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**MASTER'S THESIS**

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**TASK**

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3. List of issues that need to be developed

1. Theoretical aspects of enterprise competitiveness theories

2. The case analysis of Huawei group to ensure the enterprise competitiveness

3. Related suggestions on Huawei group to ensure enterprise competitiveness

## 4. Work plan

№	Stages of work
1	Approval of the thesis content
2	Preparation of the thesis' first section
3	Completion of the first section according to the supervisor recommendations. Writing the thesis' second section
4	Completing of the second section according to the supervisor recommendations. Preparation of the thesis' third section
5	Completing of the third section according to the supervisor recommendations. Preparation of a report for a scientific conference with a presentation of the main results of the thesis
6	Writing of the introduction, conclusions of the thesis. Making references list
7	Submission of the thesis to the Department of Management and Administration

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## INTRODUCTION

*Topicality of the research.* With the continuous development of the world's science and technology level, people's living standards and quality of life are constantly improving. At the same time, more and more enterprises appear in the same field, which creates competition in the invisible. Because these enterprises serve the same customer groups as the goal, they may provide similar or even the same services, products, and related functions.

In recent years, with the global economic downturn, all industries have been hit hard. The epidemic, war, famine and other factors have exacerbated this phenomenon. As a result, all industries have been hit hard, and the market is shrinking. This has undoubtedly intensified the mutual competition between the various enterprises in the same industry. So, in this case, how should the enterprise ensure their own competitiveness, in various circumstances and what should take measures to face.

Thus, we can conclude that this topic of the thesis is very relevant.

*Analysis of research and publications.* Many scientists investigated the possibilities of increasing competitiveness and made a significant contribution to the development of the modern theory of competitiveness: Abaev K., Ansoff I., M.Poter, Adam Smith, David Ricardo, etc. Especially M. Poter, he is the main researcher in related fields. On the basis of their system theory, we still need to conduct professional research based on the cases.

*The object of the research* is the process to ensure the competitiveness of the enterprise.

*The subject of the research* is theoretical, methodical and practical aspects of the ways to ensure the competitiveness of the enterprise on the example of Huawei Group.

*The aim of the research* is to substantiate theoretical and practical recommendations regarding the formation of ways to ensure the competitiveness of enterprises in conditions of fierce competition.

To achieve this aim, the following research tasks were formed:

1. to analyze basic theoris of enterprise competitiveness;
2. to consider enterprise competitive strategy derived from the theory of enterprise competitiveness;
3. to describe basic methods to ensure enterprise competitiveness;
4. to analyze Huawei Group's business focus and strategy mode at different stages;
5. to describe relevant methods to ensure and enhance the enterprises competitiveness;
6. to make comparison before and after the measures are taken;
7. to propose the ways to ensure the competitiveness of Huawei Group;
8. consider the company's role in the revolution in information technology and artificial intelligence.

*Research methods.* The study used the following special and general scientific methods: theoretical generalization and analogy - in determining the content and essence of the concept of "enterprise competitiveness", statistical - in considering indicators, generalization and systematization - in the analysis of Huawei Group, induction and synthesis - in determining areas for improvement the competitiveness of Huawei Group, graphic - for a visual representation of statistical material, as well as a schematic representation of some theoretical and practical provisions.

*The practical significance of the research* lies in the systematic combing of the current enterprise competition theory, and summarizes the specific relevant methods that can ensure the competitiveness of enterprises. At the same time, these methods can help enterprises to develop well in different circumstances and gain advantages in the competition of enterprises.

*The structure of the qualification work* consists of an introduction, three sections, conclusions and references. The total number of pages in qualification work is 97, which includes 3 tables and 4 figures. The references contain 81 titles.

## SECTION 1. THEORETICAL ASPECTS OF ENTERPRISE COMPETITIVENESS THEORIES

### 1.1 Basic theories of enterprise competitiveness

Competition is the main melody of market economy, and the main body of market economy operation is the enterprise. Therefore, enterprise competitiveness is the basic factor that affects the industry of a country or region and even the country itself. Since the 1980s, the issue of competitiveness has been a worldwide research hotspot, and the theory of enterprise competitiveness has also become an important branch of the development of contemporary economics. Enterprise competitiveness is a very complex concept, and the relevant research institutions at home and abroad have carried out some beneficial exploration and research work from different angles. Reviewing and sorting out the relevant literature of domestic and foreign enterprise competitiveness theory is helpful for us to clarify the research status of this problem and make theoretical preparation for further in-depth analysis.

Internationally, there are great differences in the understanding of enterprise competitiveness, and there are also different views on its definition and measurement. Lenin believed that competition is the relationship between independent producers who work for the common market, so competitiveness is obviously the performance of some independent producers gaining an advantage in the common market, while others are at a disadvantage. Movzoki (Donald G. Mcfetridge, 1995) believes that the competitiveness research can cover three levels: national competitiveness, industrial competitiveness and enterprise competitiveness. Enterprise competitiveness connotation is rich, There are many different definitions from different perspectives: According to the Report of the Presidential Committee on Industrial Competitiveness, "Corporate competitiveness means that, in free and good market conditions, Enterprises can provide good products, good services in the international market, At

the same time, it can improve the living standards of their own people "; Cohen, et al. (Cohen and Zyman, 1989) held that, Enterprise competitiveness refers to the ability of the enterprise to obtain profits while establishing and maintaining the market position; In 1994, the World Economic Forum (WFF) defined the competitiveness of enterprises as "the ability of a company to produce more wealth than its competitors in a balanced way in the world market"; Prahalad and Hammore (C.prahalad and G. Hamel, 1990) believes that the real competitiveness of an enterprise is a set of unique, difficult to copy, valuable core technologies and skills; after studying the development of the United States, Britain and Germany, the company believes that the enterprise in economies of scale and economies of scope is a difference in organizational ability or management mode; the enterprise competitiveness is the ability of enterprises and entrepreneurs to design, produce and sell products and services, and the price and quality of its products and services have more market attraction than competitors. Jin Bei of Chinese Academy of Social Sciences believes that "enterprise competitiveness is the comprehensive quality that an enterprise can continue to provide products or services to the market (consumers, including productive consumers) in a competitive market and obtain profit and its own development".

Table 1.1 - The concept definition of enterprise competitiveness

<b>The study author</b>	<b>The concept definition of enterprise competitiveness</b>
C.Prahalad& C.Hamel,1990	They first proposed the concept of enterprise competitiveness in the Harvard Business Review, and they believed that enterprise competitiveness is a unique skill or technology that enables enterprises to bring special benefits to consumers
M.Poter ,1985	In the final analysis, enterprise competitiveness comes from the value created by enterprises for customers that exceeds its cost

Chandler, 1998	Enterprise competitiveness is the difference between enterprises in terms of scale economy and economy of scope, which is a difference in organizational ability or management mode
WEF(World Economic Forum ), 1994	Corporate competitiveness is a company's ability to produce more wealth than its competitors in a balance in the world market
A.M.Spence,1995	Enterprise competitiveness refers to the ability of a country's enterprise to trade in the international market
G.M.Fish,1995	Enterprise competitiveness means that the enterprise has a stronger ability to acquire, create and apply knowledge than its competitors
Cohen&Zyman1989	Enterprise competitiveness refers to the ability of the enterprise to obtain profits while establishing and maintaining the market position
Fan Xiaoping,1999	Enterprise competitiveness is a kind of state and ability of enterprises in the fierce market competition, which is constantly and effectively competing for market share, challenging competitors, looking for a favorable position, expanding the business field, and realizing the operating benefits
Zhang Zhiqiang 、 Wu Jianzhong,1999	Enterprise competitiveness refers to the ability to create profits for enterprises and promote sustainable development in the field of product design, production and sales, as well as in product price, quality, service and meet the needs of consumers
Jin Bei,2001	Enterprise competitiveness refers to the comprehensive quality that in a competitive market, an enterprise can continuously provide products or

	services to the market (consumers, including productive consumers), more effectively than other enterprises, and obtain profits and its own development
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*Compiled by the author on the basis of [17; 29; 52; 56; 60; 63; 64; 75]*

As early as in the classical economics period, the competition theory was put forward about the international trade of a country. It should be pointed out that the early economists did not conduct specific and in-depth research on the issue of competitiveness, but their theoretical exploration and ideological understanding of the absolute advantage, comparative advantage and the causes of the advantage were quite profound. Among them, the traditional comparative advantage theory constructed by the comparative advantage theory and factor endowment theory laid the foundation for the emergence and development of the competitiveness theory, thus becoming the theoretical origin of the competitiveness theory and even the enterprise competitiveness theory.

Table 1.2 - The theoretical origin of enterprise competitiveness

<b>Representative personage</b>	<b>Representative theory</b>	<b>Central idea</b>
Adam Smith	Theory of Absolute Advantage	If foreign countries can supply us with goods cheaper than we make ourselves, then we had better buy them with some of the products produced in industries where we have certain advantages
David Ricardo	Theory of Comparative Advantage	Trade both can produce both products, even if the trade on two kinds of goods production to the other party, but as long as the difference of degree, the other party on two goods production are in absolute disadvantage, but as long as

		the disadvantage also degree of difference, the two sides still have the possibility of mutually beneficial trade
EF.Heckscher B.Ohlin	Factor Endowment Theory	In international trade competition, the competitiveness of products directly depends on the price of products, and the fundamental reason for the price difference of products lies in the different resource endowment of different countries (or regions), and the production of different commodities requires different production factors. Different countries also have different quantities of various production factors

*Compiled by the author on the basis of [28;36;41]*

Since the 1980s, the theory of enterprise competitiveness has been developed rapidly. In fact, the early enterprise theory on the competitiveness of the enterprise market research. Through combing the literature, we find that there are mainly four schools of thought in the study of enterprise competitiveness:

#### 1. Market environment theory

The theory of enterprise competitiveness emphasizing environmental factors is called "market environment theory" "market positioning theory" or "market structure theory". The market environment theory of enterprise competitiveness emerged in the 1980s and is an important content of enterprise strategic management theory. This theory focuses on the analysis of the external industrial market structure of enterprises, and believes that the industrial market structure plays a major role in the establishment of the competitive advantage of enterprises.

The main representative figure of the genre is the American economist Michael Porter. He believes that the premise for an enterprise to gain a competitive advantage

is to study the competitive structure of its industry. His basic point is that enterprises to gain competitive advantage lies in how to determine the competitive strategy in the industrial competitive environment and how to implement it. Its main ideas can be summarized in the following three aspects:

A. Five-force model, the competitiveness of an enterprise is relative to other manufacturers in the industry it is in. To cultivate and form the enterprise competitiveness, we must investigate the factors outside the industry and the industry. The external force industry mainly has a significant role in the relative sense. He proposed the five basic competitive forces (Competitive Force) that drive the industry: substitution threat, potential entry threat, bargaining power of buyers, bargaining power of suppliers, and competition from existing competitors. Porter's "five-force model" provides a good analytical tool for enterprises to analyze their own dominant position in the industry and cultivate their competitiveness, and makes contributions to enriching the theory of enterprise competitiveness.

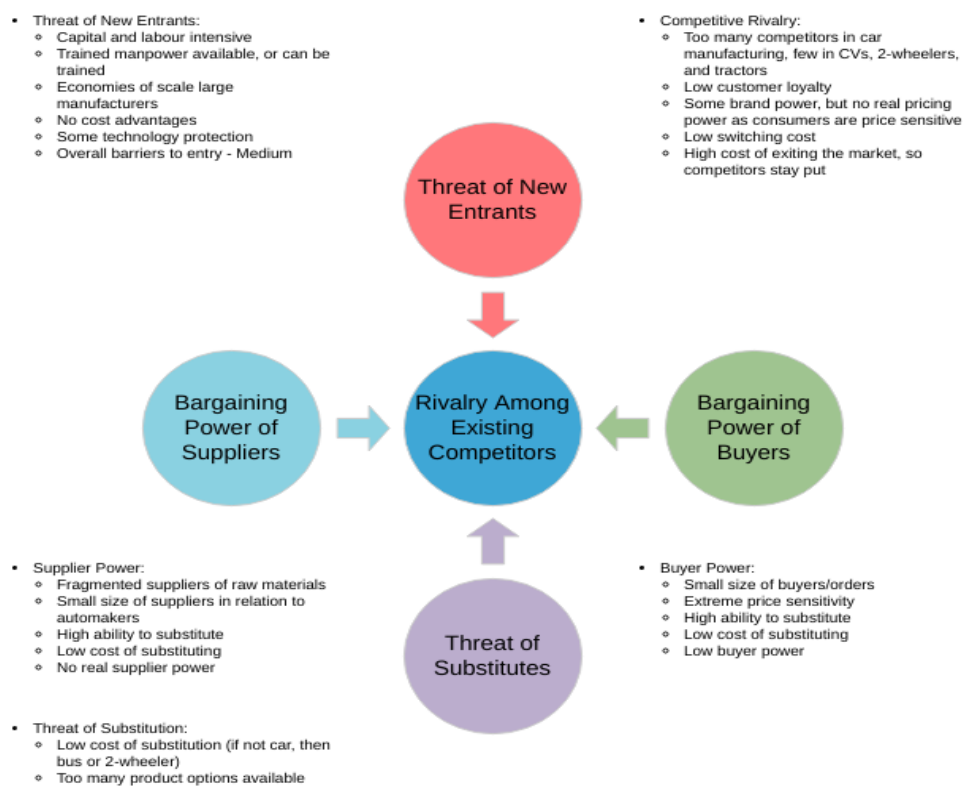


Figure 1.1. – The Porter five-force model

*Compiled by the author on the basis of [58]*

Porter pointed out that the primary and fundamental factor that determines the profitability of an enterprise is the attractiveness of the industry, and the attractiveness of the industry depends on the competitive situation of the industry, which mainly depends on the above five basic factors in the industry. Enterprises should first determine their long-term profit potential through the analysis of five factors in a specific industry, make industry selection, and use the relationship between these five factors to promote the transformation of these forces to the direction of their favor.

B. Three basic strategies. Porter believes that companies can take different approaches to fight five competitive forces, but there are three basic strategies: total cost leadership strategy (Overall CostLeadership), differentiation strategy (Differentiation), and target agglomeration strategy (Focus)

C. Value chain and enterprise competitive advantage. Value chain is an important analytical tool created by Porter to analyze the competitive advantage. Porter believes that the activities of enterprises are value activities, which can be decomposed into a series of different and interrelated activities, the sum of which constitutes the value chain of the enterprise."Each activity is a link in the value chain. The Enterprise's competitive advantage comes from every link in the value chain.

Porter is the first academic scholar in academia to completely and systematically explain the source of enterprise competitive advantage and maintain the strategy. His thought has an important position in both the competitiveness theory research and the practice. However, like any other theory, Porter's theory also has its imperfections, mainly reflected in: 1, the emphasis on the influence of industrial structure on the formation of competitive advantage of enterprises. Second, the induction of competitive strategy is too general, ignoring the role of management and innovation in the formation of competitive advantage. In addition, the view that competitive advantage comes from every link of the value chain is also worth discussing.

Overall, the market structure theory mainly focuses on from the market environment (especially industrial market environment) to investigate the enterprise competitiveness, emphasize the external environment (especially the industrial market structure) factors for the value and significance of enterprise competitiveness, less consider enterprise internal factors (such as resources, ability, etc.) on the influence of enterprise competitiveness.

## 2. Resource-base theory

At present, the most popular and dominant mainstream school is Wanafelt (B. Wermerfelt) and E. Penrose Is the main representative of the enterprise resource school. The resource base believes that the special resources of enterprises are the source of their competitive advantage. Resource-base scholars emphasize the importance of resource problems, and believe that there are differences in tangible resources, intangible resources and accumulated knowledge among enterprises. Fourth, these differences are the source of competitive advantage of enterprises, and enterprises with superior resources can obtain profits beyond the average level.

In this regard, economists Collins (Collins) and Montgomery believe that the evaluation of resource value should not be limited to the enterprise, but should put the resources of the enterprise in the industrial environment they face, and judge its advantages and disadvantages by comparing the resources with their competitors. To this end, they proposed four criteria for resource value evaluation: the possession assessment, that is, for whom the value created by resources; the second is the persistence assessment, that is, the speed of resource value depreciation; the third is the alternative assessment, predicting whether the resources of an enterprise can be replaced by another better resource; the fourth is the evaluation of competitive advantage, that is, whose resources are more superior. Through the above four aspects, it is usually possible to indicate the overall situation of an enterprise resources, thus providing a solid and reliable foundation for the development and selection of competitive strategy.

Under the assumption that resource difference can generate income difference, the school of resource theory believes that the internal intangible assets and tangible

assets of an enterprise are the key factors for an enterprise to obtain sustainable competitive advantage and success, and the competitiveness of an enterprise is those special resources. The theoretical origin of the resource school can be traced back to David Ricardo's comparative advantage theory. The theory of the resource school is intuitively convincing, and the difference of factor cost does also play a key role in the trade structure of many industries. However, since the second World War, especially the formation and source of enterprise competitiveness, this theory has great limitations. First of all, the theoretical origin of the comparative advantage theory does not conform to the reality. The comparative advantage theory of comparative advantage assumes that elements do not flow, but in reality factors flow but trade is still developing, and the standard comparative advantage theory does not exist. Secondly, in the actual development, the subject without resource advantages can transform the disadvantage into advantages through the improvement of technology and other aspects. That is to say, resource advantage can only be explained in a small range.

Therefore, resource base theory will enterprise as a set of resources, assets and ability of collection, any enterprise has a set of unique resources from other enterprises — tangible assets, intangible assets and organizational ability, competitive advantage is built in these valuable, difficult to imitate and alternative resource combination, rather than alone on the basis of some resources.

### 3. Core competitiveness theory

Core competitiveness theory can be traced back to 1957 (Selmick) "enterprise ability", "ability" here refers to the analysis of management process leadership behavior, can make an organization do better than other organizations "special material" is the ability of organization or "special ability" but he did not the "special material" in-depth explanation and analysis. It wasn't until 1990 that Praharad (Prahalad) and Hamel (amel) wrote "Corporate Core competency" in the Harvard Business Review, which explained Selznik's "special abilities" and formally proposed core competitiveness.

It is the inherent ability resource that the enterprise has unique, can bring special utility to consumers and make the enterprise have a long-term competitive advantage in a certain market. It is the competitive advantage of the company and the knowledge

system that is different from the competitors. It is a system of complementary knowledge and assets established and developed in the process of development, and it is the basis of the company's competitiveness. The growth process of the world's large enterprises shows that the core competitiveness is the key factor to guide the success of enterprises. Almost all in the technical know-how, innovation ability, management mode, market network, brand image, customer service has unique expertise, can say, the process of success, also is the process of its core competitiveness cultivation and development process, according to the pull hard and hammer, enterprise core ability has three basic characteristics: 1. The core ability provides the potential of the diversified market 2. The core ability should be the value of the customer value key contribution: 3. The core ability should be competitors to imitate the ability. The knowledge system that truly constitutes this core competence is mainly reflected in four aspects: (1) the knowledge and skills of the employees; (2) the company's technology development and innovation ability; (3) the company's management and production and operation ability; and (4) the company's ability to create and use the brand. Four aspects together reflect the company's basic quality and development potential.

A. The historical origin of the core competence theory. The enterprise core competence theory originates from the traditional enterprise competence theory. Early can trace Adam Smith enterprise division of labor theory, and Marshall's enterprise internal growth theory can be said to be the prototype of the theory, enterprise internal growth theory points out that the enterprise between various functional departments, between enterprises, industry "difference division of labor", the division of labor and their respective knowledge and skills, the knowledge and skills can be seen as the ability of the enterprise. Panrose theory on Enterprise Growth further studies the problem of enterprise growth and puts forward the idea of enterprise internal growth theory. It is believed that the enterprise resources and capabilities regarded as "black box" by the neoclassical enterprise theory are the solid foundation for the economic benefits of enterprises. An enterprise is not only a management unit, but also a collection of productive resources with different uses and determined by management

decisions over time. The internal existence of an enterprise is the mechanism of expanding the production field through knowledge accumulation, and this knowledge accumulation is the result of internalization. This process saves the scarce decision-making ability resources of the enterprise, so that new managers can release the energy that can be used to solve new problems and promote the growth of the enterprise. Richardson put forward the theory of organizing economic activities, and further developed the theory of enterprise growth. In his book, *Leadership in Administration*, Cesneck uses unique competitiveness to show that a company is doing better in some way than its competitors. Subsequently, some scholars used empirical analysis to draw the conclusion that organizations with unique competitive ability are expected to achieve higher economic performance. In his analysis of leadership behavior, Sarniko pointed out the concept of enterprise special ability. The continuous proposal and development of these theories have laid the foundation stone for the emergence of the enterprise core competence theory.

B. Competitiveness and ability. According to the view of the World Economic Forum, the so-called enterprise competitiveness is the ability of enterprises and entrepreneurs to design, produce and sell products and services. The price and non-price quality of their products and services are more market attraction than competitors. That is to say, it is the ability of enterprises and entrepreneurs to successfully engage in business activities in the process of adapting to, coordinating and controlling the external environment. Competitiveness and competence represent two different but mutually complementary enterprise strategies, the former emphasizes specific technology and production knowledge on the value chain, the latter has a broader meaning, covering the whole value chain. For enterprises, ability is the prerequisite, the basis of survival and development, and the ticket to enter the competition stage; while competitiveness is the ability of the enterprise to successfully engage in business activities, but the formation of competitiveness depends on the many capabilities of the enterprise. If the enterprise competitiveness is regarded as a hierarchical structure, its capability structure can be divided into three levels. The first level is the surface of enterprise competitiveness, the embodiment of the size of the competitiveness of a

company; the second level is the middle level, the important source of competitive advantage of the enterprise, the deep level and the real source determines the durability of enterprise competitiveness. From another point of view, the competitiveness of enterprises can be regarded as the ability of sustainable development, sustainable growth, asset appreciation and efficiency improvement of enterprises.

C. The concept of enterprise core competitiveness. Core competitiveness refers to the combination of a series of complementary skills and knowledge within an organization, which has the ability to make the items or more businesses reach the first-class level in the competitive field and have obvious advantages. It is a unique ability to bring excess profits formed in the process of operation that is not easy to be imitated by competitors. It is the enterprise in the production and operation, new product research and development, after-sales service and a series of marketing processes and various decision-making formed, with its own unique advantages of technology, culture or mechanism determined by the huge capital energy and business strength. Core competitiveness is the basis for enterprises to obtain long-term and stable competitive advantage. Core competitiveness mainly includes core technology ability, organization and coordination ability, external influence ability and strain ability. Its essence is to make consumers get irreplaceable value, products, services and culture that are really better and higher than competitors. Among them, innovation is the soul of the core competitiveness, and the leading product (service) is the essence of the core competitiveness. Enterprises may have a lot of competitive advantages, but these competitive advantages are not the core competitiveness. A competitive advantage to become the core competitiveness, with the following conditions: first, to have sufficient user value. Second, it should be unique. Third, there should be a certain malleability. The theory of enterprise ability regards the accumulation of endogenous knowledge and ability as the source of enterprise competitive advantage. The amount and sustainability of corporate rent acquisition is determined by the status of the core capabilities they hold.

The core competence of an enterprise is the source of its long-term competitive advantage, which is determined by the following characteristics of the core competence itself:

a. Value superiority. Core competence should be conducive to the high efficiency of enterprises that can make them better than their competitors in creating value and reducing costs;

b.heterogenicity. The core competence of an enterprise should be unique to the enterprise. The heterogeneity of the core competence determines the efficiency difference and the profit difference between the enterprises;

c. You can't copy it at all. Core capabilities are accumulated and formed in the long-term production and operation activities of the enterprise, which are deeply imprinted with the special composition and special experience of the enterprise, which is difficult for other enterprises to replicate:

d. It's hard to replace. As the key factor of production, the core ability of an enterprise is non-competitive, which cannot be publicly priced and obtained through the open market, and makes the alternative behavior of other enterprises face huge cost constraints

e. Non-tradable. Core competencies are associated with specific enterprises, but they cannot be bought and sold through market transactions like other factors of production.

Like the resource basis theory, the core competitiveness theory also emphasizes the understanding of enterprise competitiveness from the internal factors. The difference between core competitiveness theory and resource base theory is that resource base theory focuses on the key significance of resource accumulation and differences in enterprise competitiveness; Core competitiveness theory tends to regard enterprises as a capability system, focusing on understanding enterprise competitiveness from the dynamic connection between resources, and emphasizing the key significance of the combination and integration of resources in enterprise competitiveness.

In addition, some scholars also examine the ability of enterprises from the aspects of enterprise organization or process integration, which can be attributed to the core competitiveness of enterprises based on organization and the core competitiveness based on process respectively. Among them, the former school is represented by Chandler (Chandler), who believed that the driving force of enterprise development is organizational ability. The latter school is represented by Hammer (Hammer) and Qian bi (Champy), who believe that the competitive advantage of enterprises comes from the key link of their business process.

#### 4. Enterprise knowledge theory

The theory of enterprise knowledge has only emerged in recent years, and it has not yet formed a unified system. The ideological origin can be traced back to Luo Rose (E. Penrose) The behavior of Simon (Simon), March (March), Said (Sayette) Penrose (Hayek) and Nelson (Nelson) and Winter (Side-ny.G. Wintey) Enterprise evolution, etc. According to the theory of enterprise knowledge, the core of an enterprise is knowledge, and the heterogeneity of enterprises depends on the difference of enterprise knowledge. Enterprise knowledge can be divided into explicit knowledge and tacit knowledge, tacit knowledge is the enterprise competitors in the business cannot imitate, enterprise knowledge theory, enterprise competitiveness from the enterprise knowledge, is endogenous, because the knowledge is the flow change, enterprise competitiveness is dynamic, enterprise competitive method must build a inside enterprise can effectively absorb, maintain, sharing and transfer of knowledge activity of micro theory.

#### 5. Other related theories

##### A. Innovation theory

Innovation theory refers to a series of theories and viewpoints that explore the influence of innovation on enterprise competitiveness and market position and how to obtain competitive advantage through innovation. Here are some common theories of innovation:

a. Innovative communication theory: This theory focuses on the dissemination and adoption process of innovation in the market. The theory of innovation communication believes that the adoption of innovation is a gradual process, which gradually affects the wider groups in the market through the information dissemination and communication between different groups. Understanding the modes and mechanisms of innovative communication helps enterprises to develop effective marketing and promotion strategies.

b. Technology diffusion theory: This theory discusses the dissemination process of the adoption and application of new technologies in the market. Technology diffusion theory focuses on the speed of adoption, factors and differences between different user groups. Understanding the law of technology diffusion helps enterprises to predict market changes and develop technology innovation strategies.

c. Innovation evolution theory: This theory regards innovation as an ecosystem and explores the evolution and change of innovation in different environments. The theory of innovation evolution emphasizes the influence of the historical and cultural background of innovation on its development and evolution, as well as the characteristics and patterns of innovation in different stages.

d. The Open Innovation Theory: As proposed by Henry Chesbrough (Henry Chesbrough), the open innovation theory emphasizes that companies accelerate innovation by sharing knowledge and resources with external partners. The theory holds that innovation does not only come from within the enterprise, but also can be achieved through open innovation with external partners.

e. Innovation Ecosystem Theory: The theory emphasizes that innovation is an ecosystem that involves the interaction and cooperation between different organizations, institutions and individuals. The theory of innovation ecosystem discusses the composition, evolution law of innovation ecosystem and its influence on innovation activities. These innovation theories provide theoretical guidance and practical inspiration for enterprises, help them to understand the nature and mechanism of innovation, effectively carry out innovation activities, and obtain continuous competitive advantages in the market competition.

## B. Life cycle theory

Life cycle theory is a theoretical framework to describe the different stages experienced in the process of enterprise development in the market. This theory is designed to help companies understand their stage of development and provide them with the strategic guidance accordingly. The main concepts of life cycle theory are:

a. Start-up stage (Embryonic Stage): At this stage, the enterprise is in the early stage of entrepreneurship, the product or service has just been launched, and the market has not been fully formed. Enterprises are faced with high risks and uncertainty, and need to invest a lot of resources in product development, marketing and organization construction.

b. Growth stage (Growth Stage): Once the enterprise's products or services are recognized by the market and start to grow, it enters the growth stage. At this stage, the enterprise has experienced rapid sales growth and market expansion, need to expand production capacity, strengthen brand building and expand sales channels, to meet the market demand and consolidate the competitive advantage.

c. Maturation stage (Maturity Stage): When the market is gradually saturated, the sales growth slows down, and the enterprise enters the mature stage. At this stage, enterprises are faced with fierce competition and pressure, which need to optimize costs, improve efficiency, and strengthen product innovation and brand differentiation to maintain market share and extend product life cycle.

d. Decection phase (Decline Stage): Eventually, companies may enter a decline phase of products or services, and sales begin to decline. At this stage, companies need to consider whether to continue to invest resources to maintain products or services, or opt out of the market and turn to new opportunities.

Life cycle theory provides a theoretical framework to help enterprises understand the dynamics of the market and develop corresponding strategies to adapt to the challenges and opportunities at different stages. However, it should be noted that different industries and different enterprises may experience life cycle stages in different ways, and some enterprises may experience multiple life cycles, so in practice it needs to analyze and respond in combination with specific situations.

## **1.2 Enterprise competitive strategy derived from the enterprise competitiveness theory**

### 1.2.1 Competitive strategy analysis

Enterprise competitiveness is a complex system, and the interactivity, inseparability and implication between the factors make it almost impossible to make a substantial evaluation of the future competitiveness of enterprises. According to management scientist If Doz, competitiveness cannot be known, measured, and the most valuable competitiveness is the most difficult to manage (Andrew Ebel, 1999). However, from the perspective of the natural development process of enterprises, excellent enterprises have gradually formed their own core competitiveness and shaped the personality of enterprises in the complex evolution process of such competitiveness factors. Although this evolution occurs during an involuntary process, the results show a unique composition of competitiveness.

In the market economy, the enterprise competition is the norm. How to develop an effective competitive strategy is the problem that every entrepreneur must face.

#### 1.2.1.1 Internal industry analysis

According to Michael. In Porter's theory, the structural factors that determine the strength of competition include five aspects:

1. Analysis of the competition intensity among the existing enterprises in the industry

According to the current situation of the existing enterprises, the competition intensity is analyzed, including SWOT, competition matrix and so on.

2. Analysis of the potential competitive threats of new entry enterprises

- A. scale economy

- B. product differentiation

- C. Capital demand

D. Conversion costs — The existence of conversion costs constitutes a barrier to entry, that is, the one-time cost encountered when the buyer transforms from the supplier to another supplier.

E. — New entrants need to ensure the distribution of their products, and this requirement also constitutes a barrier to entry.

To some extent, the ideal distribution channel of the product is already occupied by the original company, and the new company must promote the distribution channel to accept its product through lowering prices, sharing advertising costs and other methods, and the adoption of these methods reduces the profit.

F. Cost advantages beyond economies of scale — Enterprises may have some incomparable cost advantages of potential entrants, such as: proprietary product technology; raw material source advantage; location advantage; government subsidies; learning curve, etc

G. Government policy supports — The government can restrict or even block the access of certain industries. Government control of entry can be shown through permits, standards for obtaining raw materials, air and water, safety performance and other regulations. For example, the requirement for pollution control may increase the capital needed for new entrants, which may lead to both the maturity of the technology used and even the optimal size of the facility.

H. The joint resistance of enterprises in the industry — potential entrants to the existing competitors will also have an impact on the threat of entry. If the entrants believe that the existing competitors will fight back forcefully to put them in an unsatisfactory position in the industry, then the entry is highly likely to be contained.

3. Substitute Analysis — Broadly speaking, all companies in an industry compete with the industry that produces alternatives.

Alternatives set a pricing cap in the industry at which companies can make profits, thus limiting the potential benefits of an industry. The more attractive the price-performance options offered by alternatives, the tighter the "cover" of industry profits;

Identifying alternatives is to look for other products that can do the same in the industry. Sometimes it's not easy to do, it can lead analysts to analyze businesses that

are a far cry from the industry. For example, in the capital market, investing in the stock market versus investing in the real estate market. The substitution of the electronic alarm system to the security industry; tit-for-tat against alternative products often requires industry-wide collective action. For example, a company's big advertising campaign may not be enough to support the attack on alternatives, but a sustained focus on advertising campaigns is likely to significantly improve the industry's overall situation.

4. Buyers (consumers) — Industry competition is to lower prices, demand higher product quality, or demand more services, and profit from the opposition of competitors, all at the expense of industry profits.

#### 1.2.1.2 Analysis of competitive advantage

##### 1. The formation of competitive advantage

Competitive advantages come from: resources and capabilities

There are two ways to form a competitive advantage:

Low-cost — companies can adopt a low-cost strategy that enables it to offer customers lower prices than their competitors;

Differentiating — companies can differentiate their products or services, so that customers can see the special advantages worthy of exchanging products at a higher price, so as to gain a competitive advantage;

##### 2. Two types of competitive advantage models

###### A. Basic competition strategy

Broad market strategy: cost leadership and product differentiation

Narrow target market strategy: cost focus and focus differentiation

###### B. Create a competitive advantage with a strategic intent

Another analytical framework for understanding competitive advantage is to focus on competitiveness as a function of speed, at which companies root their new advantages within the company. The identification of this framework arises from the strategic intent of infatuation with success, a means of gaining a competitive advantage.

Writing in the Harvard Business Review, Praharad notes that no competitive advantage will last long. Maintaining the existing advantages and building new

advantages is not the same thing. The essence of strategy is to create a future advantage before your competitors can imitate your competitive advantage today. The ability to improve existing skills and learn skills is the most defensive competitive advantage of an organization.

### 3. Four ways to succeed:

Establish a hierarchical organization — Along the value chain, establish advantages layer by layer, and firmly consolidate this combination;

Look for weak gaps — to re-segment the overall market, find the weak sub-markets ignored or ignored by rivals, as the direction of the attack, and thus gain advantages.

Change the rules of practice — refused to act by the "rules of the game" set by the industry leader, that is, the revision of the "standard"; (Canon and Xerox competition: Canon changed the meaning of "copier", expanding the general copy to color copy, camera, computer image production, etc.)

Cooperation — cooperation is the technical know-how developed by other companies. Cooperation may be in the form of a licensed business agreement, a joint venture or a partnership, etc.

### 4. Identify company's competitors

It can be done from multiple angles.

Industry competition concept — This is analyzed from the perspective of "supply". Including: the number of sellers and their degree of difference, entry and flow barriers, launch and contraction barriers, cost structure, global operation degree;

Market competition concept — This is analyzed from the perspective of "consumers", that is, those companies that strive to meet the needs of the same customers or serve the same customer group are regarded as competitors.

### 5. Assess the strengths and weaknesses of your competitors

First, a company should collect the most recent critical data on each competitor's business;

The second step is to analyze the data to understand the advantages and disadvantages of competitors;

Generally, each company must monitor three variables when analyzing competitors:

A. Market share — measures the sales share of competitors in the relevant market;

B. Psychological share — refers to the proportion of competitors in answering the question "mention the first company you think of in this industry";

C. Emotional share — refers to the proportion of nominated competitor customers in all customers in response to the question "Name the company you like to buy their products most";

Companies that have steadily grown in their psychological and emotional share can eventually gain market share and profits. In order to improve their market share, many companies adopt a "designated and beyond" approach to successful competitors.

#### Competitive strategy analysis

##### 1. Basic strategy of the enterprise — Porter strategy

Porter's general strategy provides a company with a panoramic model of the strategic direction. The theory emphasizes that a company can choose one of the three main competitive strategic directions on the basis of identifying its competitiveness and market. If companies do not choose or pursue both strategies, Porter believes it is in a state with no clear direction to respond to market conditions. Being in between the three strategies and cannot withstand competition.

A. Low-cost strategy — Due to its low cost, companies can offer products at lower prices.

Its core competitiveness is — low;

Use conditions — good capital operation ability, strict management, good technology, products are easy to manufacture, low-cost distribution system, etc.;

Risk — follow up imitation, affect the enthusiasm of middlemen and suppliers, affect the market promotion, ignore market changes, etc.;

Form — Simplified product, improved design, low material price, low labor costs, production innovation and automation.

B. Differentiation strategy — Companies choose competitive advantages that

distinguish them from other companies, such as brand and services.

Core competitiveness —— different;

Applicable conditions —— Strong production capacity, unique product processing technology, innovation and creative ability, strong basic research ability, quality and technology leading enterprise reputation, high cooperation from channels;

Risk —— high cost, easy to be dispersed imitation, lose the pursuit of low price consumers;

Form —— Product quality differentiation, product reliability differentiation, product innovation differentiation, product price differentiation, service differentiation, product name differentiation (brand building), image differentiation (enterprise CI strategy).(Note that the problem of differentiation can be put into the product strategy.)

C. Centralized strategy —— focuses its capabilities on one part of the market.

Core competitiveness of —— specialty

Condition —— has enough market, has the growth potential, the market is meaningless to the main competitors, has the resources;

Risk —— Difficult development, high defense requirements;

Form —— product line focus, user focus, regional focus, low share concentration (for "thin dog" business).

2. Business strategy —— Ansoff's strategy

Ansoff's Matrix is a tool used by managers to determine their strategic direction. It analyzes products related to competitors and can help managers decide the direction of business.



Figure 1.3 - Ansoff's Matrix

*Compiled by the author on the basis of [67]*

Market penetration strategy — How to do it deeper in the existing market?

Mainly for the existing market, encourage the existing customers to use the products more often (such as using them more frequently each time, reducing the purchase of competitors' products);

Analysis of the case: the failure of pure water sales. (Pure water businesses, the competition is fierce, it is not easy to find a consumer, and, through a series of methods, often can stabilize consumers. However, many businesses think that once signing a contract, they can maintain customer relations for a long time. Ignoring the service after ordering water. For example, the initial promise to help clean the water dispenser and allow consumers to gradually switch to other brands of water)

This is a product development strategy that involves the development or improvement of some parts of the product to meet existing consumers; automobile manufacturers generally continuously improve their product performance, "forward" water heater from "strong line" to "straight line";

From the company's point of view, it is most difficult to develop new products in a new market, because it involves the market that the company is not familiar with and the risk of failure is high. This strategy is better when there is a degree of correlation with existing experience.



### 1.3 Basic methods to ensure enterprise competitiveness

How to enhance the enterprise competitiveness is an eternal topic. In the increasingly fierce competition, only by constantly improving themselves, more standardized operation, and constantly improving the competitiveness of the enterprise, can we finally ensure the competitiveness of the enterprise, keep the current market, and have the space to explore and progress.

And the market tide is always constantly changing, which requires enterprises to continue to take corresponding measures and means according to the current situation of the market and the industry, if the blind constant measures to deal with the changes of the market, then the inevitable result is only one, that is to be eliminated.

Below, we will analyze the basic methods to ensure the competitiveness of enterprises from multiple dimensions.

- Human resources

The competition of enterprises, in the final analysis, is the competition of human resources. With the advent of knowledge economy society, how to improve the competitiveness of enterprises, human resource management occupies an important strategic position in modern enterprise management.

1. Change the understanding and improve the human resource management planning

- A. In terms of post setting, each important node of the business process should be studied, and similar work with the department should be separated. Guided by improving efficiency, key positions of business process should be set up, and positions with not high correlation with the business process should be set as auxiliary positions.

- B. In terms of talent introduction, the specific requirements of each post should be reset, and the corresponding responsibilities of each post and the required talent quality and ability level should be defined. In this way, the enterprise strategy needs implemented to the specific process can be closely combined with the quality of

personnel. According to the requirements of the responsibilities of these positions, the introduced talents, can meet the needs of enterprises.

C. On the basis of optimizing the business process, formulate scientific planning of the number, quality and the total number of employees in key positions. For quantity planning, we need to find out the driving factors of key positions in the business process, find out the factors that are most directly related to the number of personnel required by these positions, and determine the total demand of personnel in key positions.

## 2. Implement human resource management innovation

A. Suitable for talent, that is, to choose the employees suitable for the enterprise. Fitness means that employees, regardless of wisdom, talent or professional ability, as long as they are competent for the job and can meet their motivation to pursue work, they can cooperate with others under the team operation, and establish the right is the best idea.

B. Keep talent, stimulate talent. Relying on incentive-oriented remuneration strategies and buffet welfare policies to attract outstanding talents: the knowledge to maintain the core competitiveness, management employees and other employees; pay by individual ability, skills, performance rather than by position.

C. Use of talent, that is, the allocation of human resources. Enterprises in the attention to the realistic ability should attach attention to the potential ability, build grow up with employees organization atmosphere, provide employees with career development planning, provide talent, self-transcendence space, for outstanding entrepreneurs and staff team create loose entrepreneurship and working environment make it become the inexhaustible driving force of enterprise development. In addition, the enterprises need talent more diverse than ever, in this case, should attach attention to the labor market allocation of human resources, strengthen enterprise internal competition, break the sequence system, change the original "step-by-step, internal promotion" rules, for public recruitment, can can down, can can into, enhance the liquidity of human resources.

D. train men for profession. With the intensification of competition, the market situation is changing rapidly, more and more requires enterprises to delegate decision-

making power, and decentralized decision-making to achieve good results, it requires enterprise employees to have a strong sense of responsibility and consciousness. In this regard, we should follow the Japanese model and strengthen staff training, rather than weakening the training and absorbing front-line workers in management, rather than "excluding" workers. Any outstanding talent without training and learning will also be eliminated by The Times. The enterprise should establish human resources training system for its own development, change the purpose of training to shaping the "enterprise person" and focus on the training process to pay more attention to the training results.

### 3. Establish and improve the employee performance evaluation system

A. The employee performance evaluation system should be clear. First, determine the performance appraisal process: determine the goals- -operation analysis, check the completion of work, evaluate performance- -discuss with employees- -determine the goals again. The human resources department of the enterprise should determine the assessment indicators according to the most important needs of the enterprise at present, provide a clear guidance for the employees, tell them what the enterprise expects for them, and let the employees understand what the assessment is? How to meet the requirements of the index, which can also be said to be the notification culture of the enterprise? After setting a specific goal, enterprises must understand what employees want most in their tasks, and it is most important to let employees know what they expect of them.

B. Pay attention to management. The purpose of performance appraisal is to further develop employees so that they can effectively complete the work. It is not only to point out the poor performance of employees, but also to find out the causes of these poor —, such as skill defects, motivation problems or some obstacles that inhibit employees from improving performance. It is not to catch the braids of employees, but to find the deficiencies of the enterprise management system. Performance management is to improve and develop the management system and performance system of the appraiser and the skills of the appraiser, so as to achieve the performance improvement of the organization..

C. Improve the credibility of performance appraisal. Credibility is the degree of consistency in a performance appraisal. An important type of credibility is the reliability of the appraiser, that is, the degree of consistency between employee performance. If two people make the same evaluation results of the same person's work performance, then the performance evaluation system has the credibility of the evaluator. In order to improve the reliability of performance appraisal, it is necessary to strengthen the training of assessors. After the establishment of the performance evaluation index system, there will inevitably be human error or systematic error in the appraisal. So performance management in addition to design a set of scientific, reasonable, and strong operational performance evaluation index system, also need to strengthen personnel training, training appraisal personnel, independent, thinking, analysis, problem solving skills, improve appraisal personnel professional ethics, to reduce evaluation error, completes the evaluation results of communication, reduce the contradictions caused by evaluation, build a harmonious development environment and stable cultural atmosphere.

D. To do a good job in the use of performance evaluation results, make it and promotion, promotion and other incentive mechanisms linked. As Dell founder wankel Dell said, "we need a kind of all employees think appropriate and effective incentives of performance reward mechanism, enterprises in a large extent based on personal performance and ambition in the way of work, not only in the financial aspect, but also in all aspects of the enterprise". We do performance appraisal, is to be based on the results of the assessment, for good performance should be timely pay, poor performance should be training, transfer or pay cuts, make the most difficult performance management, the longest work, real power for enterprise development, let employees grow in the growth, in the appraisal management appraisal management value, make employees see good performance to yourself, to the efficiency of the enterprise, profit enterprises and employees to stimulate employees work enthusiasm, make the oil companies to retain and attract more talent.

4. Establish a human resource incentive mechanism to reasonably control the brain drain

A. Incentives should be based on employee needs. Employees often need to be inconsistent with organizational goals, which requires incentives to coordinate the two. First, increase the possibility for individuals to achieve work performance, and take measures to exert strong controls, such as salary increases, salary cuts, promotion, demotion, and elimination. When individuals need to coordinate with their organizational goals, they should also consider the satisfaction of their individual needs after achieving their organizational goals. When rewarding employees, managers should not only take the size of employee performance as the standard, but also consider what remuneration employees want, consider the differences of employees' needs, and make employee rewards personalized and flexible as much as possible, but should try their best to be fair and just objectively.

B. Motivation means.

a. physical means. Bonus, prizes, promotion, reward for tourism, training, investigation abroad, etc., economic punishment;

b. Spiritual means. Award certificates, award certificates, trophies, MEDALS, banners, announce praise, give honorary titles, etc.

c. Incentive art. Different employees have different incentive means; pay attention to the comprehensive evaluation of incentives; control the poor efficiency of rewards; properly control the expected probability; establish appropriate incentive objectives; combine rewards and punishment.

5. Actively create a harmonious corporate culture and corporate atmosphere to enhance the cohesion and competitiveness of enterprises

Whether an enterprise has competitive ability, the key to see whether can pinch the workers together, collective wisdom, blend. In the overall situation concept is not strong, self-centered, even dig the corner of the enterprise, mainly because from the inner collective, have not valued even cold feeling, no "home" feeling, lack of sense of belonging, nature will not wholeheartedly contribute to the enterprise, let their own energy release as much as possible. Therefore, the management work should be practical and detailed, especially pay attention to detailed management, so that employees can deeply feel the attention, respect and care of the organization, enhance

the sense of belonging, and enhance the sense of responsibility. In fact, sometimes a small move will completely solve these problems. For example, to create a working environment suitable for a certain position, a casual attention, appropriate authorization in handling some affairs, etc., will let the staff feel the warmth and care of the organization, feel valued, trusted, and then make them have a sense of responsibility, a sense of participation, and will naturally sincerely pay for the enterprise. In this way, the whole group works together, managers at all levels, managers and the upper and lower levels work together, everyone can give play to their strengths, complement each other, the enterprise has fresh vitality, the career engaged in will flourish.

Management is a science, but also an art, human resource management is the art of management, is using the most scientific means, more flexible system to mobilize people's emotion and enthusiasm of art, no matter what kind of enterprise to develop without the people's creativity and enthusiasm, so the enterprise must pay attention to the incentive, according to the actual situation, the staff the integrated use of a variety of incentive mechanism, combine incentive means and purpose, change the thinking mode, really established to adapt to their enterprise characteristics, era characteristics and employee demand open incentive system, make the enterprise in the fierce market competition.

### – 1.3.2 Core technology

1. Make scientific strategic planning and cultivate the core technologies of enterprises

Core competitiveness is the basic ability and strategic ability to support the long-term competitive advantage of an enterprise. Its cultivation must rely on the long-term strategic development planning of the enterprise. Therefore, in order to cultivate and enhance their core competitiveness, enterprises must carry out strategic positioning and planning, which is the premise of winning. Enterprises in cultivating core competitiveness, must face to face with changing market environment, to possible and appear important events, opportunities and threats, advantages and disadvantages should be sensitive response, accurate prediction and grasp the industry products, technology change direction and trend, timely adjust the strategic development

direction, transform core technology, market strategy and management method, in advance to adapt to the change of the market. Only in this way, can we transform our core competitiveness into competitive advantage, and the enterprise can get considerable development.

In the process of technological innovation, enterprises should grasp the following aspects: first, they should pay attention to the market-oriented, form their own core technologies, create core products, and thus occupy and develop the market; second, we need to pay attention to mutual cooperation, obtain the core technology and professional talents needed by enterprises through market means, establish enterprise strategic alliance, overcome the limitation of insufficient strength in technological innovation, effectively precipitate foreign knowledge in the enterprise, form their own brand characteristics, and achieve the purpose of cultivating core technologies and improving the core competitiveness.

2. Take the core technology innovation as the breakthrough point, and implement the specialized and refined strategy

Solid competitiveness comes from persistent specialization. Having proprietary technology in a field, forming patented products, occupying a stable market, forming a professional advantage and improve efficiency, reduce costs, and make competitors hesitate, this is their core competitiveness. In addition, the strategy of "specialization and refined" is also the basic strategic choice for enterprises to cultivate and enhance core competitiveness. Enterprises should give full play to their "small" strengths, focus on one or two aspects of the advantages to form the core competitiveness, and become a "strong" enterprise, competitive enterprises. Enterprises should break the traditional thinking pattern, avoid direct quantitative competition with large enterprises, seek for opportunities from competitors and market vacancies, create the advantage of "pre-emptive strike", and strive to become the first entrants in the market. Enterprises should completely abandon the "small and complete" business thought, gradually from "small and complete" enterprises to "small and fine", "small and specialized", "small and high" professional direction of development, to do their own business enough professional, really different, the formation of characteristics and professional

advantages. Win excess profits for enterprises, so as to cultivate the core competitiveness of enterprises.

### 1.3.3 Innovation

As an old Chinese saying goes, "The new will retreat." It means that if you fail to innovate and keep pace with The Times, you are constantly retreating. This is especially true of business management. The market and customer preferences are constantly changing, if not innovative, then only be eliminated by the market.

Innovation is the inherent requirement and basic form of the survival and development of an enterprise, and it is also an inevitable process for an enterprise to constantly adapt to the environment and realize self-transcendent. Due to the increasingly fierce market competition, innovation has penetrated into every link and every corner of operation and management. The source of enterprise management thinking is innovative thinking, the essence of enterprise competitive strategy is innovation strategy, and the key to enterprise competitive ability is innovation ability.

#### A.technical innovation

First of all, we should take the core technology innovation as a breakthrough point to cultivate the core competitiveness of enterprises. In the process of constructing the core competitiveness of enterprises, technological innovation is crucial. Without technological breakthrough innovation, the value of the constructed core competitiveness built will be limited and unstable. Enterprises to choose suitable for the enterprise core technology development and application, such as increasing investment of science and technology development funds, arouse the enthusiasm of scientific research, engineering and technical personnel and creative, actively introduce scientific and technological talents and patent technology, to carry out the combination, actively absorb universities, the achievements of scientific research institutions, at the same time to strengthen the protection of intellectual property rights and management.

In the process of technological innovation, we should pay attention to two aspects: one is to be market-oriented, the purpose of technological innovation is to form its own core technology, innovation of core products, so as to occupy and innovate the market; the other is to take "cooperation" as the breakthrough, enterprises in

technological innovation, due to their own conditions, it is impossible to establish their own research and development system, not to bear the market risk of research and development activities. Therefore, enterprises must to the outside world to obtain new technology and ability, through market means for enterprise need core technology source or master the core technology source of talent, can also be through with complementary advantages of another enterprise to establish strategic alliance, or mergers and acquisitions with some required expertise of enterprise, for your use, foreign different knowledge effectively precipitation within the enterprise, formed in the complete knowledge system, so as to achieve the purpose of cultivating and enhance the core competitiveness.

#### B. Management innovation

At present, most of the enterprise efficiency is low, insufficient vitality, in addition to a single product structure, the cause of low technical content, management is also a major reason, the past that fixed closed production as the center of management thought and management mode has been unable to adapt to the complex market, enterprise management must be people-oriented management centered management innovation management, knowledge management, this is to improve the enterprise efficiency, the only way to enhance enterprise competitive ability.

Enterprise must be scientific management, management change ideas, abandon the kind of empirical, extensive, parents arbitrary management, to establish a sound enterprise internal scientific management system, supplemented by scientific management, not only to play to the role of management system, more to play to the role of management, improve the incentive and supervision mechanism, strengthen the sense of ownership. In order to cultivate and enhance the core competitiveness of enterprises, it is necessary to accelerate the establishment of a modern enterprise system and improve the ability of strategic decision-making, financial management and marketing management. Only in this way can we effectively guarantee the core competitiveness of enterprises with excellent ability.

#### – 1.3.4 Development strategy

If there is no development strategy to provide a clear direction for the future of the enterprise, no matter how big the size of the enterprise is, it will lose its living conditions in the wave of new technological revolution and the great economic change.

Strengthening strategic management can be seen from the following four points: first, to establish a more perfect cost analysis system. The size of the cost is directly related to the survival of enterprises. For each project, the bidding of the project bidding in previous years is used to measure the recent bidding standard. The advantages of this cost strategy are obvious. However, with the end of the project, the market is changing, and the change of cost is not just a small number, which requires a detailed cost and profit analysis. Second, accelerate the innovation of production technology. Strengthen the improvement of the production process technology innovation, some temporary properties, some are not key processes, in the application requirements should be low cost design, the development of low cost manufacturing process, the development of more advanced, more suitable for the development of our enterprise manufacturing and installation process. Third, the outward expansion. Now the water conservancy project construction enterprises are facing the national bidding, and has been extended to foreign countries. The environment we face is more complex, so we should not blindly bid and cause unnecessary losses. Fourth, the joint competitive strategy. Enterprise joint, complement each other, learn from each other. The inter-provincial operation of an enterprise will weaken the capital flow of the enterprise and occupy a large amount of capital, especially when the surface is wide and spread, dispersing technical force and insufficient personnel are transferred back and forth, which will cause overexpenditure in time and capital. Enterprise union, the effective use of scale benefits, so that the concentration of technology, personnel, capital is more obvious, more effective use of capital and technical force, but also conducive to the inter-provincial construction of the industry competition.

On the basis of detailed investigation, analysis and prediction of the development of the industry, the target market and competitors, the enterprise should reasonably formulate and implement clear development strategies in accordance with the principle

of distance, reality and reality, and make necessary adjustments timely with the changes of the internal and external environment of the enterprise.

– 1.3.5 Modern information management

Enterprises can promote enterprise informatization, use modern information technology, introduce the management concept of modern enterprises, and timely adjust the backward enterprise management policy, rigid management organization structure, inefficient management methods and processes. Promote the construction of enterprise informatization, make it combine with the enterprise system and technological innovation, consider from the whole big development subject of the enterprise, unified promotion.

A. Establish a modern enterprise system with "clear property rights, clear responsibilities and rights, separation of government and enterprise management, and scientific management", to provide strong support for the modern information construction of enterprises. And the enterprise information construction is based on the modern enterprise system. We must combine the establishment of modern enterprise system with the construction of enterprise informatization, promote the construction of enterprise informatization in the process of establishing modern enterprise system, promote each other, provide timely and accurate assets and production and operation and other aspects, and better play the advanced nature of modern enterprise system.

B. Promote the adjustment and optimization of enterprise organizational structure. According to the requirements of enterprise informatization, we should adjust and optimize the enterprise organizational structure, scientifically integrate the internal division of labor system of enterprises, streamline the management level, strengthen the contact and cooperation between functional departments, clarify functions and responsibilities, enhance communication and contact, rebuild business process, improve operation efficiency and improve enterprise efficiency.

C. Strengthen the combination of enterprise information construction and management. First, the management concept of enterprises should be updated. The essence of promoting enterprise informatization is the process of adopting modern management concepts and methods, and it is also the process of collision advanced

management ideas, management ideas and traditional management ideas and management concepts. Only by further emancipating the mind and changing the concept, can the enterprise informatization be promoted smoothly, and the advanced enterprise management mode can be established as soon as possible. Second, the infrastructure construction of enterprises should be strengthened, especially the data management. The construction of enterprise infrastructure is an important foundation for enterprise management, and also the prerequisite of enterprise information construction. Further improve the measurement and testing system of enterprises; strengthen quota management and standardized management; establish a unified, complete and operable code compilation system; ensure the efficient, true and unified data collection, so as to lay a good foundation for enterprise information construction.

D. Collect relevant information well. With the acceleration of the trend of economic internationalization, the fierce competition of the current market economy has reached the white-hot trend. In order to more effectively enhance the competitiveness of enterprises to ensure their market position, enterprises need to maintain a high degree of attention and grasp of their living environment, obtain correct and fresh information, learn the advanced technology of similar enterprises in the world, and enhance the strength of the enterprise in the professional field. Enterprises should pay attention to the information of various media, hire professionals to do market research, etc. At the same time, they should eliminate useless or backward information and find useful information in time, in order that the collection of information can achieve the value of improving the competitiveness of enterprises.

#### – 1.3.6 Brand quality management

The source of enterprise vitality is quality management, which is the foundation of enterprise development and the core competitiveness of an enterprise. To do a good job in quality management, enterprises can remain invincible in the competition, and enterprise competitiveness can grow steadily. Promote quality management to enhance enterprise competitiveness, to shape the quality of the enterprise image, and quality image is a high artistic and technical work, in communication information, exchange information, information make full use of a series of organization methods and

communication means and skills, through continuous, step by step, phased activities, to set up a good quality image of enterprises.

In shaping enterprise quality image to do the following aspects: the first quality image is an important symbol of enterprise public relations, quality image will promote the development of the enterprise, corporate image is essentially a kind of reflect the enterprise and the owner degree and nature, the improvement of quality image, the enterprise will have more open channels. Second, the reliability of engineering products is the basis of quality image, and the durability of engineering products directly affects the quality image. In today's society, with the development of science and technology and the deepening of social cooperation, the requirements for the reliability of engineering products are getting higher and higher. Third, worker quality is the key to quality image. The first is the quality awareness, quality policy, short-term and long-term quality objectives; second, the quality thinking, operation technology and the controllable level of management and underlying operators; again, the quality responsibility and technical quality level of quality inspection personnel; and finally, the analysis of quality education situation. The fourth quality spirit of the enterprise. The reputation of the enterprise, the morale of the organization, the employees of the personal ambition, the "three gas" condensed into a spirit —— quality spirit, "fame" should be guaranteed by quality: "morale" to quality as the inducement and results: "ambition" is to take out high quality work performance to seek personal development.

Quality image is the key to enterprise quality management, need the leader of the enterprise to set an example, unified deployment, middle-level supervisors and the majority of workers to cooperate, implement the strategy and policy of the enterprise, improve the competitiveness of the enterprise, so that the enterprise to the road to success.

## **Conclusions to the first section:**

We systematically study the theory of related aspects of enterprise competitiveness, and lay a solid foundation for the correct application of related theories.

1. Basic theory of enterprise competitiveness. For a long time, all the economists and sociologists have made relevant definitions of enterprise competitiveness, including the source and development of the concept of competitiveness. In a word, the competitiveness of the enterprise is the relevant advantages that the enterprise can maintain in the long-term process, and finally transform into the core productivity. The concept of competitiveness can be traced back to Adam Smith.

The relevant main competition theories, including market environment theory, resource basis theory, core competitiveness theory, enterprise knowledge theory, and some other related theories, these theories further enrich the concept of enterprise competitiveness, but also expand its future application ways.

2. The rich theory of enterprise competitiveness provides a strong support for enterprises to formulate competitive strategies, and all kinds of enterprises have therefore formulated appropriate competitive strategies.

In the process of long-term enterprise development, enterprise competition is a normal state. How to develop an effective competitive strategy is a problem that every entrepreneur must face. The formulation of enterprise strategy requires analysis from many aspects, including internal reasons, external reasons, alternative analysis, market analysis, etc. At the same time, a series of related strategic methods were formed, the most famous is the Porter strategy and the Ansoff model strategy. Through the systematic analysis of the company's advantages and related situation, so as to choose a more appropriate business method.

3. In the long-term development, the basic methods to ensure the competitiveness of enterprises usually have several categories:

– Human resources. Human resources is to improve the competitiveness of the enterprise through the management of people, including incentive measures, scientific planning of staff development, implementation of human resource management innovation, establish and improve the employee performance appraisal system, etc.

– Core technology. Technology is always the first productive force, to ensure the core technology of the company, that is, to ensure the core competitiveness of the company. We should constantly cultivate the core technology of the enterprise, and implement the strategic goal of specialization and refinement.

– Innovation. Innovation is the most fundamental measure for ensuring the continuous progress of the company. If you keep the same, you will fall behind. Innovation usually includes technological innovation and management innovation. Technology innovation is to continuously optimize the core technology of the company, to achieve the technology leading; and management innovation is to continuously optimize the management process, improve the management quality.

– Development strategy. The development strategy of the enterprise provides a clear direction for the future of the enterprise. An effective and correct development strategy will also be the effective competitiveness of the enterprise. Enterprises should be based on their own positioning and the characteristics of the industry, to find their own development strategy, to maintain the right direction.

– Modern information management. With the continuous development of scientific information, the introduction of modern enterprise management concept with modern information technology can improve the efficiency of enterprise management and ensure efficient work.

– Brand quality management. Quality is the guarantee of the vitality of the enterprise. If the product quality is not qualified, the company will lose the market competitiveness. At the same time, it is also important to shape the corporate image. A good corporate image can affect everyone's judgment, make the enterprise more convincing, and make the products more competitive.



## **SECTION 2. THE CASE ANALYSIS OF HUAWEI GROUP TO ENSURE THE ENTERPRISE COMPETITIVENESS**

### **2.1 Huawei Group's business focus and strategy mode at different stages**

Looking back from its current achievements, Huawei has experienced a series of processes from small to large, from single business to multi-business, from active follower to industry leader.

In different development periods, Huawei is located in different industry backgrounds, facing different key challenges, making different strategic choices, adopting different strategic implementation paths and management change plans, and achieving different strategic results. Similarly, strategic management, as an important function, can be continuously improved in the process of adaptation and traction business development.

Huawei Founded in Shenzhen in 1987 in Shenzhen, it is the world's leading ICT (Information Communications Technology) infrastructure and intelligent terminal provider. It is committed to bringing the digital world into every person, every family and every organization, and building an intelligent world where everything is connected.

Currently, Huawei has about 194,000 employees, covering more than 170 countries and regions, serving more than 3 billion people. Huawei The operating revenue in 2020 is 891.4 billion yuan.

Since its inception, Huawei has maintained a very good momentum of performance growth, which is a good example of the continuous growth of Chinese enterprises.

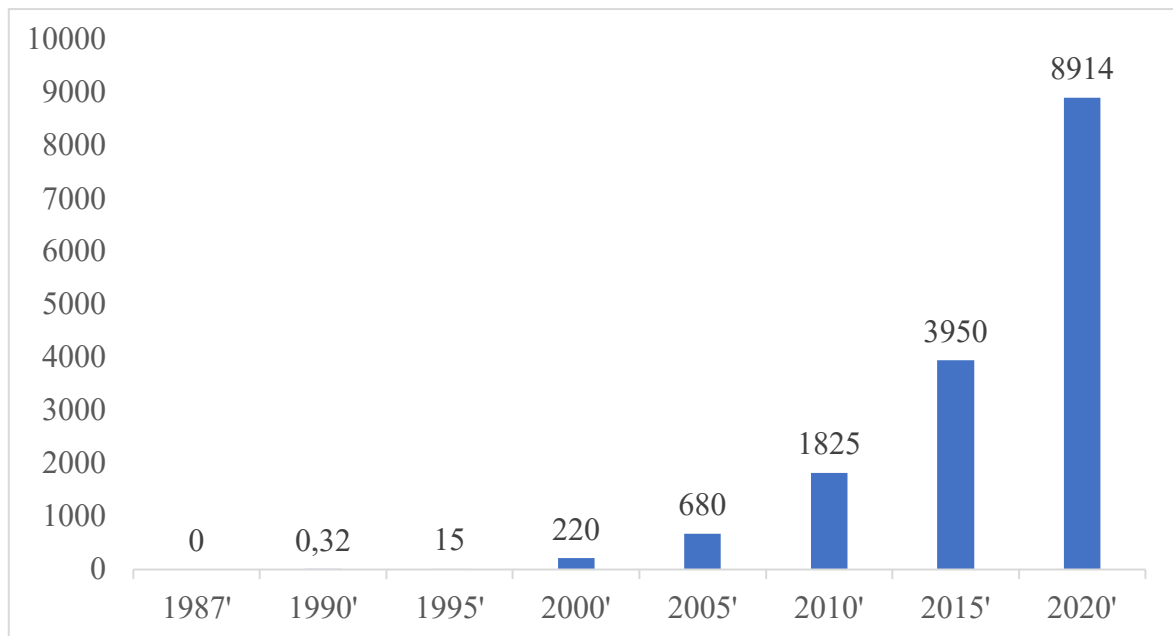


Figure 2.1 - Huawei Sales revenue over the years (RMB 100 million yuan)  
*Compiled by the author on the basis of [67]*

Throughout the development process of more than 30 years, under the guidance of founder Ren Zhengfei and the entrepreneurial team, all employees work together, Huawei has realized the leapfrog development from "nothing" to "three parts of the world", from "active follower" to "industry leader".

Huawei It has undergone several changes in its business strategy, from rural to urban, from domestic market to globalization, from B2B market to B2b and B2C market and the integration of cloud management.

In addition, since 2019, the Huawei has been subject to increasing policy sanctions by the United States.

Huawei The development process can be divided into five stages:

1. Initial stage (1987-1992)

Taking the rural areas as the breakthrough point, entrepreneurship strives to survive. The management team formed in the initial stage remains stable, and the business volume continues to expand, moving from the countryside to the city.

2. Domestic development period (1992-2000)

Rapid expansion, IPD (Integrated Product Development, integrated product development) accelerated change, quickly become the most competitive communication equipment manufacturer in China.

### 3. Global development period (2000-2010)

From the domestic market to globalization. With the increasing internationalization, Huawei has transformed its business model from a communications equipment provider to a telecom solution provider, committed to providing fully IP converged solutions.

### 4. Transition period from 2B to 2 B and 2C businesses (2010-2019)

From the original B2B market (operator business) to B2b (enterprise business) and B2C (consumer business) transformation. In the future, massive data will put forward higher requirements for IDC network exchange. Huawei focuses on building cloud integration to help customers quickly adapt to the cloud data center network.

### 5. Sanction breakthrough period (2019-present)

With the case of Huawei CFO Meng Wanzhou and the inclusion of Huawei and its subsidiaries in the US "entity list" event marked, Huawei faces an increasingly hostile living environment in overseas markets. At the same time, it is necessary to face the dilemma of "being broken". In order to ensure business continuity, Huawei has carried out a series of arduous "hole repair", "counterattack" and "break through" work.

In different periods, Huawei's strategic choice has also changed timely.

#### Stage 1: Strategic choice in the early stage of entrepreneurship (1987-1992)

In 1987, Ren Zhengfei founded Huawei.

In the 1980s, the domestic reform and opening up and economic development bred a huge market and demand in the communication field, with large market space and high product profit. Huawei entered the communication industry by acting for the switches of many companies.

In the early stage, Huawei established the business philosophy of "customer-centered". It would rather bear more hardship to safeguard the interests of customers. It attached great importance to service, paid attention to customers' feelings, and made timely payment to suppliers.

Huawei The sales performance slowly improved, and accumulated the original capital.

Later, Huawei was "out of stock" by switch suppliers, making Ren Zhengfei clearly realize that the agency model was not sustainable. In order to build and develop the core competitiveness of Huawei, Huawei must invest funds in research and development and transfer to the upstream link of the industrial chain.

In 1989, Huawei began to develop products while agent, transforming from agent to manufacturer, and striving to establish the Huawei brand. This is not only a very bold adventure decision, but also a shining light of Huawei idealism and an important embodiment of Ren Zhengfei's entrepreneurial personality charm.

This decision put Huawei on the road of independent research and development, and also attracted a number of young people with technology, talents and ideas, and stored a number of research and development backbone and effective strength.

In the 1990s, there was a big gap between domestic communication equipment and foreign countries, and most of the domestic market was imported goods, and the price was high. At that time, most of the international telecom giants had entered China and had been stationed in various provinces and cities for many years, with strong financial resources and advanced technology.

Huawei The strategic choice in this period is to first enter the rural and small county markets that international telecom giants look down to, from the rural telecom market to the urban telecom market, and conduct differentiated business design to achieve domestic substitution.

In 1992, Huawei obtained a large number of purchase orders with its self-developed products and good cost performance, and the turnover exceeded 100 million yuan for the first time. At this time, Ren Zhengfei made an important decision: to put the first bucket of money into the development of telephone switches used by the telecommunications bureau.

Huawei The original customers are hotels, institutions, etc., and the products are user-level equipment. It is a very challenging strategic decision to transform to the product development and market development of the equipment of the

telecommunications bureau. In Ren's words, "Huawei entered the communications industry because of ignorance. At the beginning, I only know that the market is big, but I do not know that the market is so standard, and I do not know that the competitors are so strong."

Indeed, Huawei is facing a "enemy" competition, competitors both world-class companies (when the market there is a saying called "seven eight", including the AT & T, Japan NEC, Japan, Sweden, Ericsson, Siemens, Germany, Canada nortel, Finland, Nokia), and has the background of the dragon, datang, zte and other enterprises.

#### Stage 2: Strategic choice of the domestic development period (1992-2000)

In 1993, Huawei and 17 provincial and municipal telecommunications bureaus jointly launched a joint venture, —— Mobeck. The total capital of the company is 89 million yuan, of which Huawei contributed 50 million yuan and 39 million yuan to other telecommunications bureaus.

In this way, Huawei forms a close alliance of capital and markets between its and telecom customers.

Huawei I obtained investment funds and relied on the relationship network in the domestic market to expand my business. For the post and telecommunications system, with their own funds in their own territory to do the market, let their own profit. The establishment of the subsidiary was costly, and Huawei promised to give investors a 33% return each year.

Within a few years, Huawei has established about 27 companies with subordinate enterprises or trade unions of railway and post and telecommunications departments, achieving the purpose of consolidating, expanding and occupying the market by establishing a community of interests. At the same time, the capital provided by these joint ventures reached hundreds of millions of yuan in the early stage of their establishment, providing strong financial support for Huawei's high R & D investment during this period.

During this period, in order to solve the internal chaos caused by the rapid expansion, Huawei successively implemented the reform projects such as employee

stock ownership, ISO 9000, the resignation of the Marketing Department, performance reform, basic law drafting and so on.

Fortunately, Huawei at the beginning of the business into the communication market industry space is large, high profit returns, more important is Ren attaches great importance to intellectual professional and contribution, will reflect the knowledge on material wealth —— in 1998 Huawei basic law of the 9 of human capital appreciation goal priority over the goal of financial capital appreciation.

As a result, Huawei can offer employees far more compensation than the industry average. In addition, with Ren Zhengfei's ideal of serving the country and his unique entrepreneurial personality charm, Huawei continues to attract and gather a large number of professional talents.

Around 1995, Huawei faced the situation of "vassal separation" in its offices across the country.

Huawei Gradually entering the urban market, the customer's procurement decision-making power from the original county competent departments to the municipal and provincial competent departments, from the original "individual decision" to "bidding and procurement" and "collective decision-making". Some office cadres who were originally good at "fighting alone" cannot adapt to this changing situation.

In 1995, Huawei lost to project competition in a northwestern city. Objectively, Huawei urgently need a major adjustment to the solidified cadres, especially the incompetent cadres.

Before the Spring Festival of 1996, about 30 percent of the cadres were replaced in the competition assessment.

The "resignation of Marketing Department" was the first for Huawei cadres to go up and down, which had a profound impact on the development of Huawei and corporate culture, and has become an important event to promote Huawei to maintain strong competitiveness.

With the major breakthrough of C & C080000 digital switches in technology and market, Huawei's serious problems in internal management are highlighted: chaotic thinking, tactics without strategy, opportunism, and so on.

For Huawei employees to unify their thinking and systematically solve these intertwined problems, all the staff need to participate in the formulation of a programmatic document to sort out the company's organizational construction, management institutionalization construction and cultural construction ideas. This objectively calls for the drafting and promulgation of the Huawei Basic Law.

During this period, Huawei first accumulated experience through the user machine, entered the rural exchange bureau, and then developed step by step into a major domestic communication equipment supplier along the county network, prefectural network, provincial capital network, national backbone network and market routes.

In particular, the launch of the C & C08 digital program control switch in 1994 was very successful, which laid the foundation for the development of Huawei.

Huawei Significant improvement in performance: sales revenue was 1.5 billion yuan in 1995, 2.6 billion yuan in 1996, and increased to 4.1 billion yuan in 1997.

During this period, the Huawei "came out of the chaos".

Stage 3: Strategic Selection for the Global Development Period (2000- -2010)

Around 2000, multinational communication equipment giants turned to the Chinese market to grab more profits. With China's relatively low tariffs, the competition is becoming fierce.

In the market competition, Huawei is faced with many pressure from domestic market saturation and multinational companies to compete for the domestic market with a more brutal price war.

In the internal management, the success rate of product development is low, long cycle, low efficiency. At the time, Huawei's wasted development spending and product development cycles were still more than twice the best in the industry.

Huawei Although the sales volume has increased year after year, the gross profit margin of the products has decreased year by year, and the per capita benefit is only 1 / 6~1 / 3 of that of Cisco, IBM and other enterprises.

Since 1994, Huawei has been looking for and trying to develop methodologies and solutions to adjust and optimize business processes and organizational structures such as product development, production and delivery.

However, at that time, the Huawei management, including Ren Zhengfei himself, did not have the professional experience of international benchmarking companies and the experience in managing large enterprises, and managed the company with simplicity and his own understanding of management, which never missed the point.

Therefore, Ren Zhengfei set his sights on related enterprises in Japan, the United States, Germany and other developed countries.

Huawei The pursuit is to become a world-class communication equipment supplier, and must switch from "millet plus rifle" to "proven excellent management of Western enterprises".

To this end, Huawei began to implement ITS & P (Information Technology Strategy & Plan) in cooperation with IBM in 1998, including eight management change projects, including IPD, ISC (Integrated Service Chain) IT system restructuring and financial unification, needed for Huawei to transform to a world-class enterprise in the next 3 to 5 years.

IPD and ISC are the two business restructuring projects identified by ITS & P. Among them, IPD aims to help Huawei change its product development model to the world-class level; ISC aims to help Huawei improve its supply chain management capabilities.

Huawei Since 1999, IPD introduction was officially launched. The continuous practice and optimization of IPD reform have made Huawei establish a set of institutionalized and suitable R & D management system to ensure the continuous and stable delivery of high-quality products. This has not only been recognized by the international market access, more importantly, in the product field no longer depends

on the "hero" but based on the process, can be developed to meet customer requirements, quality assurance products, from accidental success to build a replicable, sustainable, stable and high-quality management system.

Through ISC change, Huawei to SCOR (Supply-Chain Operations Reference) model as the benchmark, adhere to the package drive business change strategy, with a unified "ERP + APS" replaced dozens of scattered IT system, targeting customers established including six supply center, seven Hub and national center warehouse of integrated global supply network, make the company in the quality of supply, cost, flexibility and customer response speed have achieved fundamental improvement, effectively support the global development of the business.

In 2000, China Telecom and China Netcom did not have mobile business licenses. In order to compete for the wireless communication business market, they decided to introduce PHS) from Japan to compete with China Mobile and China Unicom. The two operators have invested nearly 100 billion yuan to build a PHS coverage network. The PHS and mobile market started in 2000 and construction stopped around 2007.

Around 2000, Huawei's wireless business focused on 2G and 3G. Huawei The PHS business using outdated technology is just a temporary opportunity to make money. Huawei Instead of being an opportunist, Ren Zhengfei rejected the public opinion and rejected the PHS project.

On January 24,2003, Cisco filed a legal lawsuit against Huawei for illegal infringement of its intellectual property rights, including illegal plagiarism and embezzlement of operating software including source code. The parties finally reached a settlement on July 28,2004. Cisco's lawsuit against Huawei for infringement of intellectual property rights indirectly targeted Huawei's expansion in the North American market, while Huawei achieved a very good publicity effect through this huge lawsuit: Huawei products and technologies not only had the advantage of high cost performance, but also proved to be independent and legitimate. This played an important role in paving the way for Huawei's later overseas market expansion.

The incident also led the Huawei to recognize the important role of intellectual property as a "nuclear umbrella". Later, Huawei began to build and improve the intellectual property management system. For example, in the integrated product development (IPD) system of Huawei, intellectual property management was added, and it defined the responsibility subject, performance assessment and incentive policies in the planning, application and management of intellectual property. Huawei In the field of intellectual property for decades of investment, unremitting efforts, firmly believe that "turtle" can also catch up with the "dragon spacecraft", and finally build a strong strategic control point.

During this period, the global communication market was saturated, and overseas IT enterprises began to shrink, while Huawei, due to the blocked expansion in the domestic market, seized the global opportunity to enter the overseas market and realized the curve overtaking.

Huawei First start from Hong Kong, China (1995), fight —— Russia (1998), Asia, Africa and Latin America countries (2000), Southeast Asian countries (2000), and finally enter the developed European market (2003).

Since 2002, Huawei has asked BT (BT) to verify its management system, because only through certification could Huawei be added to BT's short purchasing list. In 2005, Huawei finally squeezed into the short list of BT "21st Century Network" suppliers.

Huawei International expansion success again demonstrated the charm of the classic competitive strategy of "rural surrounding the city": in 1999, Huawei's overseas revenue only \$53 million, accounting for less than 4% of the total sales revenue; in 2004, the contract amount reached 46.2 billion yuan, overseas revenue accounted for 41%, entered 22 of the top 50 global telecom operators; in 2005, Huawei overseas revenue exceeded domestic revenue for the first time, reaching 4.8 billion dollars, accounting for 58% of the company's total sales.

During this period, Huawei expanded its category and completed the transition from a single product manufacturer to a multi-product communications equipment manufacturer.

Huawei Not only moved marketing, delivery and service organizations overseas, but also set up research institutions in India, Silicon Valley, Sweden and other places. In addition to direct investment and controlling research and development institutions, Huawei also cooperates with 3Com, Siemens, Sectec, Intel and other companies through joint ventures or acquisitions.

Huawei Integrate resources from a global perspective to enhance the competitiveness of core technologies and products and solutions, and compete with world-class enterprises in the global market. Therefore, Huawei has become a truly global enterprise.

In October 2004, Huawei Hays Semiconductor was established to focus on chip development, formerly the Huawei Integrated Circuit Design Center founded in 1991.

This lays a solid foundation for Huawei to build a strong strategic control point in strategic management.

After 2005, with the rapid development of overseas markets, Huawei appeared the problem of "signing the contract but not delivering it".

In 2009, Huawei realized that it would overtake Ericsson to become the industry leader.

After entering the international market, many cadres can not keep up with their ideas. At the same time, how to make overseas customers accept Chinese products and recognize Chinese brands was the challenge faced at that time. Huawei There is pressure to change in public relations, branding, and compliance with industry rules. To this end, Huawei promotes internationalization, introducing industry best practices to the world, improving change management, and supporting global operations, including global delivery capacity, global supply systems, multi-plant layout, and localization. Organizational strategy is to build a customer-oriented process organization, and competitive strategy is to change from competitive relationship to competitive cooperation.

During this period, Huawei was faced with serious business problems, low efficiency of operating assets, and uncontrollable project profit and loss.

Therefore, in 2007, Huawei carried out IFS (Integrated Finance Service) reform, built a global financial management system, integrated finance into the business, and made fundamental progress in accelerating cash inflow, accurately confirming revenue, visible project profit and loss, and controllable operational risks, supporting the sustainable and profitable growth of the company.

In 2007, Huawei hired Accenture to launch CRM (Customer Relationship Management) to strengthen the process management of the process from opportunity to order to cash.

In 2008, Huawei reorganized the CRM system and opened up the new process of "from opportunity to contract, and then to cash", which improved the operation efficiency of the company.

On January 16, 2009, Ren in Huawei pin clothing system struggle awards conference published "let hear the gun make decisions", combined with the Huawei organizational change background, finalized the "who will call cannon", defines the "what is fire", so "to hear the gun make decisions" in Huawei began, from the centralized system to separation of checks and balances, coordinated development model.

Of course, who calls the fire, who will bear the responsibility of the call and the cost of the fire. From this point of view, the success of the IFS reform has supported the implementation of the mode of "let those who can hear the cannon make decisions", and realized effective supervision.

In short, Huawei emphasizes that "let those who can hear the fire call for fire" and expects to give priority, scientific and rapid fire in the case of limited resources, so as to obtain the maximum revenue for the company, rather than simply delegating power to the frontline team.

Ren in 2010 PSST (Products & Solutions Staff Team, products and solutions entity organization) system cadre conference speech, Huawei no longer do "black widow" (black widow is a kind of spider in Latin America, the spider after mating, the female will bite and eat mate, as their hatch young spider nutrition, so called "black

widow"). Huawei Willing to establish a harmonious mechanism with suppliers, partners and competitors.

Stage 4: Strategic selection of 2B to 2B and 2C business transition period (2010-2019)

During this period, the operator business market was close to saturation, and the communication infrastructure industry entered a mature and stable stage from the high-speed growth period.

By 2013, Huawei had the largest market share in the communications infrastructure industry.

Huawei The challenge at this stage is the ceiling of a single industry, the company has occupied 30-40% of the market, and further growth will be very slow.

Therefore, since 2010, Huawei sought to expand its business boundaries and fully entered the consumer business and enterprise business (Huawei entered the fixed telephone field as early as the 1990s, and then successively launched "village access" wireless terminals, PHS mobile phone and 3G network terminals). Huawei The primary strategic management principle is to strive for growth, only big strategic opportunities can breed large industries, large enterprises.

Although Huawei's carrier business market share is increasing year by year, the market space for communications network equipment is shrinking, currently trading at about \$150 billion. With the rise of smart phones, mobile Internet, big data, cloud computing and other businesses, the market space of smart terminals is about 500 billion US dollars, and the market space of enterprise business is about 1 trillion US dollars.

Huawei Entering the consumer business and enterprise business, there is also a layer of strategic anxiety: Huawei The original mobile ODM (Original Design Manufacturer) business is customized for the key customers of operators, and does not directly contact with consumers and feel the needs of consumers. This means that it is difficult for Huawei to implement "customer-centered" product development, and it is likely to lose the lead in the upcoming mobile Internet tide.

Therefore, during this period, Huawei's strategic choice is to become an ICT infrastructure and smart terminal provider. Huawei The vision is to bring the digital world into every person, every family and every organization, and build an intelligent world where everything is connected.

To this end, Huawei adjusts its organizational structure according to market characteristics and business types. In 2011, Huawei, by market and customer type, formed the top four BG (Business Group): carrier business, enterprise business, consumer business and other businesses. In a business group, there can be multiple BU (Business Unit). Business groups have greater autonomy, independent accounting and less constraints from other sectors. The business group generally sets up its own human resource management department, CTO (Chief Technology Officer) office, strategy and business development department, and financial management departments.

In 2011, the company appointed Richard Yu to run the consumer business.

Yu Chengdong led consumer BG to transform from ODM white brand operator to OEM (Original Equipment Manufacturer) production Huawei own brand, and achieved brilliant performance.

According to the 2019 financial report released by Huawei, the annual sales revenue was 858.8 billion yuan, of which the consumer business achieved sales revenue of 467.3 billion yuan, accounting for more than 54% of the revenue.

Huawei 2019 financial report disclosure, enterprise business helps the digital transformation of industry customers, to create the base of the digital world. With 228 of more than 700 cities and global top 500 enterprises, selected Huawei as its digital transformation partner; Huawei first released the computing industry strategy, committed to become the "black land" of the intelligent world, launched the world's fastest Shengteng 910 AI processor and AI training cluster Atlas 900, achieving sales revenue of 89.7 billion yuan, a year-on-year growth of 8.6%.

While expanding the business boundary, the Huawei's management system is facing an evolution from a single to multiple features.

The company needs to properly deal with the relationship between traditional business and new business, so as to solve the problem that the company cannot carry

different business types with the same process, and different businesses exist in sales, research and development, brand publicity and other links.

At that time, no company in the world was able to successfully both 2B, 2b and 2C businesses.

At the beginning of the development of Huawei enterprise business, it followed the "direct selling + integration" mode of Huawei telecom operators' business, and later adjusted it to the mode of "distribution + being integrated", so we paid a lot of "tuition fees". By summarizing the development law of enterprise business, Huawei's enterprise business has gradually developed.

2B operator business and 2C consumer business are very different in product logic, brand direction, talent culture, channel expansion and strategic planning cycle. BG, the consumer business, experienced great pain before the transformation was successful.

<b>Dimension</b>	<b>2B operator business</b>	<b>2C consumer business</b>
Product logic	Strong reliability	Experience good
Brand direction	High-quality	Have a temperature
Talent culture	Engineer culture	Consumer culture
Channel expansion	Sales drive	Marketing drive
Strategic planning cycle	3-5 Years	2-3 Years

Table 2.2 - Five dimensions of Huawei 2B operator business and 2C consumer business

*Compiled by the author on the basis of [67]*

In this transition period, what Huawei needs to learn and adjust is:

- Learn how to control, assess and motivate different businesses (operators, enterprises, consumers, Cloud & AI).

- In terms of process, the process architecture of Huawei's various businesses is different, which needs to be changed according to its characteristics.

- In terms of organization, Huawei previously preferred central control. At the present stage, it needs to reconsider the scope of authorization of the business division, as well as the decentralization of decision-making power and assessment and evaluation power, and needs to reform the front-line authorization and project system.

- IT, according to the characteristics of the business to change.

- After decentralization, the regulatory system needs to change.

Stage 5: Strategic choice of sanctions breakthrough period (2019-present)

On May 15, 2019, U. S. President Donald Trump signed an executive order requiring the United States to enter a state of emergency under which US companies should not use telecommunications equipment produced by companies that pose a risk to national security.

The Commerce Department said it would put Chinese company Huawei and its 70 affiliates on its "entity list". On May 16, the U. S. Commerce Department banned the sales and purchasing of 70 Chinese Huawei and Huawei companies in the United States. Many American companies held emergency meetings and cut off all business cooperation with Huawei in written form.

On May 15, 2020, on the first anniversary of the Huawei ban, the United States changed its export rules, requiring companies using American technology and equipment to apply to the United States if they want to do business with Huawei.

Resubmitting to US pressure, the UK government decided on July 14, 2020 to stop buying new Huawei equipment from December 31, 2020. In addition, the Huawei equipment currently used in the UK 5G network will have to be dismantled by 2027.

In 2020, Huawei suffered a second blow by the United States, directly cutting off the supply of chips from the fourth quarter of the year, resulting in a precipitous decline in mobile terminal revenue in the fourth quarter, and forced to sell the glory terminal business and assets.

Pandora's box has been opened, and how to maintain business continuity is the focus of Huawei's strategic thinking during this period.

At 2 a. m. on May 17, 2019, President Huawei Hays sent a letter to all employees about Huawei's listing as the so-called "entity list" of the US Department of Commerce,

announcing that all the backup chips stored in the secret cabinet had officially launched the "spare tire plan". Since then, Huawei has started the hard work of "filling the hole" of the "disastrous loser 2 aircraft".

In the same year, Huawei used 858.8 billion yuan in revenue (a 19.1% increase) to expose to the world that American hegemony was not indestructible. Ren zhengfei even said: in the past, Huawei was to make a little money, but now it is to defeat the United States."Live on" is the lowest and highest program of Huawei. In order to maintain business continuity and occupy strategic control points, Huawei chooses to press the "accelerator key".

Because Huawei mobile phone overseas users affected by disable Google GMS (Google Mobile Service), Huawei on February 24,2020 Barcelona conference officially launch global Huawei mobile services (HMS), in Huawei smartphone GMS replaced with HMS, at the same time released the Huawei own app store AppGallery, the app store App number more than 55000, and continues to grow. At the same time, Huawei will invest \$1 billion to encourage and support global developers to develop software for HMS.

## **2.2 Relevant methods to ensure and enhance the enterprises competitiveness**

### **1. Customer-centered, do a good job in customer relations**

In the early stage, Huawei established the business philosophy of "customer-centered". It would rather bear more hardship to safeguard the interests of customers. It attached great importance to service, paid attention to customers' feelings, and made timely payment to suppliers. Huawei The sales performance slowly improved, and accumulated the original capital

### **2. Strengthen core technologies, independent innovation**

In 1989, Huawei began to develop products while agent, transforming from agent to manufacturer, and striving to establish the Huawei brand. This is not only a

very bold adventure decision, but also a shining light of Huawei idealism and an important embodiment of Ren Zhengfei's entrepreneurial personality charm. In 1992, Huawei obtained a large number of purchase orders with its self-developed products and good cost performance, and the turnover exceeded 100 million yuan for the first time. At this time, Ren Zhengfei made an important decision: to put the first bucket of money into the development of telephone switches used by the telecommunications bureau.

In 1999, through the ISC revolution, Huawei took the SCOR (Supply-Chain Operations Reference, supply chain operation reference) model, adhered to the strategy of software package driven business change, replaced dozens of scattered IT systems with a unified "ERP + APS", and targeted customers to establish an integrated global supply network including six supply centers, seven Hub and national center warehouses

In 2007, Huawei carried out the IFS (Integrated Finance Service, integrated financial services) reform, built a global financial management system, integrated finance into the business, and made fundamental progress in accelerating cash inflow, accurately confirming revenue, visible project profit and loss, and controllable operational risks, supporting the sustainable and profitable growth of the company

With the development of information technology, the world gradually into the era of big data and cloud computing, big data business brought exponential traffic growth, and the concentration of data to 80% of the business traffic concentrated in the data center, plus the server cluster computing and virtual machine migration business applications, produced huge amounts of horizontal interactive data, the network of data center exchange put forward higher requirements. As a result, cloud service has become the basic business model for Huawei. In the future, the strategic direction of Huawei is intelligence, which will be implemented through four aspects: connection, computing, cloud, and AI (Artificial Intelligence, artificial intelligence). Among them, the connection is the communication line of Huawei, while computing, cloud and AI are closely related to computing power and algorithm.

In 2017, Huawei upgraded the cloud business BU, which was formerly the P & S (Products & Solutions) unit, to the Huawei Group as the fourth business unit.

In 2018, Huawei announced a strategic upgrade, adjusting the original Cloud BU to Cloud & AIBU, and strategically entered the AI market.

In 2019, the smart car solution BU was established.

In 2019, at the Huawei Full Connection Conference, Huawei unveiled the overall computing industry strategy, and put forward the policy of "one cloud, two wings and two engines", to fully embrace the open ecology.

In January 2020, Huawei adjusted its Cloud & AI business, which focuses on computing industry, from BU to BG, becoming the fourth business group besides operators, enterprises and consumers.

In 2019, the cloud business and intelligent computing department under Huawei Cloud & AI toured the country. While strengthening the cloud on government and enterprises, it also launched Atlas platform, Kunpeng, Shengeng chip, etc., to continuously improve AI and computing power.

### 3. Strengthen foreign cooperation and strengthen communication and exchanges

In 1993, Huawei and 17 provincial and municipal telecommunications bureaus jointly launched a joint venture, —— Mobeck. The total capital of the company is 89 million yuan, of which Huawei contributed 50 million yuan and 39 million yuan to other telecommunications bureaus. In this way, Huawei forms a close alliance of capital and markets between its and telecom customers.

### 4. According to the enterprise strategy, reasonably adjust the organizational structure and develop the human resources strategy

#### A. Creation of the Huawei Basic Law

Huawei Employees unified thinking, systematically solve these intertwined problems, need all the staff to participate in the formulation of a programmatic document, combing the company's organization construction, management institutionalization construction and cultural construction ideas.

The Basic Law of Huawei helps entrepreneurs to complete the systematic thinking of the management system, helps Huawei to construct the institutional top-level design, and successfully shift from opportunity-oriented to strategic-oriented.

The Basic Law of Huawei helps Huawei solve the problem of the driving mechanism of enterprise growth, build the value management system of enterprises, and condenses the enterprise community, interests and destiny.

The Huawei Basic Law set the goal of Huawei to become a world-class leading enterprise, and Huawei finally achieved this goal.

The Huawei Basic Law has become the guiding outline for a series of subsequent Huawei management changes.

#### B. Human resources system construction

After the business expansion, Huawei is faced with the situation of "vassal separation" of its offices across the country. It is no longer the previous single line marketing function, but the coordinated development of each line, so that the requirements for regional leaders become very high.

Before the Spring Festival of 1996, all the marketing cadres of Huawei submitted a resignation report to the company headquarters, and also submitted a report report. According to the manpower needs of the organizational reform, the company will decide which report from each reporter to accept. In this competition assessment, about 30 percent of the cadres were replaced. Huawei Thus opened the large-scale human resources system construction. The "resignation of Marketing Department" is the first time for Huawei cadres to go up and down, which has a profound impact on the later development of Huawei and corporate culture, and has become an important event to promote Huawei to maintain strong competitiveness

#### C. Huawei Construction of the university

In order to build a learning organization, Huawei officially registered with Huawei University in 2005, providing a number of training courses for Huawei employees and customers, including new employee culture training, on-the-job training and customer-oriented training. Huawei The university aims to cultivate professional managers, develop international leadership, and become a booster of

enterprise development with integrated management wisdom and Huawei enterprise practice experience.

Huawei The unique positioning of the university is SBU (Service Business Unit, Service Business Unit), which is not a cost center, but relies on the settlement and payment with the business department, and is responsible for its own profits and losses.

Huawei According to the overall development strategy of the company and human resource strategy, the university promotes and organizes the construction of the training system of the strategy, and supports the training and development of the employees and management personnel, and cooperate with the business development and customer service strategy to provide comprehensive technical and management training solutions for customer satisfaction, share the management experience of Huawei, enhance competitiveness with the industry.

D. From the centralized system to the decentralization of checks and balances, coordinated development mode

Huawei Draw lessons from the "three-person group" model and form an "iron triangle" combat unit in the front line.

The essence of the Iron Triangle is to break down the functional barriers in order to achieve the goal, and to form a project-centered team operation mode.

The so-called Iron Triangle is characterized by a working team composed of account managers, solution experts and delivery experts. Within the scope of authorization, they can execute without the approval of the representative office.

Through this model, Huawei uses the company's main resources to finding targets, finding opportunities, and turning opportunities into results. Advanced equipment and high-quality resources in the rear ensure that the front line can play a timely role and provide efficient support, which changes the disadvantages of people with resources commanding the war and supporting the troops.

E. Organization structure for machine adjustment

Huawei The strategic choice is to become an ICT infrastructure and smart terminal provider. Huawei The vision is to bring the digital world into every person,

every family and every organization, and build an intelligent world where everything is connected.

To this end, Huawei adjusts its organizational structure according to market characteristics and business types. In 2011, Huawei, by market and customer type, formed the top four BG (Business Group): carrier business, enterprise business, consumer business and other businesses.

5. Learn from benchmarking enterprises, and constantly optimize their own management ability

Since 1994, Huawei has been looking for and trying to develop methodologies and solutions to adjust and optimize business processes and organizational structures such as product development, production and delivery. Ren set his eyes on companies in Japan, the United States, Germany and other developed countries.

In late 1997, Ren Zhengfei led a team to the United States to visit Hughes Corporation, IBM, Bell Laboratories, and HP Corporation.

The IBM visit deeply touched Ren Zhengfei. Soon after he returned to China, he said: "Enterprises will lose their competitiveness if they reduce their scale, expand their scale, cannot manage effectively, and face death. Management is an internal factor and can work hard. Small scale, facing all external factors, is the objective law, it is difficult to transfer to the will of people, it will inevitably be unable to resist the storm. Therefore, we only strengthen the management and service, on this road of no return, to have the basis of survival. This is the strategic starting point of Huawei to take the road of scale, invigorate the internal dynamic mechanism, and strengthen the management and service."

To this end, in 1998, Huawei began to implement ITS & P (Information Technology Strategy & Plan, IT strategy and plan) in cooperation with IBM, including eight management change projects, including IPD, ISC (Integrated Service Chain, integrated supply chain), IT system restructuring and financial unification, needed for Huawei to transform to a world-class enterprise in the next 3-5 years. Huawei Since 1999, IPD introduction was officially launched. The continuous practice and optimization of IPD reform have made Huawei establish a set of institutionalized and

suitable R & D management system to ensure the continuous and stable delivery of high-quality products.

6. Build their own intellectual property system to ensure the core competitiveness

On January 24, 2003, Cisco accused Huawei of illegal infringement of its intellectual property rights. Huawei began to build and improve the intellectual property management system, for example, in the Huawei integrated product development (IPD) system, increase the intellectual property management, in the intellectual property planning, application and management has been clear about the responsibility, performance appraisal and incentive policy. Huawei In the field of intellectual property for decades of investment, unremitting efforts, firmly believe that "turtle" can also catch up with the "dragon spacecraft", and finally build a strong strategic control point.

7. Do not meet the existing market, the global vision of the integration of resources

Huawei International expansion success again demonstrated the charm of the classic competitive strategy of "rural surrounding the city": in 1999, Huawei's overseas revenue only \$53 million, accounting for less than 4% of the total sales revenue; in 2004, the contract amount reached 46.2 billion yuan, overseas revenue accounted for 41%, entered 22 of the top 50 global telecom operators; in 2005, Huawei overseas revenue exceeded domestic revenue for the first time, reaching 4.8 billion dollars, accounting for 58% of the company's total sales.

During this period, Huawei expanded its category and completed the transition from a single product manufacturer to a multi-product communications equipment manufacturer.

Huawei Not only moved marketing, delivery and service organizations overseas, but also set up research institutions in India, Silicon Valley, Sweden and other places. In addition to direct investment and controlling research and development institutions, Huawei also cooperates with 3Com, Siemens, Sectec, Intel and other companies through joint ventures or acquisitions.

Huawei Integrate resources from a global perspective to enhance the competitiveness of core technologies and products and solutions, and compete with world-class enterprises in the global market. Therefore, Huawei has become a truly global enterprise.

In October 2004, Huawei Hays Semiconductor was established to focus on chip development, formerly the Huawei Integrated Circuit Design Center founded in 1991.

#### 8. Pay attention to talent investment

In 2011, inspired by the disaster film "2012", Huawei began building his own Noah's Ark —— 2012 lab, separating research and development. Research is the process of turning money into knowledge, and development is the process of converting knowledge into money. Huawei Increase the research investment, and further increase the proportion of the research investment from the original 10% to 20%~40%. Huawei "Open the talent pyramid", open the trumpet in research and innovation, flexibly cope with the uncertainty of the future.

#### 9. Neither humble nor pushy, adhere to independent research and development

On May 15,2019, U. S. President Donald Trump signed an executive order requiring the United States to enter a state of emergency under which US companies should not use telecommunications equipment produced by companies that pose a risk to national security. The Commerce Department said it would put Chinese company Huawei and its 70 affiliates on its "entity list". On May 16, the U. S. Commerce Department banned the sales and purchasing of 70 Chinese Huawei and Huawei companies in the United States. Many American companies held emergency meetings and cut off all business cooperation with Huawei in written form.

During this period, in the face of the technology blockade and market blockade of the United States and western countries, Huawei always insisted on neither servile nor pushy. The first time to start the backup plan, and continue to invest in their own chip, system research and development. This cycle is long, the process is difficult, but who is willing to be easily taken by the throat. The enemy has attacked, blindly compromise will only make the other side more arrogant.Huawei At this stage, he gave full play to the Chinese people's "sword" spirit, dare to struggle, dare to struggle.

Finally, Kirin chip and Hongmeng system came out brilliantly, its performance is no less than Snapdragon chip, Android, Apple system. Huawei With their own efforts, they have told the United States and the West what is China's strength and what is the Chinese spirit.

### **2.3 Comparison before and after the measures are taken**

In many cases, it is precisely because of the corresponding timely measures that we finally achieve upward growth under adverse circumstances, ensuring the steady competitiveness of Huawei in the development.

In the process of Huawei development, there have been many major hidden dangers or development bottlenecks, due to the timely adoption of the corresponding correct measures, and finally saved the crisis.

In the following, we analyze the changes and beneficial effects these corresponding measures or methods will bring to Huawei from the relevant crisis examples.

#### **1. The "outage" crisis in the initial startup crisis**

In the 1880s, China's communications industry was booming. Thanks to the recent reform and opening up, the market has released a strong momentum. At this time, Huawei entered the communication industry through the switches of several companies.

Later, due to the instability of the market and the irregular behavior of suppliers, Huawei faced the supply interruption for many times, which brought extremely adverse impact on the market stability and the development of the company.

Since then, let Ren Zhengfei clearly realized that the agency model is not sustainable. In order to build and develop the core competitiveness of Huawei, Huawei must invest funds in research and development and transfer to the upstream link of the

industrial chain. In 1989, Huawei began to develop products as agent, transforming from agent to manufacturer and striving to establish the Huawei brand.

In the future, we have taken actions to cultivate core competitiveness, vigorously developed innovation and development, and firmly held the core technology in our own hands, which laid a solid foundation for the empire of the trillion yuan in the future.

From taking goods sales to independent research and development, from being controlled by others to independence, from then on, Huawei firmly holds innovation and independence in its own hands.

2. Rapid expansion, business model changes, the quality of the staff can not match the needs

In 1993, Huawei and 17 provincial and municipal telecommunications bureaus jointly launched a joint venture, —— Mobeck. Within a few years, Huawei has established about 27 companies with subordinate enterprises or trade unions of railway and post and telecommunications departments, to achieve the purpose of consolidating, expanding and occupying the market by establishing a community of interests. The expansion of the market scale, the original business model has changed, is no longer only sales as the task, each branch, region to assume the development, organization, logistics, operation, marketing and many other functions, the original personnel quality has been unable to match.

At this time, Huawei Huawei has successively implemented reform projects such as employee stock ownership, ISO 9000, Marketing Department resignation, performance reform, and basic law drafting, which has further standardized human resources work, and reflected the importance of knowledge in material wealth. The introduction of the Huawei Basic Law further improves the human resources, performance appraisal, employee promotion, salary system and other related systems.

These corresponding measures make Huawei get rid of the influence of the rank solidification and the management system chaos, and at the same time provide the institutional guarantee for the enterprise scale development in the future. Ability is the most important criterion, rather than seniority and relationship, which in a considerable

range, gets rid of the disadvantages of relationship households and the treatment according to seniority. Their respect for talents is directly reflected in the practice of material wealth, which makes Huawei employees always have higher benefits than their peers, which to a certain extent guarantees their work efficiency and enthusiasm, and provides a steady stream of human support for the development of Huawei. Up to now, the treatment of Huawei companies is still the ceiling of China's Internet industry, and to some extent, it has maintained the attraction of Huawei to talents.

### 3. Fierce competition and too high internal management costs

In the market competition, Huawei is faced with many pressure from domestic market saturation and multinational companies to compete for the domestic market with a more brutal price war.

In the internal management, the success rate of product development is low, long cycle, low efficiency. At the time, Huawei's wasted development spending and product development cycles were still more than twice the best in the industry. The per capita benefit is only 1 / 6~1 / 3 of that of Cisco, IBM and other enterprises.

In 1997, Ren led a team to the United States to visit Hughes, IBM, Bell Laboratories and HP. By learning the advanced practices and relevant experience of benchmarking enterprises, Huawei faces up to its own shortcomings and loopholes in management, and actively seeks for change and innovation.

To this end, in 1998, Huawei began to implement the ITS & P project jointly with IBM, including eight management reform projects, including IPD, ISC (Integrated Service Chain) IT system restructuring and financial four unification, which Huawei needs to transform to a world-class enterprise in the next 3 to 5 years.

Through the implementation of the reform project, Huawei has established a suitable and institutionalized R & D management system to ensure the continuous and stable delivery of high-quality products. This has not only been recognized by the international market access, more importantly, in the product field no longer depends on the "hero" but based on the process, can be developed to meet customer requirements, quality assurance products, from accidental success to build a replicable, sustainable, stable and high-quality management system. At the same time, the

company has made fundamental improvements in the quality of supply, cost, flexibility and customer response speed, effectively supporting the global development of the business.

#### 4. Cisco, sued Huawei for illegal infringement of its intellectual property rights

On January 24,2003, Cisco filed a legal lawsuit against Huawei for illegal infringement of its intellectual property rights, including illegal plagiarism and embezzlement of operating software including source code. The parties finally reached a settlement on July 28,2004.

The lawsuit lasted a year and a half and ended in a settlement, but it also cost Huawei a big price. Huawei The development of the North American market in that year was almost stopped, and the global performance was also severely affected. If Cisco continues, Huawei could face higher infringement costs, and the products may have to be removed and cannot be produced. The impact will be incalculable.

Since then, Huawei began to attach importance to intellectual property work and began to build its own intellectual property system. Huawei In the field of intellectual property for decades of investment, unremitting efforts, and finally build a strong strategic control point.

To date, Huawei continues to invest heavily in research and development, spending 164.7 billion yuan in 2023, accounting for 23.4% of the annual revenue. According to the official data, Huawei has invested more than 11.10 billion yuan in research and development in the past decade, and insists on investing more than 10% of its sales revenue in research and development every year.

From 2021 to 2023, Huawei's R & D investment in the past three years accounted for more than 20% of the company's revenue. In 2023, Huawei's total R & D investment ranked among the top five in the world. As of December 31,2023, the r & D employees are about 114,000, accounting for 55% of the total number of employees. By the end of 2023, Huawei has held more than 140,000 valid authorized patents worldwide.

Table 2.1 - Number of patents granted in the last two years

2023 overall position in PCT ranking	Position changed in overall PCT ranking	Applicant's name	Origin	2022	2023
20231	0	Huawei Technologies Co.Ltd.	China	7,689	6,494
2	0	Samsung Electronics Co.Ltd.	Republic of Korea	4,387	3,924
3	0	Qualcomm Incorporated	US	3,855	3,410
4	0	Mitsubishi Electric Corporation	Japan	2,320	2,152
5	2	BOE Technology Group Co.Ltd.	China	1,884	1,988
6	3	LG Electronics Inc.	Republic of Korea	1,793	1,887
7	-2	Ericsson	Sweden	2,158	1,863
8	84	Contemporary Amperex Technology Co. Limited	China	266	1,799
9	-3	Guang Dong Oppo Mobile Telecommunications Corp. Ltd	China	1,963	1,766
10	-3	Nippon Telegraph and Telephone Corporation	Japan	1,884	1,760

*Compiled by the author on the basis of [67]*

According to the latest information released by the World Intellectual Property Organization, Huawei applied for 6,494 international patents in 2023, still the first in the world, and has topped the list for seven consecutive years.

Such a high proportion, high investment of innovative research, it is not common in the world. This shows that Huawei attaches great importance to innovation and intellectual property system. Without such high investment, Huawei would not have stayed along with Western Internet companies.

5. Operators business market is approaching saturation, a single industry has been unable to support future development

In 2013, Huawei had the first market share in the communications infrastructure industry.

Huawei The challenge at this stage is the ceiling of a single industry, the company has occupied 30-40% of the market share, and further growth will be very slow.

Therefore, since 2010, Huawei has sought to expand its business boundaries and fully enter the consumer business and enterprise business.

During this period, Huawei's strategic choice was to become an ICT infrastructure and smart terminal provider. Huawei The vision is to bring the digital world into every person, every family and every organization, and build an intelligent world where everything is connected.

Huawei BG President Yu Chengdong led consumer BG to transform from ODM white brand operator to OEM (Original Equipment Manufacturer) to produce Huawei own brand, and achieved brilliant performance.

According to the 2019 financial report released by Huawei, the annual sales revenue was 858.8 billion yuan, of which the consumer business achieved sales revenue of 467.3 billion yuan, accounting for more than 54% of the revenue. Huawei According to the 2019 financial report, there are 228 of more than 700 cities and fortune 500 enterprises worldwide, and Huawei is chosen as its partner in digital transformation.

Brave to explore, continuous innovation. After experiencing the market bottleneck, we have the courage to change, adapt to The Times, actively take advantage of the trend, and constantly develop emerging businesses, and finally to maintain our position and competitiveness. If it is too rigid and dull, it will eventually be eliminated.

#### 6. American sanctions, unprecedented crisis

On May 15,2019, U. S. President Donald Trump signed an executive order requiring the United States to enter a state of emergency under which US companies should not use telecommunications equipment produced by companies that pose a risk to national security. The US Department of Commerce included Chinese company Huawei and its 70 subsidiaries on its " entity list. On May 16, the U. S. Commerce Department banned the sales and purchasing of 70 Chinese Huawei and Huawei companies in the United States. Many American companies held emergency meetings and cut off all business cooperation with Huawei in written form.

In this case, most European countries, under pressure from the United States, either actively or passively, have stopped their cooperation with Huawei. At a time when 5G is booming, Huawei is hoping to lead the global 5G development and the rapid development of the Internet of everything, when overseas markets suddenly hit the stop button. The blow to Huawei is fatal and irreversible, which means that Huawei will lose hundreds of billions of overseas markets, but also means that many imported parts, even core components, such as chips and software systems, cannot be supplied, and may lose the ability to manufacture independently.

In this case, many companies are forced to abandon their overseas markets and wait for political factors to come in. But the Huawei has launched an aggressive self-help campaign.

On May 17,2019, Huawei announced that all the backup chips stored in the secret cabinet were made into regular employees, officially launching the "spare tire plan". Since then, Huawei has started the hard work of "filling the hole" of the "disastrous loser 2 aircraft". During this period, Huawei made great efforts to develop chips, including domestic Kirin chips, officially replacing snapdragon chips for large-scale application to computers, mobile phones and scientific research systems.

Due to the impact of overseas Huawei mobile users by the ban of Google GMS, Huawei officially launched Huawei Mobile Service (HMS) to the world on February 24,2020, replacing GMS with HMS on Huawei smartphones, and releasing Huawei's own app store AppGallery. In contrast, in China, Huawei, working day and night, officially developed Hongmeng system, which has a large-scale application in computers and mobile phones, officially breaking the monopoly of Android system and Apple system. To achieve the independent breakthrough of the core technology, since then, no longer have to be subject to foreign forces, all parts can achieve 100% domestic.

### **Conclusions to the second section:**

Huawei Group is a leading enterprise in China's telecom industry, and also a major enterprise in the world to promote 5G development. It plays a very important role in the industry. However, the development of Huawei Group is not plain sailing. In the course of more than 30 years of development, it has experienced many hardships and failures, but Huawei still sticks to it and became stronger and stronger. What factors make today's Huawei, and what factors ensure the core competitiveness of Huawei?

1. Through the study of the development of Huawei, we can roughly know that the overall development of Huawei is divided into several different stages, each stage has its own different development strategies, and will also encounter different difficulties. However, Huawei always chooses to change at the critical time, constantly strengthening itself, and eventually gradually becomes stronger.

Huawei In the early stage of development, Huawei was only a small product agent, without its own technology and products. After a series of setbacks, it understood the importance of core technology. From then on, it began to continuously research and develop, and now the annual research and development expenditure of Huawei exceeded 40% of its total revenue.

In many cases, the continuous strengthening of foreign cooperation is also one of the main reasons for its continuous progress. By developing together with governments at all levels, excellent enterprises at home and abroad, to achieve a win-win situation. In the process of development, Huawei can always learn advanced excellent practices, not blindly arrogant, always maintain humility, to create a good learning attitude.

2.As it evolves, Huawei also uses a number of ways to ensure corporate competitiveness:

(1) Customer-centric. Huawei Attach great importance to the relevant customer feedback, always consider for customers in various situations.

(2) Strengthen core technologies, independent innovation. Huawei Attach great importance to the research and development of products, invest a huge amount of money every year, and constantly study the emerging fields.

(3) Strengthen foreign cooperation and communication. Huawei Never closed themselves, always like to cooperate and communicate with the outside world.

(4) Adjust the human resource strategy according to the actual situation. Huawei Always good at learning, constantly sum up experience, when the current manpower policy does not meet the development history of the company, will be actively adjusted.

(5) Keep learning from benchmarking enterprises. Huawei Always feel that I still have the necessity to learn, always will learn from better enterprises, and constantly improve themselves.

(6) Establish an intellectual property rights system. Huawei It attaches great importance to its own intellectual property system, and is always constantly strengthening its intellectual property research and development.

(7) Global vision. As a Chinese company, Huawei has never only focused on the Chinese market, but has always wanted to expand to the global field, and even lead the development of related technologies.

(8) Attach importance to talent investment. Talent is the most basic guarantee for the development of enterprises. Huawei always attaches great importance to talents, and the salary and treatment for employees are extremely high in China, which ensures its own attraction for talents.

3. In Huawei's repeated crises, it was the right measures that finally secured its market position and its corporate competitiveness. By taking a series of measures, Huawei has built its own intellectual property system, got rid of the dilemma of core technologies being controlled by others, and also embarked on the road of independence. Strengthen the management level, reduce the internal management cost. At the same time, even in the face of US sanctions, he was still not afraid of power, rose up, and finally got out of the crisis.

## **SECTION 3. RELATED SUGGESTIONS ON HUAWEI GROUP TO ENSURE ENTERPRISE COMPETITIVENESS**

### **3.1 Ways to ensure the competitiveness of Huawei Group**

5G as a new type of mobile communication network, not only to solve the human communication, to provide users with augmented reality, virtual reality, high definition (3 d) video more immersive extreme business experience, more to solve the problem of people and things, things and things communication, meet the mobile medical, car networking, intelligent home, industrial control, environmental monitoring of Internet application requirements. In the end, 5G will penetrate into all industries and sectors of the economy and society, and become a key new infrastructure to support the digital, networked and intelligent transformation of the economy and society.

The 5G international technology standards will focus on meeting the needs of the flexible and diverse Internet of Things. On the basic technology of OFDMA and MIMO, 5G adopts a flexible and new system design to support three application scenarios. In terms of frequency band, and 4G support in low frequency, considering the low frequency resources is limited, 5G and support in the low frequency and high frequency band, including low frequency coverage and capacity demand, high frequency to improve capacity demand in hot spots, 5G for low frequency and high frequency design unified technology, and support the basis of MHz bandwidth. In order to support high-rate transmission and better coverage, 5G adopts LDPC, Polar new channel coding scheme, and stronger performance of large-scale antenna technology. In order to support low latency and high reliability, 5G adopts short frame, fast feedback, multi-layer / multi-station data retransmission and other technologies.

Huawei The company has been conducting 5G technology research since 2009, and now it has invested 4 billion US dollars, with more than 10,000 people invested in the 5G network side. In the future, Huawei will increase its investment in 5G. As of

December 2019, Huawei has received more than 705G commercial contracts, and more than 500,000 5G AAU have been sent to places around the world, and the number is increasing every day. Of the 40 + 5G networks, 27 were built by Huawei. Huawei contribute more than 21,000 proposals to the 3 GPP 5G basic patent proposals, accounting for more than 20%, are the first in the world. At the same time, it has won key industry awards, such as 5G Evolution Outstanding Contribution Award, Best Infrastructure Award, 5G RESEARCH and development Outstanding Contribution Award, World Internet Leading Technology Achievement Award, Best Industry Solution Award, Technology Innovation Award, and Global Telecom Award.

As a leader in 5G, Huawei took the lead to launch the industry benchmark 5G multi-mode chip solution Kirin 5000, the world's first company to provide end-to-end products and solutions. 2019 is the first year of 5G commercialization, and also another promotion of Huawei in the 5G field. At present, Huawei Mate 20X 5G mobile phone and 5G CPE Pro have obtained China's 5G terminal telecom equipment network entry license, and will soon launch 5G MiFi, 5G vehicle module, 5G TV and other forms of 5G terminals, accelerating the commercialization of 5G commercial scale.

At present, thousands of industries are embracing 5G, Huawei modular, a full range of product solutions, building a green, integrated and minimalist 5G commercial network for operators, enabling new growth.

Under the tide of the expanding 5G market, Huawei should take this opportunity and make unremitting efforts in all aspects to firmly establish its position as a leading enterprise in the 5G industry:

1. Strengthen the research and development of cutting-edge technology and break the western technology blockade

In the 5G era, Huawei has become the preferred partner of operators in all countries with its leading technological advantages, and has promoted the construction of 5G network around the world. At present, Huawei is not satisfied with the achievements of 5G technology, but continues to increase investment in research and development to promote the development of next-generation communication technology. As an advanced version of 5G, 5.5G technology provides higher speed,

lower latency and larger network capacity through technological innovation and improvement. It will further improve network stability, reliability and coverage to meet the growing demand for mobile devices and applications.

Huawei Take 5.5G as the breakthrough point, continue to strengthen the research and development of the new generation of communication technology and the Internet of things technology, and comprehensively upgrade in the frequency band, channel and spectrum effect.

## 2. Lead the industry in rule-making

As a leader in 5G technology, Huawei has a firm grip on the rule-making power in the industry. In the past, the rules of the high-tech industry were formulated by the West, which was extremely unfriendly to developing countries in some fields, earning high patent fees, information fees, construction fees and so on, and hindering the development of their local technology.

As a Chinese enterprise, Huawei always keeps in mind the traditional Chinese "benevolence" and takes the world as its own responsibility. Emerging technology must be born to promote the development of science and technology and for the benefit of mankind. It is definitely not a tool for technological blockade, economic blockade or even political hostility. In 5G construction, in addition to the continuous application of local base stations and technologies in China, 5G or even 5.5G technology should be exported, and reasonable rules should be formulated, rather than malicious monopoly. The existence of science and technology must be for a better tomorrow for all mankind.

## 3. Strengthen information development in underdeveloped areas

The application of 5G technology means that faster, more convenient and more intelligent communication results. However, we should also know clearly that in many underdeveloped areas, even 4G has not been popularized.

Huawei We should take advantage of 5G and work with relevant governments to strengthen information construction in less developed areas, including base stations and other infrastructure. On the one hand, it can benefit the people and promote the

development of the economy; on the other hand, it can also effectively promote the technology maturity and market display of Huawei.

Huawei is in a close cooperative partnership with the Chinese government. The Chinese government has been supporting the development of domestic enterprises such as Huawei, and actively promoting information construction to promote the development of digital economy. At the same time, Huawei is also actively responding to the government's call to participate in the national information construction and digital transformation work, and provide technical support and solutions for the government. In terms of 5G network construction, Huawei, as one of the major 5G equipment suppliers in China, actively participates in the construction and layout of the national 5G network, and promotes the popularization and application of 5G technology. In addition, Huawei has also carried out extensive cooperation with the government in areas such as artificial intelligence and the Internet of Things to jointly promote the high-quality development of China's digital economy.

At present, many governments at all levels in China have signed strategic cooperation agreements with Huawei, mainly focusing on information construction and digital transformation, to provide technical support and solutions for the government. Many Western media have questioned whether the Huawei has too close ties with the Chinese government, and whether the person behind the Huawei group is controlled by the Chinese government. In fact, the question is very simple. Is there any support from the US government behind Amazon? Is there any support from the South Korean government behind the Samsung Group? In fact, it is all self-evident.

At present, China is strengthening high-quality development, one of the very important work is to strengthen the information construction and digital transformation work, and Huawei plays a very important role in it. By strengthening the cooperation with governments at all levels, Huawei can also further expand the scale and achieve performance growth. At the same time, with the endorsement of the government, it is even more afraid of foreign forces.

#### 1.Strengthen it application and digital transformation

Strengthening information construction and digital transformation is of great significance to enterprises, the government and even the whole society. Here are some key steps and key points:

A. Clear goals and strategies: First of all, it is necessary to make clear the goals and strategies of information construction and digital transformation. This includes determining the direction, path, and expected outcome of the transformation, as well as the required resource input and time planning.

B. Establish the information system: according to the actual situation and the transformation goal, establish a perfect information system. This includes the procurement and configuration of hardware equipment, the selection and development of software systems, and the establishment and management of data centers. At the same time, it should ensure that the information system can support daily operations and business development.

C. Strengthening information security protection: With the advancement of information construction, governments at all levels are facing more and more information security threats. Therefore, strengthening the information security protection is an important part of promoting the digital transformation. This includes the establishment of a sound information security management system, strengthening the staff's information security awareness training, the use of advanced information security technology means.

D. Strengthening talent training: Information technology construction and digital transformation need professional technical and managerial talents to support them. Therefore, enterprises need to strengthen talent training and introduction, and establish a talent team with the ability of information and digital transformation.

In short, strengthening information construction and digital transformation is a long-term and complex process, which requires comprehensive consideration and planning. By clarifying the goals and strategies, establishing information system, strengthening information security protection, promoting business innovation and strengthening talent training, enterprises and governments can be promoted to remain in an invincible position in the tide of digital transformation.

## 2. Provide advanced technology solutions

Huawei As the world's leading provider of information and communication technology (ICT) solutions, it can provide governments with advanced technology solutions, including 5G network, cloud computing, big data, artificial intelligence, etc. In the future, Huawei can play the role of a science and technology think tank and provide feasible reform plans for the government in many fields such as big data and artificial intelligence.

## 3. Participate in the construction and operation of government projects

Huawei We can actively participate in government-led major projects, such as smart city, e-government, public security and other fields, and provide comprehensive technical support and services, to help the government to achieve more efficient and convenient public management and services. On the basis of the application and promotion of 5.5G technology, Huawei should strengthen relevant cooperation with the government and invest in more aspects.

## 4. Strengthen cooperation in personnel training and cooperation in scientific and technological innovation

Huawei We can work with the government to promote talent training and scientific and technological innovation, such as setting up joint laboratories and training high-end technical personnel, to jointly promote the technological progress and innovative development of the industry. At present, high-tech talents are still very scarce, especially in the face of "stuck neck" technology, talent is the most important factor. The government can fully mobilize the resources of universities and research institutes to give greater help to Huawei in related fields.

## 5. Strengthen information security protection

With the advancement of information construction and the continuous penetration of foreign hostile forces, the problem of information security has become increasingly prominent. Hacking attacks and data leakage occur frequently. Huawei can strengthen the cooperation with the government in the field of information security, jointly establish a sound information security management system, and ensure the government information security.

## 6. Actively respond to government policies and strategies

Huawei We should actively respond to government policies and strategies, such as the "Belt and Road" initiative and the digital economy development strategy, to provide comprehensive technical support and services for the government, and promote cooperation and development in related fields.

### **3.2 The company's role in the revolution in information technology and artificial intelligence**

In 2023, at the "Huawei Full Link Conference 2023" conference held in Shanghai, Meng Wanzhou, vice president of Huawei and CFO, officially announced that in order to seize the historic strategic opportunity of AI, Huawei proposed the All Intelligence strategy. This is the first time that Meng Wanzhou released the new strategy of Huawei from the group level after taking office, and also the first time for Huawei in the decade since it proposed the All Cloud strategy in 2013, comprehensively improving its AI layout for many years.

In the development of artificial intelligence, computing power is the core driving force. Large models require large computing power. The size of the computing power determines the speed of AI iteration and innovation. The scarcity and high cost of computing power have become the core factors restricting the development of AI. In the face of such constraints, however, Meng Wanzhou clearly put forward Huawei to: "to build a solid Chinese computing base, improve the" soft and soft core edge end cloud " integration ability, meet the diversity of AI computing power demand of demand... Huawei will give full play in the computing, storage, network, energy field comprehensive advantages, change the traditional server stack mode, with the innovation of system architecture ideas, strive to build AI cluster, realize the integration of computing power, capacity, storage design, break through the bottleneck of computing force."

Huawei The following strategies to lead the revolution in information technology and artificial intelligence:

#### 1. Continuous innovation

Huawei We need to continue to invest a lot of resources in research and development and innovation, especially in artificial intelligence, cloud computing, 5G, the Internet of Things and other cutting-edge technologies, to maintain technology leadership. At the same time, Huawei should actively promote cooperation with scientific research institutions and universities around the world to jointly promote the research and development and application of related technologies.

#### 2. Open up and cooperation

Huawei We can actively establish a wide range of cooperative relations with enterprises and research institutions around the world to jointly promote the development of information technology and artificial intelligence. By sharing resources and experience, we can promote technological innovation and application and achieve win-win results.

#### 3. Cultivate talents

Huawei Attention should be paid to talent training, through the establishment of a sound training system and incentive mechanism, to attract and retain excellent technical personnel. At the same time, Huawei can actively cooperate with universities and research institutions to jointly cultivate talents with innovative spirit and practical ability.

#### 4. Promote standard formulation

Huawei It can actively participate in the formulation of relevant international and domestic standards and norms, and promote the standardization and standardized development in the field of information technology and artificial intelligence. Through the development of unified standards and norms, to promote the interconnection of technology and wide application of technology.

#### 5 . Focus on social responsibility

In leading the revolution in information technology and artificial intelligence, Huawei needs to focus on social responsibility and ethical issues. By strengthening

self-discipline and supervision, we will ensure the healthy and sustainable development of technology and bring more benefits to human society.

### **Conclusions to the third section:**

In the future, Huawei will still get more opportunities from many places to improve itself. Based on the current development status and future forecast of Huawei, we also advise Huawei Group:

1. Seize the hot edge of 5G technology. 5G is a new type of mobile communication network, which can not only solve the problems related to human communication, but also provide virtual reality and more immersive extreme business experience for users, which has a huge impact on the construction of the future society. In terms of 5G technology, Huawei has achieved considerable advantages. Although it faces sanctions from the United States, the 5G era is irreversible, and 5G will eventually be popularized on a large scale. Therefore, at this time, Huawei should not give up. We should continue to strengthen internal investment and external construction, and continue to research and develop related technologies to lead the development of 5G.

2. Strengthen industrial cooperation with the Chinese government. In China, I have undertaken a considerable amount of infrastructure projects of the Chinese government. At the same time, I actively respond to the call of the government and actively participate in the national information construction and digital transformation work. Some companies, in order to respond to the sanctions from the United States, chose to downplay government cooperation, hoping to be recognized by the United States. But this is extremely undesirable. Blindly concession, will only be more failure. At such a time, the Huawei still needs to strengthen cooperation with the Chinese government, undertake more development tasks, and provide advanced technology solutions to strengthen information security protection.

3. Lead the revolution in information technology and artificial intelligence. In 2023, Huawei officially announced the launch of the full intelligence strategy, aiming

to strengthen the development of artificial intelligence. In the 21st century, the development of the world is bound to be intelligent, and more and more artificial intelligence will assume important tasks in our daily life. To have the courage to seize this opportunity, continue to promote the change of the industry, walk in the forefront of The Times. We should continue to strengthen innovation, strengthen foreign cooperation, cultivate more professionals, promote independent solutions, and drive the development of the whole industry.

## CONCLUSIONS

The results of the study are theoretical generalization of the formation of ways to ensure the competitiveness of enterprises in conditions of fierce competition on the example of Huawei Group and the development of directions for its improvement.

1. For a long time, all the economists and sociologists have made relevant definitions of enterprise competitiveness, including the source and development of the concept of competitiveness. In a word, the competitiveness of the enterprise is the relevant advantages that the enterprise can maintain in the long-term process, and finally transform into the core productivity. The concept of competitiveness can be traced back to Adam Smith. Many economists and management scientists have provided considerable theoretical research basis for the development of theory, such as C.prahalad, M.Poter, Adam Smith, David Ricardo, etc.

2. In the process of long-term enterprise development, enterprise competition is a normal state. How to develop an effective competitive strategy is a problem that every entrepreneur must face. The formulation of enterprise strategy requires analysis from many aspects, including internal reasons, external reasons, alternative analysis, market analysis, etc. At the same time, a series of related strategic methods were formed, the most famous is the Porter strategy and the Ansoff model strategy. Through the systematic analysis of the company's advantages and related situation, so as to choose a more appropriate business method.

3. The basic methods to ensure enterprise competitiveness can be divided into the following categories:

- Human resources. Stable and sincere human resources policy is the most basic force to ensure the continuous development of enterprises.
- Core technology. Technology is always the first productive force, to ensure the core technology of the company.
- Innovation. Innovation is the most fundamental measure for ensuring the

continuous progress of the company.

- Development strategy. The development strategy of the enterprise provides a clear direction for the future of the enterprise.

- Modern information management. The introduction of modern enterprise management concept with modern information technology can improve the efficiency of enterprise management and ensure efficient work.

- Brand quality management. Good brand effect and quality assurance, can attract a stable source of customers for the company, is an important guarantee for the development of the enterprise.

4. Huawei Group's business focus and strategic model at different stages. Through the study of the development of Huawei, we can roughly know that the overall development of Huawei is divided into several different stages, each stage has its own different development strategies, and will also encounter different difficulties. However, Huawei always chooses to change at the critical time, constantly strengthening itself, and eventually gradually becomes stronger.

Huawei In the early stage of development, Huawei was only a small product agent, without its own technology and products. After a series of setbacks, it understood the importance of core technology. From then on, it began to continuously research and develop, and now the annual research and development expenditure of Huawei exceeded 40% of its total revenue.

5. Huawei Group methods to guarantee and improve the competitiveness of enterprise:

- Customer-centric. Huawei Attach great importance to the relevant customer feedback, always consider for customers in various situations.

- Strengthen core technologies, independent innovation. Huawei Attach great importance to the research and development of products, invest a huge amount of money every year, and constantly study the emerging fields.

- Strengthen foreign cooperation and communication. Huawei Never closed themselves, always like to cooperate and communicate with the outside world.

- Adjust the human resource strategy according to the actual situation. Huawei Always good at learning, constantly sum up experience, when the current manpower policy does not meet the development history of the company, will be actively adjusted.

- Keep learning from benchmarking enterprises. Huawei Always feel that I still have the necessity to learn, always will learn from better enterprises, and constantly improve themselves.

- Establish an intellectual property rights system. Huawei It attaches great importance to its own intellectual property system, and is always constantly strengthening its intellectual property research and development.

- Global vision. As a Chinese company, Huawei has never only focused on the Chinese market, but has always wanted to expand to the global field, and even lead the development of related technologies.

- Attach importance to talent investment. Talent is the most basic guarantee for the development of enterprises. Huawei always attaches great importance to talents, and the salary and treatment for employees are extremely high in China, which ensures its own attraction for talents.

6. In Huawei's repeated crises, it was the right measures that finally secured its market position and its corporate competitiveness. By taking a series of measures, Huawei has built its own intellectual property system, got rid of the dilemma of core technologies being controlled by others, and also embarked on the road of independence. Strengthen the management level, reduce the internal management cost. At the same time, even in the face of US sanctions, he was still not afraid of power, rose up, and finally got out of the crisis

7. Although Huawei is now a leader in China's information technology industry, it still faces competitive pressure from all sides. No one can always be number one. So Huawei also needs spines to ensure its competitiveness. In terms of the big strategy, I think the Huawei can be considered in the following aspects:

- Seize the hot edge of 5G technology.5G is a new type of mobile

communication network, which can not only solve the problems related to human communication, but also provide virtual reality and more immersive extreme business experience for users, which has a huge impact on the construction of the future society. In terms of 5G technology, Huawei has achieved considerable advantages. Although it faces sanctions from the United States, the 5G era is irreversible, and 5G will eventually be popularized on a large scale.

– Strengthen industrial cooperation with the Chinese government. In China, Huawei has undertaken a considerable amount of infrastructure projects of the Chinese government. At such a time, Huawei still needs to strengthen cooperation with the Chinese government, undertake more development tasks, and provide advanced technology solutions, strengthen information security protection.

– Lead the revolution in information technology and artificial intelligence. In 2023, Huawei officially announced the launch of the full intelligence strategy, aiming to strengthen the development of artificial intelligence. In the 21st century, the development of the world is bound to be intelligent, and more and more artificial intelligence will assume important tasks in our daily life.

8. At present, Huawei is the leader of Chinese enterprises in the field of information technology. It undertakes a lot of large infrastructure projects. At the same time, it is also gradually undertaking the information security work of the Chinese government. It has vigorously strengthened the research on 5G, which has also promoted the global promotion and application of 5G technology.

But in terms of artificial intelligence, Huawei started relatively late, which is related to its early strategy. Now, Huawei has increased its investment in resources in the field of artificial intelligence, including talent support, financial support, policy support and so on. Thanks to Huawei's very complete research and development system and good enterprise foundation, Huawei will be one of the best enterprises in the field of artificial intelligence in the future.

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