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**Marketing Chinese plasma products in  
Finland**

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# SEINÄJOKI UNIVERSITY OF APPLIED SCIENCES

## THESIS ABSTRACT

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The case company of this study is Shanghai Xin-xing Medicine Co. Ltd., the subsidiary of China General Technology Group in Shanghai City of China. The company manufactures plasma products. This study gives information about the company, their products and the outlook of marketing Chinese plasma products in Finland.

The goal of the study is to clarify the method of marketing Chinese plasma products in Finland. For that purpose one survey-questionnaire was sent to 20 main hospitals in different areas in Finland and two interviews with Finnish Red Cross Blood Services and Shanghai Xin-xing Medicine Co. Ltd. 5 hospitals gave responses to the questionnaire, the return rate turned out to be 25% as 5 responses to the questionnaire were received.

The analysis of the results from the questionnaire and the information from the interviews manifest that the market demand of plasma products in Finland keeps growing and there is potential market for Chinese plasma products, yet the company cannot expand into the Finnish market now, due to the lack of the EU-GMP (Good Manufacturing Practice) certificate.

Based on those information, a WHO-GMP or EU-GMP certificate is crucial to the company as to facilitate the process of achieving the potential Finnish market by establishing more stations of sole plasma collection to maintain sufficient raw material plasma, so that it would achieve the potential Finnish market in future years

Keywords: Plasma products; marketing; EU-GMP certificate

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## 1. INTRODUCTION

When a company plans to expand to a new foreign market, there are many factors that should be taken into consideration before entering the market. There are two main factors which influence this process of clarifying the way to marketing; one is if the product meets market demand, another one is a suitable distribution channel between the company and the target market. (Ogenyi Omar; International market; P153, Entry as international marketing strategy)

The aim of this study is to find out the method of marketing Chinese plasma products in Finland. The introduction part will present the background of this research, pointing out the considerations for choosing this subject. Furthermore, a brief introduction to the theoretical background and the research methodology, together with an explanation of the objective, research questions, and limitations of this study are presented.

The products, including the plasma products, are manufactured in China with low cost but high quality. Nowadays, with the speedy growth of economy of the country, plasma products industry in China has developed very quickly. China is one of the few developing countries that manufacture plasma products

Rapid economic development, population aging, expansion of disease, as well as the improvement of product safety will promote rapid growth of plasma product industry. The leading enterprises with financial and technical advantages of expansion will further increase industry concentration.

Nowadays, major market of blood products are still the United States and Europe, but the imports and exports of albumin and coagulation factor VIII from China, Brazil and other developing countries have been the main engine of growth in the past few years.

As one of the European Union members, Finland earns an image of high welfare country. Finnish government spends a lot of money on the healthcare system and institutions annually. Although Finland has a high tax rate charge for the imported goods, it still maintains high profit for the sellers, especially for the enterprises which expand their business area in Europe, therefore Finland is a crucial market.

### **1.1 Objective**

The client for the study is Shanghai Xin-xing Medicine Co. Ltd. (Sxx Company), manufacturer of plasma products. The company is located in Shanghai City China. Company is the subordinate, subordinating to the company of China General Technology (Group) Holding, Ltd.

The purpose of this study is to clarify the method of marketing Chinese plasma products in Finland.

### **1.2 Research methodology**

The research approach in the thesis is written combination based on the quantitative methods but there is qualitative method used in the study as well. The research is a trend analysis, mainly based on the fact of the results got from the hospitals and interview of director from Finnish Red Cross Blood Services in Finland and the manager from Shanghai Xin-xing Medicine Co. Ltd.

The main research methodology is survey-questionnaire. The research is to illustrate the present situation of the market and method of marketing Chinese plasma products in Finnish market as well.

The method of data collection is as an implementation tool for quantitative approach. With respect on the thesis research, the essential data can be found from the sources which are collected throughout the research questionnaire, and also internet sources for relevant knowledge of plasma product industry.

### **1.3 Thesis structure**

There are two main parts of the research study: the theoretical part and the empirical part. The theoretical part deals with information given by the company, Finnish economy and international market adapting 4Ps, about distribution channel between Shanghai Xin-xing Medicine Co. Ltd. and Finnish medical institutions.

First, the introduction of general information about the Shanghai Xin-xing Medicine Co. Ltd. and the holding group will be presented. Then a thorough analysis about the Finnish economy and market, as well as Finnish healthcare will be introduced. The last part of theoretical study deals with the distribution channel of plasma product.

4Ps study and SWOT analysis are conducted in this study. It will make a clear understanding both for micro and macro environment in Finnish market. Environmental factors analysis is used for analyze the method of marketing the products.

The empirical study is based on the questionnaire that was sent to 20 main hospitals in Finland, the e-mail interview with the Finnish Red Cross Blood Services and telephone interview with the vice manager of the case company.

With the analyzing of the outcomes of the survey-questionnaire, some charts have been made. Conclusions will show the recent situation of the market for plasma products and how Chinese plasma products are going to adapt market in Finland. Summary concerning the whole research are given in the end of the thesis.

## **2. INFORMATION OF PLASMA PRODUCTS**

### **2.1 Plasma products**

The plasma product is in the scope of biological products, which take the plasma collected from healthy people as raw material, through using biological processes or biological purification technology to get the bioactive preparation. It is widely used in clinical rescue and treatment, Plasma product is an important life-saving medicine.

Nowadays, approximately 20 different kinds of plasma products have been used in clinical medicine, such as human serum albumin, human placental serum albumin, intravenous immune globulin employment, intramuscular human immunoglobulin, histamine, human immune globulin, specific immune globulin, hepatitis B immune globulin, rabies immune globulin, tetanus immune globulin, human coagulation factor VIII, human prothrombin complex, fibrinogen, and anti-human lymphocyte immune globulin. And there are some other new products under the R&D process, such as Freeze-dried human thrombin, S/D-FFP, anti-thrombin- III , topical lyophilized human fibrin glue ect.

Illustration of different types of plasma products:

#### **Class I : Albumins Products**

It usually refers to a concentration of 20 ~ 25g/dl albumin products. Mainly used to correct for major surgery, trauma, organ transplantation due to acute hypovolemia; processe body fluids of water, electrolyte and colloid imbalance caused by large area burn and respiratory distress, prevent and control shock.; hypoproteinemia, etc.

## Class II : Immunoglobulin products

Normal human immunoglobulin: mainly used for certain viral diseases, such as hepatitis A and measles prevention of disease.

Specific immunoglobulin: compared with normal immune globulin, it has the advantages of more reliable protective effects, and some also have a definite therapeutic effect.

Intravenous immunoglobulin products: a better use of high dose intravenous tolerance, with an increase in the production process viral inactivation steps to improve the safety, and clinical indications continue to increase. These kind of products which now are the leading products in plasma products industry have been increasingly widely applied.

## Class III: Coagulation factor type products

Fibrin sealant: used in plastic surgery, micro surgery, neurosurgery and other fields. The products in the production are processed by the viral inactivation treatment, and increased use of security.

Factor VIII products: It is for the treatment of hemophilia. Specific activity was 0.2 ~ 1.0IU/mg protein and > 10IU/mg protein in the middle purity and high purity factor VIII products. Not only small size, high titer, easy home use, but also because of higher purity, combined with the production process Virus inactivation was carried out, so that fewer adverse reactions are in use and it is more secure.

(Research Report of Produce and Sale and Investment Analysis on China Blood Products Industry 2008; P22-P23 the definition of plasma product)



PICTURE 1. THE PLASMA PRODUCTS

Plasma products from Sxx Company are shown in the picture above. The products are stored in glass bottles in low temperature environment and used for clinical injection.

## 2.2 Plasma products industry in China

In recent years, production of blood products in China has been developing rapidly, and production changes from single species to varieties. Comprehensive utilization of raw material plasma rises up steadily.

33 Chinese manufacturers of blood products have obtained GMP certification (Good Manufacturing Practice), with the annual plasma volume of around 3,500 tons totally. Now there are 9 plasma products recorded in the Chinese Pharmacopoeia. Among the 33 manufacturing companies, 23 of them can produce more than 4 types of those 9 products.

From January to August of 2010, human serum albumin, intravenous human immunoglobulin, tetanus human immunoglobulin, hepatitis B immunoglobulin, human immunoglobulin, human prothrombin complex, rabies immunoglobulin and human clotting Factor VIII of Hualan Biological Engineering Ltd were approved by National Institute for the Control of Pharmaceutical and Biological Products, with the total release volume of 2.272 million bottles. (Chinese Blood Products Industry Report 2010, Summary)

The Chinese government attaches great importance to the development of blood products industry, especially the National Development and Reform Commission in a timely manner in accordance with market demand and supply. To adjust product prices, government has played an active role in keeping the blood products to maintain a reasonable value, and the protection of clinical drug supply. However, considering the late start in China blood product industry, the scale is limited. The industry is still facing many difficulties that hinder its development. (Research Report of Produce and Sale and Investment Analysis on Chinese Blood Products Industry 2008; P54 Blood products industry profiles)

### **3. SHANGHAI XINXING MEDICINE CO. LTD.**

Sxx Company is a nationally significant high tech enterprise which advanced in the R&D, manufacturing and distribution of blood products. The corporation was founded in August 2000 with registered capital of 164 million YUAN RMB. It is a joint-stock company, LTD and non-listed.

The predecessor of Shanghai Xin-xing Medicine LTD., CO is Shanghai S&T development center for health care products, which was founded with a loan of 50 thousand YUAN RMB given by the government in 1989.

The company is a fast growing enterprise. With the development strategy of establishing a modern blood products industry, the company owns the advanced techniques, good manufacturing conditions and flowing trade channels. Through the capital accumulation from distribution, business expansion by high technology, the company has become a national famous blood products manufacturer since the shareholding reform in 2000.

After the shareholding reform, the company owned outstanding achievements in distribution and thus accelerated the growing speed. Till 2005, the company realized more than 1 billion YUAN RMB of distribution, 76 million YUAN RMB of total profits, 450 million of total assets which were increased 8 thousand times of the founded period. In terms of Scale of production it ranks No. 4 in the whole blood products industry in China.

Company is a modernization plasma products manufacturer which owns the advanced techniques, good manufacturing conditions and flowing trade channels. Shanghai Xin-xing Medicine Co. Ltd. holds the specialized techniques for comprehensive utility of plasma and smart properties for virus inactivated. And also it has a research team with great power. The research speed of new products is very fast.

The company has been evaluated as one of the nationally significant high tech enterprises, Shanghai high tech industry and technical development institute in PUDONG area for several years. The company was approved to set up postdoctoral workstation by national government.



Albumin Prepared from  
Human Plasma



Lyophilized Human  
Prothrombin Complex  
Concetrare



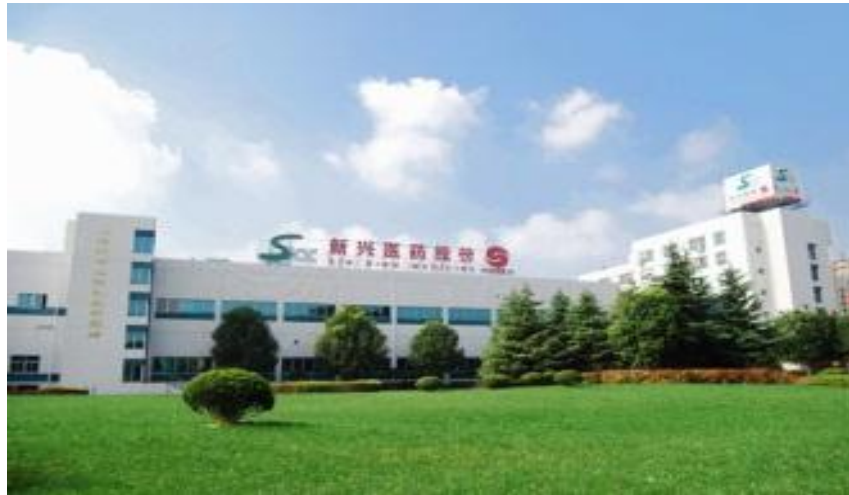
Hepatitis B immune globulin



Human fibrin adhesive

PICTURE. 2 MAIN PRODUCTS OF SXX COMPANY (NATIONAL MAJOR PRODUCTS)

The corporation's main products include human serum albumin, prothrombin complex, fibrin sealant, and hepatitis B immunoglobulin which were successively chosen to be national major products, Shanghai high tech production transformation projects, Shanghai and national torch projects respectively. (Shanghai Xin-xing medicine co. Ltd. official website; Profile, About Xin-xing [ref. 2<sup>nd</sup> August 2011])



PICTURE 3. SHANGHAI XINXING MEDICINE CO. LTD.

Now the company has 2 subsidiary stations of sole plasma collection which collect the raw material-plasma for the company's production. These 2 plasma collection stations can approximately provide totally 60 tons of plasma annually. (Shanghai Xin-xing medicine co. Ltd. official website; Profile, About Xin-xing, Subsidiary stations of sole plasma collection [ref. 2<sup>nd</sup> August 2011])

Shanghai Xin-xing Medicine Co. Ltd. invested 170 million YUAN RMB to establish the advanced workshop which was certificated by Good manufacturing practice (GMP), and the roboticized and systematized production line with the production capacity of 300~500 tons every year. We also owned drug distribution headquarter which was certificated by GSP (Good Supply Practice). The distribution network covers the whole country and expands to Pakistan, Bulgaria, Thailand and Indonesia and some Eastern-euro countries. (Shanghai Xin-xing medicine co. Ltd. official website; Profile, About Xin-xing [ref. 2<sup>nd</sup> August 2011])

### 3.1 China General Technology (Group) Holding, Ltd.

China General Technology (Genertec) Group is set up on the basis of 6 professional foreign trade companies in different business area. Pharmaceutical industry, trade & engineering contracting, equipment manufacturing, technical services and consultancy, and also the construction and real estate.

Most of these large foreign trade enterprises have 50 years of operating history, since the establishment of the group, their import and export volume totaled more than \$ 200 billion. With the major equipment and advanced technology, the Genertec group has become one of the biggest and most important national group in China.

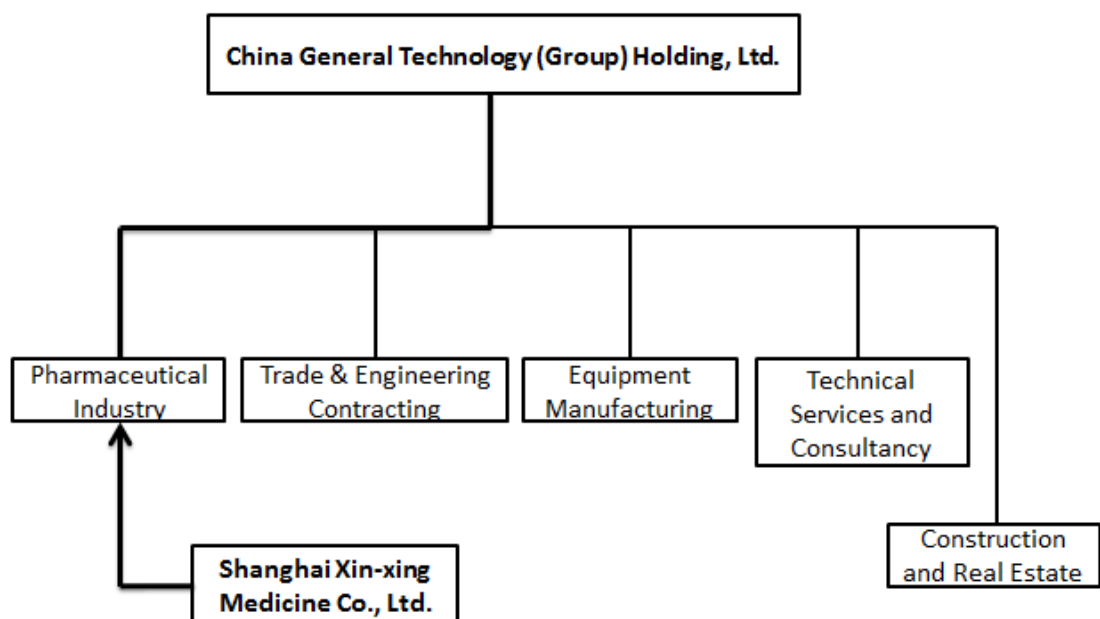


FIGURE 1. RELATIONSHIP OF THE COMPANY AND THE GROUP

The group is currently the largest in draught of bidding, technical service providers, China's major large-scale and complete equipment export, international project contracting, and external economic and technical cooperation enterprises. And it has the largest foreign trade enterprise with medicine and health products business.

General Technology Group has been established with the main operating indicators maintaining a steady growth. A state-owned asset has always been outstanding in the industry level. In the year 2007, the Group achieved operating income of 13.9 billion Yuan RMB, incremental value rate 117.4 percent and total assets of 216 billion Yuan RMB.

After 50 years' efforts, the Group has business partners worldwide and comprehensive business channels. It formed a strong business, expanded capacity and coverage of major domestic markets and overseas global business networks. The company created an excellent brand and reputation and also trained a staff team which is familiar with international trade rules, business experience. Asset of the company is very good, and investment and financing ability is strong as well. The financial sector in domestic and international market has a good credibility.

The group has established stable trade and cooperation relations with more than 100 countries and regions across the world.

(China General Technology (Group) official website; About Us > Corporate Profile [ref. 4<sup>th</sup> August 2011])

### **3.2 The production of the company**

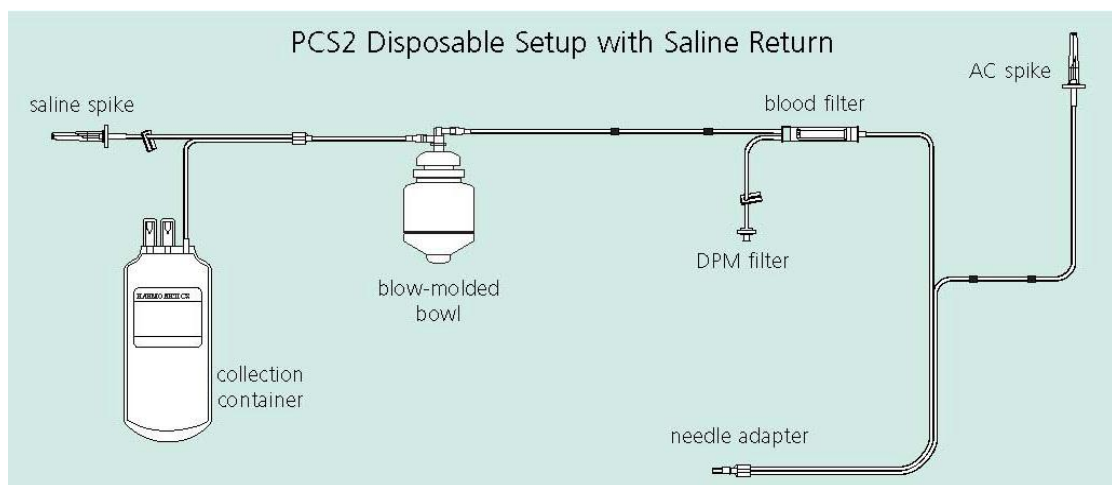
Plasma product is the variety special functional proteins separated and purified out from raw material plasma. It contains hundreds of plasma proteins in the blood. The main contents are albumin (Albumin) and gamma globulin (Im2mune Globulin), and the residual is the trace protein. The company has been able to produce the albumin, gamma globulin, prothrombin complex concentrate (PCC), FVIII factor, fibrinogen and fibrin glue and other products.

With the people's living standards improving and expanding need of blood products for the clinical application, it presents a situation of shortage supply of plasma products.

As the raw materials are directly collected from human plasma, although there is a rigorous screening for the donors, there are still known or unknown virus risks. For risk reduction, company imported foreign advanced technology and equipment for plasma collection and manufacturing as well. After that, company worked out a practical plasma testing scheme to make sure the raw material is safe enough.

Control examination of donors' plasma:

1. Measurement of haemoglobin concentration;
2. Determine total serum protein not less 60g/L;
3. Test for HbsAg, should be negative;
4. Test for anti-HIV, should be negative;
5. Test for anti HCV, should be negative;
6. Test for syphilis, should be negative;
7. Serological test for syphilis should be negative.



PICTURE 4. COLLECTING SYSTEM: PCS2 COLLECTING SYSTEM

For control the safety of collected plasma, Sxx Company follows the examination steps mentioned in last paragraph. The collecting system which is made in the USA shown in the picture above is used to exam the plasma step by step.

The company has a post-doctoral research station and Asia first-class blood products manufacturing plant. With GMP certificate from State Food and Drug Administration (SFDA) China, the strength of the company is in R&D and advanced production technology.

Most of the production equipment now being used are imported from Germany, America, and Italy. Multi-effect water & pure Steam Generator is made in Finland. The company has a stable relationship with all the equipment suppliers, and it is good for the company to get the latest equipment with the updated information. This is the basic condition to keep the production with an efficient performance. In the year 2010, company invested 26.5 million Yuan RMB to upgrade the production workshop, so that it can meet the latest requirements of the Ministry of Health and get the newest GMP certificate.

<i>Facility &amp; Equipment Name</i>	<i>Country</i>
Westfalia Special Clarifier for Blood Separator	Made in Germany
Freeze dryer	Made in Germany
Multi-effect Water & pure Steam Generator	Made in Finland
Liquid preparation filling line	Made in Germany
Pharmaceutical Steam sterilizing stopper	Made in Italy
Dry heat sterilizer system	Made in Italy
Ultrafiltration system& sterile filtration system	Made in U.S.A.
Automated Bioprocess system	Made in Sweden
Rotary screw compressor refrigeration unit	Made in U.S.A
Blood products detecting system	Made in U.S.A.
Blood products auto-control processing system	Made in Japan
Automatic packing system	Made in Italy

FIGURE 2. MAIN EQUIPMENTS FOR MANUFACTURING

Based on the advanced production equipment, combining the technology from the high performance R&D department, the company now can manufacture 10 kinds of high quality plasma products, which ranks second in this industry in China with product varieties.

Every year, Sxx Company invests about 20 million Yuan RMB to the R&D program to keep the company stay in an advanced position in R&D in the same industry. At present, the company has 3 new products under research, they are Human Coagulation Factor VIII, Recombinant Human Coagulation VII for Injection and Alpha-1-Antitrypsin Reagents. (Introduction of Shanghai Xin-xing Medicine Co. Ltd. English version, P9-P18)

## **4. THE 4PS ANALYSIS AND SWOT ANALYSIS**

Mostly there are some uncontrollable factors and controllable factors that affect the effectiveness of marketing activities of the enterprise. The Social / demographic, Technological, Economic, Environmental / Natural, Political, Legal, Ethical, Geographical Factor and other environmental factors, known as uncontrollable factors, which is the external environment faced by the enterprises. Another one is the factor company can control, such as product, price, place, promotion and other marketing factors, known as enterprise controllable factors.

"If the company produces the right products, set an appropriate price, use appropriate distribution channels and is supported by appropriate promotional activities, then the company will be successful." Said Philip Kotler in 2001.

The essence of enterprise's marketing activities is the process to adapting the external environment within a controllable internal factor, by planning and implementation of product, price, place and promotion to make a positive dynamic response for external uncontrollable factors, thus contributing to the business achievement and satisfy individual or organizational goals. ([U.S.] Philip Kotler, marketing management (11th edition) [M], P8, Chapter 1)

4Ps are described in the following text mostly from Chinese market point of view, the situation of international market and also Finnish market are introduced as well.

### **4.1 Product**

A normal product is tangible, physical entity that they can be buying or selling, but if you consider more deeply, there are actually three level of one product - the CORE product, the ACTUAL product, and finally the AUGMENTED product.

The core product is the part you can't touch or see, which refer to the benefit of the product that makes it valuable, plasma products as the medicine, it must be effective and it has to heal the disease. That is the value of it.

The actual product is the product you can see and touch, which can be used for some purpose. For plasma products, they are used for injection and infusion, which get into your body.

The augmented product means the added value of the products. After you use plasma products, the doctor will follow the consequent, if there is something wrong, they can give feedback to the manufacturer who is responsible for solving the problem. So it can also be understood as the after-sale services.

(Marketing lessons, three level of a product [ref 8<sup>th</sup>, November 2011])

Sxx Company ranks second in the China with products varieties, which means the company can manufacture 10 kinds of plasma products at present. 3 new products are under research; new products will get into the market in the following 2-5 years to match the increasing market demand.

Leading products: human serum albumin (mainly used to increase blood volume, maintain the plasma colloid osmotic pressure, transport and supply nutrition); human immune globulin (used to treat the indication of immunoglobulin deficiency); human prothrombin complex (used to treat the indication of factor II, VII, IX, X deficiency).

Products with manufacture and distribution permission: human fabric sealant (used to conglutinate, protect the wounds and stop bleeding); intramuscular injection human hepatitis B immunoglobulin (used to prevent hepatitis B).

In addition, now there are 3 new products under research, which will be put into production in the following years. At that time, they can make more profits for Sxx Company.

The first product is Human Coagulation Factor VIII which is used for treatment of A type of hemophilia. In 2009 the company obtained clinical approval number and completed clinical trials by 2010, and it's going to obtain production approval number in 2012. The cost of R&D for this product is 3 million Yuan RMB annually, after it is put into the market, it can make approximately 8 million Yuan/year net profit.

The second one is Recombinant Human Coagulation VII for Injection which is used for hemophilia treatment. During 2010-2013 the preliminary R&D work will be done. In the 2013-2014 test data files will be ready to apply for clinical documents of approval, and in the 2014-2017 it will apply for clinical approval documents to complete clinical trials, and implementation of product released. The investment of this project is 8-10 million Yuan RMB, and it will achieve about 8 million Yuan/year net profit.

The Last one is Alpha-1-Antitrypsin Reagents which is used for the treatment of emphysema. Company invests 5.311 million Yuan RMB in this product with the expectation of 6 million Yuan/year net profit. Application of clinical approval number will be done in 2012, in the year 2014 to obtain approval of clinical trials, in order to carry out clinical trials in 2015.

(Shanghai Xin-xing Medicine Co. Ltd. 12th Five-Year Development Plan, P17)

## **4.2 Price**

Depending on market positioning, develop different pricing strategies, the product pricing of the company is based on corporate brand strategy, focusing on the value of brand.

According to the position of competitors' existing products on the market, the company targeted the degree of attention of customers to the products characteristics or attributes, creating the deep impression of a distinctive and unique image for enterprise products. By vividly passing this image to the customers, so that it is left to the products to determine the appropriate position in the market.

Pricing objective of the company is to be as the active instrument of completing marketing objectives, which is the ensuring and means to achieve the overall goal of the business. (Philip r. Cateora; Mary c. Gilly; John I. Graham, International marketing (14<sup>th</sup> edition); P528, Pricing Objectives)

Price elasticity of demand in economics generally used to measure the changes of demand with the changes in commodity prices.

Suppose Q is a demand for goods, P stands for the price, the price elasticity of demand is calculated as Ed.

$$E_d = -\frac{\Delta Q/Q}{\Delta P/P} = -\frac{\Delta Q}{\Delta P} \cdot \frac{P}{Q}$$

When  $E_d = 0$ : perfectly inelastic

When  $0 < E_d < 1$ : lack of flexibility, not elastic or inelastic (inelastic)

When  $E_d = 1$ : unit elastic, unitary elastic, or an elastic constant (unit elasticity)

When: flexible

When: fully flexible or fully flexible (perfect elasticity)

Therefore plasma product is considered to be inelastic. Under normal circumstances, plasma product has been treated as necessities of life as indispensable, a small amount of the price change will not cause drastic changes in market demand. (Price elasticity of demand calculation method website)

Now company is using two pricing methods: Cost-driven pricing and Competition-driven pricing. They can be used both in domestic and overseas market.

Cost-driven Pricing takes product unit-cost as the basis, compared with the market price and considers the interests of shareholders to determine the price. The price may change flexibly with the fluctuation of manufacturing cost and market composite price. It is the most commonly used pricing method of the company.

Because the actual situation of limited collection of raw material plasma, so the volume of sales can be calculated. Under this condition, the company uses breakeven pricing to give the price, which means in the condition of fixed sales, the price of enterprise products must meet certain standards in order to achieve break-even point to keep profit and loss in balance.

Competition-driven Pricing is through studying Production conditions, service conditions, prices and other factors of competitors, according to company's competitive strength, cost and supply and demand to identify prices.

Today's blood products industry is highly competitive; any enterprise cannot achieve an absolute advantage by its own strength in the market. In order to avoid the losses caused by competition, especially price competition, company has adopted to follow the going-rate pricing. The company will maintain a price level of the average market price to get the average price paid.

In addition, using going-rate pricing, company doesn't need to fully understand the consumers' reactions to different price, and will not cause price fluctuations. (Shanghai Xin-xing Medicine Co. Ltd. 12th Five-Year Development Plan; P15-P17)

	<b>Standards</b>	<b>Prices</b>
<b>Human serum albumin</b>	10 g / bottle	310 Yuan RMB
<b>Intravenous immunoglobulin</b>	2.5 g / bottle	470 Yuan RMB
<b>Human prothrombin complex</b>	300 units / bottle	212 Yuan RMB
<b>Human fibrinogen</b>	0.5 g / bottle	150 Yuan RMB
<b>intramuscular injection hepatitis B immunoglobulin</b>	200 units / bottle	200 Yuan RMB
<b>Human clotting factor VIII</b>	200 units / bottle	400 Yuan RMB

*100 Yuan RMB= 11.75 EUR (23.11.2011)*

FIGURE 3. PRICES OF MAIN PRODUCTS

The data from the above figure shows the manufacturing cost of the main products of the company in China. Cost also is the basic reference when considering pricing in Finnish market.

When the company considers exporting products to Finland, there are many other things which need to be taken into consideration, such as the inflation, taxes, tariffs, exchange rate fluctuation, transport cost and so on. (Philip r. Cateora; Mary c. Gilly; John I. Graham, International marketing; P535 Price Escalation)

Consider the current situation of distribution of plasma products in Finland are most through the FRCBS, so the company may consider administered pricing. It is an attempt to make prices for the entire market, and always arranged through national, state government or international agreement. (Philip r. Cateora; Mary c. Gilly; John I. Graham, International marketing; P551 Administered Pricing)

### 4.3 Place

As the uniqueness of plasma products, the company does not directly face the final customers which are the patients. They usually focus on the cultivation of the distributor and the establishment of sale network. The contact of company with consumers can be carried out through distributors.

The company now has primarily established the distribution system all around China with some key regions; enlarging the sales team with high efficiency; building up the modern logistics center and information management system for distributions.

The customers are mostly the general hospital at Municipal level. The commercial distribution is the subordinate channel. Company has set up agencies or established the sales relationship in the key provinces in China.

Products also go to the overseas markets. Mostly the products finally sell to the hospitals and the health institutions, also some government health departments will be the distributor to distribute the products, the biggest one can be the Red Cross of each country. This is the way company used in international market.

Sxx Company exports products to Pakistan, Bulgaria, Peru, Thailand, Philippines and some eastern-European countries. Company now is trying to export to more European countries, enlarge the exporting quantity gradually and find more overseas agents. (Shanghai Xin-xing Medicine Co. Ltd. 12th Five-Year Development Plan, P7-P9)

When considering the exporting of plasma products to Finland, the Foreign Sales Corporation set up in Finland can be a good choice. There are lots of pharmaceuticals agents and middlemen that can cooperate with company, and also the government affiliated middlemen for example, the FRCBS. (Philip r. Cateora; Mary c. Gilly; John I. Graham, International marketing; P412 Foreign Sales Corporation)

#### **4.3.1 Distribution channel for plasma products**

Sxx Company has established the distribution system all around China with some key regions. There is modern logistics center and information management system for distributions of the plasma products.

The main distribution channel is directly to the hospitals and through the middlemen and agents which works by the front-line sales staff. The customers are mostly the general hospitals at Municipal level. The commercial distribution is subordinate channel. Company has set up agencies and established the sales relationship in the key provinces for domestic market.

For the overseas markets, Sxx Company exported products to Pakistan, Bulgaria, Peru, Thailand and Philippine, the exporting quantity is going to increase gradually. And company now is trying to find more professional overseas agents in European countries to expand the Europe market.

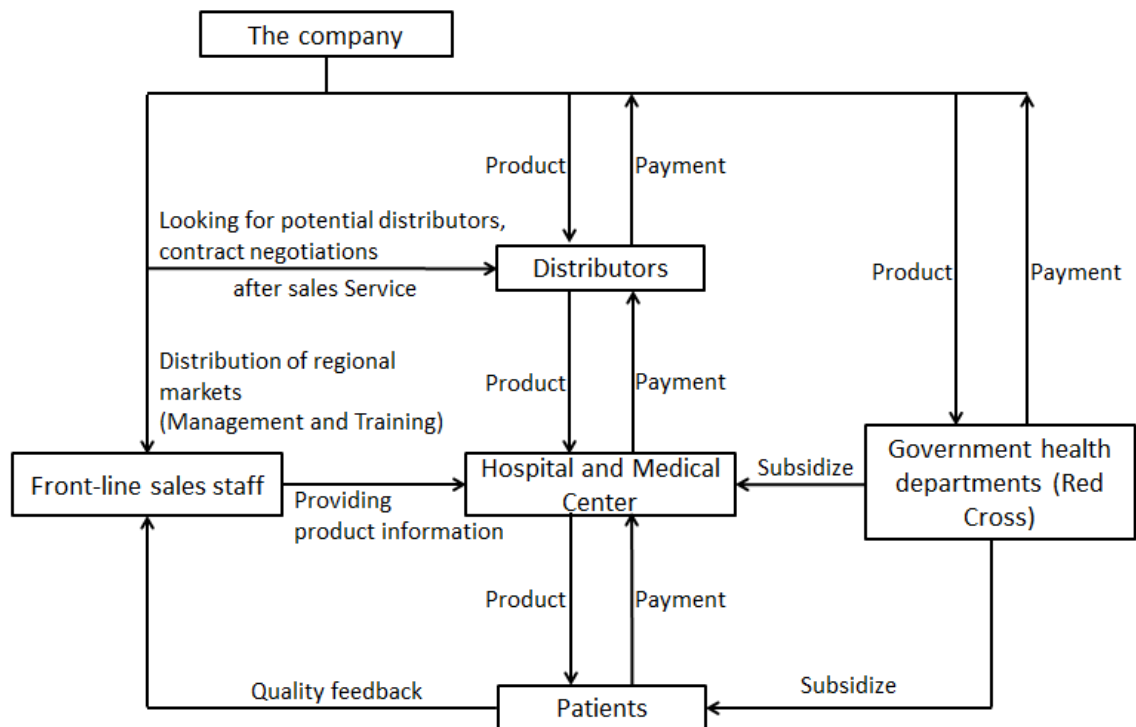


FIGURE 4. DISTRIBUTION CHANNELS OF PLASMA PRODUCTS

This picture above directly shows the distribution channels the company used in China and abroad. The products go to the final patients from the company.

There are two distribution channels being used for the company to sell the products, one is direct channel which company sell the products directly to the hospitals by the marketing department and logistics center of the company; another one is sell the products through the medical brokers and agents. (Shanghai Xin-xing Medicine Co. Ltd. 12th Five-Year Development Plan, P18)

#### 4.3.2 Direct channel

Direct channel is a model in which no middleman involved and the products are sold from company to consumer directly. Plasma products are single-use, technically complex products, so the advantage of direct channel is that the products can be targeted for production, which better meet the market demands.

As direct channels without intermediate links, it can reduce distribution costs, control the initiative of price, and actively participate in the competition. But there are also challenges with direct channels, such as manufacturers make large investments into selling, which are costly, and the scope of sale is restricted.

In the general situation, direct distribution channel is used for the domestic market (China), the front-line sales staffs go to the hospitals in the key region to promote the products. After dealing, the products will be transported to the target hospitals by the logistics center of the company as the contract. (Interview of vice general manager of Shanghai Xin-xing Medicine Co. Ltd.)

### **4.3.3 Indirect channel**

Indirect channel is the product through of one or more distributors of the business to consumers; it is the main form of the sales. For those products export to the foreign countries, the middlemen can be the brokers' agents or the government's organizations, such as the National Ministry of Health or the Red Cross.

The involvement of intermediaries, so reducing the number of transactions, distribution cost and time savings, prices can be lower. Agents of brokers focus on expanding the scope and circulation sales, company can focus on production, it benefits the entire community of producers and consumers.

Company takes advantage of other organizations' domestic distribution channels in foreign countries and marketing experience to quickly bring products to foreign markets, which achieves good time efficiency.

The indirect channels also reduce foreign exchange risk and a variety of export credit risks, the use of funds can be more secure. So considering Finnish market, indirect channel has more advantage compare with direct channel.

Its shortcomings are: because the involvement of intermediaries, so that communication between the manufacturers and consumers is inconvenient. (Interview of vice general manager of Shanghai Xin-xing Medicine Co. Ltd.)

#### **4.3.4 Management of distribution channel**

To construct a satisfactory distribution channel system is one key issue for the company to develop international markets. Manage the distribution channel system includes finding out potential middlemen who match company's demand, motivating them in reasonable way, evaluating middlemen and controlling them. (Philip r. Cateora; Mary c. Gilly; John I. Graham, International marketing; P415 Locating, Selecting, and Motivating Channel members)

##### ① Select the channel members

In general, a powerful manufacturer can easily find the suitable intermediaries, so does Sxx Company. As China's designated production enterprise, the company has cooperated with some big medicine middlemen in China, most of the products export will through those agents.

There are many factors affect the company chooses the channel members. It must reach the company's target market; geographical location must be advantageous; it should have market coverage which company needs; it has to be familiar with the sales objects and products; whether there is mutual promotion of products or competing products in the categories of goods that intermediaries is operating.

Financial size, credit level, length of operating history and experience of the intermediaries must be rich; business facilities the intermediaries owned such as transportation, storage conditions, sample display equipment should be in a good situation; they should have a certain number of employees, the quality must be in a high level; it's necessary that they have the sales ability and after sales service quality, management and information feedback capabilities have to be strength.

## ② Motivate channel members

The company not only selects the intermediaries, but also to motivate them to make them diligence. The factors and conditions of promoting dealers to enter the channels are components of incentive, but the company also pay attention to the criticism of intermediaries, criticism always put themselves in their shoes, and not only from the company's own point of view.

At the same time, company tried to avoid over-excitation (such as the conditions are too favorable to the intermediaries), and lack of incentives (such as the conditions are too harsh to intermediaries) both situation.

## ③ Evaluate channel members

In addition to select and encourage channel members, but also company must be regularly and objectively assessing their performance. If the performance of the channel is below the established standards, company needs to identify the main reasons, while also considering possible remedies.

Sometimes when to give up or replace the intermediaries will lead to worse results, the company has to tolerate this unsatisfactory situation. When it will not be any worse result, company requires the intermediaries with poor performance to improve in the period of time, or its qualification will be canceled.

## ④ Adjust sales channels

Based on the actual situation and the performance of channel members, the company adjusted on the channel structure some times: changes in the number of channel members; changes in the quantity sales channels; and other changes in the distribution system.

(Interview of vice general manager of Shanghai Xin-xing Medicine Co. Ltd.)

All the rules of managing distribution channels will also be used when products export to Finland. The middlemen whether in China or in Finland both will be managed with the same rule.

#### **4.3.5 Distribution in Finland**

Now there are two wholesalers in the nation-wide distribution of medicines in Finland. The hospitals can buy the company's products from only one wholesaler because of the one-channel principle. When company considers penetration into Finnish market, they must adapt to Finnish way.

Competitive bidding is the basic for hospital medicine purchasing, and "Public Procurement Act" stipulates that the public sector to follow strict procedural guidelines. No matter how the bidding is, the terms and conditions of the companies involved should be reasonable.

Under normal circumstances, the hospital district holds a large procurement ring, which finds out all tenders of pharmaceutical procurement and it including procurement of medicine in the next two years. (Pharma Industry Finland, hospital medicines [ref. 8<sup>th</sup> September 2011])

The procurement of plasma products can also be done through the bidding, but there are many other ways for the distribution as well.

Cooperating with Finnish Red Cross can be one choice, although now they have the partner agreement with Octapharma plasma Inc. to provide the Finnish plasma, but other company can direct provide their products for FRC to distribute the products to the hospitals.

Finding out some big Finnish medicine distribution agents can also expand the market in Finland. The agents are normally high experienced, and have the mature sales network in Finland, so that the sale of products can be efficiently.

Sometimes, there are some major government Ministries of Health cooperation projects between the countries, this is also a good opportunity to distribute the products, and Sxx Company is the country's designated production enterprise, so this method can be considered. (Pharma Industry Finland, pharmaceutical distribution [ref. 4<sup>th</sup> August 2011])

#### **4.4 Promotion**

With the growing market demands over the past few years, blood products have changed from a buyer's market to seller's market. In this condition, the blood products manufacturers would not do large promotion activities to promote the sales, but to promote the brand to improve the brand image.

Sales promotion is to motivate consumer purchases and develop the effectiveness of middlemen. Promotion choices available for B-to-B market are not as extensive as those used in the consumer markets. The ways that can be utilized mostly are price-reductions, product sampling and trade fairs. Among these three choices, trade fairs are by far the mostly widely used sales promotion for B-to-B marketers. (Philip r. Cateora; Mary c. Gilly; John I. Graham, International marketing; P464 Sales Promotions in International Markets)

Publicizing the new products to hospitals and the middlemen which competitors don't have is the first choice for the company to do. Now company has 3 new products in research, so it's very important to get the clinical validate approval as soon as possible.

Sxx company uses also some other methods for promotion when get into the international market. The first method is to send the samples products to the distributors or the hospitals in target market with detailed description letter and Insurance Statement. After using or evaluating of the samples, the hospitals or distributors can know the advantage of buying the products from the company.

The second method is to participate in some large medicine fairs to show the products and build the image of the company. Sometimes, the company even can be the sponsorship of special events to improve the brand image, especially some international charity activities which the products of the company can be used. This way can be used both in China and in Finland.

In domestic market, the first-line marketing staffs do the promotion to the hospital by regularly sending the newest information of the products to the drug administration department of the hospitals. And also they collect the information about the competitors, such as the price and the species of products.

For the promotion of exporting products, company sometimes draw support of Chinese embassies, reached an agreement with target place government health departments to import the products of the company. When consider Finnish market, get the cooperation or partner relationship with FRCBS can help a lot for the marketing of company in Finland.

(Interview of vice general manager of Shanghai Xin-xing Medicine Co. Ltd.)

#### 4.5 SWOT Analysis of the company

<b>Strengths</b>	<b>Weaknesses</b>
<p>1. Company is the China's designated production enterprise, while pharmaceutical sales network covering the whole country and some other countries, guaranteed product quality and sales;</p> <p>2. The company has a post-doctoral research station, with GMP certificate from SFDA China and Asia-class level blood products manufacturing plant, which is strong in research and has the advanced production technology.</p>	<p>1. Now company has only 2 plasma collection stations, lack of the raw material for production;</p> <p>2. Less of incremental capital accumulation and asset, compare with the enterprises in the industry, the ability of fund operations of the company is at the lower level.</p> <p>3. Company now doesn't have the EU-GMP certificate.</p>
<b>Opportunities</b>	<b>Threats</b>
<p>1. Plasma products as a blood substitute, have broad market prospects;</p> <p>2. This approximately \$ 10 billion global market provides an attractive space for the enterprises, who master blood products production technology;</p> <p>3. With further improvement of people's living standards and medical conditions demand further improved, high demand for plasma products will gradually increase, SXX company will get good opportunities for development and external environment;</p>	<p>1. China National price departments have substantially and continuously adjusted of medicine prices, related policies have been put forward, which brings a great deal of influence for profitability of the industry;</p> <p>2. The international pharmaceutical industry, especially in blood products industry is highly competitive.</p>

FIGURE 5. SWOT ANALYZE OF THE COMPANY

## 5. FINLAND

<b>Year of EU entry</b>	1995
<b>Political system</b>	Republic
<b>Capital city</b>	Helsinki
<b>Total area</b>	338 000 km <sup>2</sup>
<b>Population</b>	5.3 million
<b>Currency</b>	Euro
<b>Official languages</b>	Finnish, Swedish



FIGURE 6. OVERVIEW OF FINLAND

PICTURE 5. FINLAND MAP

(EUROPA website, EUROPA > About the EU > Countries > Member countries > Finland [ref. 20<sup>th</sup> August 2011])

### 5.1 General information about Finland

Finland is located in northern Europe. Bordering of Sweden, Norway and Russia, the Gulf of Finland to the south, the west is Gulf of Bothnia. Finland has coastline of 1100 km. Terrain is from north to south. Area of inland water area accounting for 10% of the country, there are islands of about 179,000, about 188,000 lakes, which has the name "country of thousand lakes". 1 / 3 of the national land are in the Arctic Circle. It's a temperate maritime climate. Average temperature in winter - 14 °C -3 °C, summer 13 °C -17 °C, the average annual rainfall 600 mm.

The earliest residents of the Finnish are Lapps, so that Finland is also known as Lapland. The latter half of the twelfth century Finland was by the Swedish rule. After 1809 Russia and Sweden war, Finland belong to Russia and became the Grand Duchy. December 1917 the Republic of Finland declared independence.

Finland is a country of gender equality. Finnish women got the right to vote as early as 1906 and other equal political rights with men. Today, many Finnish women are in key positions in politics: in 2003 parliamentary election, 76 women were elected as members. There are 18 ministers in the government 8 of them are female, and even the President of the country is also a woman.

Education of Finland is highly developed. Compulsory education system carried out since 1921. Implement of nine years of consistent system of compulsory, free education in the country since 1980. In 2003 education budget for 5.786 billion euros, this is 15.7% of the total government budget.

Finland now has an advanced and modern economy system; especially the telecommunications equipment industry brings about huge economic income, for example, Nokia is the leader in mobile phone market. Finland has high forest coverage, so that the paper making industry is the main industry in Finland as well. (Baidu website, Introduction of Finland [ref. 20<sup>th</sup> August 2011])

## **5.2 Finnish economy**

Since 2010, with the gradual recovery and developed of global economy after 2009 global financial crisis. Effect of Finnish government's economic stimulus measures appearing, Finnish economic recovery has been strengthen, economy had continued to show solid growth.

According to preliminary data by Finland Statistics center, after the sharp economic downturn 8.2% in 2009, Finland 2010 GDP reached 180 billion euros, which is an increase of 3.1%. Although the first quarter fell by 0.8%, but the second and third quarters of economic growth were 3.7% and 3%, after entering the fourth quarter, growth accelerated, October to December growth rate was 5.5%, 7.5% and 7.2%. As a small open economy, Finland economic growth remains highly dependent on world economic recovery and trends. (Travel Document Systems, Finland Europe, ECONOMY [ref. 22<sup>th</sup> August 2011])

Benefit from the Finnish government food tax reduction and other economic stimulus measures, consumption continued the growth momentum since the second half of 2009, 2.6% annual growth in private consumption, public consumption growth being 0.4%.

Biopharmaceutical industry which includes the plasma products is one of Finland's core competencies, its annual market sales as high as 16 billion euros.

Online shopping has become a new bright spot in Finland public consumption, the 2010 expenditure of nearly 100 million euros, mainly consumer items, including tourism, transportation, gaming, accommodation, electronic products and clothing.

Consumer confidence index continues to rise, reached 23.0 in September 2010, which is a high record. Investment growth of 0.8%, which benefits from substantial increase in investment in housing construction, and private investment increased by 3.5%.

In the situation of international markets getting warmer and warmer, Finland's foreign trade resumes growth, import and export of one-month continued to increase and improve. According to Finnish customs statistics, total foreign trade of Finland throughout the year 2010 was € 103.9 billion, up 17 percent, with exports 52.4 billion euros, up 16%; imports 51.5 billion euros, an increase of 18%. Export growth is mainly affected by chemical, metal and machinery manufacturing industry to promote, the growth of major imported commodities such as crude oil, petroleum products and concentrates, etc.

2010, Finland's top three trading partners were Russia, Germany and Sweden, the top three export destinations being Sweden, Germany, Russia. Finnish trade with China was € 64.7 billion, up 21 percent over the previous year; China is Finland's fifth largest trading partner, just after Netherlands. Finnish imports from China were € 3.78 billion, which increased 9%, exports to China were € 2.69 billion, an increase of 45% in 2010.

In addition, annual foreign direct investment to Finland was 35.2 billion euros and foreign investment flows was -3.7 million euros which was negative. That shows that foreign enterprises interest in investing Finland has reduced, the scale of investment has also been shrink. (ifeng.com, 2010 Finland economy situation [ref. 23<sup>th</sup> August 2011])

### **5.2.1 Finnish business culture**

In Finland to become a successful entrepreneur, you have to be familiar with the rules of the Finnish business culture, attitudes and habits. There are lots of characteristics of the Finnish society which use Europe-style and the individual as the center.

Finns are good at rational use of time. They have strict timetables or other scheduling, but also want others to comply with the time. Finns are relatively cautious, before negotiation they will collect background information in advance, but can make a decision quickly.

They distribute powers and responsibilities flexibly. Work style of Finns is consistent with their way of how to think. Therefore, they sometimes avoid some unfamiliar ways of doing things.

In Finnish society, everyone is equal. Sense of distance caused by the power is not strong; people usually address each other directly by first name. Men and women are equal. Everyone are willing to settle disputes through negotiation, all parties are satisfied for the results.

When negotiating with Finns, understand your own value, but do not be complacent, modest is better; do not expect there will be feedback on your comments; try to stop from time to time in the conversation, relax, and treat it as a positive thing; if there is opportunity to try to go to sauna. Afterwards you can go out together with a cup of cold drink.

To achieve common goals when doing business in Finland, you should have clear objectives, clear process, and clear division of responsibilities; trust the wisdom and perseverance of others, let them solve the problem themselves. Finns do not like over-regulation. They like to solve their problems by their own.

Finns like to talk to the people has a good sense of humor, cultural differences can be discussed. The last thing to remember is demonstrate a genuine interest in Finnish culture.

When doing business with Finns, you have to be familiar with Finland and the Finnish products, at least to know Nokia phones. Another is that personal dignity is very important for Finns. Although the Finns do fast decision-making process, but once a decision becomes difficult to change, unless there are good reasons. (Communicaid Group Ltd. 2009, Finnish Social and Business Culture)

### **5.3 Finnish Healthcare sector**

Finnish government enacted the "disease Health Insurance Law" in 1963 and provides for implementation and Management by the Ministry of Social Affairs and Health. Objects to enjoy health insurance for people are citizens or who have obtained the nationality of the immigrants. There is no nation, age, income and occupational differences.

With local healthcare authorities, people who enjoy health insurance all have an insurance card, so that they can enjoy free or relief medical treatment care. Many public Finnish welfare organizations were operated by the state or local government. 80% of welfare facilities, equipment cost are contributed by the state and local government, and the remaining 20% self-financing by the operator.

5 provinces and one autonomous region have set up provincial Department of Social Affairs and Health, which is responsible for managing and coordinating provincial health care services and hospital management issues. Cities, towns, communities also have the appropriate health authorities, responsible for local health care.

Small hospitals get the support of each other and also from university hospitals and central hospitals. Urban hospitals and rural hospitals co-ordinated and common development, thus it ensure the residents of the country all has rights to enjoy the health care system, wherever you live.

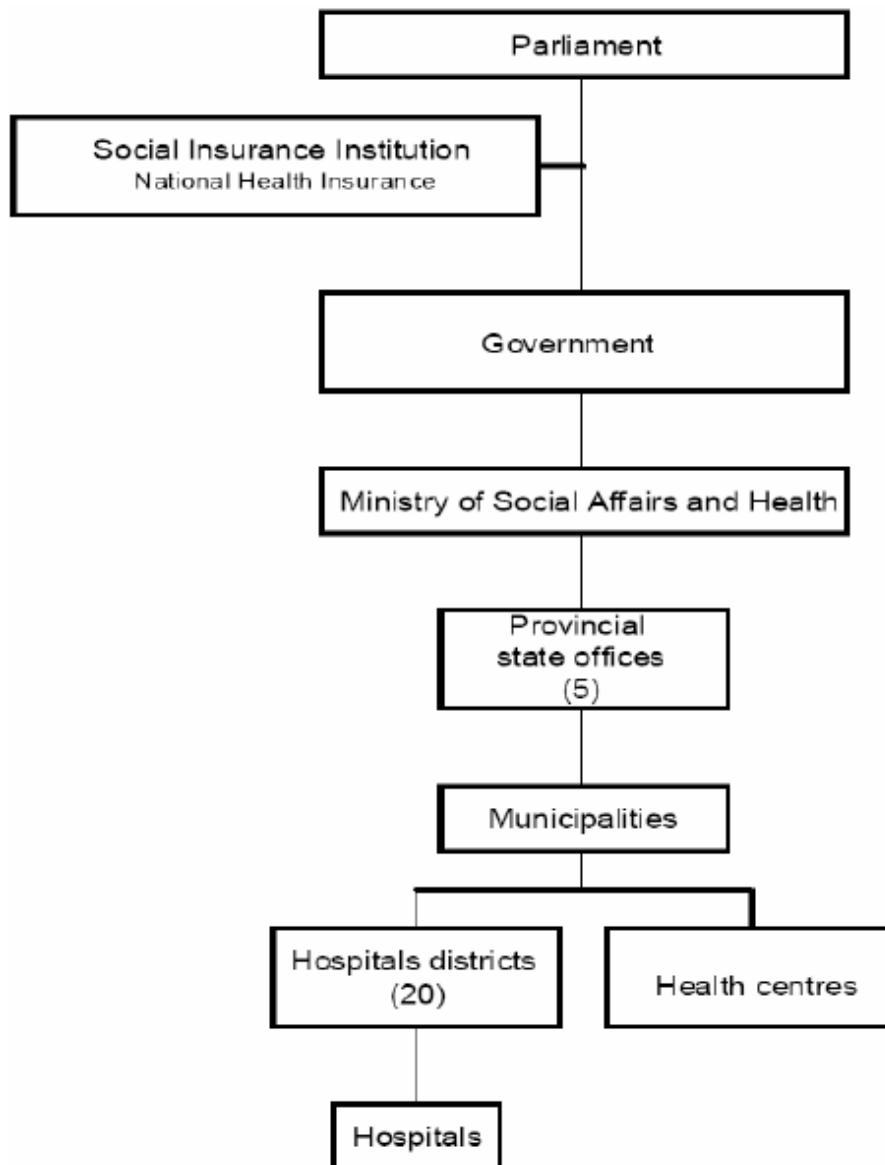


FIGURE 7. ORGANIZATIONAL CHART OF HEALTHCARE SYSTEM

An important feature of Finnish health service system is the focus of universal health care and prevention, primary health care network throughout the country to ensure that the urban and rural residents have equal access to health care, prevention and care services.

There are also several agencies and institutions in the social welfare and health care sector that work for research, development, statistical and supervising functions. These agencies and institutions all cooperate with Ministry of Social Affairs and Health. These agencies and institutions are:

- National Public Health Institute (KTL)
- National Agency for Medicines (LL)
- Centre for Pharmacotherapy Development (ROHTO)
- National Research and Development Centre for Welfare and Health (Stakes)
- National Product Control Agency for Welfare and Health (STTV)
- National Authority for Medicolegal Affairs (TEO)
- Radiation and Nuclear Safety Authority (STUK)
- Insurance Supervisory Authority (VVV)

(Brochures of the Ministry of Social Affairs and Health 2004: 11, Health Care in Finland; P6-P7)

#### **5.4 Competition of plasma products in Finland**

Plasma products each year could save thousands of lives in Finland, it greatly improved life expectancy and improving quality of life of dying patients, and support complex medical and surgical procedures.

Biotechnology is in the same statue as information technology. The government of Finland placed it on the highest priority of high-tech programs. Since the 1980s, the Finnish government started to pay attention to the investment of biotechnology science industry. In early 1990s, the government of Finland has started to support the development of biotechnology science and technology strategy, and increase investment in life science research.

Nowadays, the investment of Finnish biotechnology science industry in R&D is about 200 million euros each year, equivalent to 13% of total public R&D investment.

Plasma products industry as one important part of the biotechnology science also is treated as major program by the Finnish government. Under this condition, the hospitals and healthcare centers in Finland mostly use the local Finnish plasma products. So the Finnish brand takes the highest market share in Finland.

Finnish Red Cross Blood Service is the biggest nationwide blood products provider. Since 2010, all Finnish plasma collected will be delivered to Octapharma plasma Inc. for production with the partnership agreement. After that Blood Service supplies medical plasma products to hospitals and pharmacies based on their orders. (Finnish Red Cross Blood Service Annual Report 2010, P10)

Other world leading plasma products manufactures occupy a certain market share in Finland as well, such as: Talecris, CSL Behring, Baxter and so on. These foreign companies normally sell their products through the brokers to the hospitals, so there is the challenge to the Finnish local brands. But now the plasma products market is seller's market, so compared to that when it was buyer's market years' ago, there is less intense competition in the market. (Research Report of Produce and Sale and Investment Analysis on Chinese Blood Products Industry 2008, P136)

## **6. THE MARKETING RESEARCH**

The implementation of the marketing research of this study was done in May 2011, the time was planned before the study by discussing with the supervisor, and the questions in the survey-questionnaire were decided at the same time as well. Language for the questionnaire was English.

20 hospitals were taken into research include 5 university hospitals, 7 central hospitals and 8 local hospitals. Hospitals' contact information was found from the Finnish yellow pages and some hospitals own websites.

### **6.1 Research methods**

Both quantitative and qualitative methods were used as the research methods in this research. The subjects for quantitative research method are normally a large group. In this study target organizations were all the hospitals in Finland. Those 20 hospitals which were selected into study are mostly the national hospitals or main hospitals in that area.

Two interviews were used as the qualitative method part. The first interview was done with one director of FRCBS by e-mail in May, the second was done with the vice general manager of the case company in July. The purpose of the interview is to get more information of the biggest distributor (FRCBS) of plasma products in Finland, and also to know more about the operation of the case company.

### **6.2 Research problem and goal**

The client of this study was Shanghai Xin-xing Medicine Co. Ltd. which manufactures various kinds of plasma products. The goal of the study is to clarify the method of marketing Chinese plasma products in Finland, so that the company could get more information about Finnish market what the company should do to expand into the new market.

The main research problem in the study is:

- What is the method of marketing Chinese plasma products in Finland?

There are also some sub questions of the study are:

-Are there now Chinese plasma products used in Finland?

-What factors affect the hospitals when they select plasma products?

-What is the competitive advantage of Chinese plasma products?

-Is there possibility that the case company could cooperate with FRCBS?

-Are the hospitals in Finland planning to use Chinese plasma products in the future?

### **6.3 Validity and reliability of the research**

The marketing research of marketing Chinese plasma products in Finland is valid and reliable in some certain question, which got same answers of the 5 responses. But consider the fact situation that some of the answers weren't received back it may cause by language effects. The research measures what it is supposed to measure.

The questionnaire was sent to 20 main hospitals in Finland which 5 hospitals gave the responses on time. So the return rate of this study is 25%. Response rate could have been higher if questionnaire has Finnish version.

Low response rate were caused by language barriers mostly, because the questionnaire was only done in English version. And another reason is the scope of the research was relatively small, only 20 hospitals were taken into the research.

The questionnaire is given in the appendices part in the end of the thesis, it is easy to see the questionnaire is clearly structured and easy to follow, and there are no confusing questions included.

## **7. ANALYSIS OF ENVIRONMENTAL FACTORS IN FINNISH MARKET**

Market opportunity exists in all aspects of social life which is varied. But for the enterprise, the large number of market opportunity, only a small part has practical significance.

Two factors affect the marketing method, one is product, and another is the environment. Through study for these two factors and other related factors, the company can better grasp the market. (Philip r. Cateora; Mary c. Gilly; John I. Graham, International marketing; P11 the international marketing task)

### **7.1 Product factors**

The plasma products is made of the human plasma, and currently there are more than ten kinds of the plasma products, such as human serum albumin which is mainly used to increase blood volume, maintain the plasma colloid osmotic pressure, transport and supply nutrition; human immune globulin which is used to treat the indication of immunoglobulin deficiency; and human prothrombin complex which is used to treat the indication of factor II, VII, IX, X deficiency.

By studying the result from the marketing research, now species of products that Finnish hospitals are using are approximate Human Albumin, Human Immunoglobulin, Intramuscular, Human Tetanus Immunoglobulin, Human Hepatitis B Immunoglobulin, Human Immunoglobulin (pH4) for Intravenous Injection, and Human Coagulation Factor VIII. (Result of the Marketing Research)

Products mentioned above are all Sxx company now can manufacture, this will be an advantage for the company to expand the market.

Distribution channels for the plasma products sales is through the medical agents, they get the products from the manufacturers and sell the products to the hospitals or healthcare centers. Most foreign brands sell their products in that way. On the other hand, some products are distributed from the Finnish Red Cross to reach the hospitals, basically those products are manufactured by Octapharma plasma Inc. which uses Finnish plasma.

Hospitals often use to import the products is through the Finnish Red Cross and very little get products from the medical agents. This is because the FRC is the nationwide plasma products provider and has the network covering whole Finland. The quality and delivery time of products from the FRC can be guaranteed.

Quality and the time of deliver products to be considered for most of the hospitals, but there is also another important factor which is price of the products. Shortage of plasma products leads to the price rising, the market can change from the buys' market to sells' market.

If compare the price with the products manufactured in European countries, the price is another competitive advantage for the company, it's all because of the low labor cost and the government support.

## **7.2 Environment factors**

Environmental factors also affecting the method of marketing the products, and this factor is more complex. But many companies get good performance in the market through intervention of environmental factors. (Philip r. Cateora; Mary c. Gilly; John I. Graham, International marketing, P10)

## **Macro-Environment**

Population of Finland is approximate 5.3 million. There is certain population of ageing which is a major problem for the Finnish government to face. But at the same time, there shows another market demand for the plasma that is the elderly homes.

Finland is well-known high-welfare country. People from birth have enjoyed the health benefits and subsidies from government of Finland. When people get sick and go to the hospital or after they retired and go to the home for the old people, they don't need to worry about the cost. This social situation refers that the Finnish hospitals also get the subsidies from government, so that they can reduce the financial pressure. (Brochures of the Ministry of Social Affairs and Health 2004: 11, Health Care in Finland, P5)

Pharmaceutical Administration Department of Finland is National Ministry of Health is responsible for medical supervision. In Finland, you need to obtain permission from this agency to carry out the production of pharmaceutical products, import, wholesale and retail.

Pharmaceutical Administration accepts the public complaints for pharmaceutical products, and they also supervise and inspect the quality of medical products and raw materials quality.

"Medical Law" stipulates that it is forbidden to do falsify or exaggerate publicize in the composition of the product, raw materials and efficacy. If a violation in the sales process in the above provisions, the Board will order to stop selling that medicine and there will be the punishment of relevant personnel. (Brochures of the Ministry of Social Affairs and Health 2004: 11, Health Care in Finland, P20)

## **Micro-Environment**

Plasma collection of blood services faces enormous challenges worldwide, now the hospitals need to provide adequate plasma products to meet the needs of patients, which means there is big market demand for plasma products.

Shortage of plasma products is an indisputable fact. Sometimes there might have some illegal channels for the distribution for the plasma products which is the black market. To solve this problem, Finland has formulated strict laws to effectively regulate the medicine market.

### Suppliers' analysis

The changes of resources (Raw materials, auxiliary materials, equipment, energy, labor, capital, etc.) directly affect to enterprise product output, quality and profits, thus affecting the corporate marketing plan and marketing goals. So the stable delivery of resources can make the company complete the goal better.

Company now has two own subsidiary stations of sole plasma collection, so the raw material plasma delivery can be always stable. Production equipment are all import from foreign large enterprises, and the company regularly check equipment operating conditions, to keep them running well.

Now it's necessary for the company to build more stains of plasma collection to keep plenty supply of raw material, and improve the standards to meet the Finnish or European qualification.

(Shanghai Xin-xing Medicine Co. Ltd. 12th Five-Year Development Plan, P5)

### Enterprise internal department analysis

Work and coordination of various functional departments within the enterprise, can directly affect the entire marketing activities. When company in developing marketing plans, marketing activities, and executives can coordinate and handle the contradictions and relationships among the various departments very well. Each department can effectively communicate, coordinate, and create a favorable business environment and make the greatest efforts to achieve marketing objectives. (Shanghai Xin-xing Medicine Co. Ltd. 12th Five-Year Development Plan, P22)

### Marketing intermediaries' analysis

Company chose qualified intermediaries and established a good working relationship with them. Understanding and analysis intermediaries' business activities, and take some incentive measures to promote their business activities.

There are also advertising media operating companies, market research companies, marketing consulting companies, financial companies and other organizations which provide professional services for Sxx Company. They help the company to establish market positioning, marketing efforts, provided to facilitate the activities.

The company has its own logistics center but normally it's used for the domestic marketing activities. So for the export marketing, company has signed contract with several big warehousing companies and transportation companies to export the products to the target market. To find out some professional blood products logistics company can be used for entering Finnish market when considering deliver products to Finland in low risky situation.

### Financial Analysis

The primary function of financial institutions (banks, trust companies and insurance companies) is to provide finance and insurance services for the company's marketing activities. Now the company has the cooperation relationship with some big national banks, and it's the country's designated production company so company has the high credibility. (Interview of vice general manager of Shanghai Xin-xing Medicine Co. Ltd.)

### Competitors Analysis

There are certain numbers of competitors in the Finnish market, such as Octapharma plasma Inc., Talecris, CSL Behring, Baxter, Bayer and so on , and they are all the large plasma products manufacturers even the world marketing leader. So there is really intense competition.

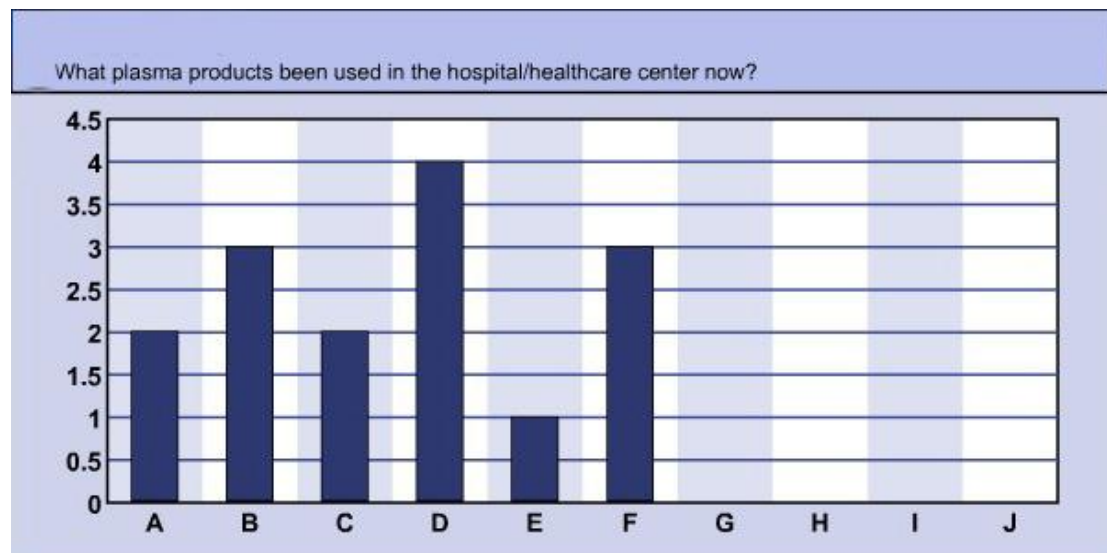
Those enterprises are mostly European companies, they have many advantages compare with the case company, no matter the plasma storage, enterprise-scale and distribution channels, they are much better than Sxx Company.

Now the basic advantage the company can grasp is the price. And if the company can cooperate with the FRCBS, then the products from China can keep stable delivery to Finnish market. This can be the best way for the company to enter Finnish market by first step. (Research Report of Produce and Sale and Investment Analysis on Chinese Blood Products Industry 2008, P136)

## 8. MARKET ANALYSIS FOR CHINESE PLASMA PRODUCTS IN FINLAND

Based on the given results of the questionnaire send to the 20 hospitals, there were 5 hospitals gave the response to the survey, so the return rate is 25%. The reason for this return rate which is not so high might be the language effect.

There are some charts made from the results of the question in the questionnaire, which can be helpful to evaluate the future market in Finland.

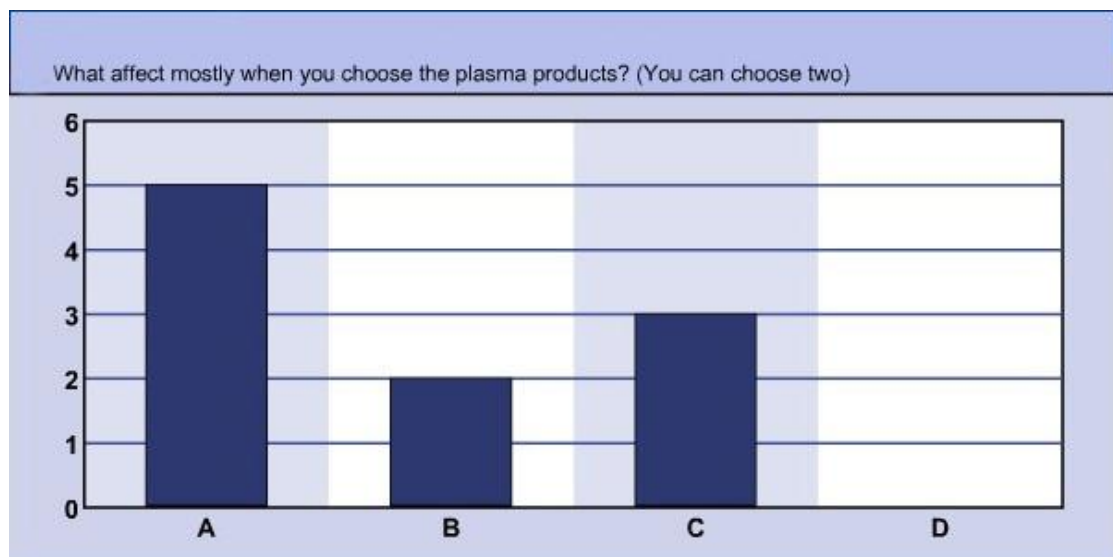


- A) Human Albumin
- B) Human Immunoglobulin, Intramuscular
- C) Human Tetanus Immunoglobulin
- D) Human Hepatitis B Immunoglobulin
- E) Human Immunoglobulin (pH4) for Intravenous Injection
- F) Human Coagulation Factor VIII
- G) Human Prothrombin Complex
- H) Surgical Lyophilized Fibrin Sealant,
- I) Human Thrombin, Lyophilized for external use
- J) Other

FIGURE 8. PRODUCTS HAVE BEEN USING NOW

From figure 5 one is able to see that the product Human Hepatitis B Immunoglobulin has been used in most of the hospitals, and the Human Immunoglobulin, Intramuscular and Human Coagulation Factor VIII are also widely used than other products. Some other products which now is under research level of the company not been used in Finnish hospital yet, such as Human Prothrombin Complex and Surgical Lyophilized Fibrin Sealant.

Combination of the aforementioned, the 6 kind plasma products now have been used in Finnish hospitals are all those products which the company can manufacture. In addition, in order to make the company more competitive, research strength should be an advantage to accelerate the development of new products.

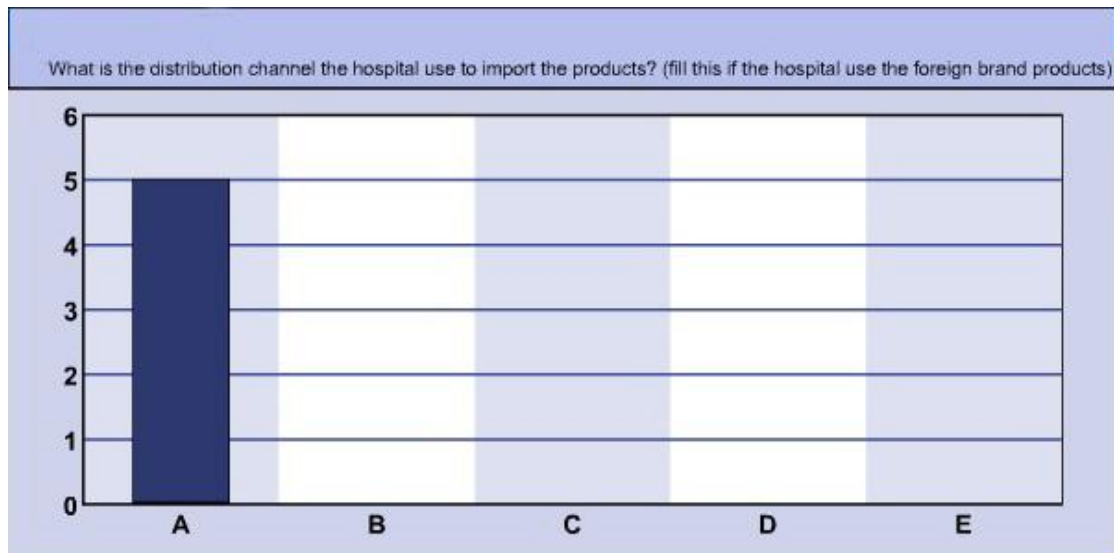


- A) Quality
- B) Price
- C) Time of delivery products
- D) The promotion of some medical brand

FIGURE 9. FACTORS THAT AFFECT PRODUCT SELECTION

The above figure shows that the factors that affect the hospitals when they choose the plasma products. Quality always has been taken into consider at the first place, all the 5 hospitals who gave response thought quality is the most important for them. Then 3 out of 5 respondents thought the delivery time is the second factor affect. After those two main factors, price is also important for some hospitals, especially the private hospitals which don't have so much funds compare with the national hospitals.

At the same time it's easy to see that for this special biopharmaceutical product, the promotion cannot be of much effect. So the company can handle the price advantage to provide the products with the same quality but a lower price.



- A) Finnish Red Cross
- B) Wholesalers
- C) Manufactures

FIGURE 10. DISTRIBUTION CHANNEL NOW BEEN USED

This chart shows a clear situation that all the five hospitals who answered the questionnaire, their distribution channel to get the plasma products are all from the Finnish Red Cross. It is clear that the FRC blood service has a large effect on hospitals in Finland, and their network covered nationwide. On the other hand, because of the partnership contract, Octapharma plasma Inc.'s product can be most competitive in Finnish market.

There is another thing need to mention is that one answer from one of the directors from FRCBS, when asked "If it is possible to use Chinese blood products in the future?" he answered "This question is not so relevant for FRCBS, but of course some of our customers might be interested in to use Chinese blood products."

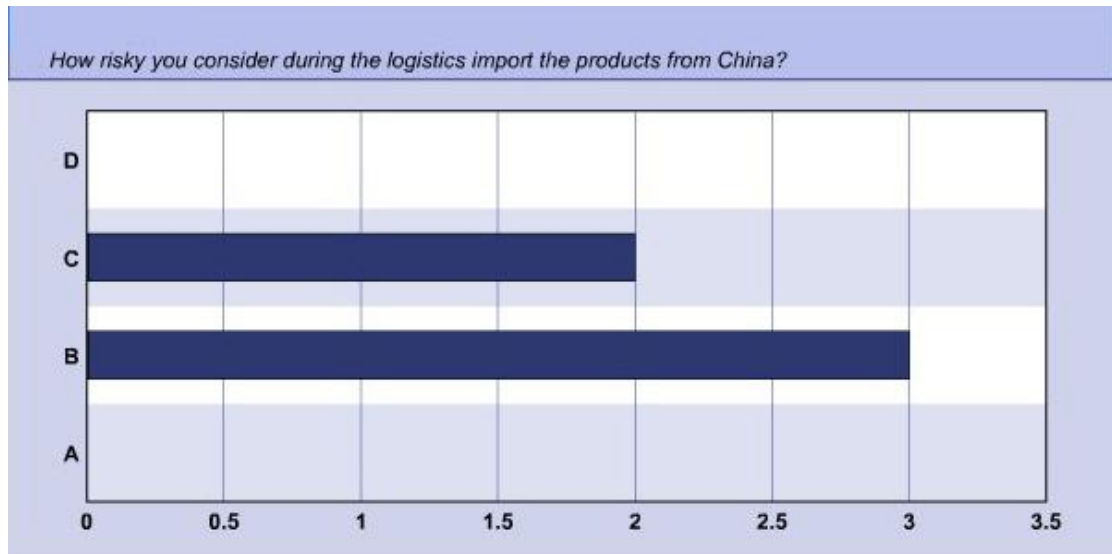
It also explains there should be some opportunity for the Chinese plasma products in Finnish market, and even it can be the cooperation program with the FRCBS.

### **8.1 The risk of plasma products import**

Plasma product as one of the special products, most of the products should be stored in a low temperatures environment, and the transportation must be also in the same condition.

The most rapid way of transportation should be as fast as possible. To shorten the transport time, but the safety should be taken into consideration at the same time.

There is also the requirement for the seasons of the year when transport the products. It's best to use refrigerated transport method and avoid delivery of products during summer. If it is in winter, transport should be taken to prevent freezing of product.



- A) Very risky  
 B) Risky  
 C) A little risky, but not affect so much  
 D) Not at all risky

FIGURE 11. RISKY OF IMPORT FROM CHINA

Above figure is one question in the questionnaire sent to hospitals, most of hospitals though it's risky to import the product from China. The factor that affects this answer can be the logistics distance. The air transport distance from Beijing the capital city of China to Helsinki is approximately 6300 km, and this is the fastest way to deliver the products but it also costs more when compared with shipping and road transportation.

The long distance the higher risky level it has, that is why some hospitals thought it is risky, but there are also some hospitals which thought that it won't affect so much if everything can be done in accordance with the strict requirements.

If Sxx Company would cooperate with FRCBS, the products will be transported to Finnish Red Cross and after that it will delivered to hospitals. So if the company, FRCBS and the hospitals can choose the best logistics method, the transport risk can be reduced to very low.

## 8.2 Market needs of plasma products

**Blood and cell products for hospitals, 2007–2010**

<b>Product, units</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Red blood cells	252,543	252,692	251,199	248,884
Platelet products	153,708	37,473	39,929	41,659
Combined blood products	606	668	543	308
White blood cells from whole blood	566	444	436	520
Frozen plasma	14,469	55	10	21
<u>Octaplas</u> plasma products	31,567	52,917	50,402	53,163

FIGURE 12. BLOOD AND CELL PRODUCTS FOR HOSPITALS 2007-2010

This figure is made based on data collected from the Finnish Red Cross Annual Report 2009 and 2010. It shows the quantity of blood and cell products all Finnish hospitals used over the past few years.

From the chart it is clear to see that except the frozen plasma and plasma products from Octaplas, number of all other products used in the past few years (2007-2010) has remained stable. The use of frozen plasma got a sharp decline after 2007, at the same time, use of plasma products increased sharply. The reason for this phenomenon is that with the demand of plasma products from that time began, the FRC basically put all the frozen plasma into Octaplas Inc.'s production to manufacture the plasma products. (Finnish Red Cross Blood Service Annual Report 2009 and 2010)

### **8.3 Export of Chinese plasma products prospects analysis**

International market is a wide market, there are two different situations: one hand the developed countries in the context of meeting their own needs and also occupy the largest share to export products to developing countries; on the other hand, most developing countries are unable to produce blood(plasma) products, they had to rely on imports.

Blood products in the international market, Europe accounted for 40% of the share, the United States and the North American continent is about 41%, Asia-Pacific continent is 8%, Japan 5%, 6% for the rest of the Indian subcontinent and other markets.

As the relatively high standard of plasma products of the market in Europe, North America, Japan and other countries and regions, such products from China and other developing countries is difficult to access. Therefore, China's plasma products exports are more to international non-mainstream market-oriented, such as Southeast Asia, the Middle East, Indian subcontinent, Mexico and Africa.

With the increasing living standards in developed countries and development of the economy in developing countries, the need for plasma products will gradually expand. But at present, compare with other big countries, China's plasma products export volume is still very low. The main reason for this situation is that most plasma product enterprises in China have not yet obtained the recognized quality certification from the importing countries.

So that the company should intensify its work in this area, based on the GMP certification in China, strive to achieve the internationally or developed countries' recognized quality certification, most important is the European Union EU-GMP which is used in Finland, WHO-GMP and U.S. FDA-GMP standard.

Because China's large population base, which means that the reserves of raw materials plasma is also a large volume, once China's plasma products achieve such certification, it can be certain competitive in the developed countries' market.

(Research Report of Produce and Sale and Investment Analysis on China Blood Products Industry 2008, P185)

## **9. RESEARCH RESULTS: ADAPTATION IN FINNISH MARKETS**

The main conclusion of this study is that recently there is no market for the Chinese plasma products in Finnish market, but in the future years, there is certain market for Chinese plasma products in Finland.

By analyzing the marketing mix (4Ps), consider for “place” factor. The best method Sxx Company can use to expand Finnish market is to adapt the Finnish way, which means if they would cooperate with FRCBS to distribute the products can be the best choice.

The main reason is the market demand of plasma products is continue increasing in Finland and the customers of FRCBS may wish to use the Chinese plasma products. But considering the “product” factor, company has no WHO-GMP or EU-GMP certificate now, but it is possible to get them in the following years. After that the plasma products from China can take market share in Finland as well.

In “promotion” factor, if the company wants to get into Finnish market in simple way, select a good way for promotion is also important. They may consider how to build their brand image in Finland. Especially leave an impression to the FRCBS which can make them think it is worth to cooperate with Sxx Company. For example, the company should have some ideas when doing the promotion that how to makes the Finnish customers sure that it's not risky to import plasma products from China.

At last, in “price” factor, considering the past few years, exchange rate between Euro and Chinese currency RMB continued to depreciate gradually, so choose the suitable pricing method is necessary for the company as well.

In the end the company itself and their marketing methods will decide that if they are able to expand into the Finnish market to meet the demands. If the company is going to focus on their best advantage to meet the marketing goal, there is big possibility to increase the market share and their sales as well. If they successfully achieve the market share in Finland, they will need sufficient raw material plasma for production to meet the growing market demand.

## 10. SUMMARY

There were several problems met during the research. The first was that what target group should be taken into the research, because there are so many hospitals and healthcare centers in Finland. After visiting the local healthcare center in Seinäjoki, the target group was decided to be the main hospitals of different areas in Finland, because the information got from the healthcare center was that their plasma products were all provided by the local hospitals.

The second problem was that the hospitals normally do not publish their e-mails on their website, the only thing that can be found was the telephone numbers, so it's not possible to find the contact e-mails of the hospitals, even FRCBS would not provide this information because it can be business secret. The only way to get the e-mail address was to call the hospitals one by one, but at the same time the third problem came which was the language barriers, most of them don't speak English. After all problems were solved, the study continued.

Because the return rate of survey-questionnaire was 25% which can be higher if there is a Finnish version. So the data in this study is valid and reliable in some certain questions, but it can still be a useful reference for Sxx Company when they consider getting into the Finnish market.

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## APPENDICES

### APPENDIX 1.

## Marketing Research

Dear receivers,

I am the student of Seinäjoki University of Applied Sciences, now I am working on my bachelor's thesis. The purpose of my study is to clarify the future market of the Chinese plasma products in Finland. The study will show the situation on the plasma products markets in Finland.

You may send the fulfilled questionnaire to my e-mail address: [ydc2lkj@hotmail.com](mailto:ydc2lkj@hotmail.com) or [Dongchuan.Ye@seamk.fi](mailto:Dongchuan.Ye@seamk.fi). If there is any question you may also call me at +358466427880.

I hope to get the survey in as soon as possible but at latest at (time)

Thanks a lot for your cooperation and look forward to hear from you soon.

With Best Regards,

Ye Dongchuan

**APPENDIX 2.****Survey/Questionnaire****1. What plasma products have been used in the hospital/healthcare center now?**

- Human Albumin
  - Human Immunoglobulin, Intramuscular
  - Human Tetanus Immunoglobulin
  - Human Hepatitis B Immunoglobulin
  - Human Immunoglobulin (pH4) for Intravenous Injection
  - Human Coagulation Factor VIII
  - Human Prothrombin Complex
  - Surgical Lyophilized Fibrin Sealant,
  - Human Thrombin, Lyophilized for external use
  - Others (if you choose this, please write what is the product)
- 

**2. The hospital uses the Finnish brand plasma products or foreign brand?**

- Finnish brand
- European brand
- Chinese brand
- American brand

**3. What brand(s) of plasma products have been used?**  

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**4. If the hospital is now using plasma products imported from China?**

- Yes
- No

**5. Are you planning to use plasma products from China?**

- Yes
- No

**6. How risky you consider during the logistics to import the products from China?**

- Very risky
- Risky
- A little risky, but not affect so much
- Not at all risky

**7. What affects mostly when you choose the plasma products? (You can choose two)**

- Quality
- Price
- Time of delivery products
- The promotion of some medical brand

**8. What is the distribution channel the hospital uses to import the products? (fill this if the hospital use the foreign brand products)**

- Finnish Red Cross
- Wholesalers
- Manufactures
- Others (Please write what is it)

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**9. Other comments**

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