why those early birds in above industries choose Feishu and their feedbacks about Feishu and other players in the market. In this case, Feishu decided to launch a brand survey interview in January 2020, which would also be helpful to set up GTM strategy of Feishu for the future.

After internal evaluation, Feishu decided to assign a reputable third-party professional consulting firm whose name was Kantar to implement this research. The purpose of this brand survey is to understand the following questions:

- Do key decision makers in targeted industry of Feishu understand enterprise-level communication and collaboration platforms or office suites and productivity tools?
- What are the existing brand impression and functional feedback of Feishu and its competitors in the market?
- Who will be more likely to get impressed by Feishu?

- How can those decision makers be persuaded to choose Feishu as their enterprise-level communication and collaboration platforms?

In this survey, all the famous enterprise-level communication and collaboration brands in China are covered, including DingTalk, Enterprise WeChat, Feishu, Huawei WeLink and Zoom. All the famous office suites and productivity tools are also covered, including WPS, DingTalk, Enterprise WeChat, Microsoft Office 365, Tencent Documentation, Kingsoft Documentation, Feishu, Ufida, Microsoft Teams, Shimo, Huawei WeLink, Zoom and Yuque.

We also select some typical tier-1 and tier-2 cities in China. Tier-1 cities in this survey includes Beijing, Shanghai, Guangzhou and Shenzhen while tier-2 cities includes Chengdu, Hangzhou, Chongqing, Wuhan, Nanjing, Xi'an, Suzhou, Tianjin, Changsha, Zhengzhou, Dongguan, Qingdao, Shenyang, Ningbo and Kunming.

Industries are also controlled within the four typical industries of Feishu existing customers, which are Internet and high-tech industry, education industry, retail industry and professional services industry.

Annex A shows the main questions of the online questionnaire survey. We sent out more than 10,000 invitations through Linkedin and Maimai, and received more than 3,000 responses. Then, we removed some responses with wrong industries or profiles and kept the sample size with 2,000. The basic information of valid respondents could be summarized as follows:

- Tier-1 cities: tier-2 cities = 70 percent: 30 percent;
- From 18 to 22 years old: from 23 to 29 years old: from 30 to 39 years old: from 40 to 49 years old: from 50 to 55 years old = 10 percent: 30 percent: 35 percent: 20 percent: 5 percent;
- Enterprise size from 1 to 999 employees: enterprise size from 1,000 and above employees = 85 percent: 15 percent.

Compared with office suites and efficiency improvement tools, respondents are relatively unclear about the concept of enterprise-level communication and collaboration platform, and they do not clearly recognize the scope and characteristics of such platforms. Respondents with correct understanding of category definition means that the respondents answered correct product brand, such as Feishu, DingTalk or Enterprise WeChat in the category of enterprise-level communication and collaboration platform. Twenty-two percent of respondents do not understand the category of enterprise-level communication and collaboration platform and only nine percent of respondents do not understand the category of office suites and efficiency improvement tools.

Figure 1 in Annex D shows the brand awareness analysis among DingTalk, Enterprise WeChat and Feishu. Feishu has a large gap with DingTalk and Enterprise WeChat in the key

indicators of first mention and recommendation, but there is a relatively small gap in overall awareness and degree of like from this survey. We collected the feedbacks of five brands in enterprise-level communication and collaboration platforms and thirteen brands in office suites and efficiency improvement tools. As DingTalk and Enterprise WeChat are two biggest competitors of Feishu, we only list them out from all the results. The comparison with DingTalk and Enterprise WeChat is extremely important to the positioning of Feishu.

Besides brand awareness, brand impression and product features are also important to customers as decision-making indicators. Table 1 in Annex D summarizes the perception of brand impression and product features. We can understand that the general brand impression and product features of Feishu are good. Most feedbacks about Feishu are positive, especially comparing with other collaborative content creation tools such as Kingsoft Documentation, Shimo and Yuque.

We need to understand how to efficiently improve the first mention rate and who are the key audience of Feishu. From Table 2 in Annex D, it is illustrated that the main decision-makers over 40 years old in small enterprises in tier-1 cities are more impressed by the Feishu brand. On the contrary, decision-makers under the age of 40, in medium-sized or above enterprises in tier-2 cities are relatively less impressed by Feishu.

Figure 2 in Annex D shows what tools are currently used by users who are not familiar with Feishu. Users under 40 years old are not very impressed by Feishu. Most of their communication and collaboration platforms are DingTalk and Enterprise WeChat, and the top three frequently used features are attendance check, IM and approval. Most of their office suites and efficiency improvement tools are WPS, DingTalk and Microsoft Office 365, and the top three frequently used features are online documentation sharing, online drive and file management, project management. All those top three frequently used features in two categories are basic functionality of each category, which means most of them are still in very early stage of digitization.

For those users who have used Feishu before, tier-1 city users in small enterprises like to use Feishu, while tier-2 city users and decision-making influencers do not like to use Feishu (See Table 3 in Annex D). By analyzing those users who have used Feishu, it could come to the conclusion that SMB users and key decision makers are more willing to recommend Feishu, while influencers are more reluctant to recommend Feishu.

We also analyze the reasons why users like Feishu. Most users like the attendance check and approval functions of DingTalk, and they give praise to Enterprise WeChat because it can help them improve their work efficiency. But Feishu has relatively no significant strengths, and

there is room for improvement in the simplicity of management and the maximum concurrent parties of a meeting. Users who do not like Feishu mention that Feishu cannot improve working efficiency and the operation is not simple enough.

The results are a little bit different from the perception of Feishu leadership team because ByteDance itself is a super-large enterprise and the first customer. It should be a very persuasive reference for Feishu, but large enterprises are not impressed by Feishu. Meanwhile, most decision makers of ByteDance are under 40 years old but the result of survey shows that above 40 years old decision makers are more impressed by Feishu.

Table 4 in Annex D also shows the analysis on how Feishu can attract enterprises with different sizes. For brand impression, more trust from customers is needed for Feishu brand and information security because the key for large enterprises to choose enterprise-level software is the credibility of the brand. Then, Feishu should iterate to attract more medium-sized and above enterprise users. For product features, DingTalk and Enterprise WeChat have obvious advantages in IM and schedule management. Feishu can refer to their design. IM and Email management are the opportunity points for Feishu.

After the survey, there are some key findings and follow-up strategies of Feishu.

We found that the concept of enterprise-level communication and collaboration platform is relatively unclear, and nearly a quarter of users do not clearly recognize the scope and characteristics of such platform. So, giving customers a clear definition will help Feishu shuffle the market.

From user cognition perspective, the first mention rate of Feishu is poor among users under 40 years old as well as in medium-sized or above enterprises. As the main media contact points for those users are Internet. Feishu can repeatedly reach the corresponding prospects through Internet channels such as WeChat moments, Baidu search and Toutiao. Feishu also needs to improve brand impression of safety, future and innovative product design concepts. Last but not least, Feishu needs to improve some basic functionalities such as IM, attendance check, approvals, online document sharing, online drive and file management, project and task management to grow the first-mention rate.

From degree of like and recommendation perspective, tier-2 city users have some concern about large memory occupancy of Feishu. Influencers are dissatisfied with Feishu's inability to improve productivity and have concerns about data security and privacy. So Feishu need to optimize software memory occupancy and increase influencer trust in data privacy and security issues. As mentioned, Feishu has relatively no significant strengths, so Feishu need to develop killer features, such as better interface design, simplified and friendly user experience and

support larger numbers of maximum concurrent parties in a meeting.

The current customer portraits of Feishu are mainly small enterprises. Customers from professional services, Internet and high-tech industries have a deep impression of Feishu and they are relatively fond of Feishu. For the market performance, small enterprises are more impressed by Feishu and prefer Feishu, DingTalk is more supported by medium enterprise users, and Enterprise WeChat is recommended by more large enterprises.

4.2.3 Other challenges of Feishu

Besides strong competitors and low brand awareness in the market, Feishu also faced others challenges in China market.

First, the product was not mature enough. This was also aligned with the feedback from the brand survey. Feishu started business development in China mainland since Aug 2019, which was much later than DingTalk and Enterprise WeChat. Enterprise-level SaaS applications need to iterate based on tremendous customers' feedbacks before they got mature. Mature enterprise-level products normally iterate for several versions and leverage the best practices of leading enterprises. In this case, other players in the same industry will be willing to use them.

Annex E shows the final technical score table of Enterprise H's unified mobile platform project bidding in end of 2019. Enterprise H is a world-leading provider of white household appliances. It has established localized design centers, manufacturing bases and trading enterprises in more than 30 countries around the world. The total number of employees worldwide is more than 50 thousand. The table shows the technical scores of DingTalk, Enterprise WeChat, Feishu and WeLink. The final score of Feishu is much lower than DingTalk and Enterprise WeChat, which shows the real situation of product maturity at that moment. So, it is very difficult for Feishu to serve such a large enterprise with complicated demands.

Besides product maturity of Feishu, the partner ecosystem is also much weaker than the major competitors in the market. As mentioned before, both DingTalk and Enterprise WeChat rely on their service partners and ISV partners to develop customers, provide local onboarding services and develop industry specific solutions. But Feishu is six months old in China mainland, so the ecosystem of ISV partners and service partners is very weak comparing with DingTalk and Enterprise WeChat. What's more, DingTalk has locked its ISV partners with exclusive contract terms, so Feishu could not recruit its partners.

Thirdly, Feishu team is relatively weak in industrial knowledge. According to the culture of ByteDance, senior executives are more willing to hire talents with no similar industry experience so that they will not limit themselves in the existing boundaries. This works well in

consumer business because all the employees can learn very fast and bring creative ideas. But from an enterprise-level business, the main problem is the trust between Feishu and its decision makers in enterprises. Industrial knowledge is needed during communication because the language system should be similar. Or customers will feel frustrated to talk with Feishu business team.

Last but not least, switching cost is also a big concern for enterprises to choose a new system. The switching cost includes the direct cost such as new servers, additional storage, seamless transfer of historical data, one-time deployment services as well as the indirect cost such as short-term working efficiency challenge caused by the change of working tools. Decision makers will be extremely cautious to make such decisions. The reality is that many enterprises are existing customers of DingTalk and Enterprise WeChat, so most of them will take switching cost into consideration when evaluating Feishu. It is also one of the reasons why Feishu has many customers in Internet and high-tech industry as many new enterprises are established in this industry and they do not consider too much about the switching cost.

It is still very challenging for Feishu to compete with DingTalk and Enterprise WeChat though ByteDance provides strong support to Feishu business.

4.3 Strategic turning points of Feishu

Figure 4.3 shows Feishu weekly average DAU change since October of 2019 to April of 2021.

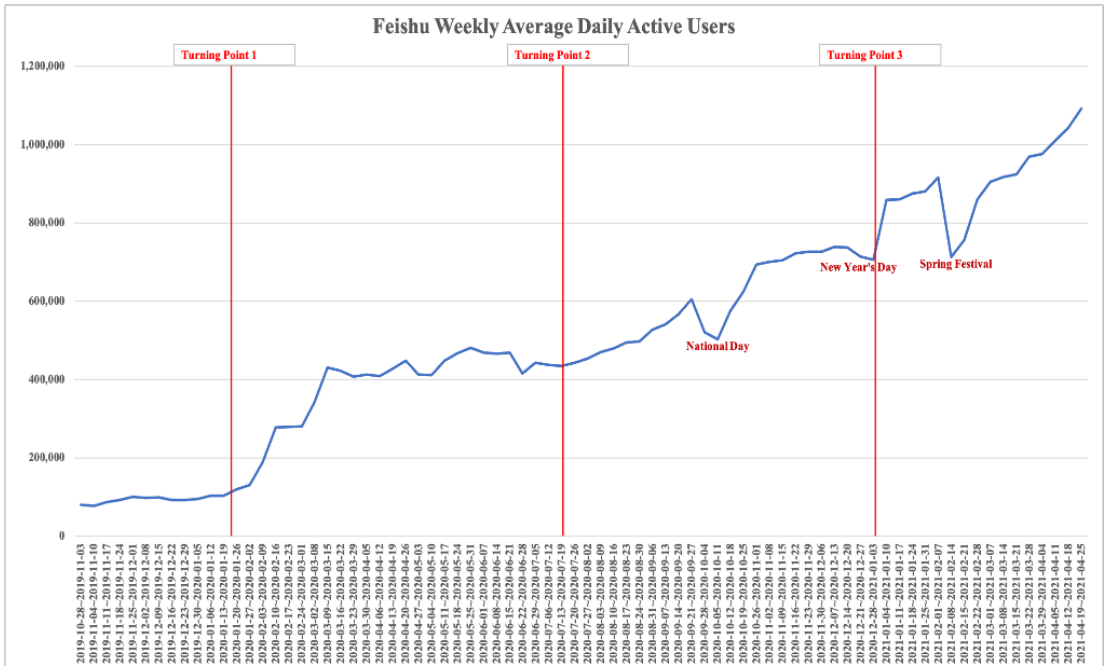

Figure 4.3 Feishu weekly average DAU

Source: QuestMobile

Three sudden drops of DAU are all because of national holidays in China when most people were not working. According to Chinese holiday routine, the long vacation term of both National Day and Spring Festival will last for a week while the vacation term of New Year's Day will last for three days. As some businesses are closed during these holidays, we will remove those impact when analyzing the turning points.

According to Figure 4.3, the three turning points happened in the week of Jan. 20th, 2020, the week of July. 20th, 2020 and the week of Jan. 4th, 2021. It would be especially important to analyze what happened in that period to understand the impact of strategy iteration.

4.3.1 White space strategy

In December 2019, a new kind of unknown coronavirus which was named as COVID-19 later was found in Wuhan, China. But the date when most Chinese people realized the serious disaster of it was Jan. 23rd, 2020. On that day, Wuhan government announced the lockdown of the whole city. People in China were all required to stay at home for self-quarantine.

In addition to the inconvenience of individual life, senior executives of enterprises were all very worried about the impact on business. They did not know when their enterprises could restart operation. Most SMB enterprises could not afford one or two months' stop of operation.

Since Jan. 23rd, 2020, the number of inquiries received by Feishu digital sales team and customer support team suddenly raised. The main job responsibility of digital sales team is to acquire Feishu customers through telephone or online chat. The job responsibility of customer support team is to answer customer's inquiry online, mainly explain what is written in the user menu or record bugs according to the feedbacks. All of a sudden, the two hotlines were both very busy with numerous in-bound calls. Most of the calls came from SMB enterprises. They searched keywords in Baidu, got the hotline number of Feishu and made the call. Callers during this period were mainly owners of enterprises who wanted to know whether Feishu could support their remote working scenarios after Spring Festival. They realized that they could not return back to office in a short term due to the epidemic. The most frequently asked question is how many concurrent parties can Feishu VC system support if they choose to use Feishu as a remote working system.

In this situation, the technical disadvantage of Feishu was exposed. At that moment, Feishu could only supported up to 25 concurrent parties in a VC meeting, and the system was also unstable once there were more than 10 concurrent parties. Therefore, although a large number of prospects came to inquire, most of them finally chose DingTalk or Tencent Meeting, because both of them support 300 concurrent parties in a VC meeting and technically much more stable

than Feishu.

Many prospects directly downloaded Feishu software from its official website, but very few of them eventually chose Feishu because the onboarding process was not friendly and intuitive. People did not know how to use it without manual support. But due to too many concurrent inquiries, the capacity of Feishu service team was not enough to answer so many inquiries. In this case, most of those prospects chose other enterprise-level communication and collaboration platforms.

The takeaway from brand survey is to build up brand impression of future and innovative, develop killer features and optimize operating performance. But things changed in a blink of eye because of COVID-19 epidemic. User growth team planned to adjust advertising strategy of Baidu search and put more weights on keywords such as communication and collaboration software, online documentations and future working style, but they immediately realized that they had to iterate the new advertising strategy to keywords such as online meetings, online working, remote working, audio conference and VC. Or those enterprises who never experienced enterprise-level communication and collaboration platforms could not find Feishu from search engine.

As the most market needs came from those SMB enterprises which had no existing enterprise-level solutions to support their remote working, Feishu leadership team also made strategic decision to focus the limited resources on those “low hanging fruits”. This strategy in this period was called white space strategy.

4.3.1.1 Freemium model of Feishu

Feishu leadership team noticed a sudden growth of registered users through daily DAU dashboard after Spring Festival of 2020. Though they had already discussed the possible impact of COVID-19 and started to prepare more online staffs before the holidays, no one realized such a big impact. So, the leadership team arranged the urgent online meeting and discuss the follow-up strategy. The leadership team include Feishu founder, engineering director, chief commercial officer, strategy general manager, product head of each module, vice president of ecosystems and channel and vice president of customer services.

The first and most important agreement reached in this meeting is that Feishu should help more enterprises to work remotely for business development of Feishu as well as enterprise social responsibility. Considering most large enterprises already had existing solutions to handle remote working because of mature IT systems and processes, Feishu would focus its resources on SMB enterprises. SMB enterprises did not have mature IT systems, so most of them could

not afford the hard stop of offline operation. They had to pay their employees salary even they could not return to work according to Chinese labor law. Therefore, we all agreed that Feishu provided services to these enterprises free of charge to reduce their burden. It could also attract more enterprises to use Feishu during this time window.

At the same time, Feishu leadership team was also worried about the product readiness because the VC meeting could only support 25 concurrent parties in an online meeting. So, the team need take some action to make up for the gap as soon as possible, or Feishu would possibly waste the entire time window to grow business. The product director of VC decided to adopt a third-party SDK to ensure the maximum concurrent party could be more than 300 in a short time so that it could compete with DingTalk and Tencent Meetings.

The strategic direction to provide free usage of Feishu was clear but the details did not come to the agreement. Different ideas were raised for "how long", "which version" and "to whom". Before this discussion, there were four available versions in the market which were free version, basic version, business version and enterprise version. The main difference among the four version was cloud storage, maximum concurrent parties in VC meetings, maximum member number of group chat, security and management features. After discussion, there came three possible options as follows:

Option one: three years' free usage of Feishu business version to SMB enterprises which has less than 100 employees, street communities, public welfare organizations, hospitals and medical colleges and universities with the condition that those organizations need to register Feishu and apply the promotion from February 10 to May 1, 2020.

Option two: free usage of Feishu business version permanently to all enterprises and organizations that register Feishu and apply the promotion from February 10 to May 1, 2020.

Option three: free usage of Feishu permanently.

As the epidemic situation was changing rapidly every day, there were not enough information to support the strategic decision. All the proposed options were put forward by different members in Feishu leadership team based on busines logic and experience. Option one and option two could be treated as short-term campaigns. The application deadline was both on May 1st, 2020, which was based on the assumption that the COVID-19 epidemic would be controlled before May, 2020. And enterprises could resume its pre-epidemic working status afterwards. In this case, the two options were more from the perspectives of enterprise social responsibility and short-term campaign. Both option one and option two did not change the business model of Feishu but offered a special price to enterprises during a specific time window. Option one assumed that free usage of three years was enough for most SMB enterprises as the

average life span of SMB enterprises in China in the past few years was three years. Therefore, those enterprises should make decision with no hesitation of cost because free usage of three years should have very little difference with permanently free usage. Option one gave the concessions to organizations which contributed to stop the epidemic, but option two also considered to launch a short-term campaign to develop Feishu business in COVID-19 epidemic. Option three was the most aggressive option, which was proposed to completely change the business model of Feishu to freemium.

The most important factors for enterprises to choose enterprise-level systems are normally branding, after-sales services and functionalities. Although price is also important, it is often a relatively weaker factor as long as it is within enterprises' budget. Moreover, enterprise-level products cannot be monetized through advertising as it will have a very negative impact on customer user experience. So, if we changed Feishu to freemium business model, it might not only affect the long-term possibilities of Feishu, but also those customers who had already purchased Feishu. Another possible impact was that Feishu could only be monetized through value-added services in the future, which also required a deep dive simulation on possibilities. It was difficult to consider all the possible impacts in such a short time. Another important factor of option three was that the result might be irreversible. If the decision was option three, it would be almost impossible for Feishu to return back to the original business model because it would affect the reputation of Feishu and the credit of ByteDance credit as well.

Before moving forward to final decision, a concept of gray testing should be explained first. Gray testing is widely used in Chinese Internet enterprises. Gray is a color between white and black but neither white nor black. It is also called gray release in some cases. Gray testing is often used to select specific groups for trial before the official release of an Internet product function or application, and gradually expand the number of trial users, to find and correct the problems in time. In fact, this expression is essentially consistent with the A/B testing used in western countries. The main difference between the two expression is that the gray testing focuses more on allowing users to experience the new scheme, but A/B testing divides the user population into two parts. In A/B testing, some people use the first scheme which is called scheme A, and others use scheme B. It is the most important difference between gray testing and A/B testing. Gradually, staffs in Internet industry generalize the concept of gray testing. In Feishu, gray testing involves the scope of A/B testing but not limited to it.

Finally, after intense debate, the leadership team decided to use the gray testing method to make final decision. As option three was irreversible which meant that the price would be too big if it did not work, the leadership team chose the gray testing of option one and option two.

The detailed plan was to publish the offering of option one in certain channels, such as Feishu open class. However, if prospects still had concern about the offering of option one, Feishu customer support team and digital sales team had the right to offer those prospects with the offering of option two. In parallel, Feishu customer support team and digital sales team need to interview all the prospects who left their contact information to collect their feedbacks. And Feishu leadership team would review those feedbacks every day until a finally decision had been made.

After launching option one for two weeks, Feishu team had already collected more than ten thousand feedbacks. More than 95 percent of the inquiries met the criteria of option one because they are SMB enterprises but more than 80 percent of them never used Feishu again since the next day. The top three questions by callers were "what is the pricing strategy after three years?", "how can I use Feishu?", "what will happen if my enterprise had more than 100 employees several months later?". After reviewing the details feedbacks, Feishu leadership team realized that most of enterprises still had concern on pricing and onboarding of Feishu. As DingTalk and Enterprise WeChat are always freemium business model, enterprises would definitely compare Feishu with them. And Tencent and Alibaba Group are also famous Internet enterprises in China, customers would not have other concern comparing with ByteDance. Though the average life span of SMB enterprises in China is three years, most owners of them believed that they were at least above average. Another insight was that enterprises did not evaluate too much on the functionality of product as long as it had no obvious defects.

The feedback was out of expectation of Feishu leadership team. The basic logic of enterprise-level business seemed to be changed. Enterprises did not care too much about functionality, services and branding, but put more weight on the pricing. According to the brain storming meeting of Feishu leadership team, they tried to explain the new logic. The decision makers were no longer patient as they did not have enough time to analyze the advantages and disadvantages of product and services. They treated the choice as a temporary solution and had to made decision in the shortest time. Meanwhile, all enterprise-level communication and collaboration platforms were unable to provide the originally planned manual services because the number of customers was growing too fast. All of them did not have enough capacity to handle this situation. The brand of Tencent, Alibaba and ByteDance did not have too many advantages over each other, but DingTalk and Enterprise WeChat were relatively better-known in customers' cognition. But most of the decision makers of those SMB enterprises never used such kinds of software. In this case, product functionality, customer services and branding were no longer the key factors for enterprises to make decision. Instead, all those decision makers

just suffered from the COVID-19 epidemic and were afraid of more costs. In this way, pricing became an extremely important factors for them to make decision.

Feishu leadership team realized that pricing was an important factor for those SMB enterprises to choose Feishu at this moment. If Feishu missed this time window of customer development, it would be very difficult to catch up soon. The infected people still kept growing every day, which shown no signal that the epidemic would be ended before May 2020. So, the team began to review and discuss option three.

There were a lot of problems raised for option three such as the potential conflict of pricing strategy between Feishu and Lark, the impact on existing customers who purchased Feishu services, the long-term business model of monetization. Too many factors need to be taken into consider. It was impossible to think clearly in one or two days, but the time window was quite limited and the external environment was rapidly changing every day. Therefore, Feishu leadership team considered to implement this freemium business model and iterate it based on the effect of implementation and external feedbacks. They decided to report this idea to Mr. ZHANG Yiming. Fortunately, he supported this idea and recognized it as the only feasible option that could survive the competition with DingTalk and Enterprise WeChat.

Although many details were still not clearly considered, it should not be an obstacle to make the right decision. So, the leadership team decided to implement the freemium business model immediately. Execution team need to collect feedbacks from customers and prospects in parallel to ensure that Feishu team could quickly iterate the strategy and implementation based on the external feedbacks. To measure the result, Feishu leadership team set the objective of achieving one million DAU by end of 2020. This number refers the historic growth of DingTalk. In November 2015 when DingTalk had been released for about one year, it achieved the amazing results with one million DAU (Source: QuestMobile). Feishu had only less than 100 thousand DAU in end of 2019, so this objective was still very aggressive considering the dominant market position of DingTalk and Enterprise WeChat.

On February 24th, 2020, Feishu announced to provide free usage permanently. From Figure 4.3, weekly average DAU also greatly increased after this announcement. The quick increase of DAU after strategic turning point one was also impacted by other factors which will be explained later. Normally, the DAU increase will be a little bit behind the strategic decision as it took time for the IT administrator to input employee information into Feishu CCS and configure the organizational structure. But the speed is pretty much accelerated due to the urgency of customers' needs.

After the freemium model was implemented, almost all the existing customers reached out

to Feishu expressed their complaint and dissatisfaction. The next day, a notice of Feishu was released to existing customers that all their unconsumed payments could be returned to them pro-rated. At that moment, the only available value-added feature was additional storage. If enterprises do not regularly clean the outdated files on server, they need to purchase additional data storage. This value-added feature was not designed to make money, but to decrease the extreme risks as no enterprise in the world could afford unlimited usage of storage for everyone.

Another factor that Feishu leadership team had not well considered in advance was the unification of the Feishu CCS version by engineering team. Most senior executives over-estimated the time required to adjust system version in Feishu backend. When Feishu announced the freemium business mode, it actually provided business version free of charge. Therefore, for a long time, the customers' administrators could see the wording of business version in their admin view. They could still apply to downgrade their version to standard version or upgrade to enterprise version in the backend of the configuration page which led to some bugs for the SaaS services. As it was too urgent, Feishu marketing team also faced the challenge to update all the contents in Feishu official website. Most contents were updated but some pages still displayed four version choices, which made the prospects confusing.

Several days later, complaint from channel partners also flowed into Feishu leadership team because they could not make money from reselling Feishu SaaS services due to the freemium business model. All of them just became Feishu partners with less than three months. The iteration of channel strategy would also be covered later.

In general, the strategic management process of freemium business model is summarized in Figure 4.4 which starts with COVID-19 epidemic and ends with the continuous optimization of the final strategy. Figure 4.4 displays that the chosen strategy of option three, the implementation and feedback collection almost happen at the same time. And the iteration of strategy was kept for a long time. No one can predict the final strategy before several rounds of iteration, or we can understand that the final strategy does not exist at all. The iteration is based on the interaction between Feishu and rapidly changing environment, including activities of competitors, feedbacks from customers and prospects, the situation of COVID-19 epidemic and government policy for remote working. The process is distinctive because it is different with the traditional strategic management process. Feishu need to interact with external rapidly changing environment to build and reconfigure internal and external competences to drive competitive advantage.

And this is also aligned with dynamic capabilities theory by Teece (1997). Dynamic capabilities of Feishu rest on the strategic management process and get shaped by its talents,

culture and digital working tools. They are the position and path of dynamic capabilities.

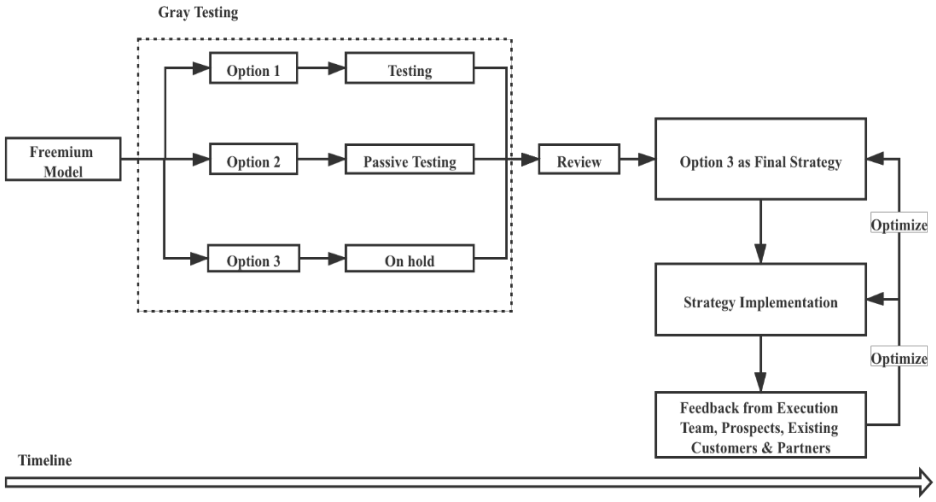

Figure 4.4 The strategic management process of Feishu freemium business model

4.3.1.2 Partner incentive strategy

Feishu leadership team realized that many prospects did not know how to use Feishu without the support of Feishu digital sales team or customer service team, but it was impossible to upgrade the use experience of Feishu product or made fundamental changes in the short time. Meanwhile, Feishu channel partners also complained about the impact of Feishu freemium business model. Therefore, in the daily management meeting held by Feishu commercial team, a suggestion was proposed that Feishu could learn the best practice of partner ecosystem from DingTalk and Enterprise WeChat. In this case, Feishu could make full use of existing partners to develop new customers, provide on-boarding and customized services to customers. Partners could also get corresponding incentives for the value they brought to Feishu.

The benefits of this GTM strategy are obvious. First, it brings Feishu a lot of external experts who are familiar with the product features and values of Feishu. At that moment, even if the Feishu team leverage more third-party service providers to provide out-sourced digital sales and customer support services, the help will be limited because it takes time for them to get trained. Due to the freemium business model, the cooperation between channel partners and Feishu are greatly affected. If Feishu can leverage the Feishu experts in existing partners to develop new customers and provide customer onboarding services, it would greatly help Feishu to grasp this growth opportunity. To ensure the successful implementation of new partner strategy, Feishu need to subsidize them based on the incremental value they bring to Feishu. This change of partner management model would lead to a win-win-win situation. Feishu

develops the new sustainable customers, partners get more revenue from their services, and customers get better services during the epidemic.

But it was also a challenge to finalize a reasonable and effective incentive strategy. In fact, the logic of customer acquisition can be divided into two steps. The first step is to persuade prospects to register and activate Feishu as enterprise-level communication and collaboration platform. The second step is to provide onboarding services and enable customers to use the platform. If no one provides step two, customers do not know how to use Feishu and have to choose DingTalk and Enterprise WeChat because the onboarding process of Feishu is not intuitive enough. The first step needs a sales team and the second step needs a services team. The reality was that some partners had sales team only, and some partners had service team only, and the rest had both. Feishu commercial team needed to develop an incentive policy which could fairly subsidize all different partner types.

In this case, Feishu commercial team discussed the different alternatives and short-listed the possible options of incentive policy in Table 4.1.

Table 4.1 Feishu channel partners special incentive options

Options	**Customer Status**	**Customer Size (N: Activated Employee number)**		
		N<10	**10 ≤N<50**	**50≤N**
Option one	Activated Customer	CNY 0 *M	CNY 10 *M	CNY 15 *M
	Retained Customer	CNY 0 *M	CNY 30 *M	CNY 30 *M
Option two	Activated Customer	CNY 0 *M	CNY 0 *M	CNY 0 *M
	Retained Customer	CNY 0 *M	CNY 30 *M	CNY 30 *M
Option three	Activated Customer	CNY 0 *M	CNY 5 *M	CNY 5 *M
	Retained Customer	CNY 0 *M	CNY 50 *M	CNY 50 *M

Customer status: Activated customers refer to customers that only registered and activated but do not reach the retention standard; retained customers refer to customers that have registered, activated and meet the retention standard.

Customer size: N < 10, 10 ≤ N < 50 and 50 ≤ N according to the number of employees activated by customers

Incentive base: the number of newly activated employees M of customers, subject to the statistical data on April 30, 2020. M refers to the average number of DAU in last five working days of statistical period which reached 50 percent of activated employees or above.

Reminder:

1. If and only if the number of employees activated by the customer is greater than or equal to 10, the partner can obtain the incentive amount in this table for the customer.
2. The incentive amount obtained by a partner for the same customer cannot be superimposed, that is, if a customer is both "activated customer" and "retained customer", the partner can only obtain the incentive amount according to the customer status of "retained customer".

So, it was the first time for Feishu to design such kind of incentive policy, Feishu commercial team planned to execute the selected option as a campaign with duration of three months, and then optimized the incentive policy after May. 1st, 2020. Before the official release of first version of incentive policy, Feishu commercial team need to use gray test and understand which option is the most effective and cost-efficient. Option one puts more weights of

incentives in the step of customer activation, option two put all the weights on customer retention which is very long-term result-oriented, and option three is relatively balanced but the total incentive amount is much higher than option one and two.

Before Feishu commercial team categorized partners for gray testing, another information had been aligned to the chief commercial officer of Feishu. As mentioned above, a lot of enterprises could not restart their operation due to the COVID-19 epidemic. Enterprises could not start offline operation but still need to pay the salary continuously of all employees. In fact, this situation also greatly affected Ocean Engine which was the advertising sales business unit of ByteDance, especially for Ocean Engine SMB team who covered SMB customers. SMB team had nearly 20,000 employees whose main job responsibility was to engage with SMB enterprises offline and promote ByteDance advertisement offerings. As most SMB enterprises could not start their business operation, the demands for advertisement were greatly reduced. Meanwhile, the uncertainty of COVID-19 also required them to survive first instead of growing their business. In this situation, the SMB sales team of Ocean Engine did not have enough customers to develop and their workload was far from enough which also led to their income.

In ByteDance weekly leadership meeting, the head of Ocean Engine also mentioned this information and asked Feishu leadership team whether they could provide any help during this time window to achieve a win-win result. Feishu leadership team supported this suggestion because sales team of Ocean Engine were all using Feishu as enterprise-level communication and collaboration platform every day. They fully understood the features and management concept of Feishu. As long as those employees got trained about the sales scripts and value position of Feishu, they could possibly be a good expert of Feishu business. And Ocean Engine could also be treated as the biggest and campaign-based partner of Feishu. So, they were very welcome to join the white space strategy at that moment.

Commercial team had some concern about option three because it might cause large losses than option one and two if partners took use of some unexpected flaws. But if option three was tested by Ocean Engine which was a subsidiary of ByteDance, the risk would be relatively controllable. So, Feishu decided to test these three options through gray testing.

Option one was tested for 24 newly recruited partners because they needed to invest resources to train their employees about Feishu product features and value proposition. Those partners were not sure whether the cooperation with Feishu could make money or not, so Feishu need to give them confidence and support. In option one, the incentive for customer activation is relatively high, which lower the difficulty for partners to meet the bottom line. But a risk is that this part of incentive did not tightly link with the final objective which was to generate

more Feishu customers and users. As it only adopted to the 24 newly recruited partners, the risk is relatively controllable.

Option two was tested for existing channel partners who were already familiar with Feishu products and value proposition. And most of them are Feishu's channel sales partners before freemium business model. Most inbound leads will be passed to them because they could better handle customer onboarding service questions which could help to improve satisfaction rate of Feishu customers comparing with other participants of Option one and three.

Option three was dedicated for Ocean Engine SMB sales team only. Feishu would not pass leads to them because this was a short-term campaign and they would eventually return back to their roles as advertisement sales, which meant it was impossible for them to maintain the prospects passed from Feishu team. The low handing fruit for them was to transfer all their existing advertisement customers to use Feishu and help them on board. As those advisement customers would interact with them for a longer time because of business interaction, it was easy for them to link the advertisement customers with Feishu business after the short-term campaign if they decided to use Feishu.

Feishu commercial team did not strictly control all factors or measure the outcome of incremental DAU though it was the key indicator in this gray testing. It could not be treated as dedicated research. Instead, it was more of a fierce competition with all the other vendors in real world. Feishu had to find the best approach in the shortest time so that to guide the follow-up strategies in real competition. By analyzing the outcomes of different options in gray testing, the chief commercial officer of Feishu could make final decision of incentive strategy based on his judgement and business logic.

All the three options of partner incentive policy were far from perfect, but there was no enough time to waste. The external environment was very dynamic, and data of the week were not necessarily helpful to business in the next week. Therefore, in order to quickly respond to market changes, the team could only shortlist the most possible and practical partner incentive policies, implement immediately, track feedbacks every day, and keep iteration as long as all of the options are controllable. But if one option is irreversible or might cause big risks, the leaders had to carefully think it over.

During the implementation of the three options, Feishu commercial team realized the defects of those options. All the options did not take the quality and sustainability of customers into consideration. For example, a lot of elementary schools sought solutions for temporary remote class under the suggestion of territory education bureau. So, all of a sudden, Feishu had one big tenant with more than 90,000 weekly average DAU because the district education

bureau had activated it to cover all the elementary schools in that district. This was a big risk as they might not use Feishu at all three months later but Feishu needed to pay the service partner several million CNY. Two months later, the risk became the reality. This tenant no longer existed after May, 2020. Feishu team adjusted the incentive strategy immediately to put weight on all the DAUs based on industry and territory to make it more reasonable.

A lot of option specific bugs were also found.

For option one, some partners invited customer to activate their account just for a favor and then no longer provided any services to them. Some of those customers even did not know what is Feishu. For option two, a lot of complaint flows to Feishu commercial team because partners had already tried their best to persuade customers to use Feishu. But Feishu's technical performance was poor especially for video conference. This was caused by the immaturity of Feishu CCS, but it did deeply impact partners' confidence. Option three also met with challenges. Although Feishu team already delivered two trainings to sales in Ocean Engine, they could not answer customers' questions about technology when they reached out to their existing customers because they were not solution sales or technical consultants. So, all of them returned back and reached out to Feishu team for help. Feishu team were already out of capacity to handle the inquiries from external prospects, and now tremendous inquiries flowed from Ocean Engine. What was worse, after Feishu team answered to the Ocean Engine team, they could not completely transmit the information to their customers because they did not understand the detailed logic of Feishu CCS. So, Ocean Engine SMB sales team participated option three for two weeks and then most of them returned back to their original advertisement work as the outcome was far from their expectation. By unstructured interview with those top performers in option three, their feedbacks were quite positive about the incentive strategy. They outlined that the most important factor to improve the win rate was to choose the right prospects. If prospects were too small such as less than 20 employees, they felt WeChat and QQ were enough for them to use and they did not need any enterprise-level communication and collaboration platform. If the prospects size is over 100, they would also ask some technical questions which advertisement sales team had no capability to answer. In early April, 2020, based on all the feedbacks and discussion among Feishu leadership team, the partner incentive strategy iterated to a new one with more consideration on industry weights, anti-cheating, sustainability of customers' retention so that all the cost invested would generate more value to Feishu business. Then, *standards and rules for calculation of customer development service fees 2.0* was officially released to all partners in middle of April, 2020 which overwrote all the existing versions of partner incentive policies.

In the new policy, incentives have been divided into three stages: first stage was still user activation with CNY 5 per user, second stage was retained user after 30 days since activation with CNY 30 per user, the third stage was the retained user after 60 days since activation with CNY 15 per user. For education industry, all the performance would be decreased by 50 percent. And the maximum incentive amount for one single tenant is CNY 100,000. Two months later, due to the change of Feishu go-to-market strategy, another round of gray testing was introduced to help Feishu acquire key accounts and large accounts.

Figure 4.5 shows the strategic management process of partner incentive policy, whose cause were mainly freemium business model and time windows of the COVID-19 epidemic. In this case, partners should be motivated to develop new customers, provide on-boarding and customized development services.

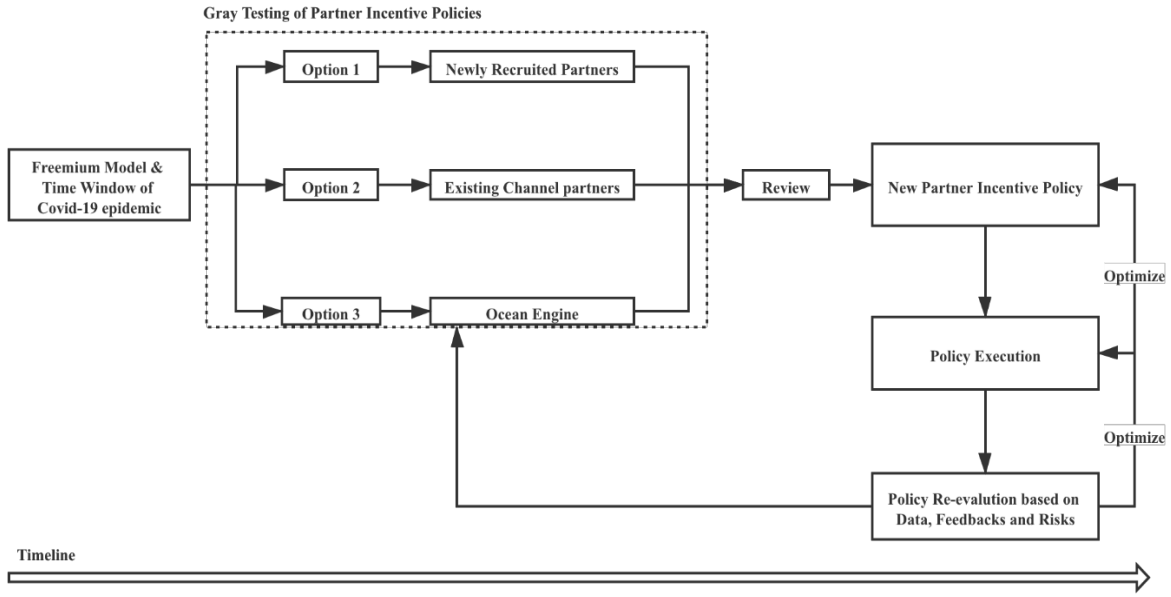

Figure 4.5 The management process of partner incentive strategy

The difference from the management process of freemium model is that the partner incentive policies kept iteration with the overall go-to-market strategy iteration of Feishu. If the new proposal of partner incentive policy had big changes comparing with the previous one and the decision makers had some concerns, there might start a new round of gray testing to reduce the unknown risks.

The strategic management process of Feishu partner incentive policy is also distinctive based on the dynamic interaction with external environment. A lot of factors are taken into consideration, such as the feedbacks of external customers, the rolling cost of the incentive, the partner incentive policies of DingTalk and Enterprise WeChat. As those factors are dynamically

changing with a lot of uncertainty, dynamic capabilities are needed to respond to the rapidly changing environment and ensure the successful iteration of this partner incentive policy.

Feishu team also tried other approaches to increase the DAU, such as promotion on the killer features such as collaboration functionalities in Baidu search engine, customer webinars, or direct customer communications, but the effect was relatively limited. Collaboration was a good concept which could be used to increase productivities of an enterprise. But the decision makers of enterprises mainly cared about the survival of their enterprises instead of the increase of their productivity at that moment.

In general, the DAU growth from February to June, 2020 are mainly impacted by the strategy of freemium business model and partner incentive strategy. By end of June, 2020, the weekly average DAU had reached more than 443 thousand comparing with 95.8 thousand in the first week of 2020.

4.3.2 IMT and KA/LA strategy

In the last week of May, 2020. Feishu leadership team realized that the weekly average DAU of Feishu was dropping steadily in the past two weeks from 430 thousand to 408 thousand. (Source: QuestMobile) Wuhan was expected to reopen in early April, 2020. This was a strong signal that the short-term growth brought by the epidemic would end soon. Most of white spaces had been covered by DingTalk, Enterprise WeChat and Feishu.

What was worse, Tencent decided to block all Feishu related link in WeChat due to the reason of security concern. Before Feishu got blocked, Toutiao and Douyin were all blocked by WeChat by the similar reasons. Feishu regarded this block as a violation of antitrust law and escalated to the Internet information office of the ministry of industry and information technology, which requested Tencent to stop the block several months later after investigation. This incident brought some difficulty to the growth of Feishu but it also released some important signals. First, Enterprise WeChat treated Feishu as one major competitor as it grew so fast in the past three months. Second, the customer and user growth would be much more difficult because WeChat was the most important channel for Feishu users to share registration and activation invitation with each other. The new customers are mainly developed by partners since middle of March, 2020. So, the Feishu commercial team needed to find the new approach of next-wave growth besides iteration of the partner incentive policies.

4.3.2.1 Prolonged interview with customers and prospects

As mentioned, Feishu launched a brand survey in January 2020. Most of the follow-up actions

are disturbed by the COVID-19 epidemic. The first follow-up action is to iterate product to build up killer features and improve the platform technical performance. This is not an easy task because it will take much time for product and engineering tram to work on. The second follow-up action is to iterate brand impression to be more future-oriented and innovative. Prospects in some industries such as professional services, Internet and high-technology are more likely to accept and use Feishu, so the Feishu team should understand more about their touch points, pain points, use cases, key decision makers, decision making processes as well their portraits. In this case, a prolonged interview survey was decided to be launched to existing customers and prospects.

The interview was led by Feishu strategy team with a team of four employees because of the urgency. And they asked sales team to send out the interview invitation request immediately to all in-contact customers and prospects who are not in sensitive period such as bidding or negotiation. They sent out more than 300 invitations and eventually 46 accounts accepted the interview (See Table 3.3). As mentioned in the brand survey, there are some overlaps between Internet industry and high-tech industry. Both Internet industry and technology industry exist a large number of R&D staff. As the strategy team targeted to get conclusion as soon as possible, they did not waste time to clearly label Internet and high-tech industry but put those customers all under Internet industry.

Before the semi-structured interview, Feishu strategy team designed a basic information collection list (See basic information collection before interview in Annex B) and asked sales team to collect all the background information before the interviews to make them more efficient and focused. The main question list had also been sent to the interviewees so that they could prepare for the questions (See question list in Annex B). As the interview was launched by four interviewers in parallel, it was very necessary to design an interview guide to everyone so that the language system was same (See interview guide in Annex B). It could also help for data collection and content analysis. What was more, the strategy team also listed out the labeling system of unstructured questions so that it would save time for analysis in the future (See labeling system for unstructured problems in Annex B). Five interviewees agreed to record the video during interview.

After all the preparation, the strategy team started the semi-structured interview with those interviewees. The interview lasted for the whole April of 2020. After the interview, a detailed interview record would be summarized for future analysis. Annex B also displays an example of interview record with one customer whose name is Jiker.com. Then, more than three weeks would be spent for data and content analysis as well as report writing. The final report was

ready in middle of May 2020.

In general, the overall sample size of the prolonged interview is limited, including twenty-four in the Internet industry, six in the professional service industry, two in education industry, two in media industry and two in retail industry. Considering that most of these enterprises are well-known enterprises in their industries and the levels of respondents are also senior enough, the result is still worthy as typical references. If any conclusion was greatly deviated from the cognition of Feishu chief commercial officer, he would also consider to use gray testing and find the more data-driven conclusion.

The purpose of this interview is to understand touch points, pain points, use cases, key decision makers, decision-making processes and customer portraits for Feishu business.

Touch points: where do customers come from?

According to the interview record, enterprises with different employee sizes will have difference in touch points with Feishu. The technical head of office tools in Tuniu.com (S5 and Internet enterprises) mentioned that system performance was more important for technicians. Luxury goods need beautiful pictures in advertisements and touching scripts. But if the product is evaluated by technicians, assessment, logic and analysis of the product are more important, which requires more detailed value proposition by advertisement. The head of IT in Linshi Wood (S4 and manufacturing industry) also mentioned that he had friends in the software industry who would provide the insights to manufacturers, and some people recommended software to him during external business activities. He would also be impacted by Baidu search engine if the advertisement hit his pain point. The CEO of Wanplus (S2 and Internet industry) expressed that he would refer to the product itself as well as its customers. Besides, recommendations from friends would have a great impact on his decision-making process. The CTO of September Education Group mentioned that he would first search the Internet, review the online reputation and the evaluation comments about the product, and then inquire other CTOs in the same industry to collect information with a short list of three to four software vendors. After that, he would deeply evaluate and trial use the products in the short list.

In conclusion with content analysis of all records, advertisement is the main touch points for S1 customers, and from S2, customers' main touch points by advertisement are gradually weakened. S3, S4 and S5 enterprises pay more and more attention to brand reputation and the endorsements of other enterprises, as well as sales relationship and services. They seldom got persuaded by advertisement directly.

Pain points and use cases: why do customers come?

The vice GM of IT in Taikang Group (S5 and insurance industry) mentioned that he would

mainly consider reputation and brand when choosing software. Feishu was originally not an option for them, but they decided to take a deep look into it because it is wholly owned by ByteDance. The head of IT in Dewu App (S4 and Internet industry) also expressed that they expected ByteDance to output some good practices and experiences through Feishu, which would be much more useful than exploring by themselves. The partner of XiaoduoAI (S3 and Internet industry) told the interviewer that they used DingTalk before because there were few choices in 2016 and 2017 as well as DingTalks freemium model and branding advertisement. But they just switched from DingTalk to Feishu because their CEO was impressed by the concept of Feishu to improve the signal-to-noise ratio (SNR). The internal efficient communication and flat organizational hierarchy of ByteDance were also best practice to XiaoduoAI. Meanwhile, the demonstration of SNR improvement and its methodology deeply impressed their CEO. The partner of Shixiseng (S3 and Internet industry) mentioned that they were looking for a collaborative software which should have the capability to integrate document and IM, so they found Feishu. They quickly rolled out to the whole enterprise after one month's trial usage. The HR director of Winpeace Information (S2 and professional services) told the interviewer that they used WeChat and QQ for enterprise-level communication before adopting Feishu. She also considered DingTalk before, but DingTalk document could not meet their requirement, so she gave up. Her first priority was to have a good online document collaboration platform.

By content analysis, we can conclude that small enterprises pay more attention to whether the function itself solves the pain point or not, but large enterprises pay more attention to the culture of the enterprise, design concept of the product, reputation and service in addition to product features. After deep dive into the details, we find that the main decision factors for S1 and S2 are whether product functions could solve their existing pain points. Starting from S4, the influence of the ByteDance brand and Feishu design concept has been improved significantly, and platform security and enterprise-level services have also become important decision-making factors. Based on the interview information, all-in-one design that allows enterprises to use Feishu as a unified enterprise portal also becomes the reason why customers choose Feishu. But S3 customers are between the above two scenarios, they care about the product features and pain points such as remote or cross-border communication. Meanwhile, the culture of ByteDance and concept of Feishu also have significant impact on the decision-makers.

Those interviewees also scored the rigidity degree of product features. From the result, the most rigid requirements in order are enterprise IM, VC, document, OA, email, and project

management. IM feature gets the highest score for rigidity degree, but collaborative online document is often mentioned as the key decision-making feature that attract customers. To a certain extent, it shows that although customers have rigid for IM functions, they will not be attracted as the key differentiators when making final decisions.

There are some findings about industry difference as well. In Internet and media industry, the most rigid requirements in order are enterprise IM, document, VC, and project management. But in rest of the industries, the most rigid requirements in order are IM, VC, attendance check and approval. The rigidity of IM does not show much difference in the distribution of enterprise employee size, but the rigidity of CRM, HCM, ERP and other features increases significantly with the growth of enterprise employee size.

Key decision makers and decision-making processes: how do customers make decisions?

By reviewing all the interview information, we notice that almost all decision-making processes of the enterprises in this interview are from top to bottom, which means no matter who initiate the selection of enterprise-level communication and collaboration platforms, the final decision will be made by the CEO or chairman. For example, the CEO of Chengdu PitayaGames (S3 and Internet industry) mentioned that executives in PitayaGames felt OK about Feishu after trial usage and then asked his approval to roll out the application from top to bottom. The CTO of DMall (S4 and Internet industry) told the interviewer that the decision was made by his boss. Though IT director was an influencer, but the voice during decision-making process was not loud enough.

But the decision-making processes differ from industries. It will be relatively flat in Internet industries. For example, the IT department in an Internet enterprise will initiate a small-scale trial within the enterprise and collect feedback from the business team and summarized them for CEO to make decision. But for enterprises in traditional industries, the general decision-making process is much more complicated. It will be initiated by the IT director or CEO/chairman directly. For S3 and above enterprises, IT department will first compare product features, technical performances and prices of different products based on the detailed proposal provided by vendors. Then they will make a short list and ask CEO or CTO to make final decision. S1 and S2 enterprises normally do not have a dedicated IT department, so the initiators and decision makers are all CEOs.

Customer portrait: who are customers of Feishu?

Based on content analysis, most customers had obvious pain points for collaboration in the stage of growing from 50 employees to 100 employees in Internet industry. But for traditional

industries such as retail, the pain points will be in the stage of growing from 500 employees to more. This number has been proved by several decision makers such as the head of IT in WuMart Group. By cross checking the data of Feishu backend server, we also get the aligned data which shows that the biggest category of Feishu by enterprise employee size is S2 customers while the next is S3 customers.

Besides the above questions, Feishu team also analyzed those customers' communication and collaboration platform before becoming Feishu customers. According to the interview content, 10 customers used DingTalk, 4 customers used Enterprise WeChat and 8 customers used WeChat before switching to Feishu.

Internet industry has been proved to have rigid requirements and high willingness to use Feishu. The main attraction points are ByteDance management concept, design concept of Feishu and collaborative online document. Enterprises in other industries are mainly attracted by ByteDance management concept and treat Feishu as a unified information portal.

Most customers use WeChat, e-mail, and zoom for cross-organization communication, mainly because of external friendliness and the extremely easy onboarding processes.

4.3.2.2 Go-to-market strategy iteration

The Feishu GTM strategy from Jan. 2020 to May, 2020 is called White Space Strategy, under which Feishu mainly targets prospects that use enterprise-level communication and collaboration platforms for the first time. This is because the sudden outbreak of market demand when the COVID-19 epidemic hits China mainland. All the players in enterprise-level communication and collaboration market have received more-than-normal opportunities. During this period, there is no need for Feishu to think about offensive tactics to invade into the existing market share of its competitors. Feishu only need to leverage all the possible resources to acquire more customers in the white space. However, the white space had become less and less since middle of March 2020 according to DAU trend of all the players in the market, so the white space strategy needs to be adjusted.

Before finalizing a new strategy, Feishu leadership team needed to understand the dependencies. The enhancement of Feishu product features and technical performance was still undergoing as it is impossible to improve them in a blink of eyes. So, it was within expectation because the iteration of enterprise-level software was always slow than other software. For example, Microsoft Office has iterated for several decades since it was initially released in 1985 before it gets more and more mature today. Feishu is already much faster. In May of 2020, Feishu leadership team also recognized this reality that Feishu still had a big gap in terms of

product features, technical performance, brand reputation, the ecosystem of service partners and ISV partners, comparing with DingTalk and Enterprise WeChat.

By reviewing the report of prolonged interview in May 2020, Feishu leadership team noticed that some customers chose Feishu because they took the brand reputation of ByteDance, the design concept of Feishu and some rigid features as prioritized factors when finalizing their communication and collaboration platforms. In this case, the GTM strategy should fully consider the current situation of product itself as well as customers' cognition. Otherwise, it might affect the reputation of Feishu if the commercial team over-sold it. Considering these factors, Feishu leadership team reviewed the report once again and noticed that enterprises from Internet, media and high-tech industries were more likely to be impressed by Feishu due to the brand reputation of ByteDance, the design concept of Feishu and collaborative online document. Meanwhile, S4 and S5 customers also took brand reputation, successful customer references and services into consideration when choosing software, which was also in line with the current Feishu advantaged spaces.

Based on these factors, the Feishu leadership team decided to change Feishu's GTM strategy from white space strategy to IMT and KA/LA strategy. IMT is short for the industries of internet, media and high-tech, and KA/LA is short for key accounts and large accounts which will be named in a list by Feishu commercial team.

The account number of IMT is unlimited because it is dynamically growing and bankrupting every day. But KA/LA is limited because it is managed by a named account list. KA is also defined as strategic accounts, which means those enterprises will have a meaningful impact for Feishu to develop China mainland market. The KA account list includes all the accounts listed in Fortune Global 500, Forbes Global 500, Fortune China 500 and Hurun China 500. The commercial operation team will remove the duplicated enterprises of the four list. As most enterprises in Forbes Global 500 and Fortune Global 500 are not headquartered in China, Feishu China team will only focus the business development of their China subsidiaries. As the four lists will update every year, KA list will also update according with same pace.

LA is also defined as important accounts, which refer to those enterprises with certain influence in the local market but not in the KA list. The LA account list mainly includes those enterprises whose annualized revenue is greater than 100 million US dollars listed in China A-share, Hong Kong H-share, China STAR Market or China concept stocks in oversea stock houses. Unicorn accounts with valuation greater than 1 billion US dollars could also be nominated to LA account list by sales team even they are not listed in stock house yet. Other large accounts with more than 1,000 employees could also be nominated by sales team into the

list because they are large accounts in terms of employee size. Accounts in LA list are all nominated by sales team and maintained by commercial operation team. Sales team will request for update of the list every 6 months.

The IMT and KA/LA strategy was also aligned with the Feishu brand survey in January 2020. Most of S4 and S5 customers are traditional large enterprises, and they are likely to be attracted by future and innovative products due to the pressure of digital transformation. They also preferred the well-known brands with good user experience. In the survey, the feedbacks from Internet and high-tech customers were also quite positive.

Feishu commercial team also analyzed the existing data from Feishu dashboard and Salesforce.com (CRM system used by Feishu commercial team). Though most of customers are in IMT industry, KA customers contribute the highest number of DAU, followed by LA customers, which could be summarized in Figure 4.6. Blue color means the complexity of customization requirements. All the existing KA customers require customization services in open platform. IMT customers normally do not need customization, or they can make it themselves. LA is in the middle. The difficulty to convert indicator is influenced by customer win rate and sales cycle.

IMT and KA/LA strategy required a lot of changes in talent acquisition strategy and incentive policy for both direct sales and partners. But Feishu leadership team decided to release the new strategy immediately and optimized talent acquisition strategy and incentive plan in parallel.

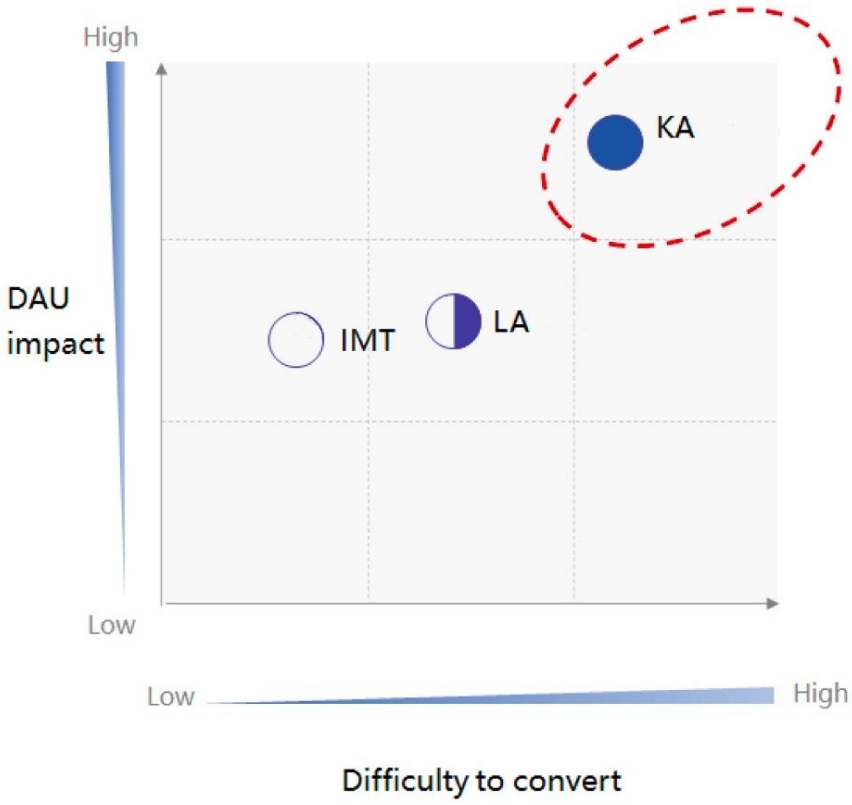

Figure 4.6 DAU impact and the difficulty to convert for IMT and KA/LA

On May. 14th, 2020, the chief commercial officer of Feishu released the new GTM strategy to Feishu commercial team, announced the re-organization of sales team, committed that the sales incentive policy would be adjusted according to the new strategy and set end of June 2020 as the last day of strategy transition. During transition period, sales and partners could get compensated based on either incentive plan. The whole commercial team acted immediately to update the list and hire talents suitable for the new strategy.

Since Lark project was started, the talent acquisition strategy was mainly to recruit employees with Internet genes. This strategy worked very well because the product team, engineering team and commercial team had the same language system because the iteration of Feishu product was the most important tasks in early stages. So, most employees in Feishu commercial team could understand logic of an Internet product. Typical talents in Internet enterprises were different from those in enterprises like Microsoft, Oracle, SAP and Huawei. As those famous global leading IT enterprises had mature products, the main objective of commercial team was to sell them to the right customers, especially to large enterprises because their prices were normally higher than other small IT enterprises. Their challenge was to find the unique selling points to persuade the decision makers.

But the talent acquisition strategy has to change due to the change of GTM strategy in May 2020. The new IMT and KA/LA strategy requires HR to absorb two types of commercial staff.

One type is still from Internet background to work with IMT enterprises. Most CEOs in IMT industries are technical backgrounds, so they are also more willing to communicate with commercial teams with such backgrounds. Most of Feishu existing employees could support IMT strategy. But it is not the case for KA/LA strategy. According to the customer interview, S3, S4 and S5 enterprises pay more and more attention to brand reputation and endorsements of reference customers as well as sales relationship and services. Almost all accounts in KA and LA list are S3, S4 and S5 enterprises, IT department will first compare product features, technical performances and prices of different products based on the detailed proposal provided by vendors. Then they will make a short list and ask CEO or CTO to make final decision. In this case, the portrait of KA sales is similar with the portrait in global leading IT enterprises. So Feishu HR team will target more candidates from global leading IT enterprises. By the same time, as KA/LA team need to submit proposals to prospects based on their situation which requires pre-sales business team to have consulting and technology capability. So, HR team also adjusted the talent acquisition strategy of presales business consultant from IT consulting companies such as Accenture, Deloitte, IBM and PWC.

In terms of incentive strategy, Feishu had also adjusted the sales incentive policy to align with KA/LA strategy, set different weights for different industries and customer categories. From May 2020 to October 2020, the incentive policy for KA/LA sales team was based on the number of KA/LA customers acquired. And if any sales staff got customers' permission to use their logo for Feishu marketing promotion, they would get accelerated commission. The purpose of doing so was to accelerate the customer acquisition in the shortest possible time.

The DAU increase since the week of July. 20th, 2020 shows the effect of IMT and KA/LA strategy. The reason why IMT and KA/LA strategy was released in middle of April 2020 but the effect was shown two months later is mainly because of two factors. The first factor is that hiring commercial team who are suitable to handle KA/LA prospects takes time. The second factor is that the sales cycle of KA and LA takes time because it takes longer time for system selection and approval in larger enterprises.

Figure 4.7 shows the strategy iteration from white space strategy to IMT and KA/LA strategy. There are some overlaps in timeline between white space strategy and IMT and KA/LA strategy because of transition period. The formulation, implementation and evaluation of the strategy happen at the same time, which means that the strategy has been released to execute before the detailed plan is well designed. During the implementation, the organizational structure, talent acquisition strategy and incentive strategy dynamically iterate in parallel with strategy formulation to support the new strategy. What is more, the re-evaluation of the new

strategy also happens at the beginning.

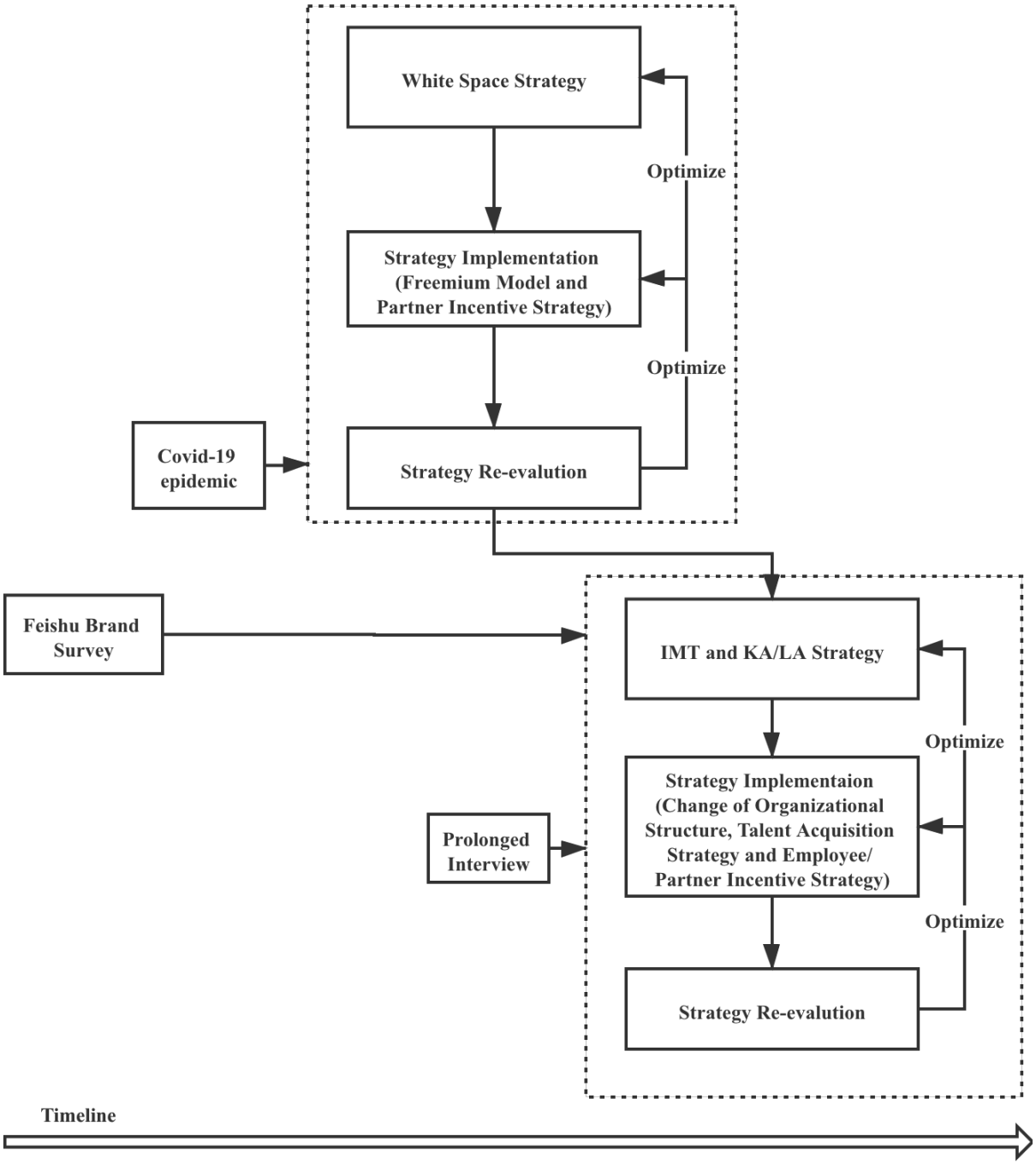

Figure 4.7 Strategy iteration from white space strategy to IMT and KA/LA strategy

The IMT and KA/LA strategy is extremely dynamic and iterate frequently based on the feedbacks of implementation and re-evaluation. It is a big challenge not only to Feishu leadership team, but also to the execution team, especially to those who directly interact with external stakeholders. Of course, sales and channel team of Feishu complain about the rapid change of strategy because they need to interact with customers and partners. Every change impacts their credit in front of customers if they must eat their own words. This situation is

realized by Feishu leadership team at the very beginning, but they have to do so to win the competition. The possible paths of strategy have been divided into two types which are reversible path or irreversible path. If the possible paths are reversible and the potential risks are controllable, Feishu team are likely to use gray testing to find out the best path. But if the path is irreversible or the risk is very high, the team need to be very careful about the execution. In this situation, more simulations, surveys and interviews are needed to reduce the extreme risk of failure.

4.3.3 Co-existence strategy

The IMT and KA/LA strategy helped Feishu develop a lot of famous customers in the following months, such as Taikang Insurance Group, Giant Network, AsiaInfo Group, CBA, Youzu.com, Kingsoft Cloud, Anker, TMT Post, Jazz Year, Genki Forest, USTC, WeWork China, Neo, Xpeng and LI Auto.

The weekly average DAU in the week of Oct. 26th, 2020 reached 693.4 thousand. By the same time, Feishu was more mature than six months ago, and released the beta version of some killer features such as enterprise email, Wiki and Minutes. The features of enterprise email and Wiki are easy to understand because similar products are already in the market. But Minutes is an innovative feature which can automatically generate text notes for recorded meetings.

In end of September 2020 after the IMT and KA/LA strategy had been executed and iterated for five months, Feishu leadership team started to consider what else the team could do to accelerate the growth. So, the strategy team started a new round of interview with existing customers. The process was similar with the prolonged interview executed in April 2020. When Feishu leadership team got the report in early November 2020, they seriously realized that some customers chose DingTalk as OA portal or Enterprise WeChat for external communication but they still used Feishu for meetings and online collaborative documents. They used DingTalk or Enterprise WeChat because they did not have other choices when made their choices. After they realized the value of Feishu, they decided to use Feishu in some scenarios which were not well supported by DingTalk and Enterprise WeChat. They did not have plan to replace any existing solutions because of switching cost. And they did not feel inconvenient by using two separated mobile applications.

It seems similar in daily life as people do not feel inconvenient to use different mobile applications for different purpose. For example, they use Alipay application for payment, call a taxi with Didi application, communicate with friends with WeChat application, book hotels with Ctrip application, watch short video with Douyin application and read news from Toutiao

application. Though some of the mobile applications plan to invade into the fields of each other, the result is that no such super mobile applications which support all the scenarios become mainstream mobile applications today.

This situation might also work in business world. All the previous GTM strategy of Feishu was set based on the perceptions that DingTalk and Enterprise WeChat are pure competitors and count not co-exist with Feishu. If it was not the case, there must be a better strategy to grow Feishu business. If existing customers of DingTalk and Enterprise WeChat become the customer of Feishu without completely switching from one platform to another, the decision-making process will be faster and easier. What is more, Feishu can also treat those prospects as white space prospects in specific scenarios. It also earns more time for Feishu to make up for its disadvantages such as product features, technical performance, brand reputation and partner ecosystem. So Feishu could keep iteration and have more power to compete with DingTalk and Enterprise WeChat when customers decide to choose one mobile application to fulfill all their requirements in the future.

The best time window to release the signal of co-existence strategy was the 2020 Feishu Future Infinite Conference on Nov. 18th, 2020. Considering the preparation of presentation slides and necessary buffer for rehearsal, all the strategy design and execution plans needed to be finalized within one week. The conference would also be a very good opportunity to collect external feedbacks. As marketing was concentrated on the preparation of the conference, all the other commercial functions gathered and discussed the possibility of new strategy release and its execution plan. The new strategy could be named as co-existence strategy.

To co-exist, Feishu team needed to short list those scenarios which was not well met by DingTalk and Enterprise WeChat. After discussion, the Feishu commercial team summarized three scenarios which would be helpful to the co-existence strategy which were enterprise email scenarios, meeting scenarios and cross-border communication and collaboration scenarios.

Enterprise email scenarios

In working scenario, the most frequently used tool is the enterprise-level IM and the second is normally enterprise email. Alibaba Group and Tencent had standalone enterprise-level email solution but those solutions cannot integrate with DingTalk and Enterprise WeChat. From the interview with existing customers, especially in Internet industries, most of the senior leaders expressed that they seldom checked email box after they adopted Feishu or other IM tools because they were inconvenient. They used enterprise email mainly to interact with external stake holders for business communication. The internal and external contacts were not well synchronized between IM and email as well.

Feishu enterprise email can add value to solve the disconnect of enterprise-level IM and enterprise-level email because it is designed to be all-in-one for business collaboration. Besides the common features which are supported by all enterprise email service providers, Feishu enterprise email also supports to share email content to chat with one click and reminds them to deal with it. The receiver can directly open the email in chat and reply without switching back and forth between email and chat. This will improve the working efficiency. Email and chat also shared the same contact books.

Similar with Feishu IM, online document and VC, Feishu enterprise email also supports the real-time translation of the whole email content because they share the same translation technology and engine.

Meeting scenarios

ByteDance have developed a meeting methodology with the name of FeiYue Meeting. FeiYue Meeting targets to efficiently run meetings and it is adopted to all the busines units under ByteDance. Fei means Feishu or fast in Chinese while Yue means read in Chinese. So FeiYue Meeting can be understood as fast reading meeting and reading meeting supported by Feishu.

ByteDance leadership team have thought about the nature of meetings and conclude that the process of meetings is actually a process of information synchronization and idea collision, and Feishu online document as a collaborative editing tool is the best carrier of the process. After investigating the working methods of other famous technology enterprises in the world such as Amazon meeting method (See Annex F), iterating them with deep thinking and ByteDance practices, ByteDance developed the FeiYue Meeting method. FeiYue meeting proves to be effective in ByteDance. Even if the participants in ByteDance are from all over the world, such a meeting method can still maintain the efficiency and overcome the difficulties of remote communication.

Before a specific meeting gets started, meeting organizer will summarize the meeting agenda in Feishu online document with the content of meeting objectives, topics, speakers, estimated time required for each topic, meeting process and meeting background. Meeting organizer will also attach the link of background information related to the topics. Five minutes before the meeting, content of each topic will be sent to the Feishu meeting chat group where all attendees are invited automatically through one click in Feishu calendar. Attendees can choose to have a look at it or wait until the meeting starts.

When the meeting gets started, participants will read the online documents separately and make their comments or raise questions to the relevant contents on the document. After finish

reading and commenting on the document, participants could click “Thumb” at the bottom of the document, or reply an emoji expression at the meeting reminder in Feishu meeting chat group to indicate the finish of reading. Normally, when 80 percent or above participants have finished reading of the document, organizer will start to discuss each topic and comment one by one. No matter the participants are on site or online, Feishu can support the meeting based on the integration of online documents and VC. If any participant attends the meeting a little bit late, he or she can check the note script which is automatically displayed by VC so that no one needs to repeat the previous contents. Feishu support both laptop or mobile phone to attend the meeting as well as recording of the meeting. The organizer also needs to control the duration of the meeting and summarize the consensus reached in this meeting.

After all topics are completed, organization will input follow-up actions with the checkbox tool of Feishu and set reminder to ensure the execution of those activities.

In FeiYue Meeting, information synchronization is supported by the most complete and undistorted online documents while idea collision is supported by the comments and reverts in the document based on the same context, which makes the discussion more targeted and helps stimulate creativity. The summary of the meeting and the follow-up actions list are directly listed in the document. The assignment and corresponding owner are also clearly displayed in the document for future review.

FeiYue Meeting method has been used in ByteDance for many years and some customers of Feishu also use this method to improve the productivity and efficiency of their meetings, such as WuMart Group. The FeiYue Meeting method is often introduced to customers in IMT or KA/LA during value proposition, but there was no large-scale promotion in media before. The feedback of such method is very positive.

Cross-border Communication and Collaboration Scenarios

As mentioned in previous parts, Feishu was launched in China mainland only and Lark was available for rest of the world. Most of global enterprise-level communication tools do not operate in China mainland due to the data security requirement by the Chinese government, including WhatsApp, Slack and Microsoft Teams. Most multinational enterprises choose to use email, phone call and short message services for communication. But Feishu is designed to have the capability to chat with Lark and support the cross-border communication. Though Feishu and Lark are two different applications available in different regions, they share similar user experience.

Feishu also has very strong translation capability. As all the translation services in Feishu are supported by the same technology and engine, the user experience is consistent. Real-time

automatic translation supports chat, online document, and VC when subtitle feature is enabled during the meeting. Cross-border communication is a rigid requirement for more and more enterprises with the trend that Chinese enterprises go global. In ByteDance, it is also a rigid requirement. With the translation function, everyone in the chat group could only see the language that he or she set to display. It is the same case for online collaborative documents. During cross-border VCs, participants can enable the auto translation subtitle feature, and then Feishu will identify the content by speech recognition, translate them to targeted language and display them on the screen. Customers such as Xiaomi, Huolala whose international version is Lalamove give very positive feedback for this feature.

So, this feature is very useful to multinational enterprises.

Before the official launch of co-existence strategy, Feishu commercial team also cross-validated with Feishu brand survey which was launched in January, 2020. According that survey, email and meetings scenarios are both the opportunity points for Feishu (See Table 4 in Annex D). The reason why this had not been implemented right after the brand survey was because of the readiness of product features and technical performance as well as the sudden COVID-19 epidemic.

As Feishu enterprise email and FeiYue Meeting method could be adopted to all kinds of enterprises, the two scenarios should be urgently evaluated so that the Feishu leadership team could decide whether or not to mention them in 2020 Feishu Future Infinite Conference. Cross-border communication and collaboration scenarios will be tested case by case when dealing with IMT or KA/LA prospects. FeiYue Meeting method aligns with ByteDance management concept and will not have too much risk according to the evaluation of Feishu leadership teams. All the members in Feishu leadership team gave green light to the promotion of FeiYue Meeting method in 2020 Feishu Future Infinite Conference.

But Feishu enterprise email was not the case. It was a newly developed feature without product market fitness testing. There must be many defects and bugs according the normal software development practices. The Feishu product team originally planned to start gray testing for some time, collect feedbacks from pilot customers and fix those defects and bugs before official release of this feature. If this feature was officially released at this moment in such an influential conference, there might have great risks to the brand reputation of Feishu if email service crashed. What was more, the Feishu enterprise email itself was originally designed as a value-added service of Feishu CCS, so there seemed no need to take that risk in such an influential conference. It could be released six months later in the next Feishu product release conference when it was much more mature.

Eventually, Feishu leadership team decided to release Feishu enterprise email feature and corresponding promotion plan in the conference directly instead of waiting for the result of gray testing. The decision is based on three main reasons:

Firstly, considering the seamless integration between Feishu IM and Feishu enterprise email, it will become one shining feature of Feishu and important differentiator when prospects evaluate such solutions. Email is the most frequently used office tool next to IM. Almost all enterprises are using enterprise email even if they do not have an enterprise-level IM, so enterprise email service is a rigid requirement for almost all enterprises.

Secondly, even if a customer has interest to use Feishu enterprise email, it will probably migrate its email service to Feishu enterprise email after the end of their existing email services. So, the DAU increase of Feishu email services will probably be steady and linear because most enterprises already have enterprise email to support their daily operation and the minimum contract period of enterprise email is one year in the market.

Thirdly, price can be leveraged as an important factor to increase the tolerance level of early customers and avoid extreme risks. Considering that the enterprise email feature is not mature enough and unexpected problems may occur with large-scale usage, the release should better link with some promotion plan for user growth and risk control. As Feishu enterprise email was originally positioned as a value-added service, a campaign-based promotion can be designed for the official release as long as customers give their feedbacks and suggestions to Feishu for iteration. As this has been treated as co-creation, the early will also have more tolerance of its bugs and defects.

During 2020 Feishu Future Infinite Conference, Feishu introduced FeiYue Meeting method and released the Qifei campaign which offered five-year's free usage of Feishu enterprise email with unlimited storage. And this promotion only offered to enterprises and organizations who had completed the registration of Feishu and enable Feishu enterprise email feature before December 31, 2020.

After the conference, all the growth of DAU was within expectation. Feishu enterprise email also operated well with no big accidents. And Feishu kept adding more co-existence scenarios such as interview scenarios and project management scenarios to ensure the growth of Feishu. The Feishu co-existence strategy co-exists with Feishu IMT and KA/LA strategy for a long time. The DAU impact of co-existence strategy is mainly reflected since the week of Jan. 4th, 2021 as the turning point three (See Figure 4.3).

Figure 4.8 shows the strategy iteration from IMT and KA/LA strategy to the combination of IMT and KA/LA strategy and co-existence strategy.

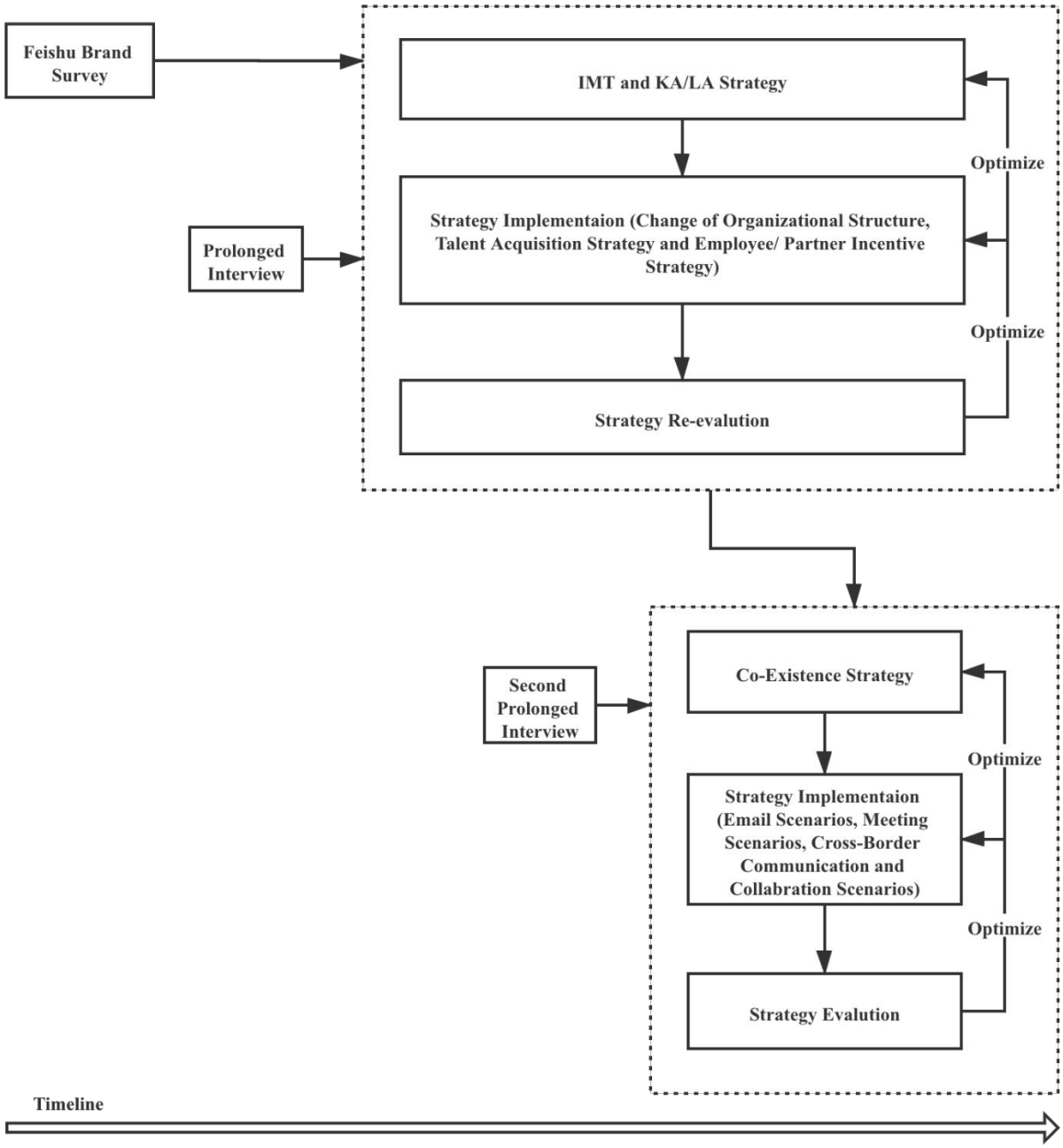

Figure 4.8 Strategy iteration from IMT and KA/LA strategy to the combination of IMT and KA/LA strategy and co-existence strategy

Co-existence strategy is not a replacement of IMT and KA/LA strategy but an add-on. The management process of co-existence strategy is similar with white space strategy and IMT and KA/LA strategy, which means the strategy formulation, strategy implementation and strategy evaluation happened at the same time.

4.4 Strategic outcomes of Feishu in 2020

In the last week of 2019, the weekly average DAU of Feishu was less than 100 thousand, among which ByteDance employees contributed more than 60 thousand. In this case, Feishu only had less than 40 thousand weekly average DAU of external customers at that time. But the weekly average DAU in last week of 2020 reached 714.2 thousand from public cloud and 87.8 thousand from private cloud. So, the total weekly average DAU reached 802 thousand while the weekly average DAU of external customers was 712 thousand by end of 2020. Feishu achieves more than 1,700 percent growth in weekly average DAU of external customers in the year of 2020. As Feishu was officially launched in August of 2019 in China, and we should calculate the prorated DAU because there were only five months in 2019. Even with the prorated calculation, Feishu still had more than 700 percent growth in weekly average DAU in the year of 2020.

Though the challenging annual objective set in early of 2020 was one million weekly average DAU which had not been achieved eventually, the result was still acceptable considering the Feishu product features, technical performance, brand awareness and partner ecosystem readiness in 2020. Three months later in end of Mar. 2021, Feishu had achieved more than one million weekly average DAU from public cloud and 150 thousand weekly average DAU from private cloud. Following DingTalk and Enterprise WeChat, Feishu was definitely the third largest enterprise-level communication and collaboration players in China mainland in terms of weekly average DAU in 2021. If we compare the DAU growth rate in 2020, Feishu is definitely the fastest one among the top three players. As Feishu is a challenger to the market, the growth rate is much more important to Feishu instead of the absolute value. If Feishu can always keep higher growth rate than DingTalk and Enterprise WeChat, there will be a day when Feishu become the number one player in communication and collaboration field in China.

Even the growth of Feishu was within expectation, Feishu leadership team still reviewed the lessons learned in 2020. There are four main reasons why Feishu failed to achieve the DAU objective.

Firstly, Feishu missed the biggest time window when COVID-19 epidemic arrived because the product limitations in VC. At that time, Feishu video and audio conference could only support 25 concurrent parties in a meeting. So, many customers could not use Feishu but used DingTalk and Enterprise WeChat instead.

Secondly, the Feishu onboarding experience was poor in 2020. Most customer did not know how they could use the software after they downloaded it from the Feishu website or application stores. It took too many resources from customer support team and digital sales team to handle

such kind of inquiries, especially for digital sales team because their original responsibility was to develop more customers. This was very inefficiently as the process could not be self-serviced.

Thirdly, the system roll-out of key accounts were behind schedule. For example, China Resource Group as a key customer of Feishu has more than 2,000 enterprises and 400 thousand employees. But they only rolled out to less than 100 thousand employees in 2020 as phase one due to its own calendar. It was the same case for other key accounts such as Taikang Group and Huazhu Group.

The fourth reason is because Feishu was removed from Apple and Android application store for more than one month by the Internet information office of the ministry of industry and information technology for self-check. Tencent also blocked all Feishu related link in WeChat for more than two months. The two accidents were out of expectation and did slow down the growth of Feishu in 2020.

Besides weekly average DAU, Feishu was the only mobile application whose rating in Apple application store was never below 4.0 in 2020 while DingTalk was never above 2.5 and Enterprise WeChat was never above 3.5. The good reputation and feedbacks by customers helped the confidence to Feishu team under such unfavorable circumstances. Though Feishu was in a disadvantaged position when the COVID-19 epidemic came, it still achieved a very good result with its distinctive strategic management process and dynamic capabilities.

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Chapter 5: Conclusion and Discussion

This chapter will first discuss the main conclusion of the strategic management process based on dynamic capabilities from the case study of Feishu. And then research limitations, discussion and further research will also be covered.

5.1 Conclusion

Before Feishu started to penetrate the enterprise-level communication and collaboration market, DingTalk and Enterprise WeChat already had a dominant market share and brand awareness. The brand awareness and product maturity of Feishu were much lower than the two major competitors. As the impact of COVID-19 epidemic was gradually decreasing over time, people were not that rigid about remote working accordingly. The increment of the market was also gradually decreasing.

The internal environment of Feishu was relatively stable during 2020. ByteDance gave strong support and resources to Feishu, including standalone operation as well as loose budget. The vision, mission and organizational structure of Feishu did not change in 2020, and turn-over rate of Feishu employees was below 10 percent. But the incentive policy of sales related functions had iterated for several versions, which was a big challenge for both leadership team and employees. As the incentive policy would directly impact employees' income, employees might possibly complain or argue with leadership team if their commission was reduced under the new policy. But no one escalated those kinds of issues to chief commercial officers of Feishu which really exceeded his exception.

One similarity in the four strategic management processes is that strategy formulation, implementation and evaluation occurred at the same time, which was quite unique as normally they should have a chronological order. In Feishu, once there comes a strategic direction or instruction with no details, employees are able to implement, evaluate and give feedbacks for iteration. The mature strategy will be formulated, implemented and evaluated after several rounds of iteration.

Another important part of Feishu strategic management process is the gray testing. Before formulating the strategy, Feishu team often launch a gray testing process. In this process, they will shortlist some options with highest possibility to succeed according to business judgment

and then start small-scale experiments or pilots. However, if such options are irreversible or may bring great risks to the business, they tend to be very cautious. It can be understood that some strategies of Feishu come from testing instead of design. It works well in Feishu during COVID-19 epidemic.

Based on all the analysis above, we summarize the strategic management process of Feishu during COVID-19 epidemic in Figure 5.1. The most elements of Feishu strategic management process are aligned with the main ideas of Hitt et al. (2016), Barney and Hesterly (2015) and Lan (2018). Strategic inputs and strategic actions are both important in the process. The major difference of Feishu strategic management process could be summarized into three aspects: firstly, Feishu strategic management process has an optional step of gray testing; secondly, Feishu strategic management process allows strategy formulation, strategy implementation, strategy evaluation and control to happen at the same time; thirdly, Feishu strategic management process pursue the outcome of short-term competitive advantage, and eventually generate sustained competitive advantage through continuous short-term competitive advantage based on dynamic capabilities.

It starts from strategic inputs which include external and internal environments analysis. The external environment analysis mainly includes competitor analysis, industry environment analysis and macro environment analysis. Through analysis of external environment, Feishu leadership team can realize the opportunities and threats. Internal environment analysis refers to the analysis of the internal resource conditions including resources, capabilities and cultures.

And then the process will flow to the gray testing. Gray testing is an optional stage based on strategy owner's business judgment. Several options will be shortlisted from multiple possibilities. The strategy owner can also decide to bypass this stage directly if it is the best choice according to his or her business judgement. So, it requires the strategy owner to have good business judgement. During the gray testing, several options will be tested in a small scale. Certain option might have risks to test. The risk includes financial cost or opportunity cost. If the risk of an option is too high or the option is irreversible, the team will be very cautious. They can try a simulation if needed.

After gray testing stage, a review will be launched to evaluate whether there is enough information to formulate a strategy. In this stage, strategy owner will make rational and scientific analysis based on all the information provided by gray testing and make decision based on business judgement. The strategy own can make decision from the options of gray testing or generate a new one based on business judgement. Or, if necessary, the strategy owner could start another round of gray testing.

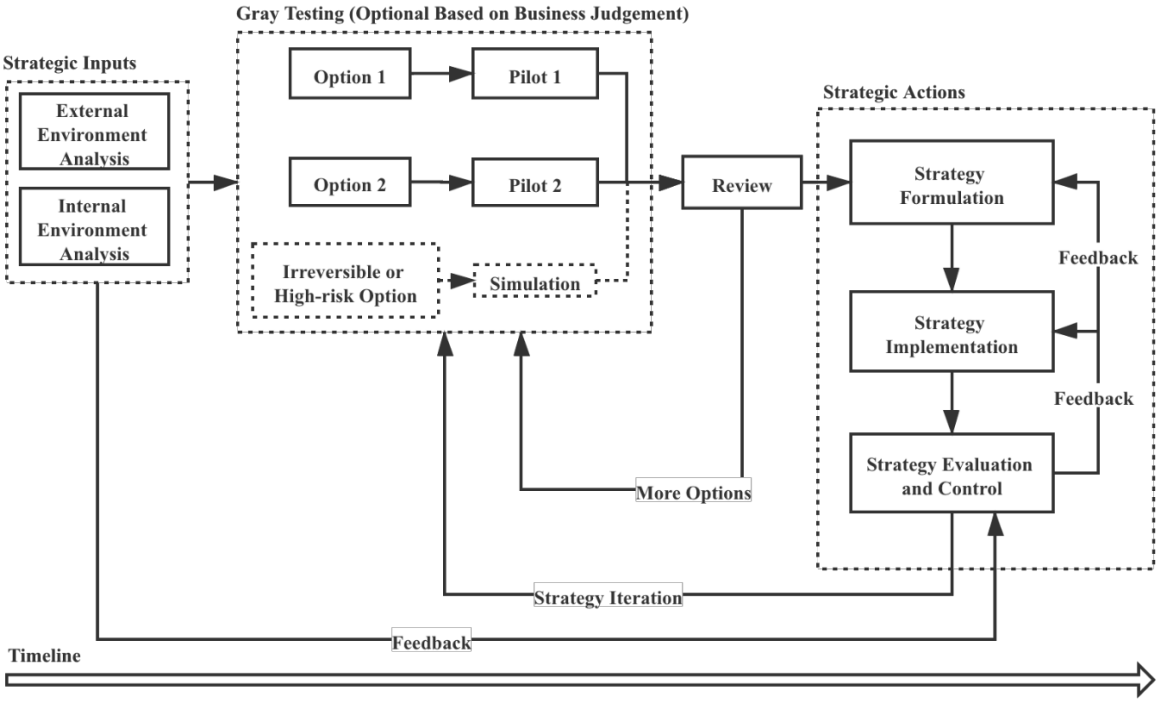

Figure 5.1 The strategic management process of Feish

After the review, strategics actions will been taken to achieve short-term competitive advantage. Strategy formulation, implementation, evaluation and control almost happen at the same time. In the stage of strategy formulation, normally the strategy owner can just come up with an idea or a strategic direction instead of a detailed strategy design, but the execution team will start to implement, evaluate and provide timely feedback. The process can save a lot of time but very difficult to implement. After several rounds of feedbacks and strategy iteration, the strategy design, implementation plan and measurement will be much clearer. The duration of each stage is normally calculated by days instead of weeks or months because of rapidly changing environment.

With more strategic inputs from continuous external and internal environment analysis, the strategy owner could decide whether to keep the optimization of current strategy or enter to a new round of gray testing and seek for the new strategies.

The strategic management process of Feishu has set up a very high standard for both leadership team and employees. Leadership team need to make business decision based on existing information and decide whether or not to bypass the gray testing, how to design the gray testing, and whether current strategy need to be iterated. Employees need to start implementation when the strategy is not very clear or just comes up with a strategic direction.

The success of such strategic management process is based on the dynamic capabilities of Feishu, which is inherited from ByteDance. It is originally from the management concept of Mr. ZHANG Yiming who treats talents, culture and tools as most important factors of an

enterprise. Feishu has a high density of well-educated talents who are hands-on geeks with startups experience and excellent general capability from different industries. Those talents have a very good working environment with the culture of always day one champion diversity and inclusion, aim for the highest, be grounded and courageous, be open and humble, be candid and clear. Meanwhile, Feishu also has good digital working tools to support daily work and increase productivity. From the working method perspective, Feishu emphasizes transparency, voices and self-driven in the whole organization. “Context, not Control” concept ensures all the information to synchronized within the organization. As all voices emerge during brainstorming or daily communication, both the leadership team and execution team can make better business judgement. The leadership team also encourages employees to set self-driven objectives and flexible outcome to push their own boundaries, which also help employees to formulate a highly adaptive mindset.

In general, Feishu strategic management process can help Feishu to achieve short-term competitive advantage by each strategic decision. But with the resources of excellent talents, full contexts, friendly and creative environment, efficient working tools, Feishu has built up the dynamic capabilities which empower both executive team and execution team to continuously adopt its strategic management process successfully and eventually achieve sustained competitive advantage. This is aligned with Teece’s dynamic capability theory because dynamic capabilities of Feishu lies with its strategic management process, shaped by talents, culture and digital working tools as its asset position and available path.

5.2 Research limitations

The thesis mainly takes Feishu as a case of Chinese Internet enterprise and studies its strategic management process based on dynamic capabilities. We deeply analyzed some strategic decisions of Feishu and the corresponding strategic management process during the COVID-19 epidemic in 2020. Though the thesis generates some valuable conclusions based on Feishu strategic management process, the research is still not enough and some aspects need to be discussed and researched further, details are as follows:

1) Limitation on the external environment. The environment faced by Feishu in 2020 was very unusual with COVID-19 epidemic. As a result, the external environment changes very rapid. Many decision-making processes can only be calculated by days rather than weeks or months. So, it is necessary to research whether conclusions in such rapidly changing external environment are also applicable to an environment with lower degree of changing speed.

2) Limitation on talent density of an enterprise. Feishu has a high density of well-educated talents who are hands-on geeks with startups experience and excellent general capability from different industries. From Feishu strategic management process, such talents will show their value and have higher possibility to make right business decision when facing choices and business judgements. But not all the enterprises are willing to pay much higher salary to attract best employees in the market. In this case, the conclusions are needed to discuss in those enterprises with just above-average talents.

3) Limitation on enterprise culture. Employees in Feishu recognizes the culture of Feishu and ByteDance, which are always day one, champion diversity and inclusion, aim for the highest, be grounded and courageous, be open and humble, be candid and clear. This is a very transparency, open-minded and self-driven culture so that employees are fully motivated to share their ideas, make decisions because Feishu give them chances to make mistakes as long as the cost is controllable. And just with enough background contexts, talents can implement the strategy even it is just a strategic direction or instruction. But most Chinese enterprises care more about the control instead of the context. How to transfer traditional enterprises from a control model to context model needs more discussion and further research.

4) Limitation on industries. Feishu is an enterprise-level communication and collaboration SaaS platform in Internet industry where strategy and product could iterate and upgrade easily and frequently. Customers can feedback their requirements easily and the impact may be reflected in the next version after several days. In this case, both strategy and product could be formulated, implemented and evaluated at the almost same time because they could be easily adjusted. But not all the industries are in such cases, not even in technology industry. For example, a smartphone could frequently upgrade its software but is relatively difficult to change its hardware. The applicable industries of this thesis' conclusions needed to be discussed.

5.3 Discussion and further research

For a long time in the past, enterprises in China tend to learn strategic management from western world. This thesis takes Feishu as an example, introduces some strategic management decisions of Feishu during the epidemic, analyze and summarize the strategic management process based on dynamic capabilities behind it. Through this strategic management process, Feishu has made great achievement during the COVID-19 epidemic.

The strategic management process of Feishu is based on dynamic capabilities. From the process, we can understand that strategy at first might not be well formulated but rely on the

interaction with the external environment because competitors are dynamically changing their strategies and customers are dynamically changing their demands. So, this process can support to drive strategy from business model. But in western strategic management theory, strategy need to be formulated first and then business model will be generated based on that. This is because the environmental difference between China and western countries. The economy of China grows much faster than that of western countries, and the business environment in China is highly unpredictable comparing with western countries. In this case, it would be very difficult to pursue a sustained competitive advantage by directly using a strategic management process of western world. Instead, the purpose of Feishu strategic management process to obtain short-term competitive advantage is more practical. And with the valuable, rare, imperfectly imitable and non-substitutable resources in Feishu including talents, culture and digital working tools, Feishu have very strong dynamic capabilities which help Feishu to continuously generate short-term competitive advantage. In this case, the continuous generation of short-term competitive advantage will also lead to the sustained competitive advantage.

COVID-19 might magnify the effect of dynamic capability in Feishu's case. But China has been in a highly dynamic environment for several decades, dynamic capability is always important for the sustainable growth of enterprises, and much more important than in most western countries.

Besides, we also have some other points of view to discuss:

1) Strategic management process. The management concept of Feishu is to manage an enterprise by excellent talents, transparent and self-driven culture, efficient digital working tools. When extreme risks are controllable, the leadership team will give more authorization to excellent talents, care about their culture, stimulate their creativity, execution and potential. Meanwhile, processed and control will be weakened in the organization. In the western countries, strategic management is more systematic through a set of good processes and data, but in China it is often based on feelings and relationship. Feishu strategic management process is a combination of both western and China style, and leaders need to take more efforts to ensure all the information are synchronized and the decision maker is top talent in the market. Besides Internet enterprises like Feishu, which industry else is more suitable to adopt this strategic management process?

2) Gray testing. We often hear such stories that in a class, western students speak and discuss enthusiastically while Chinese students are relatively silent and take notes carefully. According to Chinese culture for thousands of years, Chinese are relatively indirect and tactful when expressing their ideas so that not to make anyone feel uncomfortable. Gray testing is a

good method to solve the conflict-avoid problems in China during decision-making process because result and data talks. But will gray testing always tell the truth?

3) Freemium business model. In the innovation of China's Internet, freemium model has always been an inseparable topic. Such business model has already become the common practice of Internet enterprises in China. Enterprises makes money not from the product itself but from advertisement or other value-added services. Lark tried this model in Singapore and U.S but failed. Most customers will question on this model and worried about other risks such as data security. Will freemium business model work in China in the future?

4) Is experience important? Feishu prefers to hire well-educated talents who are hands-on geeks with startups experience and excellent general capability from different industries. Is this always the right decision? The assumption of this preference should be that there are no people with entrepreneurial spirit and strong capability in this field, so we need to find from another industry to change this industry. It seems to be useful in innovative businesses, but could it be applicable to other businesses?

All of the above questions and limitations in previous part could be followed up as research, so there still exists enough research space. And further research could dive more based on this thesis. Together with this thesis, all the research in the future could help to improve the capability of strategic management for enterprises in China.

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Annex A: Feishu Brand Survey Questionnaire

Executed independently by Kantar
Mr./Ms.:

Thank you very much for taking the time to participate in our survey. Please answer the following questions according to your real thoughts and feelings.

Basic Information

1. Your gender: [Single Choice]

☐ Male ☐ Female

2. Your working city:

_____

3. Your age: [Single Choice]

☐ 18 - 22 ☐ 40 - 49

☐ 23 - 29 ☐ 50 - 55

☐ 30 - 39 ☐ None of above

4. Your industry:

_____

5. Scale of your enterprise: [Single Choice]

☐ 1 - 9 employees ☐ 1,000 - 9,999 employees

☐ 10 - 99 employees ☐ 10,000 employees or above

☐ 100 - 999 employees

6. Your position in your enterprise: [Single Choice]

☐ Founder/CEO ☐ Other People Manager

☐ General Manager ☐ None of above

☐ Department Head

Brand Survey

1. When it comes to enterprise-level communication and collaboration platforms, which brand does it first come to your mind?

_____

2. Are there any other enterprise-level communication and collaboration platforms that come to your mind?

_____

3. When it comes to enterprise-level office suites and productivity tools, which brand does it first come to mind?

_____

4. Are there any other enterprise-level office suite and productivity tools that come to your mind?

_____

5. How familiar are you with and how well you use the following brands?

	In use now	Ever used	Heard of it but never used it	Never heard of it
WPS	□	□	□	□
DingTalk	□	□	□	□
Enterprise WeChat	□	□	□	□
Office 365	□	□	□	□
Tencent Documentation	□	□	□	□
Kingsoft Documentation	□	□	□	□
Feishu	□	□	□	□
UFIDA	□	□	□	□
Teams	□	□	□	□
Shimo	□	□	□	□
WeLink	□	□	□	□
Zoom	□	□	□	□
Yuque	□	□	□	□

6. Below are some sentences that describe the product characteristics of enterprise-level communication and collaborative efficiency improvement software, please check in all fields of software brands that you think are appropriate according to the impression in the left. [Multiple Choice]

Product features	Feishu	DingTalk	Enterprise WeChat	WeLink	Zoom	WPS	Microsoft O365	Tencent Documentation	Kingsoft Documentation	UFIDA	Teams	Shimo	Yuque
The functions of each section are clear and easy to understand													
Runs smoothly (no stuttering or flashback)													
The product design is good, clear and beautiful													
File editing, storage and export are convenient and fast													
Synchronization function is good													
Work plans are easy to set up													
Provide strong service support during usage													
Flexible typography and user-friendly													
Data visualization													
Communication functions are diverse													
Easy to search													
Intelligent schedule management													
Plugins are plentiful													
Data privacy can be protected													
Communicate efficiently and can find contacts anytime, anywhere													
The robot is fully functional													

7. Below are some sentences that describe the brand impression of enterprise-level communication and collaborative efficiency improvement software, please check in all fields of software brands that you think are appropriate according to the impression in the left. [Multiple Choice]

Brand impression	Feishu	DingTalk	Enterprise WeChat	WeLink	Zoom	WPS	Microsoft O365	Tencent Documentation	Kingsoft Documentation	UFIDA	Teams	Shimo	Yuque
International													
More suitable for SMB enterprises													
Powerful technology													
More suitable for large enterprises													
Good brand image													
The version is old													
High security and trustworthy													
The product concept is future-driven and innovative													
Good reputation													
Young and friendly													
The function is complex													
Too much control													
There are many product bugs (often flashback, slow loading, etc.).													
Poor user experience													
Information security is low													
Poor brand image													

8. Which are the functions with your frequent usage? Please check in all the fields that you use frequently [Multiple Choice]

Functions with frequent usage	Feishu	DingTalk	Enterprise WeChat	WeLink	Zoom	WPS	Microsoft O365	Tencent Documentation	Kingsoft Documentation	UFIDA	Teams	Shimo	Yuque
Online documentation sharing													
Task management													
Project management													
Meeting management													
Mailbox and email management													
Calendar													
Instant Messaging													
Online drive and file management													
Approval function													
Attendance check													
Audio communication													
Video communication													
Report function													

9. Which are the functions with which you are not satisfied? Please check in all the fields that you are not satisfied. [Multiple Choice]

Functions with which you are not satisfied	Feishu	DingTalk	Enterprise WeChat	WeLink	Zoom	WPS	Microsoft O365	Tencent Documentation	Kingsoft Documentation	UFIDA	Teams	Shimo	Yuque
Online documentation sharing													
Task management													
Project management													
Meeting management													
Mailbox and email management													
Calendar													
Instant Messaging													
Online drive and file management													
Approval function													
Attendance check													
Audio communication													
Video communication													
Report function													

10. Based on your experience of usage, which of the following best represents your level of like for these enterprise-level communication and collaborative efficiency improvement software? N/A stands for not applicable. Score of 1 point means that you don't like it at all, and score of 10 points means that you like it very much.

Brand	N/A	1	2	3	4	5	6	7	8	9	10
Feishu											
DingTalk Enterprise											
WeChat											
WeLink											
Zoom											
WPS											
Microsoft O365											
Tencent Documentation											
KingSoft Documentation											
UFIDA											
Teams											
Shimo											
Yuque											

11 A. Based on your experience of usage, why do you give *(insert the brand names with a score greater than or equal to 6 in @10 one by one)* a relatively high score? What are the main reasons? [Multiple Choice]

□ Powerful functionality*

□ Easy to manage and it can significantly reduce the workload

□ User-friendly interface and easy to use

□ Good authorization management and security

□ Documents and tables can be co-edited by multiple people, and changes are updated in real time

□ Several personnel management tools**

□ High data privacy

□ Easier to efficiently communicate with colleagues/clients/collaborate than other brands

□ Available attendance check function

□ Enterprise information can be easily traced, storage and classification can be clearly and easily searched

□ More effective than other brands to improve work efficiency

□ High compatibility

□Support multi-terminal synchronization

□ Approvals anytime, anywhere

□ Initiate an appointment quickly through schedule management

□ Good service to solve problems quickly

□ High-quality financial management tools to handle reimbursements

□ Security certifications

□ Easier to establish work plan than other brands

□ Takes up less memory on your phone

□ Support more than 50 attendees in online meeting

Powerful functionality: contains many tools to solve the needs of different scenarios*

*Several personnel management tools**: can easily handle payroll management, performance management, workforce management. The brand could optimize enterprise's HR processes.*

11B. Based on your experience of usage, why do you give *(insert the brand names with a score greater than or equal to 6 in@10 one by one)* a relatively low score? What are the places that you think are not good enough? [Multiple Choice]

□ Weak functionality*

□ Obstacle points to use

□ Low compatibility

□ not user-friendly and difficult to use

□ inconvenient to communicate and collaborate with colleagues and customers efficiently

□ Poor service, cannot find people or slow to solve problems

□ Inconvenient to establish a work plan

□ Take up too much phone memory

□ Cannot solve practical problems, but increases the workload

□ It is more like a personal tool, and team is inconvenient to use or the permissions are not easy to manage

□ Product quality is not good, too many problems during usage

□ Few personnel management tools**

□ Less effective than other brands to improve work efficiency

□ Need heavy maintenance by dedicated staff

□ cannot integrate with existing systems

□ enterprise data cannot be stored in one place or securely manage

Weak functionality: contains few tools to solve the needs of different scenarios*

*Few personnel management tools**: cannot easily handle payroll management, performance management, workforce management. The brand could not optimize enterprise's HR processes.*

12. Based on your experience of usage, which level can best represent your possibility to refer these enterprise-level communication and collaborative efficiency improvement software to others? N/A stands for not applicable. Score of 1 point means impossible, and score of 10 points means 100%.

Brand	N/A	1	2	3	4	5	6	7	8	9	10
Feishu											
DingTalk Enterprise											
WeChat											
WeLink											
Zoom											
WPS											
Microsoft O365											
Tencent Documentation											
KingSoft Documentation											
UFIDA											
Teams											
Shimo											
Yuque											

13. What is your role when your enterprise chooses communication and collaborative efficiency improvement software? [Single Choice]

□ Key decision maker

□ Influencer

□ Co-decision maker

□ Others

14. What media do you usually come into contact with news, advertisements and other information? [Multiple Choice]

□ Internet media (websites or apps)

□ Elevator advertisement in buildings

□ TV

□ Recommended by relatives and friends

□ Subway ads

□ Recommended by professionals

□ Recommended by colleagues

□ Recommended by friends in the same industry

□ Bus ads

□ Recommended by technical partners or IT service providers

15. (Only apply to attendees who check in Internet media in @14) What kind of Internet media (websites or apps) do you specifically use to get news, advertisements and other information? [Multiple Choice]

□ Online video websites or APPs
□ Tools
□ News and information media
□ Short video app
□ Social media
□ The official website
□ Search engine
□ Vertical sites or communities

16. (Only apply to attendees who check in Online video websites or APPs in @15) You mentioned that you will get news, advertisements and other information from the online video websites or APPs, which online video websites or APPs do you refer to? [Multiple Choice]

□ iQiyi
□ Xigua Video
□ Tencent Video
□ Sohu Video
□ Youku
□ Other

17. (Only apply to attendees who check in news and information media in @15) You mentioned that you will get news, advertisements and other information from the news and information media, which news and information media do you refer to? [Multiple Choice]

□ Today's Headlines
□ Phoenix News
□ Tencent News
□ Yidian Inc
□ Sina
□ WallStreetCN.com
□ Sohu
□ Qdaily.com
□ NetEase
□ other

18. (Only apply to attendees who check in social media in @15) You mentioned that you will get news, advertisements and other information from social media, which social media do you refer to? [Multiple Choice]

□ WeChat circle of friends

□ WeChat public account

□ Weibo

□ QQ

□ Zhihu

□ DingTalk

□ LinkedIn

□ Facebook

□ Twitter

□ Others

19. (Only apply to attendees who check in s search engines in @15) You mentioned that you will get news, advertisements and other information from search engines, which search engines do you refer to? [Multiple Choice]

□ Baidu

□ 360 Search (Hao Search)

□ Sogou Search

□ Google

□ Bing

□ Others

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Annex B: Outline of Feishu Customer Prolonged Interview

Basic information collection before interview

- Enterprise name
- Country/region
- Industry (primary industry-secondary industry, such as education-university)
- Employee size
- Are you an existing customer of Feishu?
- From what channel have you heard of Feishu before?
- Systems currently used in your enterprise (please indicate if it is on-premises deployment)
  - ◆ Instant messaging:
  - ◆ Office/document:
  - ◆ Video conference:
  - ◆ OA：
  - ◆ Attendance check:
  - ◆ Enterprise email:
  - ◆ HCM：
    - ● Do you want to deploy OKR module?
    - ● Do you use Feishu Applicant Tracking Systems (ATS)?
  - ◆ CRM：
  - ◆ ERP：
  - ◆ Project management
  - ◆ Others

The level of your enterprise's demand for the following functions (Score from 1 to 5)

- ■ 5-Very needed, indispensable

- 4-It is very necessary and will be very troublesome if it is missing;
- 3-Need, but there are alternative means if no such features;
- 2- Optional, there will be good if yes, basically no impact if no such features;
- 1-No need at all, it doesn't help if you use it)
  - Enterprise IM
  - Shared document (multi-person online collaborative editing, such as Shimo document)
  - Video conference
  - Enterprise email
  - Attendance check
  - OA system/online approval
  - HCM (personnel management system)
  - CRM
  - ERP
  - Project management

Question List (Send to interviewees before interview)

1. How is communication and collaboration conducted within your enterprise? What is the specific scenario of using Feishu?
2. Before using Feishu, how do you team collaborate and what are the pain points? Is communication and collaboration platform such as Feishu mandatory in your organization?
3. How do employees in your enterprise communicate or collaborate with external stakeholders? What is the specific scenario? What are the pain points in the current external communication and collaboration?
4. (Optional) What is the annual budget of IT? What is the proportion of software and services?
5. What are the most concerned issues of your enterprise / industry? What industry trends do you see?
6. Who is the decision-maker when your enterprise decides to use a communication and collaboration software? How is the decision-making process?
7. How do you know about Feishu and other tools (such as advertising, reputation)? Why did you decide to use Feishu?

8. Tell me about your impression of Feishu and other competitive products (especially DingTalk, Enterprise WeChat, zoom.)
9. Do you have any feedback on Feishu products? Are there any unsatisfied areas or additional functions you want to have?

Interview guide (interviewer use only)

Internal and external workflows/current system

1. How is communication and collaboration conducted within your enterprise? What is the specific scenario of using Feishu?

   (If it is an existing customer, ask the scenario before using Feishu vs after using it; and what problems Feishu has solved and what is the most important factor in choosing Feishu)

   - Inquire deeply about the process and collaboration scenario within the enterprise;
     - Is there much internal collaboration, what are the scenarios and what are the related business processes?
     - Mainly which departments need to cooperate
     - Ask about the collaboration tools commonly used in the industry, ask why and what functions are valued
   - Scoring/Labeling
     - Internal collaboration level: high (business needs internal cooperation very much, such as creative enterprises) vs low (business is mostly done by groups or even individuals, such as investors); if necessary, label could be split into departments (such as marketing department is high, but investment department is low)
     - The degree of informatization of internal collaboration (whether internal collaboration has been carried out with tools), high vs low

2. What are the pain points in the internal collaboration process? Do you think collaboration tools are necessary/what problems can the tools solve? Are there any areas where the tools currently used cannot meet the needs?

(For enterprisers with more than 1,000 people, ask for private deployment and brand customization, which means whether they need to change the system logo from Feishu to their own Enterprise logo)

- Mainly judge the degree of how rigid the demand is for collaboration tools;
- Focus on the value of the tool, such as strengthening employee management, or

other aspects such as culture

- Ask questions with the combination of systems and pain points, for example:
  - What are you not satisfied with the existing tools? For example, flexibility, mobility?
  - What are the problems that should have been solved with tools that have not been solved yet? Because there is no good tool, or because of price and other reasons?
- Score/label
  - The extent to which internal collaboration requires tools (scoring): rigid requirements vs non-rigid requirements

3. What are the scenarios of collaboration with external enterprises/partners? How to cooperate, whether or not to use tools? What are the pain points/dissatisfaction points?

- Focus on cross-organizational scenarios;
  - Is the external contact individuals or enterprises; how often; which departments generally need to cooperate with the external?
  - What is the external cooperation scenario (such as sharing document, meeting communication, contract signing), and how is the general business process?
  - Are processes currently digitized; what tools/systems are used to implement them?
- Score/label
  - Level of cross-organizational collaboration: high (very high frequency needs and external collaboration) vs low (basically no external collaboration scenarios)
  - The degree of informatization of external collaboration, high vs low

4. What are the pain points in the process of external collaboration? Do you think collaboration tools are necessary? What are you dissatisfied with the existing tools?

- Score/label
  - Demand for tools for cross-organizational collaboration (scoring): rigid requirements vs non-rigid requirements

- Satisfaction with existing tools: satisfied vs dissatisfied (Why dissatisfied)

5. What is the current spending on tools and systems? The proportion of software and services? SaaS or local?

Industry trends and enterprise anxiety

1. What are enterprises are most concerned about? What is the most core appeal? What are the general trends and anxiety points in the industry?

(You can ask appropriately, such as CIO, how is it measured in the enterprise, and what is the core KPI?)

- Preset several types of answers
  - Revenue increase/growth
  - Cost deduction
  - Employee Management
  - Digital Transformation of traditional enterprises
  - Improve efficiency and strengthen internal communication and cooperation
  - Epidemic specific needs, such as remote work
  - Others
- Score/label
  - Corporate culture/philosophy: emphasis on control vs collaboration; tradition vs non-tradition

2. In terms of such demands/industry trends, what methods and tools will be used to solve these problems?

Kye decision makers /internal decision process

1. Internal: Who decides what tools to use/purchase? Does each department/team have the power to decide on the use of their own tools? Do the department's needs have an impact on the overall tool procurement of the Enterprise?

- The department level distinguishes professional tools from universal tools; for example, "the marketing department can buy marketing tools by itself, but it cannot make its own decision to buy video conferencing; but if the marketing department recommends the introduction of an enterprise IM, the company's IT will be taken into account."

- Score/label:
  - Decision-making method: top-down vs bottom-up
  - Key Decision Makers: CEO, IT Head, CIO, others to be added

2. External Collaboration Scenarios: Who makes the decision on what tools to use/purchase? Or who in the industry sets the standard?

- Deep Dive into the form of the industrial chain; the initial assumption is that the upstream determines the downstream; whether there exists industry association

Touch point/brand image

1. What are the ways to learn about new tools? What are the factors that determine the use of new tools?

- Separate the factors that "obtain information" and "promote decision-making"; For example, it is possible to obtain new tool information through industry conferences, but only when there is peer recommendation in the general industry will it really decide to use
- Media/channels for obtaining industry information; what channels do you think are more reliable
- The approach needs to guide interviewees to give examples, such as what are the online and offline channels respectively, and what do you think is more reliable/credible

2. What is your impression of Feishu and the competitors? How did you learn about these products?

- Awareness level of Feishu and competitors (high/medium/low)
- Impressions of the brand
- The channels to access product information

3. What is the main reason for choosing/not choosing Feishu?

Labeling system for unstructured problems

Customer Portrait	Internal collaboration	External collaboration	Enterprise's' core demands/ anxiety	KDM	First Touch Point	Feishu cognition
Industry, scale	Are there many internal collaboration scenarios (High/ Medium/ Low)	Whether external collaboration is needed	Growth, transformation, employee management, and a series of other labels	CEO, IT Head, CIO, etc.	Reputation, industry conferences, etc.	Feishu cognitive level (High/ Medium/ Low)
Degree of digitization / penetration of competitor s' products	Degree of rigid demand for collaboration tools (Rigid demand/ non-rigid demand)	Degree of rigid demand for external collaboration tools			How to know Feishu/ other competitors	Competition awareness (High/Medium/Low)
Degree of rigidity required for tools	Internal collaboration scenario	External collaboration scenario				

Example of interview record

Basic information:

- Enterprise name: ***Jiker.com***
- Country/region: ***China-Beijing***
- Customer industry: ***Internet-Online Education***
- Employee size: ***50 people***
- Are you an existing customer of Feishu: ***Yes***
- Have you heard of Feishu before: ***using Feishu***
- Tools currently used in the company (please indicate if it is on-premises deployment)
    - IM: ***WeChat/Feishu***
    - Office/doc: ***Microsoft Office***
    - Video conferencing: ***None***
    - OA: ***None***
    - Attendance check: ***None***
    - Enterprise email: ***Tencent Email***

- HCM: ***None***
- CRM: ***None***
- ERP：***None***
- Project management: ***None***
- Others: ***None***

- The company's demand for the following functions (Score from 1 to 5)
  - 5-Very needed, indispensable
  - 4-It is very necessary, and it will be very troublesome if it is missing;
  - 3-Need, but no alternative means are available;
  - 2- Optional, there will be good, no basic no impact;
  - 1-No need at all, it doesn't help if you use it)

◆ Enterprise instant messaging: ***3***

◆ Shared documentation: ***5***

◆ Video conferencing: ***4***

◆ Enterprise mailbox: ***2***

◆ Clock in: ***N/A***

◆ OA system/online approval: ***N/A***

◆ HCM: ***N/A***

◆ CRM: ***N/A***

◆ ERP: ***N/A***

◆ Project management: ***5***

Interview content

1. Onboarding

- *Mr. XIE Xie's recommendation; especially suitable for R & D team whose feedback is very good*
- *The enterprise also wants to use OKR, so they used Feishu CCS together*
- *Why start using Feishu?*
- *The founder is a technical background, like to try and research new tools*
- *Most important initiator: Friend's recommendation*

2. Daily operation mode, Feishu usage

- *Feishu use scenario: communication between product and engineering are pretty much. Internal culture encourages collaboration. HR, operations and other teams will not work on their own but share the online doc and everyone discussed how to do it*
- *Feishu system bug led to loss of doc but it is okay now*
- *Before using Feishu: also use Shimo doc and working communication were in WeChat group; founder is a fan of fantastic tools, who used various tools such as Trello*
- *Effective collaborative tools can gradually generate user habits*
- *Shimo/Feishu experience:*
- *Pilot users share docs out to the team for collaborative comment; technical team uses Feishu most frequently; operation team is also using*
- *Will also invite the trainees to the Feishu group*
- *The R & D team originally used TAPD process management software, but now moved to Trello. Feishu is enough to other teams*
- *Usage of enterprise email:*
- *I haven't read emails for a long time, it's all the assistants who read them, and only the important ones will be reported*
- *External communication:*
- *Trainees*

✓ *Guide teachers to use Feishu as tool including teaching and practice.*

✓ *Trying to guide all college students to use Feishu. The peer influence among students is much faster than that of professionals*

✓ *Interaction with students:*

1. Awareness: Students know this matter mainly through promotion/arrangement by school teachers. The Internet is actually of little use

i. *Even in "985 University", only a small number of students are clear about their real goal or know what they want to do (only about the top 20%); only 10% students listened to a speech carefully*

ii. *Second, there are too many competing products in the market, and students have no feeling about their difference*

2. Operation: Just try to take 30% of the organization to communicate and reduce the number of students who keep silent to 70% (WeChat group is more difficult to coordinate, and the number of students who keeps silent accounts for 90%).

iii. *Method: design some projects for students to discuss in group*

iv. In Feishu, those who want to learn can really stay while other useless chat could be filtered out

- *Other partners:*

✓ *Stable partners asked to use Feishu and collaborate on Feishu*

✓ *Why does it have influence on partners? I have not thought about it. Before, we use benefit as a hook and tell them that it will be easier to collaborate with us if they use Feishu as well. What's more, we always collaborate through online doc. Partners will have to use Feishu if they want to see the content.*

- *Does external communication have to use Feishu in your organization?*

✓ *Let's go back to the founder's concept and recognize the time-saving benefits of the collaborative platform*

3. Product use feedback

- *Not good:*
- *External groups do not support red packets*
- *The table tool is really not easy to use*
- *Online documents will be lost*
- *The optional emoji picture is too big, not aligned with Feishu's style*
- *Good:*
- *Full functions to support collaborative scenarios*

4. Collaboration Platform Usage in Startup Circle

- *Heard of/ used competitors' products? What is the major tool used in your industry?*
- *It is directly related to the founder's genes, and has little to do with the industry; it mainly depends on whether the founder is willing to try new things; if the enterprise is small, it may be easier to use; the ROI of the product is also very important; experienced entrepreneurs will realize the importance of good tools/collaborative workflow*
- *Case: Feishu was recommended to the founder and he felt good to roll out to the whole enterprise*
- *Is there any Entrepreneur Community in your industry?*
- *Entrepreneurs have large WeChat groups, but usually do not talk about topics such as collaboration tools. Only private chat or private small groups will discuss about the experience of using collaboration tools.*
- *Comment from friends in Entrepreneur Circle: WeLink is too heavy; Teams is not easy to use; Feishu is relatively easy to use*

5. Respondent Comments

- *Necessity of collaborative software?*
- *I did not realize the necessity before I use it, but it became sticky after I used it, and then I stopped using WeChat after I got into the habit of using Feishu*
- *Work Collaboration: Feishu can greatly help communication with objective (unlike WeChat, which is specific to casual talk)*
- *How to make customers realized Feishu's value quickly?*
- *Collaboration with objective. Feishu's team should constantly thinking about topics and link them with Feishu's collaboration capability; Feishu has a strong capability of collaboration, as long as customers are will to enter this field, they will definitely choose Feishu*
- *It has a lot to do with the company's genes and founder style; choose those prospects who recognize "Context, not control" concept*
- *What are the influencing factors of founders' perception of collaboration?*
- *Whether the founder attaches importance to collaboration and believes that collaboration is necessary is less related to the industry but more related to the founder's own cognition*
- *Whether the founder underly values and agree that he or she need to work together to create value, rather than a pure top-down management model*
- *The business model of startups in early stage is always based on its production capacity to make more money with low collaboration demand. However, as the market has gradually changed, and entrepreneurs need to find other models to make money and profits, which will urge the founder to change his management style*
- *What do online education platform enterprises in early-stage care about?*
- *How to make students feel the value of learning; mainly economics, psychology*

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Annex C: Main Product Portfolio of ByteDance by Nov. 2020

Product Name	Description	Available Territory
TikTok	World's leading destination for short-form mobile videos	Non-China global market
Lark	The all-in-one collaboration and communication work tools	Non-China global market
Resso	A music discovery platform for the next generation of music enthusiasts	Non-China global market
Toutiao	The largest AI-powered content discovery platform in the market	China
Douyin	China's leading destination for short-form mobile videos	China
Huoshan	One of China's most popular short video platforms	China
Xigua Video	One of China's most popular short-form video mobile applications	China
FaceU	One of China's most popular selfie mobile applications	China
Dongchedi	A car information and review app	China
GoGoKid	An 1-0-1 online English teaching platform for students aged 4-12 years old, with all teachers and tutors from North America	China
Pipixia	A social community app featuring with light humor and splendid comments	China
Feishu	Collaboration and communication software, only available in China	China
FaceU	A heat beauty selfie camera app empowered by AR technology and allow users to choose stickers or add effects	China
Ulike	A selfie camera that allows personalized fine-tuning	China
Dali Education	ByteDance's brand of education business launched in Oct 2020, including Gogokid, Guagualong Enlightment, Qingbei Online School, etc	China

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Annex D: Figures and Tables of Feishu Brand Survey

Figure 1 Brand Awareness among DingTalk, Enterprise WeChat and Feishu

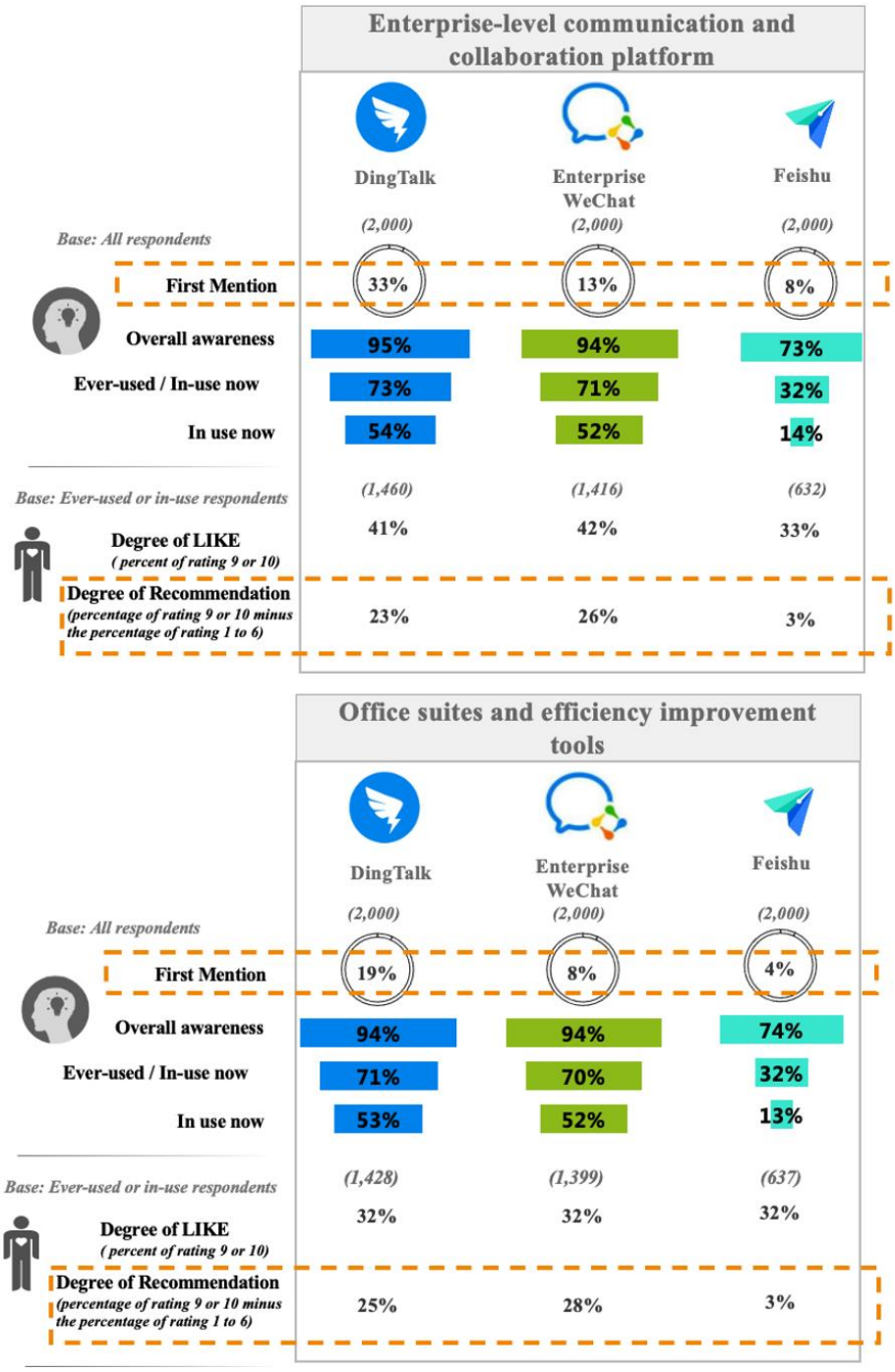

Figure 2 What tools are currently used by users who are not familiar with Feishu?

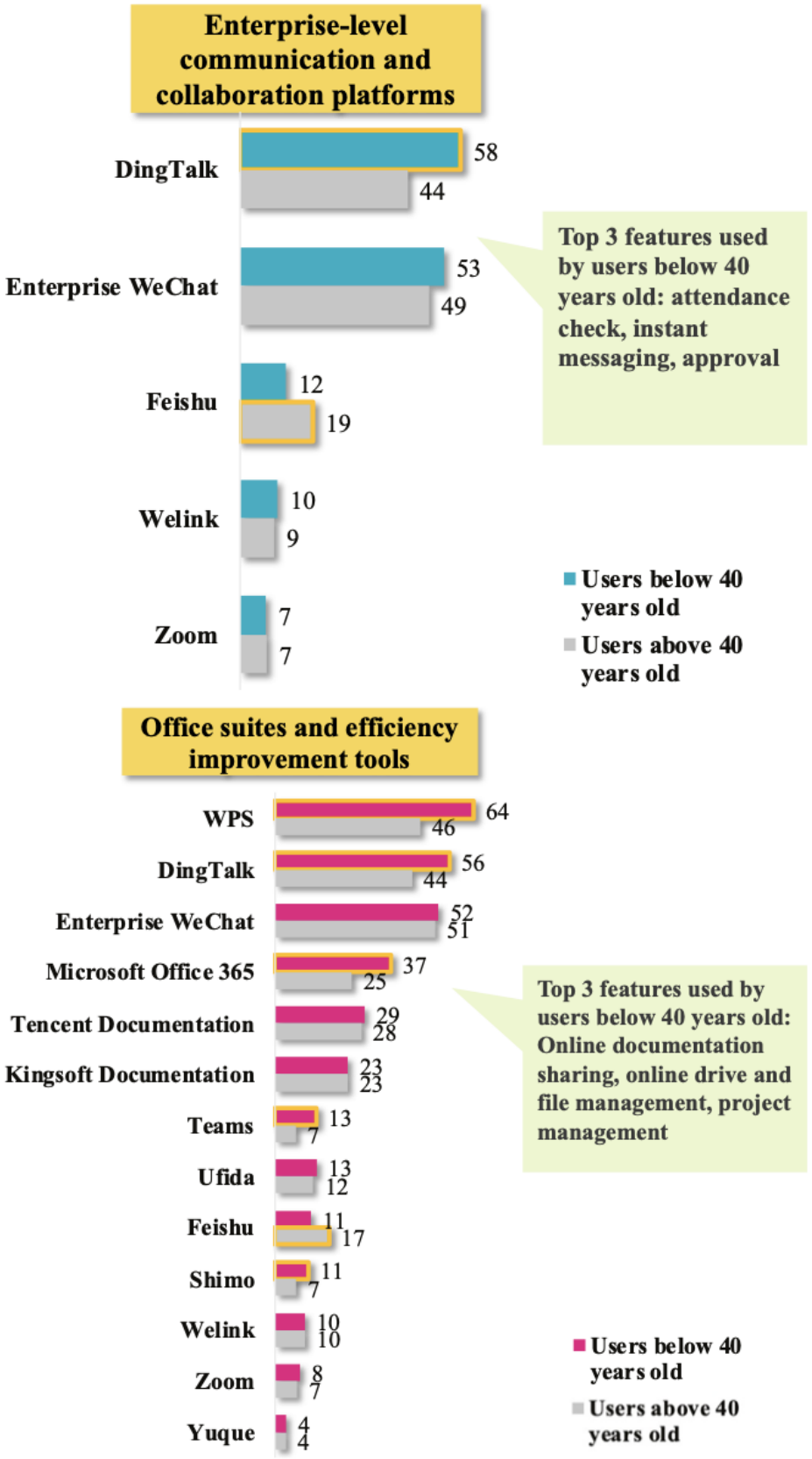

Table 1: Feishu brand survey sample summary

Brand	Brand Impression	Product Feature
Feishu	Young and friendly	Communicate efficiently and can find contacts anytime, anywhere
DingTalk	Young and friendly Too much management control	Communicate efficiently and can find contacts anytime, anywhere Data visualization is weak File editing, storage and export are not convenient or fast
Enterprise WeChat	Good brand image Young and friendly	Communicate efficiently and can find contacts anytime, anywhere Data visualization is weak File editing, storage and export are not convenient or fast
WeLink	Powerful technology More suitable for large enterprises	-
Zoom	-	-
WPS	Good reputation	File editing, storage and export are convenient or fast
Microsoft O365	International More suitable for large enterprises	Data visualization
Tencent Documentation	Good brand image	File editing, storage and export are convenient or fast
Kingsoft Documentation	The version is old	-
UFIDA	-	-
Teams	International	-
Shimo	-	-
Yuque	Poor brand image Information security is low	Communicate efficiently and can find contacts anytime, anywhere

Table 2: Who is impressed by Feishu Brand?

Category		Number	Enterprise-level communication and collaboration platform		Office suites & efficiency improvement tool	
			Feishu as first mention	Feishu as not first mention	Feishu as not first mention	Feishu as not first mention
Sample Size		*2,000*	*155*	*1,845*	*85*	*1,915*
City Category	**Tier-1 Cities**	70%	78	69	80	70
	Tier-2 Cities	30%	22	31	20	30
Gender	**Male**	50%	53	50	58	50
	Female	50%	47	50	42	50
Age	**18-22**	10%	10	10	7	10
	23-29	30%	25	30	19	30
	30-39	35%	25	36	26	35
	40-49	20%	30	19	31	20
	50-55	5%	11	4	18	4
Enterprise Size	**Micro**	5%	4	5	4	5
	Small	38%	64	36	64	37
	Medium	42%	22	44	21	43
	Large	8%	6	8	8	8
	Super-large	7%	3	8	2	7
Industry	**Education**	12%	7	12	12	12
	Retail	19%	21	19	20	19
	High Tech/Internet	34%	28	35	30	34
	Professional Service	35%	44	34	38	35
Position	**Enterprise-level senior executives**	16%	11	17	5	17
	Functional department	84%	89	83	95	83
Role in decision-making Process	**Key decision maker**	58%	69	57	62	58
	Co-decision maker	28%	21	29	29	28
	Influencer	14%	10	14	10	14

Table 3: Who likes Feishu and who does not like Feishu?

Category		Number	Like Feishu	Not like Feishu
Sample Size		*770*	*238*	*188*
City Category	**Tier-1 Cities**	71%	78	63
	Tier-2 Cities	29%	22	37
Gender	**Male**	51%	51	48
	Female	49%	49	52
Age	**18-22**	12%	14	10
	23-29	29%	27	33
	30-39	32%	29	32
	40-49	21%	23	16
	50-55	6%	6	8
Enterprise Size	**Micro**	6%	5	9
	Small	42%	50	33
	Medium	38%	33	40
	Large	8%	6	9
	Super-large	6%	5	9
Industry	**Education**	14%	12	14
	Retail	16%	17	15
	High Tech/Internet	35%	38	32
	Professional Service	35%	34	39
Position	**Enterprise-level senior executives**	16%	13	15
	Functional department	84%	87	85
Role in decision-making Process	**Key decision maker**	68%	71	64
	Co-decision maker	24%	24	21
	Influencer	8%	5	14

Table 4: How could Feishu attract medium/large/super-large enterprises?

Classification of enterprise size	Brand image improvement points	Product feature improvement points	Functional module opportunity points
Medium (From 100 to 999 employees)	Brand image and reputation	Efficient communication	Satisfaction with instant messaging, email management, and meeting management
large (From 1,000 to 9,999 employees)	Brand image and information security	Schedule management	Satisfaction with instant messaging and video communication, and email management
Super-large (10,000 or above employees)	Technology	Efficient communication	Satisfaction with instant messaging and approval capabilities
Next Step	Enhance the trust of the brand from Feishu brand image and information security because the important basis for large enterprises to choose enterprise-level software is the credibility of the brand. Enhance the customer security from Feishu product through powerful technology of stability and fluent user experience.	The main competitors DingTalk and Enterprise WeChat have obvious advantages in the efficiency of communication and schedule management. Feishu could refer to their design.	On the whole, due to the high utilization rate and relatively unsatisfied market status, the two functional modules of instant messaging and email management are the opportunities for Feishu.

Annex E: Technical Scoring Table of Unified Mobile Platform

Scenarios	Features	DingTalk	Enterprise WeChat	Feishu
Supported devices	Phone-Andriod&IOS	Support	Support	Support
	PC-Windows	Support	Support	Support
	PC-Mac OS	Support	Support	Support
	Score	5	5	5
Communication	Read or Not Read status check	Support	Support	Support
	Notification (SMS & telephone)	Support	Support	Support
	Meetings and Notification	Support	Not Support	Not Support
	Task	Support	Not Support	Not Support
	Business transactions	Support	Not Support	Not Support
	Real-time translation	Support	Support	Support
	Score	5	4	4
To Do	Image annotation	Support	Support	Support
	Cloud synchronization	Support	Support	Support
	Exclusive Red Packets	Support	Support	Not Support
	Lottery red pockets	Support	Support	Not Support
	Quick Like click	Support	Not Support	Support
	Rich group management	Support	Support	Support
	Group chat forbidden	Support	Not Support	Not Support
	Group bots	Support	Not Support	Support
	Chat security watermark	Support	Support	Not Support
	Secret chat	Support	Not Support	Not Support
	Full-screen voice call	Support	Not Support	Not Support
	Translation	Support	Support	Support
	Assistant	Support	Support	Support
	Score	5	4	3
Contacts	multi-organization address book,	Support	Not Support	Not Support
	Executive Protection Mode	Support	Not Support	Not Support
	Department hidden	Support	Support	Not Support
	Phone number hidden mode	Support	Not Support	Not Support
	External contacts	Support	Not Support	Support
	Enterprise homepage	Support	Not Support	Not Support
	Contacts security watermark	Support	Support	Not Support
	Automated full employee group	Support	Support	Not Support
	Automated department group	Support	Support	Not Support
	External contacts customization	Support	Support	Not Support
	Customize the splash screen	Support	Support	Not Support
	Security Center	Support	Not Support	Not Support
	Set up invoice headers	Support	Support	Not Support
	Score	5	4	2

Scenarios	Features	DingTalk	Enterprise WeChat	Feishu
Audio and video	Video conferencing (300 parties)	Support	Not Support	Not Support
	Voice Conferencing (300 parties)	Support	Not Support	Not Support
	teleconference	Support	Support	Not Support
	Screen sharing	Support	Support	Support
	Smart office phone	Support	Support	Not Support
	Score	5	4	2
Open platform	Application Center	Support	Support	Support
	Developer backend	Support	Support	Support
	Developer community	Support	Not Support	Support
	Build your own app	Support	Support	Support
	Enterprise customization	Support	Not Support	Support
	Open interfaces: 100+	Support	Support	Not Support
	Score	5	4	4
Work apps	Attendance check: Wifi & GPS	Support	Support	Support
	Online multiplayer doc editing	Support	Not Support	Support
	Approval	Support	Support	Support
	Intelligent reports	Support	Not Support	Support
	daily report	Support	Support	Not Support
	Announcement	Support	Support	Support
	Customized workbench	Support	Support	Support
	Business travel application	Support	Not Support	Not Support
	Score	5	3	4
Email	Enterprise Email	Support	Support	Not Support
	Drive	Support	Not Support	Support
	Score	5	4	4
Customer Service	Offline deployment	Support	Support	Not Support
	Online support	Support	Support	Support
	Salon	Support	Support	Not Support
	Support hotline	Support	Support	Support
	Score	5	5	3
Security	Third-party encryption	Support	Not Support	Support
	Sign in to Trusted Device Management	Support	Not Support	Not Support
	Contact verification	Support	Not Support	Not Support
	Real-name authentication	Support	Support	Not Support
	Privacy settings	Support	Support	Not Support
	Watermark display when screen sharing	Not Support	Support	Not Support
	Score	4	3	2
	Total Score	49	40	33

Source: Bidding result of unified mobile platform project, enterprise H

Annex F: Summary of Amazon Meeting Method

Amazon believes that each meeting must have a clear goal. The pre-condition of a meeting is not to have an agenda, but a proposal. If there is no proposal, it will become an inefficient meeting. People who organize meetings should come with proposals instead of questions. Amazon requires the organizer of the meeting to write down the materials before the meeting. By writing down, the basic concept of above could be implemented because people will think it over before writing it down.

Before meeting

The organizer of the meeting has to do a lot of work before the meeting. The content of the meeting needs to be prepared in advance. Except for the external conference, PPT is never used in the meeting because Jeff Bezos who is the founder of Amazon believes that PPT is a waste of time. The content is mainly prepared in the form of word and limited from 2 to 6 pages. The content must be a complete statement, and there is basically no list or table, because Bezos believes that the information expressed by the list is not complete, easy to be a noun, not rigorous, and generally there will be a lot of data. Preparing these contents takes a lot of effort and is not easy at the beginning.

Organizer needs to print out the word before the meeting and send it to everyone at the meeting with double-sided printing. Though printing consumes paper, employees could be more concentrated on the meeting itself by reading the paper without using computers.

In the meeting

Most meeting are expected to last for less than 30 minutes. In the first 5 or 10 minutes of the meeting, everyone is reading materials. They do not speak at all and understand the material by themselves. After that, discussion will be started. Everyone should fully express their views, such as which proposal they like and where to pay attention to. During the meeting, everyone will constantly challenge the meeting organizers. If the organizer is able to answer all those challenges at the end of the meeting, the organizer's proposal can be considered as passed.

After reading is finished, if participants ask that what do you mean by this or that, it means that the proposal is not written clearly. The meeting will be ended immediately and the content need to be updated before restarting this discussion. The important thing of the meeting is not to finalize the proposal, but to make contributions.