



BC AGRICULTURAL E - COMMERCE

by

SHUWEI ZHOU

AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF
BUSINESS ADMINISTRATION (INTERNATIONAL PROGRAM)

SOUTHEAST ASIA UNIVERSITY

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Author Shuwei Zhou
Program Master of Business Administration
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Advisor(s) Tanaset Morasilpin, Ph.D.

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..... Dean, Graduate School

(Puttithorn Jirayus, Ph.D.)



..... Director, Master of Business Administration

(Assoc. Prof. Napaporn Khantanapha, Ph.D.) (International Program)

Independent Study Committees



..... Chairman, Independent Study Committees

(Assoc. Prof. Dr. Thanakorn Thanathanchuchot)



..... Committee

(Assoc. Prof. Napaporn Khantanapha, Ph.D.)



..... Advisor

(Tanaset Morasilpin, Ph.D.)

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ABSTRACT

The 2020 enzyme e-commerce new retail innovation service forum was grandly held in Shanghai New International Expo Center in August, marking the arrival of the cross-era alliance between the traditional enzyme industry and e-commerce. In 2020, the online turnover of enzyme reached 2.036 billion, with a year-on-year increase of 72%. Moreover, tracking the market of enzyme category in the past 24 months, it can be found that this category has not only continued to grow, but also accelerated significantly in 2020. It is a category with great potential in the "post epidemic era". In the new era of increasingly pursuing a green and healthy lifestyle, actively improving the quality of life, and being happy to provide convenience for modern, fast and efficient life through e-commerce channels, Zhejiang ferment Biotechnology Co., Ltd. will wholeheartedly create new enzyme products, make its own contribution to promoting China's enzyme industry, and order people to further promote "great health" with the popularity of Internet e-commerce!

Keywords: Agricultural, E- Commerce

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Section 1

Executive Summary

1.1 Company profile

Zhejiang joy Biotechnology Co., Ltd. is a high-tech biotechnology enterprise integrating technology research and development, product production and marketing. It takes a down-to-earth approach to protect green waters and green mountains; Based on the concept of combining education with pleasure and serving the health industry, promote the circular economy model and green lifestyle linked by enzymes, innovate enzyme technology, and spare no effort to create new, natural, green and healthy agricultural enzymes, feed enzymes and edible enzymes for research, development, operation and promotion. The company takes the lead in using food processing by-products such as rice wine, rice syrup and water as raw materials, mixing plant residues, or organic fruits and vegetables or organic Chinese herbal medicine, inoculating independently separated high activity enzyme strains, and preparing a variety of enzyme products through the metabolism-oriented fermentation process, with independent intellectual property rights.

1.2 Market Status

In 2020, the online turnover of enzymes reached 2.036 billion, up 72% year on year. In addition, tracking the market of enzyme category in the past 24 months, we can find that this category not only continues to grow, but also has a significant accelerated growth in 2020, which is a category with great potential in the "post epidemic era".

1.3 Use of funds

The registered capital of the Company is 8 million yuan. In the share capital structure, the team contributed 4.16-million-yuan, accounting for 52% of the total share capital, and the technology investment accounted for 2.24-million-yuan,

accounting for 28% of the total share capital, which is within 30% of the normal, in line with national policies. The remaining 20% of the registered capital will introduce 1-2 venture capital companies to participate in the equity, which is conducive to financing and risk mitigation.

Source and use of funds. At the initial stage of establishment, the company plans to raise 8 million yuan, including other funds through capital injection and venture capital attraction. The total shareholder investment is 7.2 million yuan. The funds are mainly used to build a productive fixed investment of 2.85 million yuan, purchase raw materials, pay employees' salaries and other expenses. (In the fourth year, 500000 yuan of additional investment in fixed assets will be used to purchase expanded production equipment, etc..).

1.4 Competitive Analysis

With the help of Porter's five forces analysis model, our company analyzes the competitive environment of our products from five aspects: the bargaining power of suppliers, the bargaining power of buyers, the ability of potential competitors to enter, the ability of substitutes, and the current competitiveness of competitors in the industry.

Bargaining ability of suppliers: the raw materials for the production of enzymes of the company are mainly the drainage water from food processing such as rice wine, rice paste, water, crop residues, organic fruits and vegetables, etc.. Because the laboratory is located in Shaoxing, there are many rice wine companies and organic vegetable bases, and there are many raw material supply points to choose from, the supplier's ability to increase the price of input factors is limited, which is conducive to our company's reduction of production costs.

Bargaining ability of buyers: compared with foreign competitors, domestic enzymes have few options. At present, no matter the output and quality of the agricultural and feed enzymes on the market, they can hardly meet the demand of the rapid development of the current high-end brand agriculture, and the fermentation strains are mainly imported from Japan, South Korea and other places,

with high prices. With the continuous improvement of people's living standards and health management awareness, the pursuit of natural functional food has been increasing, which has weakened the bargaining power of buyers to a certain extent, giving our company greater advantages in pricing.

The ability of potential competitors to enter: The threat of potential entrants is mainly the infiltration of the external enzyme industry. At present, the domestic enzyme industry is at the initial stage of development, and the market is not standardized. Purchasing from abroad is still the main consumption mode of enzymes, and the domestic competitiveness is not very strong. In addition, because the acceptance of enzymes by local residents is not high, and the demand for foreign enzymes is not high, when our company introduces a triable enzyme with low price and guaranteed quality, if consumers have a sense of trust in our products, there will be less customer loss in the later period, which has certain advantages.

Substitution ability of substitutes: agricultural enzymes can promote crop growth, improve crop quality, and enhance crop resistance to diseases and pests; Feed enzymes can improve animal immunity and disease resistance. Compared with conventional microbial fertilizers and feeds, enzyme products are more effective, more natural, green, safe and healthy, significantly improving the quality and added value of agricultural and livestock products, as well as their retail prices and profit margins. Compared with chemical fertilizers and pesticides, antibiotics and hormones, enzymes have greater advantages, and the price is slightly higher. However, with the growing demand for health, enzymes still have greater advantages

The current competitiveness of competitors in the industry: there are few domestic enzyme production enterprises with strong R&D strength and high production level. Most enzyme production enterprises have the characteristics of non-standard production technology and small scale, and the overall technical level of the industry is uneven. The company has made innovations in fermentation raw materials, strains and processes, and has introduced a sales model that focuses on technical service marketing, supplemented by batch sales and trading platforms; The sales model is based on concept sales, supplemented by direct marketing and e-

marketing; The experience marketing mode with the enzyme pastoral complex as the carrier is highly competitive.

1.5 Financial Forecast

The Company's initial investment in fixed assets is 2.85 million yuan, and the service life of all equipment is ten years. Depreciation is accrued using the straight-line method. Intangible assets (technology invested) totaled 2.24 million yuan, amortized within ten years.

It can be seen from the gradually increasing net profit rate of sales in the past five years that the company has a good profitability and growth. It can not only gain a firm foothold in the market, but also further open the door to the market.

Section 2

Company Description

2.1 Company profile

Zhejiang JiaoYi Biotechnology Co., Ltd., founded in 2021, is a high-tech biotechnology enterprise integrating technology research and development, product production and marketing. The company takes the lead in using food processing by-products such as rice wine, rice syrup and water as raw materials, mixing plant residues, or organic fruits and vegetables or organic Chinese herbal medicine, inoculating independently separated high activity enzyme strains, and preparing a variety of enzyme products through the metabolism-oriented fermentation process, with independent intellectual property rights.

The company's purpose: people-oriented, innovative and outstanding, integrity management.

The company's mission: down-to-earth, guarding green waters and mountains; Education and entertainment, serving the health industry, and promoting the circular economy model and green lifestyle linked by enzymes.

Company philosophy: Pursue excellence and achieve the future.

The company's principles: abide by national laws and regulations and social ethics, always maintain a sense of social responsibility, create benefits for enterprises, employees, users and the society, establish the concept of serving the people wholeheartedly, operate in a civilized manner, and put credibility first.

The company's goal: to create new, natural, green and healthy agricultural enzymes, feed enzymes and edible enzymes, to promote the circular economy model and green lifestyle linked by enzymes, to innovate enzyme technology, and to join hands with people to embrace general health.

Logo of the company: The company's logo is mainly green, reflecting that the company's products are pure green and pollution-free, and "JIAO SU" in the middle is the company's main brand.



2.2 Mission Statement

The fermentation technology entrepreneurship team took the lead in using the by-product rice pulp water from the rice soaking process in the rice wine industry, a characteristic industry in Zhejiang, as the main raw material, mixing plant residues, and preparing agricultural enzymes and feed enzymes through biological fermentation, which provided an effective way to fundamentally solve the problem of rice pulp water pollution in rice wine enterprises, and realized the high-value full utilization of rice pulp water waste. The agricultural enzymes prepared by the project team using rice wine and rice slurry water can promote crop growth, improve crop disease and pest resistance, directly reduce the use of pesticides and fertilizers, and have the effect of improving soil. The feed enzymes can improve the immunity of livestock and poultry, and reduce the use of antibiotic stimulant feed, which has important practical significance for improving the ecological environment and promoting the sustainable development of agriculture.

At the same time, the project team applied agricultural enzymes to the cultivation of fruits and Chinese herbal medicines with Zhejiang characteristics. Aiming at the problems such as difficult to control the fermentation process of natural fermentation edible enzymes and large quality difference in the market at present, the project team inoculated the independently isolated high active conjugated yeast reuteri to ferment and prepare edible enzymes, which not only maintained the self nutritional components of fruits and Chinese medicine, but also contained probiotics and functional small molecules and other metabolites, It is a landmark product of the great health industry.

By making great efforts to create new, natural, green and healthy agricultural enzymes, feed enzymes and edible enzymes, applying them to agricultural production practice, and realizing the agricultural ecological economic dynamic model of sustainable agricultural development in the region, we will form a circular economy model centered on enzyme ecological agriculture, promote a green lifestyle linked by enzymes, innovate enzyme technology, and join hands with people to embrace great health.

2.3 Product and Services

The company has formulated a five-year strategic plan for product research and development, that is, the "Two Two One" plan. The first and second phases are two years each, and the third phase is one year each. In the first phase of the plan, the production of green agricultural enzymes and natural feed enzymes, technology, packaging, quality control, crowd market, marketing channels and other conditions have been met, and once the company is established, it can be put into production. The medium-term goal is to turn the fruits produced by agricultural enzymes into functional food organic grape enzymes and organic strawberry enzymes. In the third phase, we will take advantage of the company's technological advantages to develop Chinese herbal enzyme, so that the enterprise will have more competitive advantages and greatly reduce the risk of enterprise failure.

2.4 Current Status

Since its establishment in 2021, the company has successfully registered with the industrial and commercial administration department, with a registered capital of 10 million yuan. At present, the company is in the first stage of development, mainly focusing on Phase I products. It is a manufacturing company engaged in independent research and development, production, sales and service.

2.4.1 Current capacity scale of the company

The company has 3 production lines, and the degree of automation of the production lines has international advanced standards.

2.4.2 Human resources

Department Setting: The company has 5 first level departments and 5 second level departments. The first level departments include Finance Department, Sales Management Department, R&D Center, Human Resources Department and Quality Inspection and Measurement Department. Secondary departments include: Marketing Department, Resource Management Department, Technology Department, Process Department and Product Department.

Management posts: the company has 1 general manager, 6 heads of primary departments and 6 heads of secondary departments.

2.5 Legal status and ownership

The company is a limited liability company, which has been registered in the industrial and commercial administration department and has an independent legal person. The ownership of the Company belongs to all shareholders, and the Board of Directors of the Company implements the resolutions of the General Meeting of Shareholders. Power Cube socket, the plug is designed to be detachable, supporting four different national standard plugs, Britain, Germany, the United States, Australia, and supporting the socket.

2.6 Selecting the name for Business

The name of the company is Zhejiang joy Biotechnology Co., Ltd., of which Zhejiang is the place of registration. Biotechnology reflects the content of the company, while the limited liability company describes the nature of the company. All of our products are distinctive and innovative

2.7 Primary consideration in naming a business

The first premise is that its brand name can be protected by law. Second, the names of enterprises in national autonomous regions should use Chinese characters that conform to the national standards. The names of enterprises in national autonomous regions can also use the national characters commonly used in their own regions. Third, the name of an enterprise shall not contain any content that violates the principle of fair competition, may cause misunderstanding to the public, or may harm the interests of others.

2.8 Legal Issues

2.8.1 Withdrawal of shareholders

After the establishment of (limited liability company), shareholders shall not withdraw their capital contribution. However, this does not mean that shareholders of the Company shall not withdraw from the Company under any circumstances. According to the Company Law, the shareholders of a limited liability company can withdraw from the company by means of equity transfer and withdrawal.

Equity transfer

(1) Transfer of equity among shareholders Paragraph 1 of Article 71 of the Company Law stipulates that shareholders of a limited liability company may transfer all or part of their equity to each other.

(2) The second paragraph of Article 71 of the Company Law stipulates that the transfer of equity by a shareholder to a person other than a shareholder shall be subject to the consent of more than half of the other shareholders. The shareholders shall notify other shareholders in writing of the transfer of their shares for consent. If other shareholders fail to reply within 30 days from the date of receiving the written notice, they shall be deemed to have agreed to the transfer. If more than half of the other shareholders do not agree to the transfer, the shareholders who do not agree

shall purchase the equity to be transferred; If it does not purchase, it shall be deemed that it agrees to transfer.

Acquisition of equity of shareholders applying for withdrawal:

(1) Legal situation

A shareholder who votes against the resolution of the shareholders' meeting may request the company not to distribute profits to shareholders for five consecutive years at a reasonable price, but the company has made profits for five consecutive years and meets the conditions for profit distribution prescribed by this Law;

(2) The company merges, divides or transfers its main properties;

(3) The business term specified in the Articles of Association expires or other causes for dissolution specified in the Articles of Association occur, and the shareholders' meeting adopts a resolution to modify the Articles of Association to make the Company survive.

Dissolution of the Company

From the analysis of the provisions of the Company Law, shareholders in the case of dissolution of the company are equivalent to obtaining the legal effect of withdrawing from the company.

2.8.2 Fund withdrawal

(1) Listing of shares

It refers to the reorganization of venture enterprises into listed companies, and the shares of venture capital are issued to the public for the first time through the capital market, so as to realize investment recovery and capital appreciation.

(2) Transfer of shares

The shareholder's right to transfer the company's equity is a basic legal system in the company law. Under the current legal system of foreign investment in China, foreign investors can withdraw from the original investment by transferring their shares

to other shareholders or a third party of the foreign-invested enterprise they are investing in.

(3) Share repurchase

If venture enterprises still fail to meet the conditions for public listing after passing through the technical and market risks and growing into a medium-sized enterprise with development potential, they will generally choose the way of equity repurchase to exit.

(4) Company liquidation

It is the last choice for investors to withdraw their investment through the dissolution and liquidation of the company, because any investor does not want the company to be dissolved, bankrupt or liquidated in the future when deciding to invest. However, if other exit mechanisms become impossible due to the business failure of the invested enterprise and other reasons, the dissolution and liquidation of the company will be the only option to avoid greater losses.

Section 3

Industry Analysis

3.1 Industry Size, Growth Rate and Sale projections

In 2020, the online turnover of enzyme reached 2.036 billion yuan, with a year-on-year increase of 72%. Moreover, tracking the market of enzyme category in the past 24 months, it can be found that this category has not only continued to grow, but also accelerated significantly in 2020. It is a category with great potential in the "post epidemic era".

3.1.1. analysis of international market

As early as last century, enzyme products were popular in Japan, South Korea, Taiwan, China and other places. The technology development and comprehensive utilization level of enzyme products in foreign countries was high, and great economic and social benefits were obtained. The enzyme industry in Chinese Mainland started relatively late. In recent years, its remarkable effects have been increasingly recognized by people and its development speed has been rapid. Although there are problems such as insufficient scientific support and large differences in enzyme quality, the industry needs to be standardized urgently, but there is huge development space and growth potential.

Japanese enzymes have a history of 100 years. For example, Daiwa enzyme company and Wantian enzyme company seem to be enterprises with a history of 100 years. Enzymes have a high status in Japan. According to the statistics of the enzyme industry development service center, in Japan's consumer market, 20 million people take enzyme products every day, and the annual consumption amount is about US \$900 million. As a kind of food, enzyme has entered thousands of households in Japan. In Taiwan, China, more than 100 enzyme brands have been formed, with a market scale of US \$200 million. In the European and American markets, people gradually understand and accept the positive impact of the Oriental fermentation

concept on healthy life. In the past two years, enzymes have become popular in Europe and America.

3.1.2. domestic market analysis

Health is the basic demand of people. In 2015, "healthy China" was written into the government work report for the first time, reflecting people's demand for a healthy life and the government's strong concern for residents' health. In 2020, the total scale of the health service industry will exceed 8 trillion yuan and reach 16 trillion yuan by 2030. Since enzymes have certain health care functions, they can regulate the sub-health state of human body, and large-scale sub-health people have become the target consumers of enzyme products. With the deepening of domestic consumers' understanding of enzymes, enzyme products will be accepted by more and more consumer groups, and it is expected to become an important choice for sub-health people to improve their health.

With the improvement of the purchasing power of Chinese consumers and the pursuit of a healthy life, people have higher and higher requirements for the quality and safety of agricultural and livestock products. More and more people are willing to buy safer and healthy agricultural and livestock products at higher prices. The planting and breeding market is changing from meeting the demand of "quantity" to meeting the demand of "quality". In order to promote the development of domestic enzyme enterprises, in 2019, the Guiding Catalogue for industrial structure adjustment (2019 version) issued by the national development and Reform Commission clearly proposed "enzyme production process technology development, industrialization and standardized production" in the encouraged projects. The consumption demand of medium and high-end brand agricultural and livestock products developed by enzymes will continue to increase, with great development potential.

On the morning of December 19, 2019, Xiaofen Wang, associate professor of China Agricultural University, made a report on agricultural enzymes and organic ecological agriculture in the theme month of healthy development of China's enzyme

industry. The report discusses agricultural enzymes and organic ecological agriculture, the essence of agricultural enzymes, the mode of agricultural enzymes, and the practice of agricultural enzymes. At the same time, it lists the successful cases of the use of agricultural enzymes in many places, and the bright prospects for agricultural enzymes to accelerate the pace of ecological agriculture and quickly embark on the road of organic agriculture.

Agricultural enzymes can promote crop growth, improve crop quality, and enhance crop resistance to diseases and pests. In April 2019, it was found in the experimental site of Jiamusi branch of Heilongjiang Academy of Agricultural Sciences that agricultural plant enzymes can also increase the yield of rice, about 7.9%, and avoid the use of pesticides and fertilizers. In 2019, the use of biological pesticides (commodities) in China reached 70000 tons, and the control area exceeded 400 million mu. The global market value of biopesticides will reach US \$4.3 billion in 2020, and will increase at an annual rate of 15% in the next five years. It is expected to reach US \$8.5 billion in 2025. At present, the annual output of biological pesticides in China is 120000 tons, and the control area is 26.7 million hectares, accounting for about 5% of the pesticide market share. Since 2015, with the launch of the zero growth action of pesticide use, chemical pesticides have encountered a ceiling. Under the background of deeply implementing the green development and high-quality development of pesticides, the innovation and application of biological pesticides have ushered in new opportunities; Feed enzymes can improve animal immunity and disease resistance, and greatly reduce the amount of antibiotic and hormone containing feed. Compared with conventional microbial fertilizer and feed, enzyme products are more effective, more natural, green, safe and healthy, significantly improving the quality and added value of agricultural and livestock products, and its retail price and profit rate are also greatly improved. According to relevant data, the retail price of agricultural and livestock products grown and raised with enzymes can be increased by 25% - 80%.

While the consumption of medium and high-end agricultural and livestock products is upgraded, the mainstream consumer groups are also more rational and

tend to choose products with high cost performance ratio, putting forward higher requirements on the technology, products, management and sales level of planting and breeding enterprises. At present, the production and quality of agricultural and feed enzymes on the market can hardly meet the needs of the rapid development of medium and high-end brand agriculture. Moreover, the fermentation strains are mainly imported from Japan, South Korea and other places with high prices. It is urgent to develop new agricultural and feed enzyme production processes with intellectual property rights, standardize their quality evaluation systems, and promote the scale and industrialization of agricultural and feed enzyme production. The price of organic animal and plant products produced by edible enzymes is obviously higher, the profit is relatively more objective, and people's demand increasingly tends to organic products. The enzyme industry development plan (2018-2025) also points out that the biological fermentation industry is a strategic emerging industry supported by the state. The formulation and implementation of the plan is conducive to promoting the integration of primary, secondary and tertiary industries, guiding local governments to gather industries, implementing the Rural Revitalization Strategy, and promoting new production and lifestyle. It is conducive to the standardized development of enzyme enterprises, promote the key core technology of Chinese biological manufacturing to lead the world, and accelerate the process from a big fermentation country to a powerful fermentation country. It is conducive to the coordinated development of the industry, promote local advantageous new products and regional brands, and promote the implementation of the national "three product strategy". Through the guidance and implementation of the plan, it is conducive to making enzyme products the landmark products of the great health industry, promoting the standardized development of the health industry and creating new economic growth points.

3.2 Industry Characteristics (Industry Structure, Nature of Participants, Ratios, Key Success factors)

Most of the enzymes on the market are imported, and the market price is relatively high. Most of the products come from Japan, such as Daiwa enzyme company and Wantian enzyme company, which have a history of 100 years. They have very high requirements on fermentation process, which also leads to relatively expensive products.

3.3 Industry Trends (Environment trend, Business Trend)

3.3.1. industry pain points

(1) Production time cost: the fermentation time of existing enzyme enterprises is basically 3 months to 2 years, or even longer, which directly leads to relatively high production, land occupation and time cost of enzyme. Therefore, compared with ordinary health food and functional food, the sales price of enzymes will be higher. According to the statistics of the enzyme industry development service center, at present, most of the enzyme enterprises directly sell raw liquid, and the price of imported raw liquid is concentrated at 50-70 yuan / 100 ml.

(2) The lack of professional talents is different from that of red wine. There is a "red wine College" in Colleges and universities. It is more a cross research discipline. It shows that the disciplines involved are complex (as of December 2019, there are 58 research directions such as agriculture, environment, food and daily chemicals), and the application fields are wide (covering "eating", "using" and "environmental protection"), and there is no training channel for professional talents. It is gratifying that in 2019, East China University of science and technology in Shanghai established the "national enzyme research center", which made a new step in the cultivation of enzyme professionals.

(3) In an era when overemphasis on efficacy is prohibited, there is great resistance to enzyme promotion. The charm of edible enzyme lies in its unexpected efficacy. Experts in the field of enzymes have classified and presented the possible effects of different raw materials. In the field of academic research, the country should

acquiesce in the efficacy of edible enzymes and daily chemical enzymes; However, in the aspect of marketing and sales, the advertising law of the people's Republic of China (revised in 2018) and the food safety law of the people's Republic of China (revised in 2018) prohibit food from saying efficacy. The food and beverage industry has ushered in the era of strict regulation, and the strategy of "ingredient table efficacy" is particularly important.

3.3.2. SWOT analysis

Table 3-1 SWOT analysis

SWOT analysis			
Strengths	Weaknesses	Opportunities	Threats
1. Regional advantage 2. Raw material advantage 3. Technical advantage 4. Strong market advantage 5. Promotion of healthy life concept	1. Consumer distrust 2. Lack of talents 3. Long product production cycle	1. More room for improvement in the future 2. Policy support 3. Spread the concept of enzyme with the help of the development of media	1. Capital risk and industry risk 2. Entry of potential competitors

Strengths analysis

(1) Regional advantage.

The company is located in Shaoxing. There are many local rice wine companies and organic vegetable bases. There are many raw material supply points to choose from. The ability of suppliers to increase the price of input factors is limited, which is conducive to reducing the production cost of our company.

(2) Raw material advantage.

The yeast team took the lead in using the water discharged from food processing such as rice wine and rice pulp water rich in physiological active substances and beneficial microorganisms and crop residues as the main raw materials to produce

agricultural enzymes and feed enzymes through biological fermentation, so as to realize the high-value full utilization of biomass resources.

(3) Technical advantage.

The team of yeast took the lead in using the independently isolated high sugar and low pH resistant rubella conjugate yeast to inoculate and ferment to prepare enzyme products. At the same time, it established the metabolic directional control fermentation technology to prepare enzyme products, so as to realize the controllable fermentation process and product quality. On this basis, we can not only provide product services to those customers, but also provide technical services.

(4) It has strong market advantage.

At present, the domestic enzyme industry is in the early stage of development, and the domestic competitiveness is not very strong. By promoting green agricultural enzyme and natural feed enzyme products, the company provides accurate services for agricultural producers and operators and takes the lead in seizing the domestic market.

(5) Promotion of healthy life concept.

With the development of society and the improvement of people's living standards in recent years, people's health awareness has improved to a certain extent. Residents are very clear that what they need is a healthy and organic lifestyle. Therefore, more and more people will choose health care products if conditions permit, which is also an important cornerstone of our promotion of APP.

Weaknesses analysis

(1) Consumers' distrust.

Compared with the competitors of foreign enzymes, domestic enzymes have little choice. At present, the production and quality of agricultural and feed enzymes on the market can hardly meet the demand of the rapid development of middle and high-end brand agriculture, and the fermentation strains are mainly imported from Japan, South Korea and other places, with high prices. Therefore, when our company introduces a trial enzyme with low price and guaranteed quality, if consumers have a

sense of trust in our products, there will be less customer loss in the later period, which has certain advantages.

(2) Lack of talents.

So far, most colleges and universities in China have set up biology related majors, but the talents engaged in scientific research are still very scarce, especially the professional and technical talents. The enzyme industry needs more people with scientific research and innovation capabilities to support and improve the quality and process of the enzyme.

(3) The production cycle of the product is long.

The production process of the product is slow due to the long fermentation cycle.

Opportunity analysis

(1) More room for improvement in the future.

In recent years, the enzyme products and the enzyme industry are popular, but the scale of enterprises is relatively small, the development is fast, and the growth rate is high. There is still a lot of room for progress to make the industry bigger and stronger. At the same time, with the continuous improvement of people's living standards and health management awareness, the pursuit of natural functional food has been increasing, which is very helpful for us to promote enzyme products.

(2) Policy supports.

The state has put forward the national strategies of "beautiful China" and "rural revitalization", which are consistent with our development philosophy. In 2019, the State Council issued the opinion on the implementation of the Healthy China Action, advocating the implementation of the Healthy China Action, and improving the health level of the whole people. The research and development of the green, safe, and quality controllable edible enzyme of this project is conducive to the standardized development of the enzyme industry, and conforms to the national strategic needs of "Healthy China". Strengthening the construction of ecological civilization and

promoting the process of ecological civilization is the guidance of national policies. With the support of national policies, it is an opportunity that we cannot miss.

(3) With the development of media, spread the concept of enzyme.

Microblog, Xiaohongshu, TikTok, Taobao and other major media are becoming more and more popular marketing channels. Products and services are publicized by live broadcast on various major media. The company carries out live broadcast of enzyme products and small experiments on enzymes with the help of micro blog lottery, WeChat official account, etc., promotes the production process, spreads the concept of organic health care, and promotes the company's products and technologies.

Threat analysis

(1) Capital risk and industry risk

In the initial stage, the expansion of the company's business depends on a large amount of capital investment. In the case of insufficient capital, the company needs to solve the capital problem through financing. The company can not fully ensure that it can achieve a certain sales volume and increase capital and shares as planned to obtain development funds, nor can it guarantee that the listing plan will be approved by the relevant competent authorities in a timely manner, which will give us a great test. The central and local governments have strict control over the agricultural products industry, food production, sales, inspection, advertising and marketing policies. The changes and adjustments of the policies will have a great impact on the company's operation and even the long-term development of the industry.

(2) Entry of potential competitors.

With the development of our offline lectures, concept sales, experience marketing and other related services, and the further expansion of consumer groups, it is easy to follow up and imitate other competitors, or even the emergence of similar websites. Once a similar situation occurs, the original consumer groups will be reduced

to a large extent, and some resources and revenues will be taken away, which will have a negative impact on our operation and development.

3.4. Long-Term Prospects

3.4.1 social significance of the project

(1) Enzyme was prepared from rice wine, rice pulp, water and plant residues. Rice wine slurry water is the high concentration organic wastewater produced in the rice soaking process of rice wine brewing, and is the main waste of rice wine production. At present, the resource utilization of rice liquor water is low, and its purification treatment cost and equipment investment are high. The treatment and utilization of rice liquor water is still one of the main problems to be solved by most rice liquor enterprises. The project team uses rice wine and rice pulp water and plant residues as raw materials to alleviate the environmental pollution of rice wine and rice pulp water and realize the resource utilization of wastes, which is conducive to promoting the transformation of rice wine industry to life and health industry.

(2) Enzymes can reduce the use of pesticides, fertilizers and antibiotics. The agricultural enzymes prepared from rice wine and rice pulp water are more abundant in nutrients, metabolic active substances and beneficial microbial flora, which play an active role in promoting plant growth, improving soil ecology, alleviating environmental pollution and preventing diseases and insects of crops, and reducing the use of chemical fertilizers and pesticides. Under the background that the state vigorously promotes the construction of ecological civilization and the protection of ecological environment, the research, development and promotion of green and low-cost agricultural enzymes play an important role in promoting the healthy development of agricultural ecosystems, and meet the national strategic needs of "beautiful China" and "Rural Revitalization".

(3) Application of agricultural enzymes in the cultivation of special economic crops in Zhejiang.

The edible enzyme industry has become an important focus of China's great health industry. At present, there are many kinds of edible enzymes on the market,

but the problems such as large quality difference and insufficient scientific support have seriously restricted the healthy development of the industry. The research and development of green, safe and controllable quality edible enzymes is conducive to the standardized development of the enzyme industry and conforms to the national strategic demand of "healthy China". At the same time, the research and development of traditional Chinese medicine enzymes such as golden Bergamot enzyme is of great significance to promote the economic upgrading of the characteristic traditional Chinese medicine industry in our province.

3.4.2 project advantages

(1) Obvious regional advantages

Taking advantage of the resource advantages of Shaoxing's characteristic yellow rice wine industry, Shaoxing took the lead in using rice pulp water, a by-product of yellow rice wine processing, as raw material to create a new type of characteristic enzyme product through biological transformation, which alleviated the environmental pollution of rice pulp water and realized its high-value full utilization.

(2) Technological innovation

It is the first to adopt the independently separated high activity conjugated yeast to inoculate and ferment to prepare enzyme products. It has independent intellectual property rights. It relies on universities and Zhejiang Provincial Key Laboratory of agricultural product chemistry and biological processing technology and has strong scientific research support.

(3) Outstanding product competitiveness

The enzyme products produced are rich in raw materials, low in cost, controllable in quality, significant in efficacy, green and safe. They are the landmark products of ecological agriculture and great health industry, and meet the national strategic needs of "healthy China" and "beautiful China". Their market gap will continue to expand, with high profits and low risks.

Section 4

Marketing Plan

4.1 Market Segmentation and Target Market Selection

4.1.1 Market Segmentation

4.1.1.1 Market segmentation

Table 4-1 product breakdown of Zhejiang Jiao Yi biotechnology phase I

	Target product	Major function	Target consumer group
Phase I products	Green agricultural enzyme	Promote crop growth and improve crop quality	Middle and high-end agricultural product producers and operators
	Natural feed enzyme	Increase animal immunity and disease resistance	Medium and high-end livestock products producers and operators

Agricultural enzymes can promote crop growth, improve crop quality, enhance crop resistance to diseases and pests, and avoid the use of pesticides and fertilizers; Feed enzymes can improve animal immunity and disease resistance, and greatly reduce the amount of antibiotic and hormone containing feed.

With the improvement of Chinese consumers' purchasing power and the pursuit of healthy life, people have higher and higher requirements for the quality and safety of agricultural and livestock products. While the consumption of medium and high-end agricultural and livestock products is upgraded, the mainstream consumer groups are also more rational and tend to choose products with high cost performance ratio, putting forward higher requirements on the technology, products, management and sales level of planting and breeding enterprises. At present, the production and quality of agricultural and feed enzymes on the market can hardly meet the demand of the rapid development of middle and high-end brand agriculture, and the fermentation strains are mainly imported from Japan, South Korea and other places, with high prices. Our company launched our green agricultural and feed enzymes in the first phase of products, which is conducive to enabling the majority of middle and high-end agricultural product producers and operators to

realize the powerful functions of enzymes, and the selling price is lower than that of imported enzymes, which is conducive to our company catching more customers in the first time.

Table 4-2 breakdown of products of Zhejiang JiaoYi biotechnology phase II

	Target product	Major function	Target consumer group
Phase II products	Organic strawberry enzyme	Antioxidant and anti-aging	White collar women
	Organic grape enzyme	Regulating stomach and intestines	The middle-aged and old people lose weight and are sub healthy people

Edible enzymes can not only promote normal metabolism and enhance body immunity, but also have antibacterial and anti-inflammatory effects, lower blood lipid, anti-aging, detoxification and anti-tumor effects.

The edible enzyme industry has a short history of development in China. At present, the price of imported edible enzymes in the market is high. Although there are many kinds of domestic enzymes, the problems such as large quality difference and insufficient scientific research support have seriously restricted the healthy development of the industry. Our company has developed process technology with independent intellectual property rights in the fields of metabolic directional regulation and strain breeding, which has reduced the production cost, standardized the traditional process with standardized technical means, guaranteed the quality of edible enzymes, and realized the transformation of edible enzyme production from "experience" control to "science and technology". The strawberry enzyme in the second phase of the product mainly focuses on white-collar women, while the grape enzyme mainly focuses on middle-aged and old people, with weight loss and sub-health. The pricing is easy to be accepted. Once the consumer group recognizes the efficacy of the edible enzyme and benefits from it, it will become more and more dependent on the product, and it is easier to further promote the product.

Table 4-3 market segmentation of Zhejiang JiaoYi biological products

Market Segmentatio	Raw material product market	End product market
Market characteristics	It is easy to accept the company's products and highly dependent in the later stage	It takes a long time to accept the company's products. After the efficacy of the products is gradually recognized, the market will be relatively stable in the later stage. It takes a certain time to accept the products. The products are highly replaceable and there is a risk of market share being squeezed out in the later stage.
Purchase purpose:	Hope to obtain benefits through primary processing and apply them to enterprises to develop new products	Enterprises pursue high added value of products.
Market scale and entry threshold	Large scale, easy to enter quickly	Large scale, easy to enter quickly.
Customer positioning	Accumulation of early funds	The cornerstone of long-term development, increasing industrial added value and the main growth point of profit.

According to the survey, nearly 87% of the world's people are interested in immune products. In 2017, the global market size of dietary supplement products related to immune health reached US \$17 billion, which is expected to grow at a rate of 7% per year and reach US \$25 billion by 2025. As a new natural green product, enzyme has the characteristics of high-cost performance, health and safety.

In contrast, the raw material product market is easier to accept the company's products, with large scale and easy access, which is conducive to the accumulation of funds in the early stage. However, it is difficult to enter the terminal product market, but once it enters the market, it has strong stability. Although there is a risk that it will

be replaced by substitutes in the later stage, the added value of the products pursued by the enterprise is high, and the profit point is also large.

4.1.2 Target Market Selection

The division of consumption groups of edible enzymes focuses on the demographic characteristics of Chinese consumers (such as age, income, city level, life stage), population attribute labels (fairies, trendy men, college students), consumption preferences (consumption behavior, social preference, cognitive preference).

(1) New white collar

Employees in institutions, institutions, finance and other industries, mainly post-85s and post-90s, who live in the first, second and third tier cities. Such consumers usually have relatively high incomes, but they also suffer from the pressure of work and life. Most of them believe in "punk health" and tend to spend money on convenient consumption and quality consumption. The features of functional food and beverage, such as improving attention, relieving workplace stress, and promoting health and intelligence, can meet their needs for convenient health management.

(2) People who lose weight

People with the intention to lose weight. Such consumers have strong consumption intention and usually make their own diet and choose green and healthy food. Our enzyme products are green and healthy and have the functions of regulating the stomach and intestines and have a good flavor. They can effectively regulate their eating habits and are easy to be welcomed.

(3) Middle aged and old people

People over 50 years old who live in high-speed cities in China. This group's actual consumption ability and consumption disposable ability are relatively strong, and it is known as the "invisible gold mine" of the Internet. However, their consumption concept is relatively conservative, they pay attention to the cost-effectiveness of consumption, and prefer the consumption with discount; They pay

more attention to the health management plan, have a friendly attitude towards the theory of traditional Chinese medicine, and are willing to pay for health food. As long as the efficiency of the enzyme is up to the standard, they are the most likely group to convert passers-by to fans, and the sharing of acquaintances is the key factor for them to choose products.

(4) Senior middle class

The Post-70s and post-80s mainly live in high-speed cities. Their income is very considerable. For them, consumption should reflect their personal taste, and the purchase of products has become a symbol of personal identity; At the same time, this group pays special attention to and obtains health-related knowledge and information. Their consumption is relatively rational, and they pay attention to the stability, maturity and rationality reflected by the "slow" pace of enzyme fermentation process. According to the characteristics and consumption ability of the above groups, the above groups can be divided into three categories: loyal enzyme fans, potential consumers and new force groups of enzymes. At present, the marketing and promotion of enzymes can focus on loyal enzyme fans and potential consumers, and gradually expand to new force groups of enzymes.

4.2 Buyer Behavior

The classification of consumption groups of edible enzymes focuses on the demographic characteristics of Chinese consumers (such as age, income, city level, life stage), population attribute tags (fairy, trendy male, college students), and consumption preferences (consumption behavior, social preference, cognitive preference).

1. New white collars

Employees of government agencies, institutions, finance and other industries, mainly those of the post-85 and post-90 generation, living in first, second and third tier cities. Such consumers usually have relatively high income, but also suffer from the pressure of work and life. Most of them believe in "punk health", and tend to spend money on convenient consumption and quality consumption. The

characteristics of functional food and beverage, such as improving attention, relieving workplace pressure, health and promoting intelligence, can meet their needs for convenient health management.

2. People who lose weight

People who have the intention to lose weight. Such consumers have strong consumption intentions and usually make their own diet and choose green and healthy food. Our enzyme products are green and healthy, have the function of regulating the stomach and intestines, and have good flavor, can effectively regulate their eating habits, and are popular.

3. Middle aged and elderly people

A group of people over the age of 50 who live in China's high-end cities. This group has relatively strong actual consumption ability and consumption disposable ability, known as the "hidden gold mine" of the Internet. However, their consumption concept is relatively conservative, focusing on the cost performance ratio of consumption, and preferring the consumption featuring discount; They pay more attention to the health management plan, have a friendly attitude towards the theory of traditional Chinese medicine, and are willing to pay for health food. As long as the efficacy of the enzyme is up to the standard, they are the easiest group to turn passers-by into fans, and the sharing of acquaintances is the key factor for them to choose products.

4. Senior middle class

The group mainly composed of the post-70s and post-80s, who live in high-speed cities. Their income is very considerable. For them, consumption should reflect their personal taste, and buying products becomes a symbol of personal identity; At the same time, this group pays special attention to acquiring health related knowledge and information. Their consumption is relatively rational, focusing on the "slow" rhythm of the enzyme fermentation process to reflect the calm, mature and rational. According to the characteristics and consumption capacity of the above groups, the above groups can be divided into three categories: loyal enzyme fans, potential consumers and new forces of enzymes. At present, the marketing and promotion of

enzyme can focus on loyal enzyme fans and potential consumers, and gradually expand to the new force of enzyme.

4.3 Competitor Analysis

With the help of Porter's five force analysis model, our company analyzes the competitive environment of our products from five aspects: the bargaining power of suppliers, the bargaining power of buyers, the ability of potential competitors to enter, the substitution power of substitutes, and the current competitive power of competitors in the industry.

Bargaining power of suppliers: the raw materials for the production of enzymes of the company are mainly rice wine, rice pulp water and other food processing drainage water, crop and plant residues, organic fruits and vegetables, etc. Because the laboratory is located in Shaoxing, there are many rice wine companies and organic vegetable bases, and there are many raw material supply points available for selection, the ability of suppliers to increase the price of input factors is limited, which is conducive to reducing the production cost of our company.

Bargaining power of purchasers: compared with competitors of foreign enzymes, domestic enzymes have few options. At present, the production and quality of agricultural and feed enzymes on the market can hardly meet the demand of the rapid development of middle and high-end brand agriculture, and the fermentation strains are mainly imported from Japan, South Korea and other places, with high prices. However, with the continuous improvement of people's living standards and health management awareness, the pursuit of natural functional food has been increasing, which has weakened the bargaining power of the buyer to a certain extent, and made our company have greater advantages in pricing.

Ability of potential competitors to enter: the threat of potential competitors is mainly the penetration of the external enzyme industry. At present, the domestic enzyme industry is in the early stage of development, and the market is not standardized. Purchasing from abroad is still the main consumption mode of enzymes, and the domestic competitiveness is not very strong. Moreover, since the local

residents' acceptance of enzymes is not high, and the demand for foreign enzymes is not high, when our company introduces enzymes that can be tried out, with low price and guaranteed quality, if consumers have a sense of trust in our products, there will be less customer loss in the later period, which has certain advantages.

Substitution ability of substitutes: Agricultural enzymes can promote crop growth, improve crop quality and enhance crop resistance to diseases and pests; Feed enzymes can improve animal immunity and disease resistance. Compared with conventional microbial fertilizer and feed, enzyme products are more effective, more natural, green, safe and healthy, significantly improving the quality and added value of agricultural and livestock products, and its retail price and profit rate are also greatly improved. Compared with chemical fertilizers and pesticides, antibiotics and hormones, enzymes have greater advantages and slightly higher prices. However, as people's demands for health are growing, enzymes still have greater advantages.

Current competitiveness of competitors in the industry: there are few enzyme production enterprises with strong R & D strength and high production level in China. Most enzyme production enterprises have the characteristics of nonstandard production technology and small scale, and the overall technical level of the industry is uneven. The company has made innovations in fermentation raw materials, strains and processes, and has launched a sales model based on technical service marketing, supplemented by batch sales and trading platform; A sales model based on concept sales, supplemented by direct sales and e-sales; The experience marketing mode with the enzyme garden complex as the carrier has strong competitiveness.

Market research

Most of the products come from Japan. Enterprises such as Daiwa Enzymes Co., Ltd. and Wantian Enzymes Co., Ltd. have a history of 100 years. Their requirements for fermentation process are very high, which also leads to a high level of products.

Table 4-4 Comparison of edible enzymes sold on the market

Edible enzyme	Price	Function	Principal component
Australia Bio-E Enzyme (Bio-E Australia Pty Ltd)	83 yuan/100ml	It can quickly metabolize the remaining nutrients in the body, detoxify and burn fat.	Golden lemon, white grape, orange pomelo Lactobacillus acidophilus LSC-361 Bifidobacterium longum BB-536 Lactobacillus rhamnosus LCS-742
Japanese cherry blossom enzyme (Kyoto Beverage Co., Ltd.)	152 yuan/100ml	It has the effect of detoxification and beauty maintenance. It can improve people's metabolism, prevent toxins from accumulating in the body, and make people lighter	Yeast peptide DNF-10 natural fat inhibiting factor; 107 kinds of vegetables, fruits, melons, medicines, plants, raw materials, complete vitamins, minerals and other trace elements.
Dr. Dunner Natural Vegetable and Fruit Enzymes (Dr. Dunner, Switzerland)	119 yuan/100ml	It helps the human body digest food, defecate, beautify and nourish the skin, and lubricate the skin.	54% flower free juice, 39% plum juice, 4% water, 1.5% honey, 1% sesame leaf
Banerjee SOD Chelating Enzyme Stock Solution (Taiwan Meicuisi Biotechnology Co., Ltd.)	184 yuan/100ml	Slow down fatigue, remove body waste, keep young, and supplement dietary fiber	100% enzyme stock solution does not add water, with high purity. It does not contain artificial colors, chemical fragrances and preservatives, and is a green natural product. 99 kinds of raw materials for fruits and vegetables

Table 4-5 Comparison of agricultural enzymes sold on the market

Edible enzyme	Price	Function	Principal component
Minone Vitamins (Japan MENEDAEL Co., Ltd.)	45 yuan/100ml	1. It is safe to use and can be used for watering and leaf spraying without burning roots or seedlings; 2. Double absorption of roots and leaves makes nutrient absorption more sufficient.	
Wantian Plant Enzymes (Japan Wantian Fermentation Association)	159 yuan/100ml	1. The use of vegetables, melons, fruits and ornamental fruit products at home can increase the output of crops; 2. The use of bonsai and flower products can increase flowers and flowers	Plant yeast, urea, animal fertilizer, plant fertilizer

Bioenzyme fertilizer (Tianjin Zhongyuan Shenghua Agricultural Technology Co., Ltd.)	42.4 yuan/ 100ml	1.Green synergic fertilizer 2.strong root 3.balanced nutrition proportion	Microorganisms, amino acids, trace elements, probiotics, vitamins
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Table 4-6 Comparison of feed enzymes sold on the market

Edible enzyme	Price	Function	Principal component
Full value enzyme No. 1 (Yichun Qiang Microbiology Technology Co., Ltd.)	7 yuan/ 100g	Repair intestinal mucosa, increase food intake, and keep harmful bacteria	Candida utilis, Bacillus subtilis, Pediococcus lactis
Baoding Milk (Yichunqiang Microbial Technology Co., Ltd.)	27 yuan/ 100g	Regulate intestinal tract and improve digestibility	Enterococcus faecium, Clostridium butyricum, Bacillus licheniformis
Incense Silage Microstorage Agent (Yichun Strong Microbial Technology Co., Ltd.)	17 yuan/ 50g	Improve growth speed, feed digestibility and immunity	Candida utilis, Bacillus subtilis, Pediococcus lactis

4.4 Estimate of Annual sales and market share

Calculation table of estimated cash income (yuan)	Opening accounts receivable					
	Sales revenue in 2020	4,017,000	1,339,000			
	Sales revenue in 2021		7,615,800	2,538,600		
	Sales revenue in 2022			18,223,680	4,555,920	
	Sales revenue in 2023				25,919,892	2,879,988
	Sales revenue in 2024					36,682,464.6
	Total cash income	4,017,000	8,954,800	18,223,680	30,475,812	39,562,452.6

4.5 Overall Marketing Strategy

4.5.1. marketing mode of agricultural feed enzymes

Technical service promotion:

For enzyme feed and plant nutrient liquid made from natural plant tissues or economic crop residues such as waste flowers, fruits and leaves of plants and edible vegetable peels, the company adopts technology marketing and promotion, and holds application technology seminars to promote products and technologies through research and development of new application technologies. The technology R & D department is set up inside the yeast biology, relying on the universities, the Key Laboratory of agricultural products biological and chemical processing technology of Zhejiang Province and the medical and health technology center. Through the technical research and development of its own professional team, it will continue to expand the performance development and application technology research and development of enzyme products, and provide feed enterprises, breeding farms, animal farms, etc. with the application methods of enzyme feed and plant nutrient solution without additives, which will resonate with the needs of enterprises.

Before the large-scale popularization of enzyme production in China, and most of them rely on foreign imports, Zhejiang joy Biotechnology Co., Ltd. has developed mature enzyme fermentation technology. The company's team is researching and developing technologies such as enzyme feed and plant nutrient liquid made of natural plant tissues or economic crop residues such as waste flowers, fruits and leaves of plants and edible vegetable peels to make the feed, The nutrient solution has no harm of additives, so that the growth effect of plants and animals is better and the food is safer. When the enzyme fermentation technology is mature, yeast will cooperate with relevant domestic enterprises through technology promotion services to rapidly promote the application technology.

In addition, the company plans to build an enzyme breeding and planting base, and expand the base to many places in China, so as to promote pollution-free food to more places and increase the added value of products.

4.5.2 edible enzyme marketing mode

Yeast farm experience:

After establishing the market position of agricultural and forage enzyme products, the company uses the company's technical advantages to develop functional foods such as organic raspberry enzyme, organic strawberry enzyme and organic grape enzyme. The target customers are middle - and high-income groups that pay attention to health and fitness. The experience marketing is carried out with the enzyme pastoral complex as the carrier, with the goal of promoting the integration of the primary, secondary and tertiary industries and the principle of building the rural production and living ecology of "synchronization of three industries", Realize the organic unity of economic benefits, ecological benefits and social benefits.

Enzyme garden integrates modern agriculture, leisure tourism, rural community and other industries. It advocates the harmonious integration and sustainable development of human and nature. Through the organic combination and symbiosis of "three industries" (production, life and Ecology) and "three industries" (agriculture, processing industry and service industry), it realizes the composite functions of healthy ecological agriculture, leisure tourism and rural residence. In the whole circulation system of enzyme garden, create healthy food with enzyme as the medium, so as to build the healthy physique of community people and constantly influence more people to have a healthy idea.

The area where the enzyme garden is located is Lanting Town, Shaoxing City. Lanting sub district has various landforms, including mountains, plains, water networks and wetlands. The mountains in the territory belong to the Kuaiji mountain range and the xianxialing mountain range. There are many low mountains and gentle hills in the south. A number of river valleys are distributed in the gaps between the mountains. The soil is good and belongs to yellow soil. It can grow a variety of plants. Below the altitude of 250 meters, there are artificial vegetation such as tea, bamboo, fir, fruit and mulberry; At an altitude of 250-500 meters, it is natural vegetation such as evergreen coniferous forest, deciduous broad-leaved forest, evergreen broad-leaved forest and shrubs. The overall environment is very good; The north is mostly water

network plain, and the soil belongs to paddy soil type. Lanting is the town with the most farmland in the south of Shaoxing County.

Concept connotation: integration of three industries and synchronization of three industries. Organically integrate, closely connect and promote the primary, secondary and tertiary industries in rural areas, form new technologies, new business forms and new business models, drive the integration, optimization and reorganization of resources, factors, technologies and market demands in rural areas, and finally realize the business mode of extending the industrial chain and value chain, expanding the scope of industry, expanding industrial functions and increasing the channels for farmers' employment and income; We will strive to build a regional modern agricultural industrial system, production system and management system, improve agricultural quality, efficiency and competitiveness, and accelerate the formation of a new pattern of agricultural development featuring efficient utilization of resources, stable ecosystem, good production environment and safe product quality. The construction of a harmonious society is realized through the construction of new villages with "three life harmony", that is, on the basis of harmonious production, life and ecology and on the premise of keeping the rural "rural nature" as far as possible, the harmonious development of rural areas is promoted through the development mode of "three life harmony".

Retail store product experience:

The company has set up a number of physical retail stores offline. Customers can purchase at their own stores, or pick up at physical stores after placing an order online. The store will regularly carry out a variety of experience courses such as enzyme experiment, enzyme class and enzyme experience. Customers can personally participate in the experience. At the same time, new product trial, gift giving and other activities are launched to increase customer experience.

4.6 Overall Marketing Strategy

1. Soliciting pricing strategy

Solicitation pricing means that enterprises attract customers through low pricing of certain commodities, with the purpose of soliciting customers to buy other

commodities when they buy low-priced commodities, so as to increase sales. The cost of the process reduced by the new fermentation technology can attract users by setting a lower price than other domestic brands.

2. Psychological pricing strategy

Most consumers are willing to accept the mantissa price when buying products, especially ordinary daily consumer goods. Such as 0.99 yuan and 9.98 yuan. Consumers will think that this kind of price will not suffer losses after accurate calculation, thus generating a sense of trust. The product pricing of ferment is set to x.99 and x.98 to attract consumers.

4.7 Sales process and promotions Mix

1. Personnel promotion:

The yeast company has technicians to provide technical guidance to the agricultural and animal husbandry operators on the use of products. The person in charge of the physical retail stores shall explain to the consumers and provide corresponding products for the consumers themselves. Gain the trust of consumers to drive consumption.

2. Advertising promotion:

Advertising promotion is to achieve the purpose of promotion by means of advertising. Through cooperation with Weibo big V and Tiktok, the team will launch promotional advertisements on the online platform to increase sales.

3. Special promotion:

(1) Cash discount:

A certain discount will be given to customers who pay on the agreed date or in advance. Cash discount is introduced in peak season, for example, 50 less than 600. The specific full reduction figures should be based on the product value positioning.

(2) Quantity discount:

Different discounts are given according to the purchase quantity. The larger the purchase quantity, the greater the discount. There are three forms: cumulative discount. You can enjoy 20% discount when the cumulative purchase reaches a

certain value; Non cumulative discount, 10% discount for one-time purchase; Segmented discount: those who buy enzymes will give related gifts or those who buy enzymes over 1000 yuan will enjoy a discount of 8.8% next time.

(3) Coupon Discount:

Consumers can enjoy the discount of coupon face value with the coupon when purchasing branded goods or shopping at designated stores. Coupons can be issued near schools and office buildings.

4.8 Distribution and Sales

4.8.1 network marketing

As one of the hot marketing methods, Microblog, xiaohongshu, TikTok, Taobao live broadcast and other "online popularity" publicity and marketing, the company decided to join in, invest in the information sea, carry out live broadcast of enzyme products and small experiments of enzymes, and strive to maintain and increase fans, so as to promote the company's products.

The online platform is like a large and boundless ocean, and fans and surfers are like fish swimming in the ocean. What we need to do is to bring these fish to our fish tank (project) and let them "settle down" in our place.

Let the fans know our products and enzymes first, and let them participate in the activities.

Regularly publish some knowledge and contents about enzymes in the official account to give them a preliminary understanding of enzymes. We can use social hot spots to deepen people's understanding of enzymes.

4.8.2 concept marketing

Public welfare:

Zhejiang ferment Biotechnology Co., Ltd. promotes the agricultural circular economy model linked by enzyme products and the green and healthy life concept, and contributes to the realization of the "healthy" Chinese dream! Therefore, the company has decided to publicize the "green creation center" to provide certain

popularity for the company based on the actual situation of the company while publicizing public welfare undertakings.

(1) Technical experience

Provide free enzyme technology experience for agricultural producers and operators, teach them how to use enzymes, and let them understand the advantages of enzymes more deeply and intuitively. At the same time, we can also provide relevant knowledge assistance. For agricultural producers and operators who do not know about enzymes, we can provide platforms or knowledge of enzymes and relevant measures for free.

(2) Community service

Take the name of "ferment treasure" to the community to carry out community service, carry out public welfare activities of "environmental protection enzyme production", teach community residents to make a simple enzyme, share the benefits of enzyme, let the flowers of the motherland make environmental protection enzymes themselves, and know that they are shouldering the heavy responsibility of environmental protection.

Teenagers are the flowers of the motherland and the future of the motherland. Therefore, Zhejiang joy Biotechnology Co., Ltd. has decided to donate free lunch, a public welfare project initiated by Deng Fei and more than 500 journalists and dozens of domestic media in conjunction with the China social welfare foundation. However, in order to stimulate the sales of our products, the company has decided not to commit an accurate donation amount to this public welfare undertaking, The donation is based on the sales of products or a certain proportion of operating income, and the type of donation is to donate the products planted by the company's products, so as to achieve the goal of healthy nutrition for the next generation of the motherland.

Table 4-7 donation amount

Sales (10000 yuan / month)	Donation amount (10000 yuan / month)
10	0.2
100	3
500	20
1000	50

(3) Charitable activities of enterprises

In order to establish a good public welfare image of the company and better reflect the concept of maintaining a green and healthy life, the company has decided to make two forms of donations to China children's and children's foundation on a continuous basis: one is to allocate cash for UNICEF; Second, some employees are regularly allowed to provide services for UNICEF on fixed festivals, such as taking care of children in orphanages on International Children's Day, so as to establish a good public image of the company and achieve the goal of training employees.

Propaganda:

(1) On site publicity:

In order to have a deeper understanding of consumers and face-to-face communication with consumers, Zhejiang joy Biotechnology Co. , Ltd. makes consumers know more about our products through on-site questions and answers, so that the company can meet the market demand. The company decided to start from Shaoxing area and then expand to Zhejiang Province to hold on-site propaganda meetings. The venue is mainly the lecture hall and auditorium in the area where the farmers are concentrated.

(2) Network propaganda:

In view of the high cost of on-site publicity, travel and other expenses, the company decided to use the combination of on-site publicity and online publicity to expand its influence and improve its reputation. Among them, the network propaganda mainly adopts video broadcasting, non-interactive propaganda and other methods, and uses the multimedia technology of the Internet to broadcast the propaganda to the world. At present, there are two forms of query system for the

propaganda meeting. One is for traditional PC end customers, which can be accessed through the company's website. Second, for mobile phone customers, they can enter through wechat official account or Tiktok Weibo.

lecture:

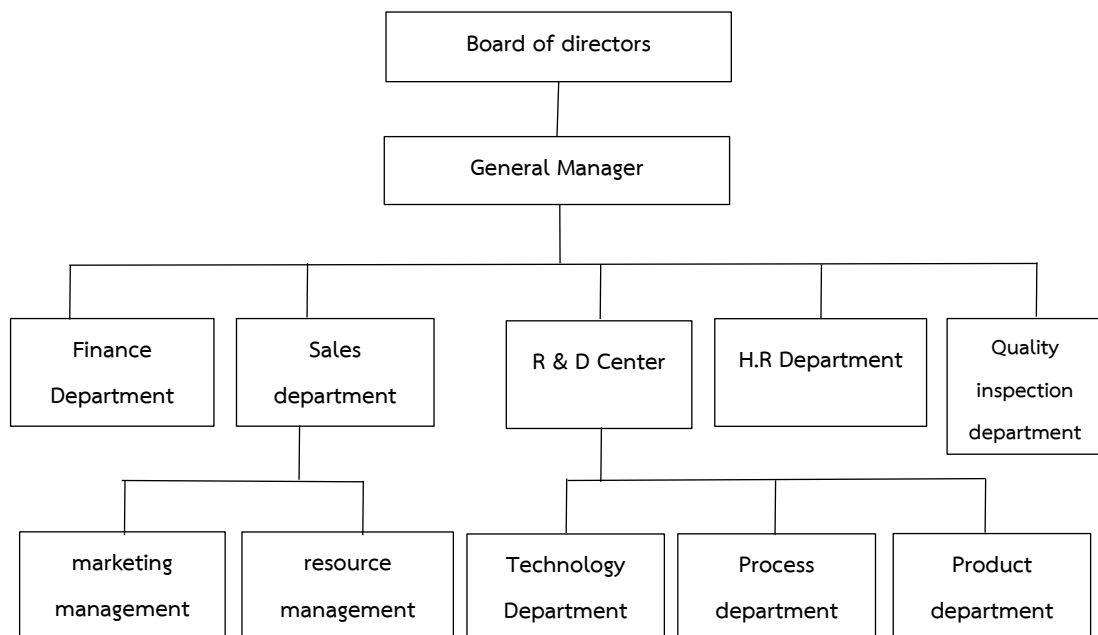
For the first phase of natural feed enzyme and green agricultural enzyme end products facing consumers, the company adopts the strategy of lecture marketing. Through cooperation with the community or local organizations, the company conducts free lectures on healthy and green food, and invites professional breeding and planting personnel to teach free to individual farmers in each phase. The lecture not only disseminates knowledge, but also plays a role in publicizing the company's ideas. After the lecture, the company will conduct on-site discount sales of products to provide discounts and convenience for the audience who want to buy products on site.

Section 5

Management Team and Company Structure

5.1 Management Team

5.1.1 organizational structure



5.1.2 functional management

Board of directors: composed of all shareholders of the company, it is responsible for convening the shareholders' meeting to decide the production and operation plan and investment plan of the company and the setting of the internal management organization of the company, listen to the work report of the general manager and make resolutions. Formulate the company's annual financial budget and final account plans, profit distribution plans and loss recovery plans, put forward plans for the company's increase or decrease of registered capital, division, merger, termination and liquidation and other major matters, appoint or dismiss the company's general manager and department managers, and determine their awards and punishments.

General manager: entrusted by the board of directors, exercise the power of overall guidance, command, supervision and management of the company's operation, and undertake the obligation of implementing various rules and regulations.

5.1.3 Team building

1. The company recruits talents extensively and enriches them into the company's professional talent pool. The company encourages various teams composed of grass-roots and management personnel to make rational use of the knowledge and skills of each member to work together, solve problems and achieve common goals. Each team of the company has a common ideal goal, and is willing to share responsibility, honor and disgrace. In the process of team development, through long-term learning, adaptation, adjustment and innovation, a proactive, efficient, cooperative and creative group is formed to solve problems and achieve the common goal.

2. The composition elements of the team are summarized as 5P, including objectives, people, positioning, authority and plans. There are some fundamental differences between teams and groups. Groups can transition to teams. Generally, teams are divided into five types according to their purpose and autonomy: problem-solving teams, self-management teams, multi-functional teams, common goal teams, and positive tacit teams.

3. The company pays attention to the construction of several important elements in the team, which is summarized as 5P.

Purpose

The team should have a set goal to guide team members and know where to go. Without goals, the team has no value for existence. If the team loses its goal, the team members will not know where to go. The final result may be failure, and the value of the team may be reduced. The goal of the team must be consistent with the goal of the organization. In addition, you can divide the big goal into small goals and assign them to each team member, so that everyone can work together to

achieve this common goal. At the same time, goals should also be effectively communicated to the public, so that members inside and outside the team know these goals, and sometimes they can even be posted on the team members' desks and conference rooms, so as to motivate all people to work for this goal.

People

People are the core force to form a team, and more than two (including two) people can form a team. The goal is achieved through personnel, so the selection of personnel is a very important part of the team. In a team, it may be necessary for someone to make an idea, make a plan, implement it, coordinate different people to work together, supervise the progress of the team work, and evaluate the final contribution of the team. Different people work together to achieve the team's goals through division of labor. In terms of personnel selection, it is necessary to consider how the ability of personnel is, whether the skills are complementary, and how the experience of personnel is.

Place

The positioning of the team has two meanings:

The positioning of the team, where is the team in the enterprise, who selects and decides the members of the team, who is ultimately responsible for the team, and how does the team motivate its subordinates? What role does an individual play as a member in the team? Is it a plan or a specific implementation or evaluation?

Power

The power of leaders in the team is related to the development stage of the team. Generally speaking, the more mature the team is, the less power the leader has. In the early stage of team development, the leadership is relatively centralized. Two aspects of team authority relationship: what decision-making power does the whole team have in the organization? For example, financial decision, personnel decision and information decision; The basic characteristics of an organization, such as the size of the organization, whether the number of teams is sufficient, how much the organization authorizes teams, and what type of business it does.

Plan

The plan has two meanings: the final realization of the goal requires a series of specific action plans, which can be understood as the procedure of the specific work of the goal; Working ahead of schedule can ensure the smooth progress of the team. Only under the planned operation can the team approach the goal step by step, so as to finally achieve the goal.

5.2 Board of Directors

General Manager: Wang Yuning, male, majoring in pharmacy. Exercising the overall guidance, command, supervision and management of the Company's operation, and undertaking the obligation to implement various rules and regulations. He has rich team management experience, solid professional foundation and divergent thinking, and is enthusiastic, positive, progressive and good at communication. He published one paper on the direction of enzymes and participated in two papers on enzymes. He led his team to participate in competitions for many times and achieved excellent results.

Director of Marketing Department: Zhang Yifan, female, majoring in business administration. Mainly responsible for the overall marketing of the company, participating in the formulation of the company's marketing strategy, and formulating the company's marketing mix strategy and marketing plan according to the marketing strategy. She has unlimited love for market operation and product promotion, and has her own unique ideas. At the same time, in the division of professional direction, it is good to choose the direction of investment and financial management, and it has a certain sensitivity to the market and figures.

Director of Finance Department: Zhou Ling, female, majored in financial management. Mainly responsible for the company's financial management, organizing the preparation of the company's financial management system and accounting cost accounting procedures, organizing the preparation of the enterprise's financial plan, reviewing the financial plan, preparing the fund raising and use plan, comprehensively balancing the funds, expanding the sources of funds, speeding up the capital turnover,

and improving the effect of capital use. She has a strong sense of innovation and a high professional level.

Director of R&D Center: Zhu Jun, male, pharmacy major, with solid professional knowledge foundation. Mainly responsible for product performance development and research, application field expansion research, new technology promotion and application. He is conscientious and responsible, has strong learning ability and initiative, and has certain experience, initiative and advantages in product related research and development.

Director of Human Resources Department: Chen Qi, female, majoring in pharmacy. Be responsible for the company's human resources management, lead all departments of the company to conduct real-time strategic analysis, assist the general manager in formulating the company's long-term, medium-term and short-term business plans and strategic policies, assist the general manager in formulating the company's annual business objectives and business plans, and establish and standardize the company's human resources management system. She has good communication and language expression ability, writing expression ability, scientific research ability and learning ability, strong adaptability and sense of responsibility, as well as strong collective concept,

Head of Quality Inspection and Measurement Department: Li Wei, male, majoring in pharmacy. Mainly responsible for enzyme quality testing, instrument analysis and equipment maintenance. He has a rich foundation in equipment design and maintenance.

Section 6

Operation and Production Plan

6.1 Operations Model and procedure

The company makes use of its technical advantages to create competitive advantages, cooperates with important medicinal materials suppliers and R & D laboratories, and the scientific research team carries out product research and development. After the test at the test site is completed, it is produced by the OEM, and subsequently sold through the online operation of ferment mall and offline stores.

6.2 Business Location

The company is located in Shaoxing, Zhejiang Province. The company plans to build an enzyme breeding and planting base based on the unique geographical and cultural advantages of Shaoxing, and promote the base to many places in China. The enzyme breeding and planting base is built in Lanting area of Shaoxing. Lanting area has mountains, plains, water networks, wetlands and other landforms. The climate is suitable, the water networks are developed, and valleys are distributed between mountains. The soil quality is good, belonging to yellow soil, which can grow for a variety of plants. Below 250 meters above sea level, there are artificial vegetation such as tea, bamboo, fir, fruit and mulberry; At an altitude of 250~500 meters, it is an evergreen coniferous forest, deciduous broad-leaved forest, evergreen broad-leaved forest, shrubs and other natural vegetation. The overall environment is very good.

The company promotes the concept and technology of enzyme through the operation of the official website of "yeast treasure" and the wechat official account of "yeast treasure Meng". To rectify the existing unhealthy atmosphere in the market, so that consumers can fundamentally understand and recognize enzymes. And promote their own products. Consumers can choose the most suitable products through official account consultation and provide corresponding technical services.

Moreover, publicizing our technology patents can attract other businesses to join us and expand the company's scale.

6.3 Facilities and equipment

The company purchases internationally advanced manufacturing equipment through bidding to meet the company's production needs. With the continuous expansion of the company's scale, a certain amount of equipment will be introduced according to the market demand for products. During the purchase and use of the equipment, the verification shall be carried out in strict accordance with the relevant national quality management specifications.

6.4 Operation strategy and plans

The company has formulated a five-year strategic plan for product research and development, that is, the "Two Two One" plan. The first and second phases are two years each, and the third phase is one year each. In the first phase of the plan, the production of green agricultural enzymes and natural feed enzymes, technology, packaging, quality control, crowd market, marketing channels and other conditions have been met, and once the company is established, it can be put into production. The medium-term goal is to turn the fruits produced by agricultural enzymes into functional food organic grape enzymes and organic strawberry enzymes. In the third phase, we will take advantage of the company's technological advantages to develop Chinese herbal enzyme, so that the enterprise will have more competitive advantages and greatly reduce the risk of enterprise failure.

6.5 Development status and tasks

1. Existing profits:

(1) Product sales income: The new fermentation process independently developed has greatly reduced the production cost.

(2) Advertising revenue: part of the product packaging will be left blank and provided to raw material partners to promote their brands.

(3) Cooperation income: Cooperate with middle and high-end agricultural and livestock brands to produce "co branded" products, create brand linkage effect, and reduce the cost of enzyme raw materials.

(4) Technical service income: income from technical service to customers.

2. Later profit:

(1) Brand profit: after the company has developed to a certain extent and opened its popularity, it can earn a certain franchise fee through the franchise platform of others.

(2) Member income: establish a membership system in the Yeast Mall to obtain additional income; Member users can enjoy comprehensive health evaluation of themselves and discounts on most products.

(3) Rent collection profit: grant patents independently developed by the team to enterprises in need, and charge a certain patent license fee.

6.6 Intellectual property

Technology transformation achievements

The Jiaobao team has owned the invention patents such as the preparation method of a plant enzyme food and has independent intellectual property rights. It has not only made major breakthroughs in product development, but also paid attention to the application technology services for product users. At present, it has signed letters of intent with a number of enterprises.

The Jiaobao team and Zhejiang tapai Shaoxing Liquor Co., Ltd. have carried out preliminary cooperation on the utilization and application of water resources of rice wine and rice pulp. The application test shows that the agricultural enzymes prepared by using rice wine and rice pulp water are rich in inorganic nutrients, and the number of beneficial microorganisms is huge. It has an obvious effect on promoting crop growth and strengthening crop resistance to diseases and pests, and provides an effective new way to realize the high-value utilization of rice wine and rice pulp. The team of yeast and grandpa Huang (Hangzhou) Ecological Agricultural Technology Co., Ltd. have carried out preliminary cooperation on the application of

rice slurry water agricultural enzyme. The application test shows that the rice slurry water agricultural enzyme can improve the yield of strawberry, enhance the resistance of strawberry to diseases and pests, and do not use chemical pesticides and fertilizers, so as to increase the added value of the product. The yeast team and Jiande Zengfu family farm Co., Ltd. have carried out preliminary cooperation on the application of natural feed enzymes. The application test shows that natural feed enzymes can improve the immunity and disease resistance of pigs, reduce the use of antibiotics and hormones, and increase the added value of products. The yeast team and Shaoxing dahanfang Biotechnology Co., Ltd. have carried out preliminary cooperation on the application of fruit enzyme raw liquid in the comprehensive fruit and vegetable enzyme beverage. The application test shows that the organic fruit enzyme raw liquid is rich in a variety of beneficial bacteria, which can effectively improve the antioxidant capacity of the comprehensive fruit and vegetable enzyme beverage product and improve the product quality.

Section 7

Financial Projections

In the market economy, due to the separation of ownership and management rights, enterprises must face the market for fund-raising, investment and business activities. This objectively requires enterprises to disclose information to the market so as to help current and potential investors, creditors and other information users make correct decisions on investment and credit, and provide the basic data needed by the state for necessary macro-control. Therefore, on the basis of market survey data and on the premise of following accounting principles, the company has made a detailed and specific financial budget with a cautious attitude. The demanders of financial analysis information mainly include enterprise owners, enterprise creditors, enterprise management decision makers and the government. Different subjects have different requirements for financial analysis information for different interests.

According to market investigation and reasonable estimation, Zhejiang joy Biotechnology Co., Ltd. has excellent profitability and broad market prospects. Meanwhile, it pays attention to the use of financial leverage and operational leverage. Therefore, under the premise of moderate risk, we should pursue the maximization of enterprise profits.

7.1 Source and Use of Funds Statement

The registered capital of the company is 8 million yuan, and the capital structure is as follows:

Source of share capital	Team self financing	risk investment	technology invested as capital stock
Share capital scale			
Amount (ten thousand yuan)	416	160	224
Proportion (%)	52	20	28

In the share capital structure, the team invested 4.16 million yuan, accounting for 52% of the total share capital, and the technology invested 2.24 million yuan, accounting for 28% of the total share capital, which is within 30% of the normal value, in line with national policies. The remaining 20% of the registered capital will be invested by 1-2 venture capital companies, which is conducive to financing and risk reduction.

Source and use of equity capital:

At the initial stage of establishment, the company intends to raise 8 million yuan, of which 7.2 million yuan is invested by shareholders through capital injection and other ways of attracting venture capital. The funds are mainly used to construct a productive fixed investment of 2.85 million yuan, purchase raw materials, pay employees' wages and other expenses. (in the fourth year, 500000 yuan of additional fixed assets investment was used to purchase and expand production equipment, etc.).

7.2 Main financial indicators

7.2.1 Fixed assets investment

Company has a total of 2.85 million yuan of fixed assets investment at the beginning of the period. All equipment has a service life of 10 years and is depreciated by the straight-line method.

The investment in fixed assets during the construction period is mainly used to purchase production equipment, and the additional investment in fixed assets in the fourth year is used to purchase and expand production equipment. Fixed assets investment can make the enterprise develop faster. Such investment can improve the production efficiency of the enterprise to achieve the business objectives of the enterprise. Equipment name equipment price (10000 yuan)

Equipment name	Equipment price (ten thousand yuan)	Quantity
Tissue masher	2	5
Sterilization machine	6	3
Centrifuge	5.5	2
Freeze drying equipment	5	1
Medium fermentation tank	2.5	30
Constant temperature incubator	5	5
Spray drying	8	2
Logistics and e-commerce system	45	1
Intelligent packaging system	55	1
Other equipment	5	5
Total	285	

7.2.2 Intangible assets investment

At the beginning of the company's establishment, the intangible assets (technology shares) totaled 2.24 million, which were amortized within ten years.

7.2.3 Other asset investment

During the construction period, office supplies are mainly purchased, and during the operation period, office expenses, rental expenses, water and electricity expenses are mainly purchased.

project	Quantity	Unit price (yuan)	Amount (yuan)
computer	10	4000	40000
printer	5	220	1100
Office desk and chair	20	400	8000
Water dispenser	4	100	400
Office appliances	/	/	3000
other	/	/	4000
Total	/	/	56500

7.2.4 Profit distribution policy

The company will not distribute dividends in the first and second years, and 20% of the net profit in the third year; 25% of the net profit in the fourth year; In the fifth year, the dividend is 30%, and so on, the maximum is 40%. The statutory surplus reserve shall be withdrawn at 10% of the after tax profit.

7.2.5 Profitability profitability

Refers to the ability of an enterprise to increase its capital value, which is usually expressed in the size and level of the enterprise's income. It can be seen from the gradually increasing net profit rate of sales in the previous five years that the company has good profitability and growth. It can not only gain a firm foothold in the market, but also further open the door to the market.

7.3 Pro Forma Financial Statements

Sales budget(yuan)					
Year	2022	2023	2024	2025	2026
Agricultural enzyme of rice wine (900ml / bottle)					
Estimated sales quantity (bottle)	40,000	100,000	150,000	162,000	165,240
Estimated selling price (yuan / bottle)	36	36	36	36	36
Estimated sales revenue	1,440,000	3,600,000	5,400,000	5,832,000	5,948,640
Agricultural enzyme of rice wine (1200ml / bottle)					
Estimated sales quantity (bottle)	64,000	96,000	144,000	155,520	160,185
Estimated selling price (yuan / bottle)	46	46	46	46	46
Estimated sales revenue	2,944,000	4,416,000	6,624,000	7,153,920	7,368,510
Strawberry enzyme (500ml / bottle)					
Estimated sales quantity (bottle)			30,000	54,000	64,800
Estimated selling price (yuan / bottle)			86	86	86
Estimated sales revenue			2,580,000	4,644,000	5,572,800
Strawberry enzyme (300ml / bottle)					

Estimated sales quantity (bottle)			20,000	24,000	25,920	
Estimated selling price (yuan / bottle)			66	66	66	
Estimated sales revenue			1,320,000	1,584,000	1,710,720	
Grape enzyme (500ml / bottle)						
Estimated sales quantity (bottle)			8,000	9,600	10,368	
Estimated selling price (yuan / bottle)			106	106	106	
Estimated sales revenue			848,000	1,017,600	1,099,008	
Grape enzyme (750ml / bottle)						
Estimated sales quantity (bottle)					2,500	
Estimated selling price (yuan / bottle)					520	
Estimated sales revenue					1,300,000	
Bergamot enzyme (500ml / bottle)						
Estimated sales quantity (bottle)					3,000	
Estimated selling price (yuan / bottle)					346	
Estimated sales revenue					1,038,000	
Dendrobium candidum enzyme (500ml / bottle)						
Estimated sales quantity (bottle)					5,000	
Estimated selling price (yuan / bottle)					466	
Estimated sales revenue					2,330,000	
Total		5,356,000	10,154,400	22,779,600	28,799,880	40,758,294
Calculation table of estimated cash income	Opening accounts receivable					
	Sales revenue in 2020	4,017,000	1,339,000			
	Sales revenue in 2021		7,615,800	2,538,600		
	Sales revenue in 2022			18,223,680	4,555,920	
	Sales revenue in 2023				25,919,892	2,879,988

	Sales revenue in 2024					36,682,464.6
	Total cash income	4,017,000	8,954,800	18,223,680	30,475,812	39,562,452.6

Note:

sales income here does not include turnover tax;

It is estimated that the recovery rate of accounts receivable of the company will be 75% in 2022-2023 and 80% in 2024, and will be fixed at about 90% in the future, of which the remaining funds will be recovered in the next year; The sales volume is based on the approximate annual demand of the modern agricultural industrialization enterprises and food processing enterprises that have signed or preliminarily reached the cooperation intention and the market research.

7.3.1 Production budget

Production budget(yuan)					
Year	2022	2023	2024	2025	2026
Agricultural enzyme of rice wine (900ml / bottle)					
Estimated sales quantity (bottle)	40,000	100,000	150,000	162,000	165,240
Add: estimated ending stock	10,000	15,000	16,200	16,524	16,948
Less: estimated opening stock	0	10,000	15,000	16,200	16,200
Estimated production	50,000	105,000	151,200	162,324	165,664
Agricultural enzyme of rice wine (1200ml / bottle)					
Estimated sales quantity (bottle)	64,000	96,000	144,000	155,520	160,185
Add: estimated ending stock	160,185	14,400	15,520	16,018	16,895
Less: estimated opening stock	0	9,600	9,600	15,520	16,018
Estimated production	73,600	100,800	145,120	156,018	161,062
Strawberry enzyme (300ml / bottle)					
Estimated sales quantity (bottle)			50,000	90,000	108,000
Add: estimated ending stock			9,000	10,800	11,580
Less: estimated opening stock			0	9,000	10,800
Estimated production			59,000	91,800	108,780
Strawberry enzyme (500ml / bottle)					
Estimated sales quantity (bottle)			30,000	54,000	64,800
Add: estimated ending stock			5,400	6,480	7,320
Less: estimated opening stock			0	5,400	6,480
Estimated production			35,400	55,080	65,640
Grape enzyme (300ml / bottle)					

Estimated sales quantity (bottle)			20,000	24,000	25,920
Add: estimated ending stock			2,400	2,592	2,630
Less: estimated opening stock			0	2,400	2,592
Estimated production			22,400	24,192	25,958
Grape enzyme (500ml / bottle)					
Estimated sales quantity (bottle)			8,000	9,600	10,368
Add: estimated ending stock			960	1,037	1,128
Less: estimated opening stock			0	960	1,037
Estimated production			8,960	9,677	10,459
Bergamot enzyme (750ml / bottle)					
Estimated sales quantity (bottle)					2,500
Add: estimated ending stock					300
Less: estimated opening stock					0
Estimated production					2,800
Bergamot enzyme (500ml / bottle)					
Estimated sales quantity (bottle)					3,000
Add: estimated ending stock					500
Less: estimated opening stock					0
Estimated production					3,500
Dendrobium candidum enzyme (750ml / bottle)					
Estimated sales quantity (bottle)					1,600
Add: estimated ending stock					280
Less: estimated opening stock					0
Estimated production					1,880
Dendrobium candidum enzyme (500ml / bottle)					
Estimated sales quantity (bottle)					5,000
Add: estimated ending stock					680
Less: estimated opening stock					0
Estimated production					5,680

Note:

Estimated production quantity = estimated sales quantity + estimated ending stock - estimated beginning stock.

Estimated ending stock = sales volume of the next year * 10%, and the insufficient part is calculated by rounding.

7.3.2 Direct material budget

Direct material budge(yuan)					
Year	2022	2023	2024	2025	2026
Keywords rice wine; rice pulp; agricultural enzyme					
Estimated production quantity (ML)	142,320,000	219,960,000	311,304,000	333,604,800	342,752,700
Estimated material purchase quantity	156,552,000	241,956,000	342,434,400	366,965,280	377,027,970
Material cost unit price	0.03	0.03	0.03	0.03	0.03
Estimated purchase amount	4,696,560	7,258,680	10,273,032	11,008,958.4	11,310,839.1
Keywords rice wine; rice pulp; agricultural enzyme					
Estimated production quantity (ML)	54,900	103,950	150,290	163,870	172,330
Estimated material purchase quantity	54,900	103,950	150,290	163,870	172,330
Material cost unit price	10	10	10	10	10
Estimated purchase amount	549,000	1,039,500	1,502,900	1,638,700	1,723,300
Strawberry enzyme					
Estimated production quantity (ML)			35,400,000	55,080,000	65,454,000
Estimated material purchase quantity			38,940,000	60,588,000	71,999,400
Material cost unit price			0.06	0.06	0.06
Estimated purchase amount			2,336,400	3,635,280	4,319,964
Grape enzyme					
Estimated production quantity (ML)			11,200,000	12,096,100	13,016,900
Estimated material purchase quantity			11,200,000	12,096,100	13,016,900
Material cost unit price			0.06	0.06	0.06
Estimated purchase amount			896,000	967,688	1,041,352
Bergamot enzyme					
Estimated production quantity (ML)					4,900,000
Estimated material purchase quantity					5,390,000
Material cost unit price					0.06
Estimated purchase amount					323,400
Dendrobium candidum enzyme					

Estimated production quantity (ML)					3,160,000
Estimated material purchase quantity					3,476,000
Material cost unit price					0.02
Estimated purchase amount					69,520
Direct material budget(yuan)					
Year	2022	2023	2024	2025	2026
Total	5,245,560	8,298,180	15,008,332	17,250,626	19,260,055

Calculation table of estimated cash expenditure (yuan)	Opening accounts payable	0				
	Procurement expenditure in 2022	3,147,336	2,098,224			
	Procurement expenditure in 2023		4,978,908	3,319,272		
	Procurement expenditure in 2024			9,004,999.2	6,003,332.8	
	Procurement expenditure in 2025				10,350,375.6	6,900,250.4
	Procurement expenditure in 2026					11,556,033
Total cash expenditure		3,147,336	7,077,132	10,224,468	16,353,708.4	18,456,283.4

Note:

60% of the purchase price of materials purchased by the company shall be paid in the current year, and the remaining 40% of the previous year shall be settled in the next year.

7.3.3 Direct labor budget

Direct labor budget(yuan)			
Year (number)	Base pay	Employee welfare	Amount
2022 (10 persons)	300,000	42,000	342,000
2023 (10 persons)	324,000	45,360	369,360
2024 (20 persons)	699,840	97,977.6	797,817.6
2025 (20 persons)	755,827.2	105,815.81	861,643.01
2026 (30 persons)	1,247,114.88	174,596.08	1,421,710.96
Total	3,326,782.08	465,749.49	3,792,531.57

Note:

The basic monthly wage of workshop workers in 2022 is 3000 yuan. The basic monthly wage in 2023 will increase by 8% on the basis of 2022, and 10 employees will be added. In 2025, the increase rate will be 10%, and 10 employees will be added.

7.3.4 Manufacturing cost budget

Manufacturing cost budget(yuan)					
Year	2022	2023	2024	2025	2026
Indirect labor	10,500	10,500	10,500	10,500	10,500
Indirect materials	123,757.21	283,881.47	525,282.9	929,819.95	1,616,102.77
water and electricity	185,635.82	425,822.21	787,939.34	1,394,729.93	2,424,154.15
Maintenance fee	1,450	1,450	1,450	1,450	1,450
Depreciation of fixed assets	7,250	7,250	7,250	7,250	7,250
Rental cost of plant	15,000	15,000	15,000	15,000	15,000
Other manufacturing expenses	2,280	2,520	2,760	2,640	3,360
Total manufacturing expenses	345,873.03	746,423.68	1,350,192.24	2,361,389.88	4,077,816.91
Cash expenditure of manufacturing expenses	338,623.03	739,173.68	134,2942.24	2,354,139.88	4,070,566.91

Note:

1. Indirect labor refers to the management personnel of the workshop, and 2 management personnel are required for each production line;

2. Indirect materials mainly refer to turnover materials, including packaging materials and low value consumables, and their cost shall be controlled to 10% of direct materials;

3. It is learned on the spot that the local water price is 2.3 yuan / ton (excluding sewage treatment fee), and the electricity fee is 1 yuan / kWh. It is uniformly estimated that the water and electricity fee during the operation period is 15% of the direct materials;

4. The maintenance cost of machinery and equipment and the cost of lubricating oil used are included in the manufacturing cost - maintenance cost, which is 5 ‰ of the total value of machinery and equipment,;

5. According to the expected assumption, the plant covers an area of 1000 M², the rent is 10000 yuan / month, and it is evenly distributed to several products; Other manufacturing expenses include transportation expenses and insurance expenses, which are determined according to the sales volume, with an average of 120 yuan / ton; Variable manufacturing expenses and fixed manufacturing expenses are not listed separately.

7.3.5 Main business cost budget

Main business cost budget(yuan)					
Year	2022	2023	2024	2025	2026
Direct material	5,245,560	8,298,180	15,008,332	17,250,626	19,260,055
Direct manual allocation	342,000	369,360	797,817.6	861,643.01	1,421,710.96
Overhead allocation	345,873.03	746,423.68	1,350,192.24	2,361,389.88	4,077,816.91
Annual sales	3,017,000	7,982,800	13,623,880	25,308,120	37,954,174
Total cost of main business	5,933,433	9,413,964	17,156,342	20,473,659	24,759,583
Total ending inventory	1,015,440	1,523,160	2,884,704	3,145,422	4,411,494

Note:

1. Labor allocation = direct labor expenditure / estimated production quantity;
Manufacturing cost allocation = total manufacturing cost / estimated production quantity;

2. Bit cost = direct material + direct labor allocation + manufacturing expense allocation, main business cost = unit cost * annual sales volume, closing inventory = unit cost * closing inventory.

7.3.6 Sales and management expense budget

Sales and administrative expenses(yuan)					
Year	2022	2023	2024	2025	2026
Selling expenses					
Basic salary of sales staff	144000	144000	216000	216000	252000
Sales commission	2160	2880	4320	4320	5040
Advertising expenses	300000	500000	500000	500000	500000
Administrative expenses					
Salary and welfare of management personnel	420000	420000	420000	420000	420000
Amortization of intangible assets	8125	8125	8125	8125	8125
R & D expenses	350000	192000	192000	192000	192000
Travel expenses	200000	200000	200000	200000	200000
Other	60000	70000	70000	70000	70000
Total	1484285	1537005	1610445	1610445	1647165
Calculation of estimated cash expenditure	Cash expenditure in 2022	1476160			
	Cash expenditure in 2023		1528880		
	Cash expenditure in 2024			1602320	
	Cash expenditure in 2025				1602320
	Cash expenditure in 2026				
Total cash expenditure	1476160	1528880	1602320	1602320	1639040

Note:

It is estimated that our company has 4 sales personnel with a base salary of 3000 yuan / person / month. The sales commission is calculated as 1.5% of the increased sales volume. Since the sales contract has been signed in the first year, the Commission is calculated as 2% of the sales volume in the first year; In the third year, 2 salespeople were added, and in the fourth year, 1 salesperson was added;

Advertising expenses are paid by the following items: online and offline marketing: 150000 yuan (2022); 300000 yuan (2023); 500000 yuan (2024);

The company has 7 management personnel with a salary of 5000 yuan / person / month, one cashier with a monthly salary of 3500 yuan, and another warehouse keeper and security guard. The salary standard is as follows: the warehouse keeper is 2500 yuan / month (one person);

Security personnel: 2000 yuan / month (1 person); all staff members are subsidized with 200 yuan per month for food;

The company has set up a research team composed of two people in 2022, including one doctor with a salary of 9500 yuan / month and one postgraduate with a salary of 6500 yuan / month; In 2022, 350000 yuan will be invested in R & D, which will be amortized to each quarter. Thereafter, the annual R & D investment will be 8% of the sales of the previous year; The annual travel expenses of the sales personnel are calculated as 20% of the days, and the annual travel expenses of the team personnel are about 200000 yuan. Thereafter, the annual travel expenses are increased by 3% of the sales volume; Other management expenses include office expenses and communication expenses. Therefore, other management expenses in 2022 will be 60000 yuan. In the future, with the small-scale expansion of the enterprise, other expenses will increase by 10000 yuan every year. Among them, other management expenses in 2023 include QS, ISO900, trademark certification and other items (about 30000 yuan). After 2023, this expense will not be spent.

7.4 Proforma Income Statements

Estimated profit form(yuan)					
Year	2022	2023	2024	2025	2026
1 Main business income	4,384,000	8,016,000	17,612,000	21,191,520	26,302,030
Add: other business costs	500,000	500,000	500,000	500,000	500,000
Less: main business cost	2,510,520	4,449,060	9,644,644	11,515,120.8	13,355,371.7
Other business costs	0	0	0	0	0
Business tax and surcharges	554,771	1,041,796	2,552,141.06	3,964,912.7	5,171,233.97
2 Profit from main business	2,790,709	5,163,544	11,082,815	13,819,847	22,731,688
Less: sales expenses	446,160	646,880	720,320	720,320	757,040
Administrative expenses	1,105,000	957,000	957,000	957,000	957,000
3 Operating profit (loss expressed with "-")	1,239,549	3,559,664	9,405,495	12,142,527	21,017,648
Add: non operating income	0	0	0	0	0
Less: non operating expenses	0	0	0	0	0
4 Total profit (loss expressed with "-")	1,239,549	3,559,664	9,405,495	12,142,527	21,017,648
Less: income tax (estimated value)	247,909.8	711,932.8	1,881,098.99	2,428,505.3	4,203,529.67
5 Net profit (net loss expressed with "-")	991,639.2	2,847,731.2	7,524,396.0	9,714,021.7	16,814,118.3

Note:

Income tax payable = total profit * income tax rate 20%;

Other business income: income from providing technical guidance to other enterprises;

The net profit in the table is the result with two decimal places.

7.5 Proforma Balance Sheet

Estimated balance sheet(yuan)					
Year	2022	2023	2024	2025	2026
working capital:	4,303,169	6,460,403	11,823,817	12,437,527	18,563,700
Monetary Fund	2,826,381.8	720,369.91	814,107.78	800,534.74	969,028.31
Accounts receivable	1,339,000	2,538,600	2,879,988	4,555,920	4,075,829.40
Stock	1,015,440	1,523,160	2,884,704	3,145,422	4,411,494
Total current assets	5,180,821.80	4,782,129.91	6,578,799.78	8,501,876.74	9,456,351.71
Fixed assets:					
Original price of fixed assets	2,850,000	2,850,000	2,850,000	3,350,000	3,350,000

Less: accumulated depreciation	285,000	285,000	285,000	335,000	335,000
Net fixed assets	2,565,000	2,280,000	1,995,000	2,160,000	1,825,000
Net intangible assets	2,240,000	2,240,000	2,240,000	2,240,000	2,240,000
Less: accumulated amortization	224,000	224,000	224,000	224,000	224,000
Net intangible assets	2,016,000	1,792,000	1,568,000	1,344,000	1,120,000
Total Assets	11,238,608.88	14,594,162.68	21,151,509.19	23,642,869.58	29,996,022.80
Liabilities:					
Accounts payable	2,098,224	3,319,272	6,003,332.80	6,900,250.40	7,704,022
Total Liabilities	2,098,224	3,319,272	6,003,332.80	6,900,250.40	7,704,022
Owner's equity:					
Paid in capital	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000
Surplus reserve	148,745.88	427,159.68	1,128,659.393	1,457,103.18	2,522,117.8
Undistributed profits	991,639	2,847,731	6,019,517	7,285,516	11,769,883
Total owner's equity	9,140,384.88	11,274,890.68	15,148,176.39	16,742,619.18	22,292,000.80
Total Liabilities and Capital	11,238,608.88	14,594,162.68	21,151,509.19	23,642,869.58	29,996,022.80

Note:

The surplus reserve is withdrawn at 15% of the after tax profit, of which 10% is the statutory surplus reserve and 5% is the discretionary surplus reserve Accounts payable are direct material expenses payable

7.6 Proforma Cash Flow

Expected cash flow statement(yuan)					
Year	2022	2023	2024	2025	2026
1 Cash flow from operating activities					
Cash received from selling goods and providing services	3,017,000	7,982,800	13,623,800	25,308,120	37,954,174
Other cash received related to operating activities	61,920	59,360	60,883.6	85,078.52	167,985.48
Subtotal of cash inflow from operating activities	4,078,920	9,014,160	18,284,564	30,560,890.52	39,730,438.08
Cash paid for purchasing goods and receiving services	3,147,336	7,077,132	10,224,468	16,353,708.4	18,456,283.4
Cash paid related to other operating activities	338,623.03	739,173.68	1,342,942.24	2,354,139.88	4,070,566.91

Pay various taxes	247,909.8	711,932.8	1,881,098.988	2,428,505.3	4,203,529.67
Subtotal of cash outflow from operating activities	3,733,868.83	8,528,238.48	13,448,509.23	21,136,353.58	26,730,379.98
Net cash flow from operating activities	345,051.17	485,921.52	4,836,054.37	9,424,536.94	13,000,058.10
2 Cash flow from investment activities					
Cash paid for the purchase and construction of fixed assets, intangible assets and other long-term assets	2,850,000	0	500,000	0	500,000
Net cash flow from investing activities	-2,850,000	0	-500,000	0	-500,000
3 Cash flow from financing activities					
Subtotal of absorbing equity cash inflow	600,000	0	0	0	0
Subtotal of cash inflow from financing activities	600,000	0	0	0	0
Cash paid for distribution of dividends, profits or interest	0	0	2,368,879.2	3,594,905.5	6,471,909
Subtotal of cash outflow from financing activities	0	0	-2,368,879.2	-3,594,905.5	-6,471,909
Net cash flow from financing activities	600,000	0	2,368,879.2	3,594,905.5	6,471,909
Net increase in cash and cash equivalents	-1,904,948.83	485,921.52	6,704,933.57	13,019,442.44	18,971,967.10

Note:

Cash paid to and for employees includes direct labor expenses, indirect labor expenses, management personnel expenses and salary and welfare of sales personnel;

The taxes paid are the sales value-added tax paid for the sale of products minus the input tax, business tax and surcharges for the purchase of materials;

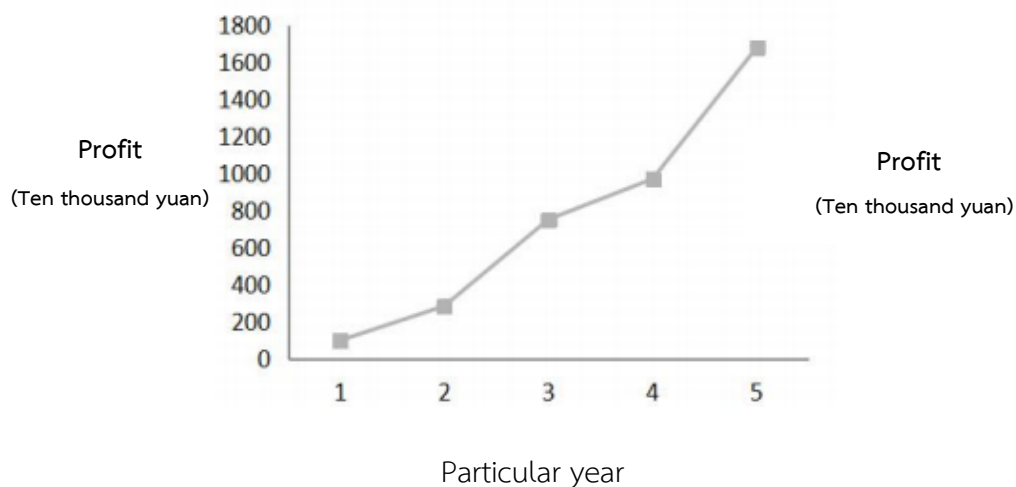
The first and second years are the initial stage of the project, and no dividend is distributed. In the third year, 20% of the net profit is distributed; 25% of the net profit in the fourth year; In the fifth year, the dividend is 30%, and so on, the maximum is 40%. The statutory surplus reserve shall be withdrawn at 10% of the after tax profit.

7.7 Ratio Analysis

7.7.1 Financial data analysis

Year	Financial index	2022	2023	2024	2025	2026
Analysis of short-term liquidity	Current ratio	2.4691	1.4407	1.0959	1.2321	1.2275
Analysis of long-term solvency	Asset liability ratio	0.1867	0.2274	0.2838	0.2919	0.2568
Analysis of asset management efficiency	Inventory turnover rate	8.92	8	10.19	9.61	10.45
	Turnover rate of accounts receivable	2.667	2.281	2.169	1.882	2.05
Profitability analysis	Net interest rate of assets	0.5377	0.5023	0.6479	0.5118	0.5415

Profit trend growth chart



7.7.2 Investment payback period

$$\text{Investment payback period} = n + \frac{\text{Uncollected investment at the end of the } n\text{th year}}{\text{Net cash flow in year } n + 1}$$

The calculated payback period is 2.29 years, and the investment scheme is feasible.

7.7.3 Net present value of investment (NPV)

$$NPV = \sum_{k=0}^n \frac{NCF_k}{(1+i)^k}$$

NCF : Annual net cash flow

N : Years involved in investment

I : Predetermined discount rate

Taking into account the opportunity cost, investment risk and other factors, the average rate of return I is 10%. At this time, the net present value of the investment is 21916163.87 yuan. The ability to calculate the internal earnings ratio is very good, and the investment scheme is feasible.

7.7.4 Profit index (PI)

Profit index (PI) = total present value of net cash flow of each year after production / present value of original investment, PI is about 4.65, so it is judged to be financially feasible.

7.7.5 Accounting rate of return

Accounting rate of return = annual average net income ÷ original investment × 100% The accounting return during the operation period is 86.3%, which is good.

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Biography

Name- surname	Shuwei Zhou
Date of birth	1980.08.04
Place of birth	Zhuji City, Zhejiang Province
Address	2799 Qunxian Middle Road, Yuecheng District, Shaoxing City, Zhejiang Province
Workplace	Shaoxing University Yuanpei College
Position	Teacher
Education	MBA Southeast Asia University



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