

## **CHAPTER 4**

### **RESEARCH RESULT**

#### **4.1 Macro Environment Analysis (PEST Analysis)**

The macro-environment has various influences on the development of the company, including the impact on the industry in which the enterprise is located. It also includes the impact on specific companies, including both direct and indirect effects. For opportunities and threats in the external environment, enterprises can reasonably grasp opportunities based on the analysis of resources and competitiveness to ensure the smooth development of their normal operations.

Using the PEST analysis model, the political and legal environment, economic environment, social and cultural environment, and technological environment all fall within the scope of the macro-environment.

##### **4.1.1 Analysis Of Policy And Legal Environment**

The analysis of political and legal environment refers to the analysis of actual or potential political forces, including the influence of the political and legal environment on the business activities, and the analysis of the laws and policies that the political and legal environment constrains the business activities of the company. details as follows:

1. The government's guiding trend in the pharmaceutical intermediate industry is to divert existing pharmaceutical intermediate companies to specialized chemical parks in order to enhance the sharing of resources, reduce the dispersion of the production of pharmaceutical intermediates, and strengthen the supervision of their environmental pollution. Reduce scattered sources of pollution. This creates a good external environment for more standard pharmaceutical intermediate companies and provides more shared resources. At the same time, it also enables enterprises to increase production costs and management costs due to more standardized production

requirements.

2. The state has increasingly stringent requirements for the upstream pharmaceutical industry in the pharmaceutical intermediates industry, with higher and higher standards. Pharmaceutical intermediate companies must improve their own management standards and requirements by complying with the standards and standards of industrial policies, increase the level of product control in the pharmaceutical intermediates industry, and ensure the supply of raw materials for the pharmaceutical industry. The development of the pharmaceutical industry affects the pharmaceutical intermediates industry and affects pharmaceutical intermediate companies. The premise of healthy normal development of the pharmaceutical industry is the quality and safety of pharmaceutical intermediates and the environmental and ecological safety. This puts forward higher requirements for pharmaceutical intermediates and increases the production threshold for production costs of pharmaceutical intermediates, but because of the production threshold The increase will eliminate a group of high-competitive enterprises with small but small production capacity but low costs. This will provide opportunities for pharmaceutical intermediate companies to provide threats.

3. During the 12th and 5th Five-Year Plan period, the state's policy on pharmaceutical intermediates was to strengthen the strength of mergers and acquisitions among pharmaceutical intermediate companies. The state requires pharmaceutical intermediate enterprises to upgrade their technology, save energy, and reduce consumption. At the same time, they also require the transfer of environmental protection production and environmental protection. This will make the pharmaceutical industry and the pharmaceutical intermediate industry more closely. In this environment, many companies face both opportunities and competition pressures.

4. The state has increased the environmental protection and safety production of many industries to the strategic height, especially the chemical industry where the pharmaceutical intermediate industry is located. While competing in the existing market, pharmaceutical intermediate companies must develop more energy-saving and environment-friendly pharmaceutical intermediate products, improve their market

competitiveness in the pharmaceutical intermediate industry, and also achieve safe production. For pharmaceutical intermediate enterprises, in addition to strict environmental protection requirements, the country has higher safety requirements, such as advocating for enterprises to increase automation and reduce the risk reduction in production. The state attaches great importance to the safety of pharmaceutical intermediates and its impact on the environment, and strictly meets the requirements of pharmaceutical intermediates, raises awareness of corporate safety awareness and sustainable development, increases investment in safety production, and adopts mandatory methods to require pharmaceutical intermediates. The company implements safety production standard processes and formulates measures and systems for protecting the surrounding environment. At the same time, it strictly controls various pollutant discharge standards, increases the handling of waste products, and invests in environmental facilities and environmental supervision.

5. The domestic market for pharmaceutical intermediates is fiercely competitive, and there is a large difference in product quality stability. This has brought many risks and hidden dangers to the downstream pharmaceutical industry. In order to change the current situation and make the market's behavior more standardized, competition is getting more and more fair, the state has introduced a series of laws and regulations and related systems to be bound and controlled. For some small factories with irregular production, their self-discipline is strengthened through rules and regulations, allowing the market to grow healthily in fair competition.

Through the above analysis, we can draw the following information: First, the state has paid more and more attention to the development of the pharmaceutical intermediates industry, and the requirements for the pharmaceutical intermediates industry have become increasingly stringent. The prerequisite for the development of pharmaceutical intermediates is to ensure safe production and environmental protection. Second, the national level begins to promote the merger and reorganization of pharmaceutical intermediates. Large companies promote the development of small and medium-sized enterprises, but they also encourage strong alliances and improve domestic pharmaceutical intermediates. The competitiveness of enterprises; Third, the national

environmental protection will eliminate high-risk and highly polluting pharmaceutical intermediate products, gradually realize the environmental protection and low pollution of pharmaceutical intermediate products; finally, the country will adopt the intervention policy to make production more standardized and high-standard. It is required that the competitive environment of pharmaceutical intermediates be relatively fair.

The economic environment refers to the economic systems and strategies that affect the development of enterprises. Enterprises should combine the actual development of their own, through the correct judgment of the domestic and international economic development trends, sort out the development strategy for the company's strategic plan, maintain the stability of the enterprise, improve corporate performance, and guide the company to the healthy development.

At present, the changes faced by domestic and international economies have caused changes in demand. Here we briefly explain the industries and products in which LDL companies are located.

First, the pace of economic development at home and abroad has slowed down and the upward pressure has been enormous. Due to the financial turmoil of previous years, the subprime mortgage crisis of the US stock market in recent years, and the severe impact of the European debt crisis, the world economic growth has slowed down, which is more uncertain for the foreign trade business of the company. The sales of the foreign trade department of LDL Company are not optimistic. The scope of the customers has not expanded and the sales volume has shrunk. As a result, the foreign trade department has laid off the staff several times to streamline the positions.

#### **4.1.3 Analysis Of Social And Cultural Environment**

The so-called social and cultural environment refers to the environment of a tradition, culture, education, religion and social structure formed by an organization in a certain period of time. The social and cultural environment has potential influence and role on the company's strategy.

For pharmaceutical intermediate companies, the socio-cultural environment is not directly affected. Because there is a pharmaceutical industry downstream of the pharmaceutical intermediates, it is not directly related to the national economy and people's livelihood, but the environmental protection work related to the production of pharmaceutical intermediates directly affects the social residents. Physical and mental health, especially affecting the health and living environment of local residents. In the pharmaceutical intermediates industry, the problem of natural environmental protection is a difficult problem to be solved. The success or failure of natural environmental protection affects the balance between the social and cultural environment and the living conditions of local residents. Therefore, the company must harmonize with the local environment and be a medicine. Intermediate companies must pay attention to the issue. At the same time, drug safety has a direct impact on human life and is closely related to the development of pharmaceutical intermediates. It has increasingly become a social issue that people are concerned about. To better ensure the safety of drugs, pharmaceutical intermediate enterprises need to increase the research, development, and production of green pharmaceutical intermediates, and improve the essential safety of medicines from the source. Therefore, LDL Company attaches great importance to the social and cultural environment and strengthens environmental protection. Dealing with the relationship between local residents, a good social and cultural environment will increase the bargaining power for the company's future competition, but it also faces the threat of increasing production costs.

#### **4.1.4 Analysis Of Technical Environment**

Technical environment analysis refers to the analysis of various social phenomena, which are mainly related to technological elements. For enterprises, they are particularly concerned about the latest developments in the technology of the industry and it is a very important task to analyze the technical environment in which they are located.

When the pharmaceutical intermediate industry conducts technical environmental analysis, it not only analyzes the technical environment of the industry, but also pays

attention to the analysis of the downstream technical environment. Downstream of the pharmaceutical intermediates is the pharmaceutical industry. Technological changes in the pharmaceutical industry may bring about changes in raw materials and processes, which may affect the substitution of pharmaceutical intermediates. However, the development of new drugs in the pharmaceutical industry consumes a lot of money, which takes a lot of time for R&D and testing. With high investment and high risks, companies are increasingly unbearable. Under this background, the pharmaceutical industry gradually locks in strategic cooperation with upstream pharmaceutical intermediates. Ensure the supply of key materials and ensure the development of its core products.

#### **4.1.5 PEST Summary Analysis**

P The state attaches great importance to the pharmaceutical intermediates industry, but the industry's development premise is to provide guarantees for drug quality and ecological environment security; the national level began to promote the upgrading of pharmaceutical intermediates enterprises; high-energy, heavy pollution, backward pharmaceutical intermediate companies gradually withdraw In the market, energy-saving and environmentally friendly pharmaceutical intermediate companies will gain more space; more stringent national policies and laws will more regulate the existing market for pharmaceutical intermediates, which is now a threat to pharmaceutical intermediates. In the long run, It is full of great opportunities.

E The economic environment is not very good. Finance and subprime mortgage crisis still have a great impact on the economy and society. The outbreak of the European debt crisis has caused economic development to be greatly resisted. This has made the development of pharmaceutical intermediate companies face challenges; however, The rapid growth of the world's pharmaceutical industry has also provided opportunities for the development of pharmaceutical intermediate companies.

S Environmental problems are also one of the social issues. Pharmaceutical intermediate companies must attach great importance to environmental issues; the safety

of pharmaceutical products is also an important aspect that pharmaceutical companies need to pay attention to. These problems will increase the production costs of enterprises, and the high threshold will also bring long-term opportunities for the regulatory pharmaceutical intermediate companies.

The technological development trend of pharmaceutical intermediates will become more and more green and environmentally friendly; the development and production of new pharmaceutical intermediate products will bring new opportunities to enterprises and will also be threatened by illegal reference.

## **4.2 Competition Analysis Of The Industry**

### **4.2.1 Competition Among Existing Competitors In The Industry**

1, the competition of international pharmaceutical intermediate giants.

The global pharmaceutical intermediate industry is uneven, and pharmaceutical intermediate enterprises in developed countries started earlier and have passed a period of rapid development. They have become increasingly mature and stable, regardless of technological advancement, product quality stability, and technological innovation. China's pharmaceutical intermediates are in a leading position.

2. Competition of major domestic pharmaceutical intermediates in China

The products of LDL Co., Ltd. are mainly cephalosporin pharmaceutical intermediates and santonin pharmaceutical intermediates. Due to the national medical reform and limited resistance policies, the overall demand for pharmaceutical intermediates has slowed down, the internal and external markets have been fluctuating, the production capacity has been excessively surplus, the low-price strategy, and blind and disorderly competition have resulted in very competitive incentives among the enterprises in the current pharmaceutical intermediate industry.

#### **4.2.2 The Threat Of Alternatives**

There is basically no problem of substitutes for this part of the pharmaceutical intermediates, but there is a substitute for the downstream products, namely medicines, which leads to the threat of indirect substitutes for pharmaceutical intermediates. The threat of alternatives to pharmaceutical intermediates has come mainly from changes in the formulation of raw materials brought about by the emergence of downstream pharmaceutical alternatives, such as the substitution of biopharmaceuticals for cephalosporins. Biopharmaceuticals have the advantages of environmental protection and low residual chemical components, and have broad development prospects. They are the key areas for the development of foreign companies. In recent years, there have been a number of biopharmaceutical brands in the Chinese market. Although the technology of biopharmaceuticals is immature, it is subject to temperature, Problems such as the microenvironment have a great influence on other issues, and the results are not obvious and ideal. The threat of biomedicine to chemical medicine is not significant at the moment but still exists. At the national level, biopharmaceuticals have begun to pay attention and support. In the future, biopharmaceuticals will bring more social benefits than economic benefits. With the breakthrough in R&D and product stability, the people will gradually recognize that the biopharmaceutical market will become more and more Mature, the market is also growing.

#### **4.2.3 The Threat Of New Entrants**

All along, the entry threshold for many types of products in the pharmaceutical intermediates industry is very low, especially for small breeds of raw materials, and new entrants are at great risk. While the large variety of pharmaceutical intermediates industry is a technology-intensive and capital-intensive industry, new entrants interested outside the industry will be subject to technical barriers and capital investment pressures. The large variety of pharmaceutical intermediates industry will in turn Strictly audited by downstream demanders. Under the current state's strict policy control, the technical thresholds and funding thresholds for newly-established pharmaceutical intermediates are higher than those of other industries. The initial investment will be at least tens of millions of yuan, and the supporting investment in environmental protection will increase by more than 15 percent. Such high financial barriers and original technical barriers have

heightened the difficulty and desire of new entrants.

#### **4.2.4 Supplier Bargaining Power**

Affected by the low price of crude oil, the prices of chemical raw materials were low, which led to the depressed prices of pharmaceutical intermediates. At the same time, the production of raw materials for pharmaceutical intermediates was underemployed. Some raw material manufacturers had lower profits, and the willingness to transfer costs to upstream pharmaceutical intermediates increased. With enhanced capabilities, most of them are sellers' markets except non-basic bulk chemicals. Most of the suppliers of LDL are listed companies, large state-owned enterprises, or large foreign multinational companies. The supplier's bargaining power is relatively strong.

#### **4.2.5 Bargaining Power Of Buyers**

The suppliers of LDL Company are part of SMEs, and some are listed companies and large pharmaceutical companies. The bargaining power of SMEs is relatively weak, but listed companies and large pharmaceutical companies have kept their prices low and their bargaining power is relatively strong. .

### **4.3SWOT Analysis**

The analysis of the internal and external environment of LDL Company summed up the opportunities (O) and threats (P) of LDL Company, and obtained the advantages (S) and disadvantages (W) of LDL Company through analysis of internal advantages and disadvantages of LDL Company.

#### **4.3.1 Advantages**

The benefits of large-scale production have begun to appear. With the increase of market share, the company's production has begun to take shape, and the cost of the company has been relatively low. Especially under the financial crisis and the national anti-reaction policy has helped the reshuffle, our company has fully brought the benefits

of large-scale production.

Through in-depth strategic cooperation to ensure the supply of raw materials, forming a strategic cooperative relationship with some downstream suppliers. Since the financial crisis, the upstream raw material market has also shuffled, and many companies have restricted production or stopped production. This led to tight supply of raw materials and rising prices. Our company has established a strategic cooperation relationship with upstream raw material suppliers that have potential for growth through intensive cultivation in difficult times, and has ensured the timely and cheap supply of raw materials.

Intellectual property advantages. LDL Company is a technology company with technological R&D and innovation as its advantages, supporting patent rights and commercial technology secrets. It has formed an all-round three-dimensional intellectual property protection system with brand and trademark rights as its periphery.

#### **4.3.2 Weaknesses**

Some employees, especially management, came to work in institutes with public institutions. Their age structure was old, they were in the status quo, and they lacked enthusiasm. LDL is a subsidiary company of a public institution. Therefore, the competition and pressure on the market will be smaller, and some preferential policies and social resources will be available. Therefore, it is easy for the company to be satisfied with the status quo.

Financial strength and production model constraints. The company started as a research and pilot plant, regardless of financial strength or business model is a relatively low starting point. Under the influence of the current institutional development and rapid development of the technological age, it is a long way to go to improve the core competitiveness of enterprises.

The lack of awareness, quality management certification and production

management concepts. The company is relatively late in quality and management certification, and there are many deficiencies in production management. Although the chemical company's production management and other aspects exceeded the chemical plant's standards, but compared with the downstream through the country's GMP certified pharmaceutical companies, the gap is still relatively large.

Although there is a research institute as a technical background, the long period and high cost of converting the results into productivity. At present, the status quo in China is whether it is a university or a research institute. Scientific research mainly applies for state funds, supplemented by industrialization. To achieve an effective combination of scientific research and industrialization requires a lot of effort. Among dozens of domestic chemical research institutes in our country, our institute is industrialized earlier, but it is also a long way to go.

### **4.3.3 Opportunity**

1. Opportunities brought about by the rapid development of global pharmaceutical intermediates. With the rapid development of the global pharmaceutical industry, the related pharmaceutical intermediate industry will develop rapidly.

3. New opportunities are created in the upgrading of pharmaceutical intermediates, and pharmaceutical intermediates with high energy consumption and high pollution are gradually being phased out, and green environmental protection pharmaceutical intermediates usher in development opportunities.

4. The state has strengthened the supervision of environmental protection and strictly controlled and improved the access thresholds for pharmaceutical intermediate enterprises. This has brought certain development opportunities to enterprises that attach importance to environmental protection, environmental protection facilities, and environmental management standards.

4. The opportunities for technological development brought about by the increase in

cooperation with pharmaceutical companies, and the cooperation with pharmaceutical companies will help China's pharmaceutical intermediate companies to rapidly advance their technologies in intermediate fields with the technological innovation of pharmaceutical companies.

#### **4.3.4 Threats**

1. The threat of biopharmaceuticals, biopharmaceuticals has begun to threaten the status of chemical medicine, this threat will be transmitted to pharmaceutical intermediate companies, but it is still a potential threat.

2. The homogenization competition of domestic pharmaceutical intermediate companies is serious, excess production capacity of bulk pharmaceutical intermediates, price wars among enterprises, and malicious competition.

3. The threat of chemical raw materials in the seller's market. Because the chemical intermediates of pharmaceutical intermediates are from large listed companies or state-owned enterprises, they belong to the seller's market and the suppliers' bargaining power is strong.

4. The threat of pharmaceutical intermediate products in the buyer's market. Since most of the downstream pharmaceutical intermediates are listed drug companies or state-owned enterprises, they belong to the buyer's market, and buyers have strong bargaining power.

5. The threat of competition from giants of domestic and foreign pharmaceutical intermediates has caused foreign pharmaceutical intermediate giants to occupy an early market and have obvious advantages in technology, market, and capital, which threatens the prospects and development of domestic pharmaceutical intermediates.

6. The national policy, which is usually referred to as the "Limiting Resistance Policy," has led to a sharp drop in the demand for downstream antibiotic production

companies and has had a great impact on the company's pharmaceutical intermediates production. In 2012, the State promulgated and implemented the "Administrative Measures for the Clinical Application of Antibacterial Drugs," which pointed out that the clinical application of antibacterial drugs is subject to hierarchical management, which is usually referred to as the "Limiting Resistance Policy," and the state's restrictive resistance policy is conducive to the standardization of medical medicine. A more healthy development has also had a profound impact on pharmaceutical intermediates, especially pharmaceutical intermediates that produce antibiotics.

According to the SWOT analysis, we have come to the following strategic combination to deal with the current situation:

First, when facing external opportunities (O1, O2, O4, O5), LDL Company should adopt a growth strategy (SO strategy) in combination with its own advantages (S1, S2, S3, S4, S5, and S6).

Second, LDL Company has external opportunities (O5, O6) but faces its own disadvantages (W2, W3, W5, W6, W7). The company should adopt a torsional strategy (WO strategy).

Third, LDL has its own advantages (S6) but faces an external threat (T1). Companies should adopt a diversification/integration strategy (ST strategy).

Fourth, LDL Company has its own disadvantages (W1, W3) and external threats (T1, T3, T5). The company should adopt a defensive strategy (WT strategy).

#### **4.3.5 Current Corporate Strategy Analysis**

Current corporate strategy:

At present, the biggest problem faced by LDL companies is that the company does not explicitly propose a strategy. Concepts and ideas that are close to the strategy are formed spontaneously, but they are not clear. It is difficult to adapt to the company's rapid development in the future. From its inception to 2008, the company has been in a state of

random development, constantly chasing and replacing products with high profit margins, and has no clear and mature strategic development ideas and directions.